PLANNING COMMISSION MEETING
Monday, October 06, 2025, at 7:00 PM
Snoqualmie City Hall, 38624 SE River Street & Zoom

COMMISSIONERS
Chair: Andre Testman
Vice Chair: Ashleigh Kilcup
Commissioners: Simon Hurley, Darrell Lambert, Luke Marusiak, Dan Murphy, and VACANT.

This meeting will be conducted in person at Snoqualmie City Hall and remotely using Zoom.

Join by Telephone: To listen to the meeting via telephone, please call **253.215.8782** and enter Webinar ID **864 8750 2701** and Password **1900040121** if prompted.

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CALL TO ORDER & ROLL CALL

AGENDA APPROVAL

PUBLIC COMMENT - *Public comment will be accepted by in-person attendees. Remote attendees may submit written comments to the staff liaison.*

MINUTES

1. Approval of the minutes dated August 4, 2025.

OLD BUSINESS

2. Critical Areas Ordinance

COUNCIL LIAISON REPORT

DEPARTMENT REPORT

FUTURE AGENDA TOPICS (ITEMS OF COMMISSIONER INTEREST)

ADJOURNMENT

Accommodation: Requests for assistance or accommodations can be arranged by contacting the City Clerk by phone at (425) 888-8016 or by e-mail at cityclerk@snoqualmiewa.gov no later than 3:00 pm the day of the meeting.

PLANNING COMMISSION MEETING MINUTES
AUGUST 4, 2025

This meeting was conducted in person at Snoqualmie City Hall and remotely using Zoom.

CALL TO ORDER & ROLL CALL: Chair Testman called the meeting to order at 7:00 pm.

Commissioners: Ashleigh Kilcup, Simon Hurley, Darrell Lambert (remote), Luke Marusiak, Dan Murphy, and Andre Testman were present.

City Staff:
Mona Davis, Community and Economic Development Director; and IT Support.

AGENDA APPROVAL - The agenda was approved as presented.

PUBLIC COMMENT – There were no public comments.

MINUTES - The minutes dated July 21, 2025, were approved as presented.

NEW BUSINESS

OLD BUSINESS

2. Climate Element Goals and Policies. Presentation by Director Davis and included background, follow up from the June 2, 2025, meeting, and suggested reworking of draft goals and policies between the May and June meetings. Discussion followed.

COUNCIL LIAISON REPORT – CM Johnson was not present.

DEPARTMENT REPORT – Director Davis reviewed the schedule of future meetings and staff unavailability including the special training on September 15, 2025, upcoming critical areas ordinance and historic preservation code amendments, status update on wireless code amendments, zoning map updates for comp plan amendment, recommendation on climate element which would also be a comp plan amendment, final plat recording on Timber Trails, and department participation at Snoqualmie Days and International Block Party events.

FUTURE AGENDA TOPICS (ITEMS OF COMMISSIONER INTEREST)

ADJOURNMENT - The meeting adjourned at 8:15 pm.

Minutes prepared by Deana Dean, City Clerk.
Recorded meeting audio is available on the city website after the meeting.
Minutes approved at the _____, 2025, Planning Commission Meeting.

Memorandum

To:	Planning Commission, City of Snoqualmie
From:	Jeff Gray, MS, PWS Mona Davis, Community and Economic Development Director, Snoqualmie
Copies:	
Date:	September 18, 2025
Subject:	Critical Areas Ordinance: Summary of Changes from Approved December 2, 2024 CAO to Current
Project No.:	032703.V00

This memorandum summarizes updates to the City of Snoqualmie's Critical Areas Ordinance (CAO) [Snoqualmie Municipal Code (SMC) 19.12] and Flood Hazard Regulations (SMC 15.12) that have been made since the Planning Commission's approval on December 2, 2024. The Washington Growth Management Act (GMA) requires cities to update their CAO before December 31, 2024. Counties and cities have an additional 1-year extension, beyond the periodic update deadline, to complete the review and update pursuant to RCW 36.70A.130(7). All critical areas must be designated and functions and values protected using the best available science (BAS) information as required in the GMA.

Summary of Changes to SMC 15.12 (Flood Hazard Regulations) Since December 2, 2024

Following the Planning Commission's approval of the draft CAO and Flood hazard Regulations updates on December 2, 2024, the Economic Development Commission postponed review of draft code updates to further assess the status of the floodplain mapping for the Snoqualmie River. The updated Flood Hazard Regulations approved on December 2, 2024 included increasing the freeboard for new developments from one to three feet above the base flood elevation (BFE) of the 100-year flood event. Freeboard in floodplain construction is an additional vertical height above the minimum BFE for the finished floor elevation, serving as a safety margin against floods. The City of North Bend has adopted the two-foot standard, and King County has adopted the three-foot freeboard standard, for example.

Changes to the Flood Hazard Regulations are no longer proposed. King County prepared the *Snoqualmie River Hydrologic Study – Evaluation of Effects of Snoqualmie Falls Projects on Downstream Flooding* (2016) that showed downstream projects at the Snoqualmie Falls would result in a 1.4-foot drop in the river's 100-year BFE within the City. The USACE's 205 Project completed in 2004 widened the stream channel above Snoqualmie Falls, and Puget Sound Energy's (PSE) Snoqualmie Falls Project completed in 2012 widened the river channel and lowered the weir crest. The projected 1.4-foot decrease provides a factor of safety within the City because FEMA has not updated the Flood Insurance Rate Maps to reflect the modeled decrease in the BFE, and the City's flood hazard regulations are based on the current FEMA floodplain boundaries. King County is planning to update the hydrologic model for the Snoqualmie River, which will be used to update the FEMA flood maps and 100-year flood boundaries. King County is planning to submit a Letter of Map Revision (LOMR) to FEMA in 2026 to update the flood maps. The City can reassess the need for additional flood protections in the City code after the FEMA 100-year flood boundaries have been updated and established based on the current conditions.

Summary of Changes to SMC 19.12 (CAO) Since December 2, 2024

The City received comments on the proposed CAO updates on December 20, 2024 from the Washington Department of Fish and Wildlife (WDFW) and on December 30, 2024 from the Washington Department of Ecology (Ecology). The agency comments were received after the PC approved the updated CAO, and the pause to re-assess changes to the Flood Hazard Regulations offered an opportunity to incorporate additional changes. The City provided the updated CAO to WDFW in August 2025 for comment. Resolution of these comments are reflected in the current draft CAO. The following updates were made to the CAO that was approved by the PC on December 2, 2024:

1) Updated Table 19.12.170.1 (Wetland Buffers) to align with Ecology's most current guidance, including combining wetlands with a habitat score of 5 with low functioning wetlands that score 3 or 4.
2) Added a condition to the Reasonable Use Exception (SMC 19.12.040.C.5) that "The inability to derive reasonable economic use is not the result of the applicant's actions or that of a previous property owner, such as by segregating or dividing the property and creating an undevelopable condition."
3) Added two conditions at SMC 19.12.090.B.5 and .6 (Buffers) regarding functionally isolated buffers and allowances for single family residences part of a previously approved development:
    a. SMC 19.12.090.B.5: Functionally isolated wetland buffers and riparian management zones. Areas that provide no ecological functions or values which are functionally separated from a wetland or stream by legally established roads, impervious surfaces, or structures, shall be excluded.
    b. SMC 19.12.090.B.6: Single family residences part of a previously approved development are allowed improvements with a maximum footprint of 250 square feet, such as decks, patios, and appurtenances.
4) Updated Table 19.12.160-1 (Riparian Management Zone Widths). Retained previously proposed buffer increases for Class 2 streams from 75 to 200 feet, and Class 3 and 4 streams from 50 and 25 feet to 100 feet, respectively. Changes to Class 1 streams (Type S – Shorelines) are regulated under the Shoreline Management Program at SMC 19.08 and have been removed from this periodic code update for compliance with the GMA.

Technical Memorandum

To:	Mona Davis, Community and Economic Development Director City of Snoqualmie
From:	Jeff Gray, MS, PWS
Copies:	
Date:	September 18, 2025
Subject:	Best Available Science Review for the 2044 Snoqualmie Comprehensive Plan Update (Environmental Element) and Snoqualmie Municipal Code Chapters 19.12 (Critical Areas) and 15.12 (Flood Hazard Regulations)
Project No.:	Otak 32703.V00

This technical memorandum has been completed as a component of a Best Available Science (BAS) review, to provide a summary of the current BAS recommendations as they pertain to the City of Snoqualmie (City) 2044 Comprehensive Plan Update (Environmental Element) and Chapters 19.12 Critical Areas and 15.12 Flood Hazard Regulations of the City of Snoqualmie's Municipal Code (SMC). A review of BAS for environmentally sensitive areas (i.e., critical areas) is required per the Washington State Growth Management Act [Chapter 36.70A of the Revised Code of Washington (RCW)]. Most recent updates to SMC Critical Areas were passed in 2016 and updates to SMC Flood Hazard Regulations were passed in 2020. The BAS review has been completed to provide recommendations, as applicable, for updates to the 2044 Comprehensive Plan Update and Critical Areas and Flood Hazard Regulations code amendments. Completed versions of the Washington State Department of Commerce's (DOC) Critical Areas Checklist and the Washington Department of Fish and Wildlife's (WDFW) Riparian Management Zone Checklist for Critical Areas Ordinances are attached, including a Crosswalk Matrix itemizing each suggested change.

Best Available Science Review

The City's last update to their critical areas' regulations, passed in 2016, were based on the BAS at that time. Since 2016, the WDFW and the Washington Department of Ecology (Ecology) have released updated guidance based on BAS for management of riparian zones along streams and for wetland mitigation. Riparian ecosystem BAS has been synthesized in *Volume 1: Science Synthesis and Management Implications* (Quinn et al. 2020) that describes how riparian ecosystems and watersheds affect ecological functions and aquatic habitats. *Volume 2: Management Recommendations* (Rentz et al. 2020) provides guidance for cities to protect and restore functioning riparian ecosystems. Healthy functioning riparian ecosystems are fundamental for clean water, productive salmon populations, and climate resilient watersheds. In 2021, Ecology led the preparation of *Wetland Mitigation in Washington State, Part 1: Agency Policies and Guidance (Version 2)* (Ecology et al. 2021) that provides updated guidance on compensatory mitigation according to BAS. All three documents are intended to support local governments in developing consistent policies based on BAS as required under the Growth Management Act. Ecology additionally published *Critical Aquifer Recharge Areas Guidance* (2005, revised March 2021) to help local jurisdictions protect groundwater resources under the Growth Management Act.

Flood Hazard Areas

Twenty-two percent of the City of Snoqualmie is located within the floodway and floodplain of the Snoqualmie River. The City's flood hazard regulations, last updated in 2020, are based on the National Flood Insurance Program (NFIP) and BAS at that time. FEMA regularly updates its mapping (e.g. the Flood Insurance Rate Maps, or FIRMs) and applicable regulations at 44 CFR Part 60 Subpart A – Requirements for Flood Plain Management Regulations. When this occurs, the City must update its flood hazard regulations to remain in conformance with federal rules. Since 2020, there have been no updates to 44 CFR Part 60 Subpart A and the City's code is in compliance with the FEMA regulations. The City identifies frequently flooded areas as defined in the most current FIRMs.

Ecology's critical area ordinance regarding guidance for floodplains encourages local governments to go beyond FEMA minimum requirements for floodplain management including identifying areas that may be impacted by flooding due to climate change or in a future build-out scenario. For example, FEMA's NFIP notes that 40 percent of all flood insurance claims are from outside of mapped floodplains (e.g., high-risk zones) (FEMA 2024). Increased protections are encouraged because FEMA's FIRMs are increasingly unreliable in a changing climate. King County, for example, has requirements that exceed the minimum FEMA requirements, including requiring three feet of freeboard above the 100-year flood elevation in their building code to provide increased protections for property and public safety. The NFIP requires only one foot of freeboard currently. Per Executive Order (EO) #13690, effective September 9, 2024, federal agencies must implement the Federal Flood Risk Management Standard that requires a minimum of two feet of freeboard above the 100-year flood elevation for non-critical facilities, and three feet of freeboard for critical facilities. The two foot of freeboard standard is also required for United States Housing and Urban Development and Federal Housing Administration home loans for new constriction after January 1, 2025. However, EO #13690 was rescinded on January 22, 2025.

The University of Washington's (UW) Climate Mapping for a Resilient Washington webtool was developed to provide data for state and local governments on expected changes to inform planning for climate resilience (UW 2024). Data for King County shows increased total precipitation under different greenhouse gas loading scenarios, including increased storm magnitude, defined as precipitation intensity over time that could result in increased flood events. King County prepared the *Snoqualmie River Hydrologic Study – Evaluation of Flooding Trends and Current Conditions* (2018) that showed an increased flooding frequency and potential increased flood magnitude. The report notes that climate change projections indicate that seasonal flows will shift, higher flows will occur during annual peak floods in winter, higher flows will occur in spring and fall, and lower flows in summer. These projections are consistent with the observed trends in the Snoqualmie River basin.

Additionally, King County prepared the *Snoqualmie River Hydrologic Study – Evaluation of Effects of Snoqualmie Falls Projects on Downstream Flooding* (2016) that showed downstream projects at the Snoqualmie Falls would result in a 1.4-foot drop in the river's 100-year water surface elevation within the City. The USACE's 205 Project completed in 2004 widened the stream channel above Snoqualmie Falls, and Puget Sound Energy's (PSE) Snoqualmie Falls Project completed in 2012 widened the river channel and lowered the weir crest. The projected 1.4-foot decrease provides a factor of safety within the City because FEMA has not updated the FIRM to reflect these changes and the City's flood hazard regulations are based on the NFIP requirements and FEMA maps.

Riparian Ecosystems

According to Quinn et al. (2020) and Rentz et al. (2020), riparian ecosystems are defined as the area that provides full ecological function for bank stability, shade, pollution removal, detrital inputs, recruitment of large woody debris, and wildlife movement. The current term or approach to managing these habitats is to identify them as Riparian Management Zones (RMZ) rather than buffers, as is commonly used in most critical areas ordinances. The preferred term is RMZ because buffer implies undeveloped natural areas that can contribute habitat to riparian functions, whereas RMZ is meant to capture the area capable of providing full functions and is managed to that end.

One of the goals of managing RMZs is the Desired Future Condition (DFC), in which habitat composition and structure is old, structurally complex conifer-dominated forest with large diameter trees, numerous snags and logs, and multi-strata canopies that promote plant diversity. This is used as the benchmark for the DFC in riparian areas. Riparian restoration is also expected to counteract climate change and protect juvenile salmon according to climate change models (Fullerton et al. 2022; Yan et al. 2021). A significant component of implementing the RMZ management concept is to use the site-potential tree height (SPTH) for determining RMZ widths on streams. Tree height refers to the average height of the tallest dominant tree (200 years or older) in which key riparian ecosystem functions are effectively captured. The effectiveness of providing riparian functions decreases as the distance from a stream increases. Designating RMZs based on at least $SPTH_{200}$ is therefore a scientifically supported approach to protecting and managing fully functioning riparian ecosystems, including salmon.

Rentz et al. (2020) describe procedures for delineating RMZs in forested ecosystems (e.g., portions of the City). The inner edge of the RMZ should be based on the active channel as determined by the location of the stream ordinary high water mark (OHWM) following Ecology's OHWM delineation manual (Anderson et al. 2016). The outer edge should be the recommended minimum based on $SPTH_{200}$, vegetation composition, and pollution removal. The minimum RMZ width for pollution removal is 100 feet, which has been documented to remove 80-95% or more of common stream contaminants (e.g., nitrogen, phosphorous, sediment, and most pesticides). The mean $SPTH_{200}$ in western Washington ranges from 100 to 240 feet and is correlated with soil types that support different climax tree species. The greater of the two (e.g., one full $SPTH_{200}$ or the 100-foot pollution removal overlay) should be utilized to determine the regulated RMZ to protect all key riparian functions. WDFW has created the SPTH mapping tool (https://arcg.is/1ueq0a), which includes the extent of the City's jurisdiction and can be used if this approach is to be adopted for regulating riparian ecosystems.

In addition, Quinn et al. (2020) and Rentz et al. (2020) do not distinguish between non-fish bearing and fish-bearing streams. No evidence or scientific literature has been identified that full riparian ecosystem functions along non-fish bearing streams are less important to aquatic ecosystems than full riparian ecosystem functions along fish-bearing streams, due to their connectivity.

Wetland Buffers and Mitigation

Ecology's *Wetland Guidance for Critical Areas Ordinance (CAO) Updates, Western and Eastern Washington* (2022) is informed by best available science and provides a concise and current representation of the many strategies and approaches for managing wetlands. Wetland buffers are necessary to protect wetland functions and values regulated under the Growth Management Act. This guidance document includes buffer width recommendations selected from the middle of the range of buffers suggested in the literature. Specific changes in the update guidance include adjustments to the range of habitat scores based on review of the reference wetland data used to calibrate the Washington wetland rating system.

Ecology's *Wetland Mitigation in Washington State, Part 1: Agency Policies and Guidance (Version 2)* (Ecology et al 2021) provides updated guidance for selecting, designing, and implementing compensatory mitigation based on BAS, to ensure that environmental policies and regulatory requirements are achieved. The updated guidance emphasizes mitigation sequencing, functional assessment tools, determining adequate compensation for lost wetland functions and values, the importance of site selection for habitat connectivity, and long-term sustainability and protection. Guidance on calculating impacts addresses permanent and temporary impacts, short and long-term temporary impacts, indirect impacts, and shading (e.g., habitat conversion).

The goal of any project that impacts wetlands is to achieve "no net loss" of wetland functions and values- a key national and state policy goal since 1989. Determining no net loss is contingent on the amount of compensation required to offset wetland losses and typically requires compensating for both area and functions. Commonly

used methods for evaluating the adequacy of proposed compensation include using Ecology's *Calculating Credits and Debits for Compensatory Mitigation* (Credit-Debit Method) (Hruby 2012) and mitigation ratios.

Comprehensive Plan – Environmental Element (2024 Update)

On February 5, 2024, the City Planning Commission recommended the approval of the visons, goals, and policies for the Environmental Element of the 2044 Snoqualmie Comprehensive Plan. Otak reviewed the City's updated Environmental Element and considers the visions, policies, and goals consistent with BAS for the protection of the City's natural environment. The City is dedicated to working with stakeholders in the Snoqualmie River basin, identifies special consideration for anadromous fisheries, and identifies opportunities for improvement such as low impact development (LID) techniques, retrofitting contaminant loading sources, and restoring historically impacted areas. A significant portion of the City lies within the FEMA-regulated floodplain associated with the Snoqualmie River, and the City pursues strategies to minimize risk and harm to both the natural and built environment through floodplain restoration through development regulations as well as incentives in the federal FEMA program (e.g., purchasing high risk properties along the shoreline).

Findings of Fact

Flood Hazard Regulations / Frequently Flooded Areas

No changes are proposed to the Flood Hazard Regulations (SMC 15.12) and Frequently Flooded Areas (SMC 19.12.150). Increasing the amount of freeboard above the 100-year flood elevation for the lowest floors of residential, commercial, and industrial structures from one foot to two feet would potentially exceed the intent of the additional protection during flood events. King County's 2016 hydrologic study showed a 1.4-foot drop in the river's 100-year water surface elevation within the City that has yet to be incorporated by FEMA in updated flood zone mapping. King County is planning to update the hydrologic model for the Snoqualmie River, which will be used to update the FEMA flood maps and 100-year flood boundaries. King County is planning to submit a Letter of Map Revision (LOMR) to FEMA in 2026 to update the flood maps. The City will reassess the need for additional flood protections in the City code after the FEMA 100-year flood boundaries have been updated and established based on the current conditions.

Wetlands

Minor changes are proposed to SMC 19.12.090 (General provisions) and SMC 19.12.170 regarding functionally isolated wetlands and buffers, wetland buffers based on habitat scores, and compensatory mitigation guidance. The exemption for filling Category IV wetlands less than 1,000 square feet at SMC 19.12.170.E has been deleted because the scientific literature does not support exempting wetlands from regulatory protections based solely on size (Ecology 2022). Wetland buffer widths and compensatory mitigation requirements are based on wetland functions and values using the Washington State Wetlands Rating System rather than size. Functionally isolated wetland buffers separated by legally established roads, impervious surfaces, or structures are proposed to be excluded from critical areas regulations per SMC 19.12.090.B.5. An allowance of 250 square feet of buffer impacts has been provided for single family residences part of approved developments for decks, patios, and appurtenances. Lastly, Ecology's most current mitigation guidance has been added as a requirement for mitigation plan submittals with development applications.

Fish and Wildlife Habitat Conservation Areas and Streams

The City reviewed current BAS for Streams and FWHCAs protected under SMC Chapter 19.12.160 and 19.12.190, respectively. The City found that the most substantive potential code changes would be to SMC 19.12.160 (Streams) from expanding stream buffer widths (e.g., Riparian Management Zones) per WDFW's recommendations catalogued in WDFW's *Volume 1: Science Synthesis and Management Implications* (Quinn et al. 2020) and *Volume 2: Management Recommendations* (Rentz et al. 2020).

The City evaluated the feasibility of implementing increased standard stream buffers based on the 200-year SPTH using WDFW's SPTH200 and RMZ Values mapping tool (https://arcg.is/1ueq0a), which would result in buffer increases on Class 2 (Type F) streams from the current 75 feet to between 105 feet (red alder) and 235 feet (Douglas-fir), and on Class 3 (Type Np) and Class 4 (Type Ns) streams generally from 25 or 50 feet to 100 feet based on water quality protection functions. Type S streams are regulated under the City's Shoreline Regulations at SMC 19.08 and the City's critical areas code (SMC 19.12), and changes to these buffers were not evaluated for compliance with the Growth Management Act. The City's assessment identified additional stream protections on upper reaches of Class 2, 3, and 4 streams from implementing wider buffers, mainly occurring on protected tract lands and designated open spaces.

Regulatory and policy challenges to implementing buffer widths based on WDFW's mapping tool within city limits were identified. For example, on abutting properties parallel to Coal Creek, one parcel would have a 105-foot buffer and the adjacent parcel on the same stream would have a 235-foot buffer. Implementing strict use of WDFW's mapping tool with this level of variation on property encumbrances on adjacent parcels would be challenging to implement and communicate to applicants. Therefore, the City proposes to implement the new buffer widths using an averaged buffer approach for consistency and reduce uncertainty in development applications. Class 2 (Type F) streams are proposed to have 200-foot buffers, and Class 3 (Type Np) and Class 4 (Type Ns) streams are proposed to have 100-foot buffers for water quality protection.

Limitations of implementing wider stream buffers in developed areas were also identified. Similar to the wetlands code update, functionally isolated stream buffers separated by legally established roads, impervious surfaces, or structures are proposed to be excluded from critical areas regulations per SMC 19.12.090.B.5. An allowance of 250 square feet of buffer impacts has been provided for single family residences part of approved developments for decks, patios, and appurtenances.

Municipal Code Amendments – Recommended Updates

Based on the review of BAS for critical areas, recommended municipal code amendments are described in the attached Crosswalk Matrix. Completed versions of the Washington State Department of Commerce's (DOC) Critical Areas Checklist and the WDFW-completed Riparian Management Zone Checklist for Critical Areas Ordinances are both attached.

Attachments:

1) Washington State Department of Commerce's Critical Areas Checklist
2) WDFW Riparian Management Zone Checklist for Critical Areas Ordinances
3) Crosswalk Matrix

References

Anderson, P., S. Meyer, P. Olson, and E. Stockdale. 2016. Determining the Ordinary High Water Mark for Shoreline Management Act Compliance in Washington State. Ecology Publication No. 16-06-029. Available at: https://apps.ecology.wa.gov/publications/documents/1606029.pdf

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Ecology, US Army Corps of Engineers, and US Environmental Protection Agency (Region 10). 2021. Wetland Mitigation in Washington State, Part 1: Agency Policies and Guidance (Version 2). Ecology Publication No. 21-06-003. Available at: https://ecology.wa.gov/Water-Shorelines/Wetlands/Mitigation/Interagency-guidance

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Fullerton et al. 2022. Mechanistic Simulations Suggest Riparian Restoration Can Partly Counteract Climate Impacts to Juvenile Salmon. Journal of the American Water Resources Association (JARWA) 58(4): 525-546. Available at: Mechanistic Simulations Suggest Riparian Restoration Can Partly Counteract Climate Impacts to Juvenile Salmon (noaa.gov)

Hongxiang Yan et al. 2021. Environmental Research Letters. 16 (2021) 054006. Available at: Greater vulnerability of snowmelt-fed river thermal regimes to a warming climate (iop.org)

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

Rentz, R., A. Windrope, K. Folkerts, and J. Azerra. 2020. Riparian Ecosystems, Volume 2: Management Recommendations. Habitat Program, Washington Department of Fish and Wildlife, Olympia.

UW [University of Washington]. Climate Mapping For Resilient Washington. Prepared by the Climate Impacts Group. Accessed November 2024, available at: https://data.cig.uw.edu/climatemapping/

Item	SMC	Existing Code	New Regulation/Code	Complete
1	**Wetland Definition:** 19.12.020	FF. “Wetland” or “wetlands” means areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands do not include those artificial wetlands intentionally created from nonwetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities. Wetlands do not include areas that were unintentionally created as a result of blockage of drainage from the construction of a road, street, or highway after July 1, 1990. Wetlands may include those areas intentionally created from nonwetland areas as compensatory mitigation for impacts to wetlands. The above wetlands definition is per original RCW 36.70A.030(48) definition.	Aligned definition per RCW 36.70A.030(48) as updated in 2024 as follows: 19.12.020.MM: "Wetland" or "wetlands" means areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands do not include those artificial wetlands intentionally created from nonwetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. Wetlands may include those artificial wetlands intentionally created from nonwetland areas created to mitigate conversion of wetlands.	☒ Yes ☐ No
2	**Definition of Fish and Wildlife Habitat Conservation Areas:** 19.12.020.N	19.12.020.N “Fish and wildlife habitat conservation area” means an area that provides essential habitat for maintaining listed species of endangered, threatened, or critical populations.	New SMC definition revised to be consistent with current WAC definition at 19.12.020.P: 1. Areas that serve a critical role in sustaining needed habitats and species for the functional integrity of the ecosystem, and which, if altered, may reduce the likelihood that the species will persist over the long term. These areas may include, but are not limited to, rare or vulnerable ecological systems, communities, and	☒ Yes ☐ No

Item	SMC	Existing Code	New Regulation/Code	Complete
			habitat or habitat elements including seasonal ranges, breeding habitat, winter range, and movement corridors; and areas with high relative population density or species richness. Locally important habitats and species may also be designated by the City of Snoqualmie. 2. Fish and wildlife habitat conservation areas include areas of primary association for State or Federal listed wildlife species, state sensitive wildlife species, and current Priority Habitats and Species designated by Washington Department of Fish and Wildlife. 3. "Habitats of local importance" designated as fish and wildlife habitat conservation areas include those areas found to be locally important by the City of Snoqualmie. 4. Waters of the State, including streams and wetlands. 5. Riparian Management Zones. 6. Naturally occurring ponds under 20 acres and their submerged aquatic beds that provide fish or wildlife habitat. 7. "Fish and wildlife habitat conservation areas" does not include such artificial features or constructs as irrigation delivery systems, irrigation infrastructure, irrigation	

Item	SMC	Existing Code	New Regulation/Code	Complete
			canals, or drainage ditches that lie within the boundaries of, and are maintained by, a port district or an irrigation district or company.	
3	**Code addition:** 19.12.020	No definition of "sensitive species" in current code. Added as 19.12.020.GG	19.12.020.GG: "Sensitive species" means any wildlife species native to the state of Washington that is vulnerable or declining and is likely to become endangered or threatened in a significant portion of its range within the state without cooperative management or removal of threats, as currently listed by the Washington Department of Fish and Wildlife.	☒ Yes ☐ No
4	19.12.020.T	SMC 19.12.020.T. "Listed species" means those wildlife species that have been listed as endangered, threatened or critical by the U.S. Fish and Wildlife Service, NOAA National Marine Fisheries Service, or Washington Department of Wildlife pursuant to RCW 77.12.020 and Chapter 232-12 WAC as may be amended.	19.12.030.W: "Listed species" means those wildlife species that have been listed as endangered, threatened or sensitive by the U.S. Fish and Wildlife Service, NOAA National Marine Fisheries Service, or Washington Department of Wildlife, as may be amended.	☒ Yes ☐ No
5	**Code addition:** 19.12.020	No definition of ecosystem functions in the current code. Added as 19.12.020.M	M. "Ecosystem functions" means the products, physical and biological conditions, and environmental qualities of an ecosystem that result from interactions among ecosystem processes and ecosystem structures. Ecosystem functions include, but are not limited to, sequestered carbon, attenuated peak streamflows, aquifer water level, reduced pollutant concentrations in surface and ground waters, cool summer in-stream water temperatures, and fish and wildlife habitats.	☒ Yes ☐ No

Item	SMC	Existing Code	New Regulation/Code	Complete
6	**Code addition:** 19.12.020	No definition of ecosystem values in the current code. Added as 19.12.020.N	N. "Ecosystem values" means the cultural, social, economic, and ecological benefits attributed to ecosystem functions.	☒ Yes ☐ No
7	**Designating and Protecting Waters of the State:** 19.12.020	SMC 19.12.020 currently does not contain a definition for "waters of the state".	19.12.020.LL: "Waters of the state" means lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington.	☒ Yes ☐ No
8	**Code addition:** 19.12.020	Added definition of "Ordinary High Water Mark (OHWM)" at 19.12.020.BB	BB. "Ordinary high water mark" means the point on the sides of streams or lakes which is historically or normally at water's edge, as identified by a visible change in vegetation and/or soil. The ordinary high water mark should be determined using the most current federal and state methodologies.	☒ Yes ☐ No
9	**Code Addition:** 19.12.020.AA **Code Update:** 19.12.160.D	Not included. Intent is it establish riparian management zones (RMZs) to maintain no net loss of riparian area ecosystem function and values as recommended by WDFW.	Added a definition for RMZ under 19.12.020.EE "Riparian management zone" means an area that has the potential to provide full riparian functions, synonymous with stream buffer. Primary functions of riparian management zones include shading, bank stability, nutrient input, wood recruitment, and pollution control. Updated 19.12.160.D to replace "Buffers" with "Riparian Management Zones".	☒ Yes ☐ No
10	**Buffers:** 19.12.020, 030	SMC 19.12.020.H: "Critical area" includes the following areas: (1) wetlands; (2) streams; (3) channel migration zones; (4) areas with a critical recharging effect on aquifers used for potable water; (5) fish and wildlife habitat conservation areas; (6) frequently flooded areas; and (7) geologically hazardous areas. "Sensitive area"	SMC 19.12.020.H "Critical area" includes the following areas and associated buffers: (1) wetlands; (2) streams; (3) channel migration zones; (4) areas with a critical recharging effect on aquifers used for potable water; (5) fish and wildlife habitat conservation areas; (6)	☒ Yes ☐ No

Item	SMC	Existing Code	New Regulation/Code	Complete
		has the same meaning as "critical area" for the purposes of this chapter. SMC 19.12.020.E. "Buffer" means the designated area adjacent to a wetland, stream, geologically hazardous area, or channel migration zone. The buffer is intended to protect the resource in the case of wetlands and streams; to protect against injury or damage to persons and property and to protect against landslide, erosion and other undesirable consequences in the case of geologically hazardous areas; and to protect against injury and damage to persons and property in the case of channel migration zones. Buffers are not applicable to critical aquifer recharge areas, fish and wildlife habitat areas (except to the extent that buffers for other critical areas serve as fish and wildlife habitat areas), or frequently flooded areas. SMC 19.12.030.B does not include buffers as a regulated critical area. "B. Critical areas regulated by this chapter include: 1. Geologically hazardous areas including: a. Erosion hazard areas; b. Landslide hazard areas; c. Steep slope hazard areas; and d. Seismic hazard areas; and 2. Channel migration and erosion hazard areas; 3. Frequently flooded areas; 4. Streams; 5. Wetlands; 6. Fish and wildlife habitat conservation areas; and 7. Critical aquifer recharge areas."	frequently flooded areas; (7) geologically hazardous areas. "Sensitive area" has the same meaning as "critical area" for the purposes of this chapter. SMC 19.12.020.E. "Buffer" means the designated area adjacent to a wetland, stream, geologically hazardous area, or channel migration zone. Stream buffers is synonymous with Riparian Management Zones in this chapter. The buffer is intended to protect the resource in the case of wetlands and streams; to protect against injury or damage to persons and property and to protect against landslide, erosion and other undesirable consequences in the case of geologically hazardous areas; and to protect against injury and damage to persons and property in the case of channel migration zones. Buffers are not applicable to critical aquifer recharge areas, fish and wildlife habitat areas (except to the extent that buffers for other critical areas serve as fish and wildlife habitat areas), or frequently flooded areas. Updated 19.12.030.B, as follows: "B. Critical areas and associated buffers regulated by this chapter include: B. Critical areas regulated by this chapter include: 1. Geologically hazardous areas including: a. Erosion hazard areas; b. Landslide hazard areas; c. Steep slope hazard areas; and d. Seismic hazard areas;	

Item	SMC	Existing Code	New Regulation/Code	Complete
			2. Channel migration and erosion hazard zones; 3. Frequently flooded areas; 4. Streams 5. Wetlands; 6. Fish and wildlife habitat conservation areas; and 7. Critical aquifer recharge areas.	
11	19.12.060 19.12.170	19.12.060 discusses the requirement for a critical areas study, for any action that could impact a critical area. 19.12.170 requires a report for actions that could impact wetlands.	Replaced "critical areas study" with "critical areas report" for simplicity and consistency. Updated sections included: • 19.12.060 update "critical areas study" to "critical areas report" and "study" to "report". • 19.12.070 update "study" to "report". • 19.12.110.B update "study" to "report". • 19.12.120.1 update "study" to "report". • 19.12.160.C.10 update "study" to "report". • 19.12.170.H.6 update "study" to "report". • 19.12.200.F update "critical areas study" to "critical areas report".	☒ Yes ☐ No
12	19.12.040(A)6	19.12.040(A)6 allowed activities states: "Removal of invasive plants and noxious weeds, and additional aggressive non-native species, including Japanese knotweed, Scot's broom, English ivy, Himalayan and evergreen blackberry; provided, only hand labor and light equipment that minimizes disturbance to the critical area or buffer are used, and chemical applications are approved for use adjacent to streams and wetlands, provided best management practices are used."	Updated to: "Removal of invasive plants and noxious weeds, and additional aggressive non-native species, including Japanese knotweed, Scot's broom, English ivy, Himalayan and evergreen blackberry; provided, only hand labor and light equipment that minimizes disturbance to the critical area or buffer are used, and any chemical applications are approved by Ecology for use adjacent to streams and wetlands, provided best	☒ Yes ☐ No

Item	SMC	Existing Code	New Regulation/Code	Complete
			management practices are used, and soil compaction is avoided."	
13	19.12.040(A)7	19.12.040(A)7: 7. Removal of dangerous trees, with the director's approval. A certified arborist's evaluation may be required in the discretion of the director if the hazard is not clearly evident.	19.12.020 updated to include a definition for "Hazard tree." 19.12.020.P. "Hazard tree" is defined as a threat to life, property, or public safety. 19.12.040(A)7: 7. Removal of hazard trees, with the director's approval. A certified arborist's evaluation may be required in the discretion of the director if the hazard is not clearly evident. Creation of snags are encouraged rather than complete tree removal. Hazard trees removed from critical areas or associated buffers must be replaced at a minimum 3:1 ratio and maintained for at least three years.	☒ Yes ☐ No
14	**Code addition:** 19.12.040(C)5	Code addition to prevent inappropriate project segmentation to avoid development regulations as recommended by Ecology.	5. The inability to derive reasonable economic use is not the result of the applicant's actions or that of a previous property owner, such as by segregating or dividing the property and creating an undevelopable condition.	☒ Yes ☐ No
15	19.12.070.D	D. Monitoring. 1. Whenever mitigation is required, the city may require monitoring to ensure the mitigation meets the design performance standards established in the approved mitigation plan. The city may require that a qualified critical area consultant, at the direction of the city and at the applicant's expense, monitor the development proposal site during construction and for a sufficient period of time after construction to ensure satisfactory mitigation of impacts on the critical area. The qualified critical	19.12.070.D has been updated as follows: D. Monitoring. 1. Whenever mitigation is required, the city will require monitoring to ensure the mitigation meets the design performance standards established in the approved mitigation plan. The city may require that a qualified critical area consultant, at the direction of the city and at the applicant's expense, monitor the development	☒ Yes ☐ No

Item	SMC	Existing Code	New Regulation/Code	Complete
		area consultant shall monitor per the provisions outlined in the approved mitigation plan based on the conditions or restrictions imposed by the city and such administrative rules as the director shall prescribe.	proposal site during construction and for a sufficient period of time after construction to ensure satisfactory mitigation of impacts on the critical area. The qualified critical area consultant shall monitor per the provisions outlined in the approved mitigation plan based on the conditions or restrictions imposed by the city and such administrative rules as the director shall prescribe.	
16	19.12.090	19.12.090.F.1 states: Whenever mitigation is required, the applicant shall prepare and submit a mitigation plan for city review and approval.	19.12.090.F.1: 1. Whenever mitigation is required, the applicant shall prepare and submit a mitigation plan using a watershed approach for city review and approval.	☒ Yes ☐ No
17	**Code addition:** 19.12.090(B)5	Code addition to remove functionally isolated wetland buffers and riparian management zones from regulated buffers.	5. Functionally isolated wetland buffers and riparian management zones. Areas which are functionally separated from a wetland or stream by legally established roads, impervious surfaces, or structures, shall be excluded.	☒ Yes ☐ No
18	**Code addition:** 19.12.090(B).6	(New) Added buffer impact allowance for single family residences part of approved development up to 250 SF for decks, patios, and appurtenances.	6. Single family residences part of a previously approved development are allowed improvements with a maximum footprint of 250 square feet, such as decks, patios, and appurtenances.	☒ Yes ☐ No
19	19.12.140	**19.12.140 Channel migration and associated erosion hazard zones.** A. The administrator shall assemble all available channel migration and erosion hazard maps and studies from	**19.12.140 Channel migration and associated erosion hazard zones.** A. The administrator shall assemble all available channel migration and erosion hazard maps	☒ Yes ☐ No

Item	SMC	Existing Code	New Regulation/Code	Complete
		King County and other sources in order to determine the location and severity of known channel migration and erosion hazard zones, and shall maintain maps showing the boundaries of all known channel migration and erosion hazard zones. The administrator is hereby authorized to adopt administrative rules to establish the process and criteria for designating and classifying channel migration and erosion hazard zones. An applicant for a development permit may submit a report by a qualified professional engineer in support of a determination of the boundaries or classification of channel migration and/or erosion hazard areas on a specific property if there is a discrepancy between the approved channel migration zone or erosion hazard map and site-specific conditions or data, or for unmapped potential channel migration zones or erosion hazard areas.	and studies from King County and other sources in order to determine the location and severity of known channel migration and erosion hazard zones, and shall maintain maps showing the boundaries of all known channel migration and erosion hazard zones. The administrator is hereby authorized to adopt administrative rules to establish the process and criteria for designating and classifying channel migration and erosion hazard zones. An applicant for a development permit may submit a report by a qualified professional engineer in support of a determination of the boundaries or classification of channel migration and/or erosion hazard areas on a specific property if there is a discrepancy between the approved channel migration zone or erosion hazard map and site-specific conditions or data, or for unmapped potential channel migration zones or erosion hazard areas. It is a goal of the city of Snoqualmie to retain and restore channel migration zones as practicable to restore riparian functions in applicable areas over time.	
20	19.12.160	SMC 19.12.160.C.11.a: a. Such public access will not adversely affect habitat or water quality values of the critical area or its buffer	19.12.160.C11.a:. Such public access will not adversely affect habitat or water quality values of the critical area or its buffer, and that the design reflects current Priority Habitat and Species data and WDFW management recommendations;	☒ Yes ☐ No

<table>
<tr><th>Item</th><th>SMC</th><th>Existing Code</th><th>New Regulation/Code</th><th>Complete</th></tr>
<tr>
<td>21</td>
<td>Stream buffers widths:
19.12.160.D</td>
<td>Per SMC Table 19.12.160-1. Stream Buffers:
<table>
<tr><th>Stream Classification</th><th>External Buffer Width</th></tr>
<tr><td>Class 1 streams and Class 2 streams with anadromous salmonids</td><td>100 feet</td></tr>
<tr><td>Class 2 streams</td><td>75 feet</td></tr>
<tr><td>Class 3 streams</td><td>50 feet</td></tr>
<tr><td>Class 4 streams</td><td>25 feet</td></tr>
<tr><td>Snoqualmie River South Fork and right bank of mainstem within the Natural Shoreline Environment [1, 2]</td><td>200 feet</td></tr>
<tr><td>Snoqualmie River within Urban Riverfront Environment, generally located between S.E. Fir Street and Meadowbrook Way S.E.[1, 2]</td><td>25 feet</td></tr>
</table>
[1] Areas of the Snoqualmie River not identified in Table 19.12.160-1 shall use the prescribed Class 1 stream buffer.

[2] See Chapter 19.08 SMC for shoreline environments and associated maps.</td>
<td>19.12.160.D. Riparian Management Zones. Riparian Management Zones (RMZ) are designated based on the estimated average 200 year site potential tree height, extending outward on each side of a stream from the ordinary high water mark to the distances prescribed in Table 19.12.160-1:

Table 19.12.160-1.

Riparian Management Zone Widths
<table>
<tr><th>Stream Classification</th><th>RMZ Width</th></tr>
<tr><td>Class 1 streams</td><td>100 feet. See Shoreline Regulations (SMC 19.08).[1]</td></tr>
<tr><td>Class 2 streams</td><td>200 feet</td></tr>
<tr><td>Class 3 streams</td><td>100 feet</td></tr>
<tr><td>Class 4 streams</td><td>100 feet</td></tr>
<tr><td>Snoqualmie River South Fork and right bank of mainstem within the Natural Shoreline Environment[1]</td><td>200 feet</td></tr>
<tr><td>Snoqualmie River within Urban Riverfront Environment, generally located between S.E. Fir Street and Meadowbrook Way S.E.[1]</td><td>25 feet</td></tr>
</table>
</td>
<td>☒ Yes
☐ No</td>
</tr>
</table>

Item	SMC	Existing Code	New Regulation/Code	Complete
			[1] See Chapter 19.08 SMC for shoreline environments and associated maps.	
22	19.12.160(C)1	1. Stream Crossings. Stream crossings may only be permitted when there is no other reasonable access resulting in less impact on the stream and/or its buffer. Stream crossings shall use all reasonably feasible construction techniques to avoid disturbance to the stream bed or bank. In the case of Class 2, Class 3 or Class 4 streams, bottomless culverts or other appropriate methods demonstrated to provide fisheries protection may be used if the applicant demonstrates that such methods and their implementation will pose no harm to the stream bank or bed and will not adversely impact fish habitat as demonstrated in a report from a qualified consultant submitted by the applicant. The applicant shall be responsible to obtain and comply with all other applicable state and federal permits. Crossings shall not occur over salmonid spawning areas unless no other possible crossing site exists. Crossings shall be minimized and serve multiple purposes and properties whenever possible. Construction of stream crossings shall be in conformance with applicable permit limitations established by state resource agencies.	Updated as follows: 1. Stream Crossings. Stream crossings may only be permitted when there is no other reasonable access resulting in less impact on the stream and/or its buffer. Stream crossings shall use all reasonably feasible construction techniques to avoid disturbance to the stream bed or bank. In the case of Class 2, Class 3 or Class 4 streams, bottomless culverts or other appropriate methods demonstrated to provide fisheries protection may be used if the applicant demonstrates that such methods and their implementation will pose no harm to the stream bank or bed and will not adversely impact fish habitat as demonstrated in a report from a qualified consultant submitted by the applicant. The applicant shall be responsible to obtain and comply with all other applicable state and federal permits. Crossings shall not occur over salmonid spawning areas unless no other possible crossing site exists. Crossings shall be minimized and serve multiple purposes and properties whenever possible. Construction of stream crossings shall be in conformance with applicable permit limitations established by state resource agencies. Stream crossings shall be designed in accordance with the Washington Department of Fish and	☒ Yes ☐ No

Item	SMC	Existing Code	New Regulation/Code	Complete
			Wildlife's Water Crossing Design Guidelines (2013), as updated. New crossings shall be evaluated under future climate change scenarios for 2040 and 2080, or similar, as required by state and federal agencies.	
23	19.12.160(A)5	5. Type C (Conveyance). As defined by the city of Snoqualmie, "Type C waters" are those natural open ephemeral drainage courses (including where bridged, piped or culverted) that are not Type S, F, Np or Ns waters, which contain flow only during or immediately after periods of precipitation, and which flow generally less than 30 days per year.	Type C stream class deleted because it is not consistent with WAC 222-016-030.	☒ Yes ☐ No
24	19.12.170.E	E. Impacts to Wetlands Less Than 1,000 Square Feet. The following wetlands are exempt from the buffer provisions contained in this chapter and the normal mitigation sequencing process in SMC 19.12.090. They may be filled if impacts are fully mitigated based on provisions in this chapter. If available, impacts should be mitigated through the purchase of credits from a mitigation bank, consistent with the terms and conditions of the program or bank. In order to verify the following conditions, a critical area report for wetlands meeting the requirements in SMC 19.12.180 must be submitted. 1. All isolated Category III and IV wetlands less than 1,000 square feet that: a. The wetland is not associated with a riparian corridor; b. The wetland is not associated with other wetlands through surface or groundwater connections; c. The wetland does not contain habitat identified as essential for local populations of species identified by	This exemption was deleted because it is inconsistent with Best Available Science.	☒ Yes ☐ No

<table>
<tr><th>Item</th><th>SMC</th><th>Existing Code</th><th>New Regulation/Code</th><th>Complete</th></tr>
<tr><td></td><td></td><td>the Washington Department of Fish and Wildlife as priority species;
d. Compensatory flood storage for the proposed alteration has been provided within city limits with the equivalent to the amount of flood storage removed from the wetland; and
e. If located in the city’s 100-year floodplain, the proposal is consistent with the requirements of Chapter 15.12 SMC, Flood Hazard Regulations.</td><td></td><td></td></tr>
<tr><td>25</td><td>19.12.170.H</td><td>Wetland buffer widths based on habitat scores have been updated per Ecology’s 2022 guidance. Wetlands with habitat scores of 5 have been grouped with low functioning wetlands.</td><td>Table 19.12.170-1. Wetland Buffers
<table><tr><th rowspan="2">Wetland Category</th><th colspan="4">Buffer width (in feet) based on habitat score</th></tr><tr><th>3-5</th><th>~~5~~</th><th>6 – 7</th><th>8 – 9</th></tr><tr><td>Category I: Based on total score</td><td>75</td><td>~~105~~</td><td>165</td><td>225</td></tr><tr><td>Category I: Bogs and wetlands of high conservation value</td><td>190</td><td>~~190~~</td><td>190</td><td>225</td></tr><tr><td>Category I: Forested</td><td>75</td><td>~~105~~</td><td>165</td><td>225</td></tr><tr><td>Category II: Based on total score</td><td>75</td><td>~~105~~</td><td>165</td><td>225</td></tr><tr><td>Category III (all)</td><td>60</td><td>~~105~~</td><td>165</td><td>225</td></tr><tr><td>Category IV (all)</td><td>40</td><td>~~40~~</td><td>40</td><td>40</td></tr></table></td><td>☒ Yes
☐ No</td></tr>
<tr><td>26</td><td>19.12.190.A</td><td>19.12.190.A. Designation. All wetlands and streams and their buffers, together with all publicly owned open spaces of greater than 10 acres, not including land use perimeter buffers, are hereby designated as fish and wildlife habitat conservation areas, including Meadowbrook Farm, the Two Sisters Return Open Space, Snoqualmie Point, Three Forks Natural Area, the</td><td>19.12.190.A: Designation. All waters of the state, including wetlands, and streams, and their buffers, together with all publicly owned open spaces of greater than 10 acres, not including land use perimeter buffers, are hereby designated as fish and wildlife habitat conservation areas, including Meadowbrook</td><td>☒ Yes
☐ No</td></tr>
</table>

Item	SMC	Existing Code	New Regulation/Code	Complete
		Snoqualmie River Open Space and the Kimball Creek Open Space. Other areas shall be designated as fish and wildlife habitat conservation areas based upon a habitat study conducted pursuant to this section.	Farm, the Two Sisters Return Open Space, Snoqualmie Point, Three Forks Natural Area, the Snoqualmie River Open Space and the Kimball Creek Open Space. Other areas, such as those of primary association for state and federal listed wildlife species, state sensitive species, and Priority Habitat Species as designated by the Washington Department of Fish and Wildlife, as well as Habitats of Local Importance, shall also be designated as fish and wildlife habitat conservation areas based upon a habitat study conducted pursuant to this section.	

Chapter 19.12

CRITICAL AREAS

Sections:

19.12.010 Legislative purpose.

A. The purpose of this chapter is to provide for the designation and protection of critical areas, referred to as critical areas in the Washington Growth Management Act of 1990, Chapter 36.70A RCW, incorporating best available science, giving special consideration to conservation or protection measures necessary to preserve or enhance anadromous fisheries, as required by the Growth Management Act, to supplement the development requirements contained in the Snoqualmie Municipal Code, to alert tax assessors and appraisers to the presence of environmentally critical areas and the development limitations of such areas and to establish special standards for the use and development of lands based on the existence of natural conditions and features, including erosion, landslide, channel migration zones, seismic hazard areas and steep slope areas, critical recharge areas, fish and wildlife conservation areas, streams, and wetlands.

B. The standards and procedures established in this chapter are intended to protect environmentally critical areas while accommodating the rights of property owners to use their property in a reasonable manner. By regulating development and alterations to critical areas, this chapter seeks to:

1. Protect members of the public, and protect public and private resources and facilities, from injury, loss of life, property damage or financial losses due to erosion, landslide, seismic events, soils subsidence or steep slope regression;

2. Protect unique, fragile and valuable elements of the environment, including critical groundwater recharge areas and wildlife and its habitat;

3. Mitigate unavoidable impacts to environmentally critical areas by regulating alterations in and adjacent to those areas;

4. Reduce cumulative adverse environmental impacts to water availability, water quality, wetlands, streams and other aquatic resources;

5. Ensure minimal adverse impacts to, and no net loss of, ecological functions resulting from uses, activities, and development within the city;

6. Protect hydrologic connections between water bodies, water courses and associated wetlands;

7. Provide city officials with the information and authority to implement the policies of the State Environmental Policy Act, Chapter 43.21C RCW, the Snoqualmie Comprehensive Plan, and the Growth Management Act of 1990. (Ord. 1176 § 2, 2016).

19.12.020 Critical areas definitions.

A. "Accessory structure" means a structure for a use incidental and subordinate to the principal use or structure. An accessory structure does not contain dwelling or employment space, and is located on the same lot as the principal use or structure.

B. "Adjacent" means within 300 feet of a critical area.

C. "Alteration" means any human-induced action which changes the existing condition of a critical area. Alterations include, but are not limited to: grading; filling; dredging; draining; channelizing; cutting, pruning, topping, clearing, relocating or removing vegetation; applying manure, herbicides or pesticides or any hazardous or toxic substance; discharging pollutants except stormwater; grazing domestic animals; paving, construction, or application of gravel; modifying for surface water management purposes; or any other human activity that changes the existing landforms, vegetation, hydrology, wildlife or wildlife habitat of a critical area.

D. "Animal containment area" means a site where 2,000 pounds or more of animals per acre are kept or where animal waste material is deposited in quantities capable of impacting groundwater resources.

E. "Buffer" means the designated area adjacent to a wetland, stream, geologically hazardous area, or channel migration zone. Stream buffers is synonymous with Riparian Management Zones in this chapter. The buffer is intended to protect the resource in the case of wetlands and streams; to protect against injury or damage to persons and property and to protect against landslide, erosion and other undesirable consequences in the case of geologically hazardous areas; and to protect against injury and damage to persons and property in the case of channel migration zones. Buffers are not applicable to critical aquifer recharge areas, fish and wildlife habitat areas (except to the extent that buffers for other critical areas serve as fish and wildlife habitat areas), or frequently flooded areas.

F. "Channel migration zone (CMZ)" means the area along a river within which the channel(s) can be reasonably predicted to migrate over time as a result of natural and normally occurring hydrological and related processes when considered with the characteristics of the river and its surroundings as delineated on the Snoqualmie River Channel Migration Area Map, contained in Channel Migration in the Three Forks Area of the Snoqualmie River (King County Department of Natural Resources, Surface Water Management Division, Seattle, WA, 1996), which is hereby incorporated herein by this reference.

G. "Critical aquifer recharge area" means the recharge areas of aquifers which serve as a source of drinking water for which there is no feasible alternative source and which, due to prevailing geologic conditions characterized by high infiltration rates, are susceptible to contamination from activities on the surface.

H. "Critical area" includes the following areas and associated buffers: (1) wetlands; (2) streams; (3) channel migration zones; (4) areas with a critical recharging effect on aquifers used for potable water; (5) fish and wildlife habitat conservation areas; (6) frequently flooded areas; and (7) geologically hazardous areas. "Sensitive area" has the same meaning as "critical area" for the purposes of this chapter.

I. "Cutting" means as defined in SMC 15.20.020.

J. "Development proposal" means any activity relating to the use and/or development of land requiring a permit or approval from the city, including but not limited to: commercial or residential building permit, boundary line adjustment, binding site plan, conditional use permit, franchise right-of-way permit, grading and clearing permit,

mixed use approval, planned unit development, conditional use permit, variance, short subdivision, special use permit, subdivision, flood hazard permit, unclassified use permit, utility and other use permit, variance, rezone, or any subsequently required permit or approval not expressly exempted by this chapter.

K. “Director” means the department head of the community development department, or equivalent position.

L. “Drainage facility” means as defined in SMC 15.18.040.

M. “Ecosystem functions” means the products, physical and biological conditions, and environmental qualities of an ecosystem that result from interactions among ecosystem processes and ecosystem structures. Ecosystem functions include, but are not limited to, sequestered carbon, attenuated peak streamflows, aquifer water level, reduced pollutant concentrations in surface and ground waters, cool summer in-stream water temperatures, and fish and wildlife habitats.

N. “Ecosystem values" means the cultural, social, economic, and ecological benefits attributed to ecosystem functions.

O. “Erosion hazard area” means those areas of the city containing soils which, according to the USDA Soil Conservation Service, King County Soils Survey, dated 1973, and any subsequent revisions or additions thereto, and the USDA Soil Conservation Service, Soils Survey for Snoqualmie Pass Area, Parts of King and Pierce Counties, WA, dated December 1992, may experience severe to very severe erosion hazard, and which occur on slopes of 15 percent or greater. This group of soils includes: Alderwood Gravelly Sandy Loam (AgD), Alderwood-Kitsap (AkF), Beausite Gravelly Sandy Loam (BeD and BeF), Kitsap Silt Loam (KpD), Ovall Gravelly Sandy Loam (OvD and OvF), Ragnar Fine Sandy Loam (RaD), Ragnar-Indianola Association (RdE), Riverwash (Rh), or Coastal Beaches (Cb), and any soil type that could be subject to erosion when disturbed.

P. “Fish and wildlife habitat conservation area” means

1. Areas that serve a critical role in sustaining needed habitats and species for the functional integrity of the ecosystem, and which, if altered, may reduce the likelihood that the species will persist over the long term. These areas may include, but are not limited to, rare or vulnerable ecological systems, communities, and habitat or habitat elements including seasonal ranges, breeding habitat, winter range, and movement corridors; and areas with high relative population density or species richness. Locally important habitats and species may also be designated by the City of Snoqualmie.

2. Fish and wildlife habitat conservation areas include areas of primary association for State or Federal listed wildlife species, state sensitive wildlife species, and current Priority Habitats and Species designated by Washington Department of Fish and Wildlife.

3. "Habitats of local importance" designated as fish and wildlife habitat conservation areas include those areas found to be locally important by the City of Snoqualmie.

4. Waters of the State, including streams and wetlands.

5. Riparian Management Zones.

6. Naturally occurring ponds under 20 acres and their submerged aquatic beds that provide fish or wildlife habitat.

7. "Fish and wildlife habitat conservation areas" does not include such artificial features or constructs as irrigation delivery systems, irrigation infrastructure, irrigation canals, or drainage ditches that lie within the boundaries of, and are maintained by, a port district or an irrigation district or company.

Q. “Geologically hazardous areas” means areas that, because of their susceptibility to erosion, sliding, earthquake, or other geological events, may pose hazards to the siting of commercial, residential, or industrial development consistent with public health or safety concerns, without appropriate mitigation, and specified at WAC 365-190-120.

R. “Hazard tree” is defined as a threat to life, property, or public safety.

S. “Hazardous substance(s)” means:

1. A hazardous substance as defined by Section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); any substance designated pursuant to Section 311(b)(2)(A) of the Clean Water Act (CWA); any hazardous waste having the characteristics identified under or listed pursuant to Section 3001 of the Solid Waste Disposal Act (but not including any waste the regulation of which under the Solid Waste Disposal Act has been suspended by act of Congress); any toxic pollutant listed under Section 307(a) of the CWA; or any imminently hazardous chemical substance or mixture with respect to which the United States Environmental Protection Agency has taken action pursuant to Section 7 of the Toxic Substances Control Act;

2. Hazardous substances that include any liquid, solid, gas or sludge, including any material, substance, product, commodity, or waste, regardless of quantity, that exhibits any of the physical, chemical, or biological properties described in WAC 173-303-090, 173-303-102, or 173-303-103.

T. “Hazardous waste” includes, but is not limited to, explosives, medical wastes, radioactive wastes, pesticides and chemicals which are potentially harmful to the public health or the environment, including anything defined as a hazardous substance.

U. “Invasive species” means a species that is (1) nonnative (or alien) to the Puget Sound or the Central Puget Lowland region, and (2) whose introduction causes or is likely to cause economic or environmental harm, or harm to human health. Invasive species can be plants, animals, and other organisms (e.g., microbes); human actions are the primary means of invasive introductions.

V. “Landslide hazard area” means those areas of the city subject to a risk of landslide, including the following areas:

1. Any area with slopes greater than 15 percent and impermeable soils (typically silt and clay) frequently interbedded with granular soils (predominantly sand and gravel) and springs or groundwater seepage;

2. Any area that includes areas with significant visible evidence of groundwater seepage, and which also includes existing landslide deposits regardless of slope;

3. Any area which has shown movement during the Holocene epoch (from 10,000 years ago to present) or which is underlain by mass wastage debris of that epoch as determined by a geologist;

4. Any area potentially unstable as a result of rapid stream incision or stream bank erosion;

5. Any area located on an alluvial fan, presently or potentially subject to inundation by debris flow or deposition of stream-transported sediments.

W. “Listed species” means those wildlife species that have been listed as endangered, threatened or sensitive by the U.S. Fish and Wildlife Service, NOAA National Marine Fisheries Service, or Washington Department of Wildlife pursuant to RCW 77.12.020 and Chapter 232-12 WAC as may be amended.

X. “Mitigation bank” means a site where wetlands and buffers are restored, created, enhanced, or preserved expressly for the purpose of providing compensatory mitigation in advance of authorized impacts to similar resources.

Y. “Mitigation bank instrument” means the documentation of agency and bank sponsor concurrence on the objectives and administration of the bank. The “bank instrument” describes in detail the physical and legal characteristics of the bank, including the service area, and how the bank will be established and operated.

Z. “Mitigation bank sponsor” means any public or private entity responsible for establishing and, in most circumstances, operating a bank.

AA. “Noxious weeds” means as defined in SMC 15.20.020.

BB. “Ordinary high water mark” means the point on the sides of streams or lakes which is historically or normally at water’s edge, as identified by a visible change in vegetation and/or soil. The ordinary high water mark should be determined using the most current federal and state methodologies.

CC. “Pruning” means as defined in SMC 15.20.020.

DD. “Qualified critical area consultant” means a person whom the city determines has the qualifications specified below to conduct critical areas studies pursuant to this chapter, and to make recommendations for critical areas mitigation. For areas of potential geologic instability, the qualified critical areas consultant shall be a geologist or geotechnical engineer. For wetlands the qualified critical areas consultant shall be a certified professional wetland scientist or a noncertified professional wetland scientist with at least two years of full-time work experience as a wetlands professional, including delineating wetlands using the state or federal manuals, preparing wetland reports, conducting function assessments, and developing and implementing mitigation plans. For streams, the qualified critical areas consultant shall be a specialist in fisheries and hydrology. For fish and wildlife habitat conservation areas, the qualified critical areas consultant shall be a fish or wildlife biologist, zoologist, limnologist or ornithologist. For critical aquifer recharge areas, the qualified critical areas consultant shall be a geologist or civil engineer with a minimum of four years of professional experience in groundwater studies and evaluation.

EE. “Riparian management zone” means an area that has the potential to provide full riparian functions, synonymous with stream buffer. Primary functions of riparian management zones include shading, bank stability, nutrient input, wood recruitment, and pollution control.

FF. “Seismic hazard area” means those areas of the city subject to severe risk of earthquake damage as a result of seismically induced landslides, earth adjustments, settlement or soil liquefaction.

GG. “Sensitive species” means any wildlife species native to the state of Washington that is vulnerable or declining and is likely to become endangered or threatened in a significant portion of its range within the state without cooperative management or removal of threats, as currently listed by the Washington Department of Fish and Wildlife.

HH. “Special waste” means all nonhazardous wastes that have special handling needs or have specific waste properties that require waste clearance by either the solid waste division of the King County department of natural resources and parks or the King County health department, or both. Such wastes are specified in the King County Waste Acceptance Policy (P.U.T. 4-1-4 or future amendments of that rule), and include contaminated soil, asbestos-containing materials, treated biomedical wastes, treatment plant grit and vactor wastes, industrial wastes, tires, and other wastes.

II. “Steep slope hazard area” means those areas of the city where the ground rises at an inclination of 40 percent or more within a vertical elevation change of at least 10 feet (a vertical rise of 10 feet or more for every 25 feet of horizontal distance). A slope is delineated by establishing its toe and top and measured by averaging the inclination over at least 10 feet of vertical distance.

JJ. “Stream” means any area of the city where surface waters produce a defined channel or bed which demonstrates clear evidence of the passage of water. The channel or bed need not contain water year-round. The term does not include irrigation ditches, canals, engineered storm or surface water runoff devices or other entirely artificial watercourses unless they are used by salmonids, or unless the created conveyances contain the waters from a stream which was naturally occurring prior to construction/alteration of the conveyance system.

KK. “Topping” means as defined in SMC 15.20.020.

LL. “Waters of the state” means lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington.

MM. “Wetland” or “wetlands” means areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands do not include those artificial wetlands intentionally created from nonwetland sites,

including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, landscape amenities, and wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. Wetlands include those artificial wetlands intentionally created from nonwetland areas to mitigate conversion of wetlands.

NN. "Wildland" means an area in which development is essentially nonexistent, except for roads, railroads, power lines, and similar transportation facilities. Structures, if any, are widely scattered.

OO. "Wildland/urban interface" means any area where wildland fuels threaten to ignite combustible homes and structures. (Ord. 1198 § 23 (Exh. E), 2017; Ord. 1176 § 2, 2016).

19.12.030 Applicability.

A. The city of Snoqualmie (city) shall regulate critical areasconsistent with the provisions of this chapter. Frequently flooded areas are deemed critical areas, and are also subject to regulation pursuant to Chapter 15.12 SMC.

B. Critical areas regulated by this chapter include:

1. Geologically hazardous areas including:

a. Erosion hazard areas;

b. Landslide hazard areas;

c. Steep slope hazard areas; and

d. Seismic hazard areas;

2. Channel migration and erosion hazard zones;

3. Frequently flooded areas;

4. Streams;

5. Wetlands;

6. Fish and wildlife habitat conservation areas; and

7. Critical aquifer recharge areas.

C. When the provisions of this section or any other provisions of the city's municipal code are in direct conflict with each other, or with other federal or state regulations, the most restrictive provision shall apply. (Ord. 1176 § 2, 2016).

19.12.040 Allowed activities.

A. The following development, modifications, activities, and associated uses are allowed as provided below, provided they are consistent with the provisions of other local, state, and federal laws and requirements and ensure minimal impacts to and no net loss of ecological functions:

1. Emergencies that threaten the public health, safety and welfare. Altered critical areas or buffers may be required to be restored and/or impacts resulting from emergency actions mitigated, based on review by the city, after the emergency situation is stabilized.

2. Removal of such potential fuels within portions of a critical areas buffer in the urban-wildland interface as determined necessary by the fire chief on a site-specific assessment to create a defensible space within 30 feet of a residence in areas declared by the fire chief to be a wildfire threat zone, pursuant to a plan approved by the fire chief. Such plan shall not authorize any more clearing of a critical area buffer than is necessary to eliminate fuels likely to cause the spread of a wildfire.

3. Structures, improvements and uses in existence that do not meet the requirements of this chapter. Such existing structures and improvements may be remodeled, reconstructed or replaced, provided:

a. Such actions or improvements are designed to only expand on the side of the existing structure, away from the critical area, and do not make the structure(s) intrude further into the critical area or its buffer; and

b. Do not increase the amount of impervious area within the critical area or buffer; and

c. Do not increase the potential impact to a critical area or, in the case of an existing structure or improvement in areas of potential geologic instability, do not increase the potential of soil movement or risk of harm or damage to existing uses or development, or to the public safety.

4. Existing uses may be maintained but shall not be expanded further into a critical area or its buffer. If an existing use that does not meet the requirements of this chapter is abandoned for a period of one year or more, such use shall not be reestablished.

5. Normal and routine maintenance or repair of existing utility or street rights-of-way or utility structures including drainage facilities. Utility or street rights-of-way shall be maintained in a manner that meets the objectives of safe and efficient use of the right-of-way, while eliminating the use of chemical herbicides within the corridors. Normal and routine maintenance includes vegetation management performed in accordance with best management practices that is part of ongoing maintenance of structures, infrastructure, or utilities; provided, that such management actions are part of regular and ongoing maintenance, do not expand further into the critical area, are not the result of an expansion of the structure or utility, and do not directly impact an endangered or threatened species.

6. Removal of invasive plants and noxious weeds, and additional aggressive non-native species, including Japanese knotweed, Scot's broom, English ivy, Himalayan and evergreen blackberry; provided, only hand labor and light equipment that minimizes disturbance to the critical area or buffer are used, and any chemical applications are approved by the Department of Ecology for use adjacent to streams and wetlands, and further provided best management practices are used and soil compaction is avoided.

7. Removal of hazard trees, with the director's approval. A certified arborist's evaluation may be required in the discretion of the director if the hazard is not clearly evident. Creation of snags are encouraged rather than complete tree removal. Hazard trees removed from critical areas must be replaced at a minimum 3:1 ratio and maintained for at least three years.

8. Enhancement and restoration plantings for the purpose of restoring functions and values of critical areas or buffers that do not require construction permits; provided, only hand labor and light equipment that minimizes disturbance to the critical area or buffer are used. Removal or trimming of trees within critical areas or their buffers, and replacing them with lower growing shrubs, for the purpose of creating or expanding a view corridor shall not be deemed an enhancement or restoration action and is not an exempted activity.

9. The following agricultural activities in existence as of the effective date of Ordinance No. 691:

a. Grazing of livestock, provided best management practices are implemented to protect the water quality;

b. Mowing of hay, grass or grain crops;

c. Tilling, discing, planting, seeding, harvesting and related activities for pasture, food crops, grass seed or sod; provided, that such activities do not involve any expansion into the critical areas or buffer of the area involved from that existing on the date this chapter becomes effective;

d. Normal and routine maintenance of drainage and irrigation ditches, provided they are not used by salmonids; farm ponds, stocked fish ponds, manure lagoons, and created livestock watering ponds; provided, that such activities shall not involve conversion of or expansion into any wetland or buffer not currently being used for such activity and best management practices are used. Maintenance actions within

drainage ditches that drain directly to salmonid-bearing waters may require permits from state or federal regulatory agencies.

B. Public Agency or Utility Exception. If the application of this chapter would prohibit a development proposal by a public agency or public utility, the agency or utility may apply for an exception pursuant to this section. After holding a public hearing, the hearing examiner may approve the exception if he/she finds that there is no other practical alternative to the proposed development with less impact on critical areas or their buffers, and the proposal minimizes the impact on critical areas or their buffers. Any decision of the hearing examiner is final unless appealed.

C. Reasonable Use Exception. If the application of this chapter would deny all reasonable use of the property, development may be allowed which is consistent with the general intent of this chapter and the public interest; provided, that the hearing examiner, after a public hearing and consultation with the city attorney, finds that:

1. This chapter would otherwise deny all reasonable use of the property;

2. There is no other reasonable use with less impact on the critical area or its buffer;

3. The proposed development does not pose an unreasonable threat to the public health, safety or welfare on or off the property; and

4. Any proposed alteration of the critical area or its buffer is the minimum necessary to allow for reasonable use of the property, and will not result in a net loss of critical area functions and values. Any decision of the hearing examiner regarding this reasonable use exception shall be final unless appealed.

5. The inability to derive reasonable economic use is not the result of the applicant's actions or that of a previous property owner, such as by segregating or dividing the property and creating an undevelopable condition.

D. Farm Plans. Agricultural activities may be conducted consistent with a farm plan approved by the King Conservation District and the city. A qualified consultant shall evaluate agricultural activities, including vegetation management, outlined in a farm plan with the standards established in these chapters.

E. Mitigation Required. Any authorized alteration of a critical area or its buffer under subsections C and D of this section shall be subject to conditions established by the city and shall require mitigation described in an approved mitigation plan that meets the mitigation requirements of this chapter. (Ord. 1198 § 23 (Exh. E), 2017; Ord. 1176 § 2, 2016).

19.12.050 Designation and protection of critical areas and buffers.

A. Designation. Critical areas are designated in this chapter by defining their characteristics, by defining their locations by adoption of a map, or both. In the case of frequently flooded areas, critical areas are designated in Chapter 15.12 SMC.

B. Protection. Critical areas shall be protected as follows:

1. The city shall not permit or approve any use, activity or development proposal, or authorization to alter the condition of any land, water or vegetation, or to construct or alter any structure or improvement, in, over or on a critical area or its buffer, except in compliance with the requirements of this chapter.

2. No person shall alter, nor direct or permit the alteration of, any critical area or buffer except as allowed in compliance with the requirements of this chapter.

3. The provisions of this chapter apply to all critical areas and buffers as designated or defined by this chapter, whether or not the critical area or buffer has been delineated or mapped. (Ord. 1198 § 23 (Exh. E), 2017; Ord. 1176 § 2, 2016).

19.12.060 Critical areas report.

A. When Required. Except as provided in subsection B of this section, for any use, activity or development proposal on site that includes, is adjacent to, or could significantly impact a critical area, other than a critical aquifer recharge area, the applicant or developer, at its own expense, shall initiate a critical areas report prepared by a qualified critical area consultant to adequately evaluate the potential impacts to such areas from such use, activity or development proposal. The critical areas report shall be conducted by a qualified critical area consultant, subject to the additional provisions of subsection D of this section. No critical areas report shall be required if a report previously has been prepared pursuant to this section; provided, that the previous report contemplated and evaluated the type of use, activity or development to occur on the site; and further provided, any wetland delineation studies provided with the report shall be valid for a maximum period of five years after initial completion.

B. Waivers. The director may waive the requirement for a critical areas report upon finding that:

1. There will be no alteration of the critical area or areas and associated buffers, or that the use, activity or development proposal is located in a portion of a wetland or stream buffer adjacent to and upland of an existing road and/or other existing development, such that the development site does not provide buffer functions;

2. The development proposal will not impact the critical areas or buffers in a manner contrary to the goals, intent, and requirements of this chapter; and

3. The development proposal meets the minimum standards of this chapter.

C. Contents of report. The critical areas report shall meet the minimum requirements as the director may establish by administrative rule. The city director may, in his or her discretion, require such supplements or amendments to the report as he or she may deem necessary to develop a reasonably comprehensive understanding of the site conditions and potential impacts. Critical areas reports relating to wetlands shall be in accordance with the additional criteria found in SMC 19.12.170(B).

D. Additional Review. In situations where the applicant has provided its own critical areas report, the city may require review of the submitted report by staff with the necessary critical areas qualifications or retain another qualified critical area consultant as adjunct staff to review the adequacy of the critical areas report. The costs for such critical area consultant review shall be borne by the applicant and shall be for services necessary to review the applicant's critical areas report, meet with the applicant and/or other relevant city staff, and to conduct any necessary field work to evaluate the applicant's critical areas report. The city critical area consultant ordinarily should not conduct a full independent or duplicative critical areas report. In situations where the city has provided the critical areas report (at the applicant's expense), the applicant shall have the right, but not the obligation, to submit a second opinion to the city for consideration. The determination of the city as to the adequacy of a critical areas report shall be final unless the issue is raised on appeal of the development proposal approval or permit. No interlocutory appeal of the report results is authorized by this section. (Ord. 1198 § 23 (Exh. E), 2017; Ord. 1176 § 2, 2016).

19.12.070 Critical area review process.

A. Preapplication Meeting. When a use, activity or development proposal includes or is adjacent to one or more critical areas, the applicant shall meet with the director prior to the submission of any application or development proposal to discuss the goals, purposes, objectives and requirements of this chapter, the scope of any critical areas report or reports, the qualifications of the applicant's technical consultants, and the nature of the use, activity or development proposal.

B. Incorporation of Critical Areas Conditions in Permits and Approvals. Review of critical areas reports and suggested conditions and mitigation shall be reviewed during and incorporated into the underlying permit or approval of the use, activity or development approval by whatever person or body has the authority for the underlying permit or approval. The director shall include in every report, recommendation or administrative decision on a use, activity or development proposal such findings as may be necessary to address the provisions of this chapter.

C. Authority to Condition or Deny Proposals. The city may approve, approve with conditions, or deny any development proposal in order to comply with the requirements and carry out the goals, purposes, and objectives of this chapter. In addition to its general authority under this chapter and any other applicable law or chapter, the city

shall condition or deny a permit or approval for a use, activity or development proposal if it is determined that it will increase the potential of soil movement or otherwise result in a significant risk of injury to persons or damage to the structure, site or adjacent properties in the case of areas of potential geologic instability, or will result in a risk of significant harm to a wetland or stream or its functional values, or will disturb the qualities that are essential to maintain the habitat in designated fish and wildlife habitat conservation areas, or poses a significant risk of degrading the quality of groundwater in a critical recharge area. The city shall impose mitigation consistent with the requirements of this chapter and as contained in an approved mitigation report.

D. Monitoring.

1. Whenever mitigation is required, the city will require monitoring to ensure the mitigation meets the design performance standards established in the approved mitigation plan. The city may require that a qualified critical area consultant, at the direction of the city and at the applicant's expense, monitor the development proposal site during construction and for a sufficient period of time after construction to ensure satisfactory mitigation of impacts on the critical area. The qualified critical area consultant shall monitor per the provisions outlined in the approved mitigation plan based on the conditions or restrictions imposed by the city and such administrative rules as the director shall prescribe.

2. When monitoring is required, the city shall require the qualified critical area consultant to make written, dated monitoring reports at intervals as may be specified in the approved monitoring plan. The city will review and comment on each monitoring report, and may require any remedial actions as determined necessary to assure success of the mitigation plan. The city will require a final statement from the qualified critical area consultant that, based upon technical data, the mitigation area complies with the performance standards in the approved mitigation plan. Where monitoring reveals a significant deviation from designed performance standards or a failure of mitigation measures, the city may require the applicant to take appropriate corrective action, and the project shall be subject to further monitoring for a time frame to be determined by the city.

E. Assurance Devices. Prior to issuance of any permit or approval which authorizes site disturbance under the provisions of this chapter, the city shall require a bond or other security to assure that all work required by this chapter or any permit condition relating to critical areas is satisfactorily completed in accordance with the approved plans, specifications, permit or approval conditions, and applicable regulations and to assure that all work or actions not satisfactorily completed will be corrected to comply with approved plans, specifications, requirements, and regulations to eliminate hazardous conditions, to restore environmental damage or degradation, and to protect the health, safety and general welfare of the public. If the development proposal is subject to mitigation, the applicant shall post a performance and maintenance bond or other security in a form and amount deemed acceptable by the city to cover long-term monitoring, maintenance, and performance for mitigation projects to ensure mitigation is fully functional for the duration of the monitoring period.

1. Performance Bonds. Mitigation required pursuant to a development proposal must be completed prior to the city's granting of final approval of the development proposal. If the applicant demonstrates that seasonal requirements or other circumstances beyond its control prevent completion of the mitigation prior to final approval, the applicant may post a performance bond, assignment of savings, or other security instrument approved by the city attorney equal to 150 percent of the total cost of the remaining mitigation and guarantees that all required mitigation measures will be completed no later than the time established by the city in accordance with this chapter. The performance bond shall be released following inspection and approval of the bonded improvements.

2. Maintenance/Monitoring Bonds. The city shall require the applicant whose development proposal is subject to a mitigation plan to post a maintenance/monitoring bond, assignment of savings, or other security instrument approved by the city attorney equal to 50 percent of the total estimated maintenance and monitoring cost to guarantee satisfactory workmanship, materials, and performance of structures and improvements. The maintenance bond will be released after meeting the maintenance and mitigation requirements of this chapter and any applicable conditions of approval.

3. All bonds shall be submitted with the appropriate bond quantity worksheet identified by the city. (Ord. 1198 § 23 (Exh. E), 2017; Ord. 1176 § 2, 2016).

19.12.080 Critical area tracts and notice on title.

A. Critical Area Tracts. Any critical area where development or alteration is prohibited or limited pursuant to this chapter shall be placed in a separate critical area tract if determined by the city to be necessary to protect the critical area. Critical area tracts may be required to be conveyed to the city, if deemed necessary to protect the critical area. Alternatively, the city may require the critical area be placed in a Native Growth Protection Easement (NGPE) or similar easement.

B. Notice on Title. The owner of any property that is subject to the provisions of this chapter shall, as a condition of approval pursuant to the provisions of this chapter, record with the records and elections division of King County a notice in a form approved by the city providing notice of the presence of a critical area on the property, the application of this chapter to the property, and that limitations on actions in or affecting such areas may exist. The provisions of this section shall not apply where such notice has already been recorded pursuant to a previous approval, such as a final plat. The form of such notice may be adopted by administrative rule.

1. The notice shall state:

a. The presence of the critical area or mitigation area on the property;

b. The allowable use of this property; and

c. The limitations that may exist on action in, or affecting, the critical area and/or mitigation area.

2. The notice on the title shall run with the property.

3. The notice on title will not be required if the work on existing structures or uses is valued at less than 50 percent of the assessed value of the existing structure or use, and if it does not increase the area of impact to the critical area.

4. This notice on title shall not be required for a development proposal by a public agency or public or private utility:

a. Within a recorded easement or right-of-way; or

b. Where the agency or utility has been adjudicated the right to an easement or right-of-way.

5. The applicant shall submit proof that the notice has been filed for public record for all affected property prior to building permit approval or prior to recording of the final plat in case of subdivisions. (Ord. 1234 § 8, 2020; Ord. 1198 § 23 (Exh. E), 2017; Ord. 1176 § 2, 2016).

19.12.090 General provisions.

The city will apply the following general methods and mechanisms to accomplish the purposes of this chapter. This section shall be applied to all approved development applications and alterations where critical areas may be affected. Remediation and compensation, for wetlands and streams, may be accomplished using mitigation banking described in this section.

A. Mitigation Sequencing. Conditions to protect critical areas shall be sequenced as follows:

1. Avoid the impact by refraining from certain actions or parts of an action to the extent feasible;

2. Minimize the impacts by limiting the degree or magnitude of the action, by redesigning the proposed project to minimize impacts and/or avoid or reduce impacts by using appropriate technology, best management practices and design strategies;

3. Remediate the impact by repairing, rehabilitating, or restoring the affected environment;

4. Reduce or eliminate the impact over time by preservation and maintenance operations;

5. Compensate for the impacts by creating, replacing, enhancing, or providing substitute resources or environments;

6. Monitor the mitigation provided for the impact and take appropriate corrective measures when necessary.

B. Buffers.

1. Measurement of Buffers. All buffers shall be measured perpendicular from the critical area boundary as surveyed in the field. For buffer width determination and measurement purposes, the “critical area” excludes the buffer area. The width of the buffer shall be determined according to the category of the critical area and the proposed land use, as described in this chapter.

2. Standard Buffers. The standard buffer widths presume the existence of a native forest vegetation community in the buffer zone adequate to protect the critical area functions and values at the time of the proposed activity. If existing buffer is sparsely vegetated or vegetated with invasive species, the city may require an increase in the buffer width or additional native plantings within the standard buffer width. Provisions to reduce or to average buffer widths to obtain optimal habitat value are provided under the performance standards for each critical area.

3. Buffer Averaging. The director may allow wetland or stream buffer averaging only when the buffer area width after averaging will not adversely impact the critical area and/or buffer functions and values, including wetland hydrology that causes short- or long-term changes in native vegetation composition, soil characteristics, nutrient cycling or water chemistry. At a minimum, any proposed buffer averaging shall meet the following criteria:

a. The resulting buffer area is no less than that which would be provided by the standard buffer;

b. The buffer width shall not be reduced by more than 25 percent at any one point as a result of the buffer averaging, and provided, buffer averaging shall not result in a wetland buffer being reduced to less than 25 feet at any one point in any case;

c. The buffer area is reduced by averaging only in those locations where the least significant upland habitat is present within the standard buffer zone, and the areas for increased buffer incorporate the highest functioning upland habitats, where feasible;

d. The buffer area may be required to be enhanced where the buffer is allowed to be reduced, if the buffer is in a degraded condition;

e. The areas of expanded buffer width are contiguous with the standard buffer;

f. Encroachment into the buffer does not occur waterward of the top of an associated steep slope or into a channel migration zone;

g. Encroachment does not occur into the buffer of an associated wetland except as otherwise allowed; and

h. Buffer averaging shall not result in the relocation of any portion of a buffer onto an adjacent property not in common ownership.

4. Increased Buffer Widths. Buffers of prescribed widths are established in this chapter for various categories of wetlands, streams, geologically hazardous areas and channel migration zones. The director may require increased buffer widths as necessary to protect critical areas when either the critical area is particularly sensitive to disturbance or the development poses unusual impacts. Examples of circumstances that may require buffers beyond minimum requirements include, but are not limited to:

a. Unclassified uses;

b. The critical area is in a sensitive drainage basin or documented salmonid spawning or rearing habitat;

c. The critical area is ish habitat for spawning or rearing as determined by the Washington Department of Fish and Wildlife;

d. The land adjacent to the critical area and its associated buffer, and located within the development proposal, is classified as an erosion hazard area; or

e. A trail or utility corridor in excess of 10 percent of the buffer width is proposed for inclusion in the buffer.

5. Functionally isolated wetland buffers and riparian management zones. Areas that provide no ecological functions or values which are functionally separated from a wetland or stream by legally established roads, impervious surfaces, or structures, shall be excluded.

6. Single family residences part of a previously approved development are allowed improvements with a maximum footprint of 250 square feet, such as decks, patios, and appurtenances.

C. Building Setback Line. A building setback line of 15 feet shall be required from the edge of a buffer for any building or structure to ensure that the exteriors of the building or structure can be improved, maintained or repaired without encroaching into the buffer. Trails, sidewalks, parking lots, or stormwater facilities may be located within the building setback line as long as access for maintenance will not result in adverse impacts to the actual buffer.

D. Land Segregation. Subdivisions, short subdivisions, binding site improvement plans, boundary line adjustments and any other division of land in critical areas and buffers shall be subject to the following provisions:

1. Land that is wholly within a wetland or stream or buffer may not be subdivided or the boundary line adjusted except as approved under a reasonable use permit. In the case of land where one parcel is entirely within a wetland or stream buffer and an adjacent parcel is located partially or entirely out of a wetland or stream buffer, the provisions of subsection B of this section shall apply to boundary line adjustments between the two parcels.

2. Land that is partially within a wetland or stream or buffer may be divided or the boundary line adjusted to create buildable lots; provided, that an accessible and contiguous portion of each new or adjusted buildable lot is:

a. Located outside the wetland or stream and any associated buffer; and

b. Complies with the minimum lot size for the zoning district in which it is located, if applicable.

3. Accessory roads and utilities serving the proposed division of land may be permitted within the wetland or stream and associated buffer only if the city determines that no other feasible alternative exists.

E. Marking or Fencing.

1. Temporary Markers. The outer perimeter of wetland, stream, fish and wildlife habitat conservation areas, steep slopes and their associated buffer and the limits of these areas to be disturbed pursuant to an approved permit or authorization shall be marked in the field prior to site clearing in a manner approved by the city so no unauthorized intrusion will occur. Markers or fencing are subject to inspection by the director or his/her designee prior to the commencement of permitted activities. This temporary marking shall be maintained throughout construction and shall not be removed until directed by the director, or until permanent signs and/or fencing, if required, are in place.

2. Permanent Markers. Following the implementation of an approved development plan or alteration, the outer perimeter of the critical area or buffer that is not disturbed shall be permanently identified. The director shall approve sign locations during review of the development proposal. Along residential boundaries, the signs shall be at least four inches by six inches in size and spaced one per centerline of lot or every 75 feet for lots whose boundaries exceed 150 feet. At road endings, crossings, and other areas where public access to the critical area is allowed, the sign shall be a minimum of 18 inches by 24 inches in size and spaced one every 75 feet. This identification shall include permanent wood or metal signs on treated wood or metal posts. Signs shall be worded as follows:

CRITICAL AREA BOUNDARY

Protection of this natural area is in your care. Alteration or disturbance is prohibited. Please call the City of Snoqualmie at (425) 888-5337 for more information. Removal of this sign is prohibited.

3. Permanent Fencing. The director shall require permanent fencing where there is a likelihood of the intrusion into the critical area based on the development proposal. The director shall also require such fencing when, subsequent to approval of the development proposal, intrusions threaten conservation of critical areas. The director may use any appropriate enforcement actions including, but not limited to, fines, abatement, or permit denial to ensure compliance.

F. Mitigation Plans.

1. Whenever mitigation is required, the applicant shall prepare and submit a mitigation plan using a watershed approach for city review and approval.

2. General Mitigation Requirements. Mitigation for alterations to critical areas shall achieve equivalent or greater biological functions and may include, in the case of streams and wetlands, mitigation for adverse impacts upstream and downstream of the development proposal site. Mitigation sites for wetlands, streams, and fish and wildlife habitat conservation areas shall be located to achieve contiguous habitat to minimize the isolating effects of development on habitat areas. Mitigation of aquatic habitat should be located within the same aquatic system as the area disturbed, unless the applicant provides a sound ecological basis for providing it in as close proximity to the project site as feasible and as approved by the administrator. Mitigation shall address each function affected by the alteration to achieve functional equivalency or improvement on a per function basis. Increased ratios of mitigation area may be required for wetlands, and the buffers of streams or wetlands, as provided in this chapter.

3. Mitigation Plan Submittal Requirements. The required scope and content of a mitigation plan shall be established by administrative rule promulgated by the director. Mitigation plans for wetlands and streams shall be based upon the Wetland Mitigation in Washington State, Part 1: Agency Policies and Guidance – Version 2 (Ecology Publication 21-06-003, Olympia, WA, April 2021, or as revised) and Part 2: Developing Mitigation Plans – Version 1 (Ecology Publication Number 06-06-011b, Olympia, WA, March 2006, or as revised), and Selecting Wetland Mitigation Sites Using a Watershed Approach (Western Washington) (Publication No. 09-06-32, Olympia, WA, December 2009, or as revised) as it now exists or may hereafter be modified.

4. Mitigation Monitoring. The time period for mitigation monitoring shall be established per the administrative rule established per subsection (F)(3) of this section, and shall be subject to the following minimum standards. Monitoring for compensatory mitigation for alteration of a wetland or stream shall occur for a minimum of five years. In the case of forested and scrub-shrub wetlands, monitoring shall occur for a minimum of 10 years, with reports submitted in years 1, 2, 3, 5, 7, and 10 and shall be secured with a bond or assignment for security.

G. Habitat Study. A habitat study shall be required for all development proposals that the director determines may affect the habitat of a listed species. If one or more listed species is using the subject property, the following additional requirements shall apply:

1. The applicant using a qualified professional consultant shall submit a habitat management plan, which at a minimum shall identify the qualities that are essential to maintain viable habitat for listed species using the fish and wildlife habitat conservation area and identify measures to minimize the impact from proposed activities on the habitat. The applicant shall be guided by WDFW's Priority Habitats and Species Management reccomendations"pursuant to WAC 232-12-297..

2. Conditions shall be imposed, as necessary, based on the measures identified in the habitat management plan.

3. To retain adequate natural habitat for listed species, buffers may be established on a case-by-case basis as described in the habitat management plan.

H. Minimal Impacts and No Net Loss. All the regulations of this chapter shall be applied to uses, activities, modifications and development to ensure minimal impacts to and no net loss of ecological function.

I. Where impact to critical areas or their buffers cannot be avoided, the applicant shall demonstrate that the impact is authorized by the provisions of this chapter or a reasonable use exception. (Ord. 1198 § 23 (Exh. E), 2017; Ord. 1176 § 2, 2016).

19.12.100 Erosion hazard areas.

Alteration of erosion hazard areas may be permitted subject to the following requirements:

A. Clearing and Grading within Erosion Hazard Areas. Clearing and grading within erosion hazard areas shall conform to the following standards:

1. Clearing of up to 15,000 square feet on any one lot and timber harvest pursuant to a DNR-approved forest practice permit or a city-approved clearing or grading permit may be cleared at any time. All other clearing on erosion hazard areas shall be allowed only from April 1st to November 1st unless otherwise approved by the city.

2. Clearing and grading in erosion hazard areas shall be sequenced as follows:

a. No clearing or grading shall occur in an erosion hazard area until after the area to be cleared and/or graded has been marked in the field and the markings have been approved by the city.

b. Clearing and grading for and installation of temporary erosion and sedimentation control measures in erosion hazard areas shall occur prior to clearing and grading for roads and utilities.

c. Clearing and grading for roads and utilities in erosion hazard areas shall be completed prior to any clearing or grading of lots or building pads and shall be the minimum necessary to accomplish the project engineering designs.

d. Clearing and grading of lots, building pads or other retained vegetation shall subsequently be removed only if it is a specific element of an approved structure and subject to specific development approval from the city.

3. Approved clearing and grading pursuant to this section shall use directional felling, approved skidding plans and other techniques to minimize damage to soils and understory vegetation.

B. Erosion Control Plan. All development must submit an erosion control plan consistent with the requirements of this section and other relevant portions of the Snoqualmie Municipal Code. Approval of such plans shall include mitigation, monitoring and bonds as necessary to ensure satisfactory performance of the conditions of approval.

C. Buffers. There are no buffers for erosion hazard areas. (Ord. 1198 § 23 (Exh. E), 2017; Ord. 1176 § 2, 2016).

19.12.110 Landslide hazard areas.

A. Alteration of a landslide hazard area on slopes 40 percent or steeper is prohibited except as provided for under the development standards for steep slopes.

B. Alteration of a landslide hazard area on slopes less than 40 percent is prohibited unless the city concludes from the critical area report that the development proposal will not decrease slope stability on adjacent properties and the development proposal can be designed so that the landslide hazard to the project and adjacent property is eliminated or mitigated to meet city-defined factors of safety, per administrative rule.

C. Buffers in Landslide Hazard Areas.

1. The buffer from the top of a slope shall be designed to protect persons and property from damage due to catastrophic slope failure and slope retreat over the lifetime of the use and provide an area of vegetation to promote shallow stability, control erosion and promote multiple benefits to wildlife and other resources. The buffer distance from the top of slope shall be equal to the greater of:

a. The distance from the toe of slope upslope at a slope of 2:1 (horizontal to vertical) to a point that intersects with the site's ground elevation; or

b. A horizontal distance from the top of the slope equal to the vertical height of the slope; or

c. Fifty feet from the top of the slope.

2. The buffer from the toe of a slope shall provide for the safety of persons and property from the run-out resulting from slope failure and shall be the greater of:

a. A horizontal distance equal to the vertical height of the slope; or

b. Fifty feet from the toe of the slope.

D. Buffer Reduction. The buffer may be reduced to a minimum of 15 feet based on analysis of specific development plans provided by a qualified professional that demonstrates to the public works director's satisfaction that the reduction will adequately protect the proposed development, adjacent developments, uses and other nearby critical areas, and will not result in reduced slope stability.

E. Increased Buffer. The buffer may be increased where the community development director determines a larger buffer is necessary to prevent risk of damage to proposed and existing development.

F. Clearing and Grading in Landslide Hazard Areas. When associated with an allowed alteration within a landslide hazard area, clearing and grading activities shall conform to the following standards:

1. Clearing and grading in landslide hazard areas shall be allowed only from April 1st to November 1st.

2. Clearing and grading shall be sequenced as follows:

a. No clearing or grading shall occur in a landslide hazard area until after the area to be cleared and/or graded has been marked in the field and the markings have been approved by the city.

b. Clearing and grading for and installation of temporary erosion and sedimentation control measures in landslide hazard areas shall occur prior to clearing and grading for roads and utilities.

c. Clearing and grading for roads and utilities in landslide hazard areas shall be completed prior to any clearing or grading of lots or building pads and shall be the minimum necessary to accomplish the project engineering designs.

d. Clearing and grading of lots, building pads or other retained vegetation shall subsequently be removed only if it is a specific element of an approved structure and subject to specific development approval from the city.

3. Approved clearing and grading pursuant to this section shall use directional felling, approved skidding plans and other techniques to minimize damage to soils and understory vegetation.

G. Roads and Utilities. Roads and utilities may be permitted within landslide hazard areas and associated buffers if the city determines that no other practical alternative exists.

H. Utility Lines and Pipes. Utility lines and pipes shall be permitted in the landslide hazard area only when the applicant demonstrates that no other practical alternative is available. The line or pipe shall be located above ground and be properly anchored and/or designed so that it will continue to function in the event of erosion. Stormwater conveyance shall be allowed only through a high-density polyethylene pipe with fuse-welded joints, or similar product that is technically equal or superior. (Ord. 1198 § 23 (Exh. E), 2017; Ord. 1176 § 2, 2016).

19.12.120 Steep slope hazard areas.

A. Alterations. No development or alteration shall be allowed in steep slope hazard areas unless the development or alteration is one of the following:

1. Any alteration on slopes 40 percent or steeper with a vertical elevation change of less than or equal to 20 feet, provided the critical areas report demonstrated that no adverse impact will result;

2. Any alteration of a slope, which has been created through previous legal grading activities, may be regraded as part of an approved development proposal. Any remaining slopes in excess of 40 percent shall be subject to the steep slope protections of this chapter;

3. Surface water or stormwater conveyance approved by the city in conformance with the stormwater management requirements in Chapter 15.18 SMC;

4. Trails construction approved by the city;

5. Utility construction approved by the city, if the city determines that no other feasible alternative exists. Utility lines or pipes shall be located above ground and properly anchored and/or designed so that they will continue to function in the event of an underlying slide. Stormwater conveyance shall be allowed only through a high-density polyethylene pipe with fuse-welded joints, or similar product that is technically equivalent or superior;

6. Trimming and cutting of vegetation on steep slopes approved by the city; provided that the soils are not disturbed.

B. Buffers in Steep Slope Hazard Areas.

1. The buffer from the top of a slope shall be designed to protect persons and property from damage due to catastrophic slope failure and slope retreat over the lifetime of the use and provide an area of vegetation to promote shallow stability, control erosion and promote multiple benefits to wildlife and other resources. The buffer distance from the top of slope shall be equal to the greater of:

a. The distance from the toe of slope upslope at a slope of 2:1 (horizontal to vertical) to a point that intersects with the site’s ground elevation; or

b. A horizontal distance from the top of the slope equal to the vertical height of the slope; or

c. Fifty feet from the top of the slope.

2. The buffer from the toe of a slope shall provide for the safety of persons and property from the run-out resulting from slope failure and shall be the greater of:

a. A horizontal distance equal to the vertical height of the slope; or

b. Fifty feet from the toe of the slope.

C. Buffer Reduction. The buffer may be reduced to a minimum of 15 feet based on analysis of specific development plans provided by a qualified professional that demonstrates to the public works director’s satisfaction that the reduction will adequately protect the proposed development, adjacent developments, uses and other nearby critical areas, and will not result in reduced slope stability.

D. Increased Buffer. The buffer may be increased where the community development director determines a larger buffer is necessary to prevent risk of damage to proposed and existing development. (Ord. 1198 § 23 (Exh. E), 2017; Ord. 1176 § 2, 2016).

19.12.130 Seismic hazard areas.

A. Alteration of a seismic hazard area shall only be allowed if mitigation is implemented that provides for adequate factors of safety against liquefaction, surface rupture, lateral spreading, seismically induced landsliding, and settlement.

B. Structures in seismic hazard areas shall conform to applicable analysis and design criteria of the International Building Code. (Ord. 1198 § 23 (Exh. E), 2017; Ord. 1176 § 2, 2016).

19.12.140 Channel migration and associated erosion hazard zones.

A. The administrator shall assemble all available channel migration and erosion hazard maps and studies from King County and other sources in order to determine the location and severity of known channel migration and erosion hazard zones, and shall maintain maps showing the boundaries of all known channel migration and erosion hazard zones. The administrator is hereby authorized to adopt administrative rules to establish the process and criteria for designating and classifying channel migration and erosion hazard zones. An applicant for a development permit may submit a report by a qualified professional engineer in support of a determination of the boundaries or classification of channel migration and/or erosion hazard areas on a specific property if there is a discrepancy between the approved channel migration zone or erosion hazard map and site-specific conditions or data, or for unmapped potential channel migration zones or erosion hazard areas. It is a goal of the city of Snoqualmie to retain and restore channel migration zones as practicable to restore riparian functions in applicable areas over time.

B. No new development may be permitted in the severe channel migration zone unless otherwise allowed under this section.

C. The following activates are allowed within the severe and moderate channel migration zone:

1. Trails and boardwalks;

2. Forest practices;

3. Ongoing agriculture;

4. Bridges, utilities and transportation structures when no other feasible alternative exists;

5. Development with a primary purpose of protecting or restoring ecological functions.

D. Existing structures may be maintained and improved on existing legal lots in the moderate channel migration zone and/or erosion hazard area; provided, the footprint may not be expanded toward the source of channel migration or erosion hazard.

E. New structures may be permitted in the moderate channel migration zone on existing legal lots; provided, that a feasible alternative location outside of the channel migration hazard is not available on site, and the structure and supporting infrastructure, including septic system, are located at the farthest distance from any source of channel migration or erosion hazard.

F. Subdivision of land by any means, including short subdivision or binding site improvement plan, is prohibited within the moderate channel migration zone.

G. New structural flood hazard reduction measures may be allowed in a channel migration zone to protect existing development only where demonstrated through an engineering analysis to be necessary, and when nonstructural methods are infeasible and such measures are located landward of associated wetlands and buffer areas except where no alternative exists as documented in a geotechnical analysis. (Ord. 1198 § 23 (Exh. E), 2017; Ord. 1176 § 2, 2016).

19.12.150 Frequently flooded areas.

A. Standards for building and development in frequently flooded areas are set forth in Chapter 15.12 SMC, Flood Hazard Regulations. SMC 15.12.170, Floodways, adopted by Ordinance 621, 1989, and as hereafter amended, is hereby adopted by reference.

B. No encroachment, including fill, new construction, substantial improvement or other development shall be permitted within the floodway except as described in SMC 15.12.170.

C. No new construction or reconstruction of residential structures shall be permitted within the floodway, except as described in SMC 15.12.170.

D. All new construction and substantial improvement shall comply with all other applicable flood hazard reduction standards of Chapter 15.12 SMC, Flood Hazard Regulations.

E. New structural flood hazard reduction measures are allowed only where demonstrated to be necessary, and when nonstructural measures are infeasible and mitigation is accomplished, and provided, such measures are landward of associated wetlands and buffer areas except where no alternative exists as documented in a geotechnical analysis. (Ord. 1237 § 3, 2020; Ord. 1198 § 23 (Exh. E), 2017; Ord. 1176 § 2, 2016).

19.12.160 Streams.

A. Classification of Streams. Streams shall be classified in accordance with WAC 222-16-030 as follows:

1. Class 1 are Type S (shorelines) streams and include waters, within their bankfull width, as inventoried as "Shorelines of the State" (rivers over 20 cfs, marine shorelines and lakes over 20 acres) under Chapter 90.58 RCW and the rules promulgated pursuant to Chapter 90.58 RCW, including periodically inundated areas of their associated wetlands. "Bankfull width" is the measurement of the lateral extent of the water surface elevation perpendicular to the channel at bankfull depth.

2. Class 2 are Type F (fish) streams and include segments of natural waters other than Type S waters that are within the bankfull widths of defined channels and periodically inundated areas of their associated wetlands, or within lakes, ponds, or impoundments having a surface area of one-half acre or greater at seasonal low water that in any case contain fish habitat or are described by one of the four categories in WAC 222-16-030(2).

3. Class 3 are Type Np (non-fish perennial) streams and include all segments of natural waters within the bankfull width of defined channels that are perennial non-fish habitat streams. Perennial streams are waters that do not go dry at any time during a year of normal rainfall. However, for the purpose of water typing, Type Np waters include the intermittent dry portions of the perennial channel below the uppermost point of perennial flow.

4. Class 4 are Type Ns (non-fish seasonal) streams and include all segments of natural waters within the bankfull width of the defined channels that are not Type S, F, or Np waters. These are seasonal, non-fish habitat streams in which surface flow is not present for at least some portion of a year of normal rainfall and are not located downstream from any stream reach that is a Type Np water. Ns waters must be physically connected by an aboveground channel system to Type S, F, or Np waters.

B. No alteration to a stream or riparian management zone shall be permitted unless the city grants a public agency or utility exception or reasonable use exception, or unless the city finds that the development proposal is one of the permitted uses identified in subsection C of this section and the project as proposed preserves or enhances the important stream and buffer functions and is otherwise consistent with the purposes of this chapter.

C. Permitted Uses and Alterations. Subject to the requirements of the underlying zoning designation and other applicable codes and ordinances, the following uses and alterations shall be permitted within streams or their riparian management zones, in accordance with the standards set forth in this section when done in compliance with the provisions of other applicable codes and ordinances. Mitigation shall be required for any impact to the critical area or its buffer from these permitted uses and alterations:

1. Stream Crossings. Stream crossings may only be permitted when there is no other reasonable access resulting in less impact on the stream and/or its buffer. Stream crossings shall use all reasonably feasible construction techniques to avoid disturbance to the stream bed or bank. In the case of Class 2, Class 3 or Class 4 streams, bottomless culverts or other appropriate methods demonstrated to provide fisheries protection may be used if the applicant demonstrates that such methods and their implementation will pose no harm to the stream bank or bed and will not adversely impact fish habitat as demonstrated in a report from a qualified consultant submitted by the applicant. The applicant shall be responsible to obtain and comply with all other applicable state and federal permits. Crossings shall not occur over salmonid spawning areas unless no other possible crossing site exists. Crossings shall be minimized and serve multiple purposes and properties whenever possible. Construction of stream crossings shall be in conformance with applicable permit limitations established by state resource agencies. Stream crossings shall be designed in accordance with the Washington Department of Fish and Wildlife's Water Crossing Design Guidelines (2013), as updated. New crossings shall be evaluated under future climate change scenarios for 2040 and 2080, or similar, as required by state and federal agencies.

2. Stream Relocations. Class 1 streams shall not be relocated. Class 2 streams shall not be relocated except for public road projects which have been approved by a variance and by applicable state resource agencies. Class 3 and Class 4 streams may only be relocated provided the in-stream resources are preserved or enhanced, all appropriate floodplain protection measures are used, and the stormwater management requirements in Chapter 15.18 SMC, and all other applicable permit and code requirements have been met. A proposal to relocate a Class 2, Class 3 or Class 4 stream must be accompanied by a stream mitigation plan.

3. Stream Channel Stabilization. Stream channel stabilization may only be allowed when movement of the stream channel threatens existing residential or commercial structures, public improvements, unique natural resources, or the only possible existing access to property. Proposals to stabilize a stream channel must be done in compliance with the provisions of this chapter and other applicable codes and ordinances, including but not limited to shoreline regulations pursuant to Chapter 19.08 SMC, Shoreline Regulations.

4. Maintenance. Maintenance associated with stormwater conveyances that do not carry anadromous salmonids, and that do not meet the definition of a wetland, may be maintained through use of best management practices developed in consultation with other state and federal agencies with jurisdiction.

5. Educational and Research Activities. Educational and research activities are permitted, not including construction of buildings or other permanent structures.

6. Enhancement or Mitigation. Enhancement or other mitigation plans are permitted, including landscaping in accordance with conditions of development imposed by the city.

7. Drainage Facilities. Discharges from drainage facilities are permitted, provided the stormwater management requirements in Chapter 15.18 SMC have been met and the city finds that the wetland functions can be preserved or enhanced and provided stormwater discharges to streams from drainage facilities will not negatively affect the rate of flow nor decrease the water quality of the stream.

8. Public Utilities. Public utilities may be permitted in the stream buffer, provided no practical alternative exists and adequate provision is made to protect or enhance the function of the stream buffer through appropriate mitigation. Unless located within a road right-of-way permitted pursuant to subsection (C)(9) of this section, sewer utilities may be constructed only in the outer 15 percent of a wetland or stream buffer if engineering design dictates, and if the other requirements of this section are met. All utility corridors should be designed and coordinated to accommodate joint use in order to reduce the number of such corridors. Proposals to cross wetlands, streams or their buffers must include a mitigation plan, and must be designed to implement best management practices. Upon completion of the utility installation, wetlands, streams, and their buffers must be restored to preproject configurations or enhanced if preproject conditions were degraded, based on an approved mitigation plan which shall require maintenance and monitoring per the provisions of this chapter.

9. Roads and Rights-of-Way. Roads and other rights-of-way are permitted, provided no practical alternative exists and adequate provision is made to protect or enhance the stream through appropriate mitigation. Roads shall be designed and maintained to prevent erosion and restriction of the natural movement of groundwater as it affects the critical area.

Roads must be located to conform to the topography so that minimum alteration of natural conditions may be required. Where feasible, roads and utilities shall be similarly aligned to minimize the area of disturbance. Roads shall be designed and constructed per the stormwater management requirements in Chapter 15.18 SMC. A restoration plan for the area, designed per the standards of a mitigation plan, shall be required.

10. Other Uses. Other uses may be permitted by the city only following review and approval of a critical areas report and upon a determination that such use can be developed in a manner that would not degrade the quantitative and qualitative functioning of the stream.

11. Passive Recreation. Passive recreation may be permitted, provided public access shall only be allowed upon a finding by the director that:

a. Such public access will not adversely affect habitat or water quality values of the critical area, and that the design reflects current Priority Habitat and Species data and WDFW management recommendations;

b. Public access shall be limited to previous trails, boardwalks, viewing areas, covered seating, and displays, and must be located in areas which have the lowest sensitivity to human disturbance or alteration;

c. Public access must be specifically developed for interpretive, educational or research purposes by, or in cooperation with, the city, or as part of the adopted Snoqualmie comprehensive plan or other official plan or development approval adopted by the city;

d. No motorized vehicles shall be allowed within a wetland, stream or their buffers except as required for necessary maintenance or security;

e. Vegetative edges, structural barriers, signs or other measures must be provided wherever necessary to protect wetlands by limiting access to designated public use or interpretive areas;

f. Access areas must incorporate design features and materials which protect water quality and allow adequate surface and groundwater movement;

g. Must be located so as not to disturb nesting, breeding and rearing areas;

h. Trails should be located in the outer 25 percent of the buffers. Trail access within the remainder of the buffer or wetland may be allowed provided no practical alternative exists and adequate provision is made to protect or enhance the wetland through appropriate mitigation;

i. If trails are allowed to cross wetlands, boardwalks shall be used to minimize the impact.

12. Trails, Boardwalks and Viewing Areas. A continuous riverwalk trail, boardwalk and public viewing areas within the buffer of the Snoqualmie River and Kimball Creek.

13. Decks, Patios and Walkways. Decks, patios and walkways associated with commercial development and parks/trail development permitted by this chapter and the underlying zoning, provided such facilities are designed and constructed to afford public access to views of the riverfront and provide a public easement as part of an overall public boardwalk and viewing platform system within the buffer of the Snoqualmie River within the Urban Riverfront Environment from southerly margin of S.E. Fir Street to the eastern property line of Riverview Park.

D. Riparian Management Zones. Riparian Management Zones (RMZ) are designated based on the estimated average 200 year site potential tree height, extending outward on each side of a stream from the ordinary high water to the distances prescribed in Table 19.12.160-1:

Table 19.12.160-1.

Riparian Management Zone Widths

Stream Classification	RMZ Width
Class 1 streams	100 feet. See Shoreline Regulations at SMC 19.08[1].
Class 2 streams	200 feet
Class 3 streams	100 feet
Class 4 streams	100 feet

Stream Classification	RMZ Width
Snoqualmie River South Fork and right bank of mainstem within the Natural Shoreline Environment[1,2]	200 feet
Snoqualmie River within Urban Riverfront Environment, generally located between S.E. Fir Street and Meadowbrook Way S.E.[1,2]	25 feet

[12] See Chapter 19.08 SMC for shoreline environments and associated maps.

E. Mitigation. Mitigation shall be required for permitted alterations of streams or their riparian management zones. Stream replacement or enhancement shall result in no net loss of stream functions either on or off site due to the alteration. (Ord. 1198 § 23 (Exh. E), 2017; Ord. 1176 § 2, 2016).

19.12.170 Wetlands.

A. Wetland Inventory. The city initially conducted a wetland inventory in 1991 and continues to update the inventory as new information becomes available. The wetland inventory maps, on file with the director, are hereby incorporated herein by this reference. Property owners, the director, and/or members of the public may use these as a general guide but the maps do not provide a comprehensive accounting of areas subject to this chapter nor do they provide a definitive critical area designation. The exact location of a wetland and the associated boundary shall be determined through the performance of a field delineation by a qualified wetland consultant using the approved federal wetland delineation manual and applicable regional supplements as specified by WAC 173-22-035.

B. Report for Wetlands.

1. If the administrator determines that the site of a proposed development includes, is likely to include, or is adjacent to a wetland, a wetland report, prepared by a qualified professional, shall be required unless preparation of a report is excused or waived in accordance with SMC 19.12.060.A or 19.12.060.B. The expense of preparing the wetland report shall be borne by the applicant.

2. Minimum Standards for Wetland Reports. The written report and the accompanying plan sheets shall be consistent with SMC 19.12.060 and shall contain the following information, at a minimum:

a. The name and contact information of the applicant; the name, qualifications, and contact information for the primary author(s) of the wetland critical area report; a description of the proposal; identification of all the local, state, and/or federal wetland-related permit(s) required for the project; and a vicinity map for the project.

b. A statement specifying the accuracy of the report and all assumptions made and relied upon.

c. Documentation of any fieldwork performed on the site, including field data sheets for delineations, rating system forms, baseline hydrologic data, etc.

d. A description of the methodologies used to conduct the wetland delineations, rating system forms, or impact analyses including references.

e. Identification and characterization of all wetlands, water bodies, shorelines, floodplains, and other critical areas on or adjacent to the proposed project area.

f. For each wetland identified on site and within 300 feet of the project site provide: the wetland rating, including a description of and score for each function, per wetland ratings (subsection C of this section); required buffers; hydrogeomorphic classification; wetland acreage based on a professional survey from the field delineation (acreages for on-site portion and entire wetland area including off-site portions); Cowardin classification of vegetation communities; habitat elements; soil conditions based on site

assessment and/or soil survey information; and to the extent possible, hydrologic information such as location and condition of inlets/outlets (if they can be legally accessed), estimated water depths within the wetland, and estimated hydroperiod patterns based on visual cues (e.g., algal mats, drift lines, flood debris, etc.). Provide acreage estimates, classifications, and ratings based on entire wetland complexes, not only the portion present on the proposed project site.

g. A description of the proposed actions, including an estimation of acreages of impacts to wetlands and buffers based on the field delineation and survey and an analysis of site development alternatives, including a no-development alternative.

h. An assessment of the probable cumulative impacts to the wetlands and buffers resulting from the proposed development.

i. A description of reasonable efforts made to apply mitigation sequencing pursuant to mitigation sequencing (SMC 19.12.090) to avoid, minimize, and mitigate impacts to critical areas.

j. A discussion of measures, including avoidance, minimization, and compensation, proposed to preserve existing wetlands and restore any wetlands that were degraded prior to the current proposed land use activity.

k. A conservation strategy for habitat and native vegetation that addresses methods to protect and enhance on-site habitat and wetland functions.

l. An evaluation of the functions of the wetland and adjacent buffer. Include reference for the method used and data sheets.

m. A copy of the site plan sheet(s) for the project must be included with the written report and must include, at a minimum:

i. Maps (to scale) depicting delineated and surveyed wetland and required buffers on site, including buffers for off-site critical areas that extend onto the project site; the development proposal; other critical areas; grading and clearing limits; areas of proposed impacts to wetlands and/or buffers (include square footage estimates).

ii. A depiction of the proposed stormwater management facilities and outlets (to scale) for the development, including estimated areas of intrusion into the buffers of any critical areas. The written report shall contain a discussion of the potential impacts to the wetland(s) associated with anticipated hydroperiod alterations from the project.

C. State Ratings System. The categorization of wetlands set forth herein is intended to implement the Washington State Department of Ecology wetland rating system found in the Washington State Wetlands Rating System (Western Washington, 2014 Update Version 2, Ecology Publication No. 23-06-009) and associated guidance documents as it now exists or may hereafter be revised by the Department of Ecology, which is hereby incorporated herein by this reference. References herein to wetland scores are those scores derived by application of the Washington State Wetlands Rating System. Wetland rating categories shall be applied as the wetland exists at the time of an associated permit application. Wetland categories shall not change due to illegal modifications.

D. Wetland Categorization. Wetlands shall be categorized as follows:

1. Category I. Category I wetlands are those that represent unique or rare wetland types, are more critical to disturbance than most wetlands, are relatively undisturbed and contain ecological attributes that are impossible to replace within a human lifetime, or provide a high level of functions. Category I wetlands in the city include:

a. Wetlands with high conservation value, which are identified by scientists of the Washington Natural Heritage Program as important ecosystems for maintaining plant diversity in our state;

b. Bogs;

c. Mature and old growth forested wetlands larger than one acre; or

d. Wetlands that perform functions at high levels and scoring 23 or more points (out of 27) on the questions related to functions.

2. Category II. Category II wetlands are difficult, though not impossible, to replace, and provide high levels of some functions. These wetlands occur more commonly than Category I wetlands, but still need a relatively high level of protection. Category II wetlands are wetlands with a moderate level of functions, scoring between 20 and 22 points.

3. Category III. Category III wetlands are wetlands with a moderate level of functions, scoring between 16 and 19 points. Such wetlands generally have been disturbed in some ways and are often less diverse or more isolated from other natural resources in the landscape than Category II wetlands.

4. Category IV. Category IV wetlands are wetlands with the lowest levels of functions, scoring fewer than 16 points, and are often heavily disturbed. These wetlands could be replaced, or in some cases improved. However, experience has shown that replacement cannot be guaranteed in any specific case. These wetlands may provide some important functions, and also need to be protected.

E. Filling or Alteration of Wetlands.

1. The fill shall not result in the loss of flood storage and shall be compensated for within city limits;

2. If the fill is located in the city's 100-year floodplain, the proposal must be consistent with the requirements of Chapter 15.12 SMC, Flood Hazard Regulations;

3. The alteration shall not result in deficient buffers that do not adequately protect the remaining wetland.

F. Alterations Prohibited. Unless otherwise allowed by subsection G, no wetland or associated buffer shall be altered, unless the city grants a public agency or utility exception or reasonable use exception, or finds that the development proposal is one of the permitted uses identified in subsection G of this section and the project as proposed preserves or enhances the important wetland and buffer functions and is otherwise consistent with the purposes of this chapter.

G. Permitted Uses and Alterations. Subject to the requirements of the underlying zoning designation and other applicable codes and ordinances, the following uses and alterations shall be permitted within wetlands or their buffers, in accordance with the standards set forth in this section. Mitigation per the requirements of this chapter shall be required for any impact to the critical area from these permitted uses and alterations:

1. Educational and Research Activities. Educational and research activities are permitted, not including construction of buildings or other permanent structures;

2. Enhancement. Enhancement of habitat is permitted, based on the submittal of an enhancement plan prepared by a qualified consultant, reviewed and approved by the city in accordance with conditions of development imposed by the city;

3. Drainage Facilities. Drainage facilities located in the outer 25 percent of a prescribed wetland buffer are permitted when required by engineering constraints, and when such discharges are designed to be infiltrated into appropriate soils or discharged as surface sheet flow in appropriate slope conditions. Such discharges and facilities must meet the stormwater management requirements in Chapter 15.18 SMC. The city must review and approve the submittal to determine that wetland functions will be preserved or enhanced, that stormwater discharges meet the requirements in Chapter 15.18 SMC, that stormwater discharges to the wetland's outer buffer will not negatively affect the hydroperiod of the wetland except as allowed by SMC 15.18.180, and that there will be no adverse impacts to the water quality of the wetland;

4. Public Utilities. Public utilities may be permitted in the wetland and wetland buffer, provided no practical alternative exists and adequate provision is made to protect or enhance the function of the wetland or stream buffer through appropriate mitigation. Unless located within a road right-of-way permitted pursuant to

subsection (G)(5) of this section, sewer utilities may be constructed only in the outer 25 percent of a prescribed wetland buffer if necessary for gravity flow and if the other requirements of this section are met. All construction must be designed to mitigate or protect against erosion, uncontrolled drainage, restriction of groundwater movement, slides, pollution, habitat disturbance, loss of flood-carrying and/or storage capacity, and excessive excavation or fill. Upon completion of installation, wetland and stream buffers must be restored to preproject configurations, replanted as required and maintained, as necessary, until newly planted vegetation is established. All utility corridors should be designed to accommodate joint use in order to reduce the number of such corridors;

5. Roads and Rights-of-Way. Roads and other rights-of-way are permitted, provided no practical alternative exists and adequate provision is made to protect or enhance the wetland through appropriate mitigation. Roads shall be designed and maintained to prevent erosion and restriction of the natural movement of groundwater as it affects the critical area. Roads must be located to conform to the topography so that minimum alteration of natural conditions may be required. Where feasible, roads and utilities shall be similarly aligned to minimize the area of disturbance. Roads shall be constructed so as to minimize adverse impacts on the hydroperiod of the wetland, and on the habitat functions of the upland buffer to a degree acceptable to the city. A restoration plan for the area, designed per the standards of a mitigation plan, will be required to be reviewed and approved by the city;

6. Other Uses. Other uses may be permitted by the city only following review and approval of a critical areas report and upon a determination that such use can be developed in a manner which would not degrade the quantitative and qualitative functioning of the wetland or stream;

7. Passive Recreation. Passive recreation may be permitted, provided public access shall be allowed only on the following conditions:

a. A finding by the director that such public access will not adversely affect habitat or water quality values of the critical area;

b. Public access shall be limited to previous trails, boardwalks, viewing areas, covered seating, and displays, and must be located in areas which have the lowest sensitivity to human disturbance or alteration;

c. Public access must be specifically developed for interpretive, educational or research purposes by, or in cooperation with, the city, or as part of the adopted Snoqualmie comprehensive plan or other official plan or development approval adopted by the city;

d. No motorized vehicles shall be allowed within a wetland, stream or their buffers except as required for necessary maintenance or security;

e. Vegetative edges, structural barriers, signs or other measures must be provided wherever necessary to protect wetlands by limiting access to designated public use or interpretive areas;

f. Access areas must incorporate design features and materials which protect water quality and allow adequate surface and groundwater movement;

g. Access areas must be located so as not to disturb nesting, breeding and rearing areas;

h. Trails should be located in the outer 25 percent of the buffers. Trail access within the remainder of the buffer or wetland may be allowed provided no practical alternative exists and adequate provision is made to protect or enhance the wetland through appropriate mitigation; and

i. If trails are allowed to cross wetlands, boardwalks shall be used to minimize the impact.

8. Agricultural Activities. Ongoing agricultural activities, including mowing for hay and greenchop in existence prior to 1995, provided such uses do not increase the degree of nonconformity.

H. Wetland Buffers. Wetlands shall have the following prescribed buffers, in accordance with the wetland characteristics and habitat score, per the following table:

Table 19.12.170-1. Wetland Buffers

Wetland Category	Buffer width (in feet) based on habitat score			
	3 – 5		6 – 7	8 – 9
Category I: Based on total score	75		165	225
Category I: Bogs and wetlands of high conservation value	190		190	225
Category I: Forested	75		165	225
Category II: Based on total score	75		165	225
Category III (all)	60		165	225
Category IV (all)	40		40	40

I. Mitigation Ratios. When alteration of wetland or buffers requires mitigation by compensation, compensation for impacts shall be provided at the following ratios shown in the table below:

Table 19.12.170-2. Mitigation Ratios

Category and Type	Creation or Reestablishment[1]	Rehabilitation Only[1]	Enhancement Only[1]	Mitigation Bank
Category IV All	1.5:1	3:1	6:1	See SMC 19.12.180
Category III All	2:1	4:1	8:1	See SMC 19.12.180
Category II All	3:1	6:1	12:1	See SMC 19.12.180
Category I Forested	6:1	12:1	24:1	See SMC 19.12.180
Category I Bog	Not considered possible[2]	6:1 Rehabilitation of a bog	Case-by-case basis[2]	See SMC 19.12.180
Category I Natural Heritage Site	Not considered possible[2]	6:1 Rehabilitation of a natural heritage site	Case-by-case basis[2]	See SMC 19.12.180
Category I Based on Score for Functions	4:1	8:1	16:1	See SMC 19.12.180
Buffer	Minimum of 1:1[3]	Minimum of 1:1[3]	Minimum of 1:1[3]	See SMC 19.12.180

[1] See the following document for additional guidance: Washington State Department of Ecology, U.S. Army Corps of Engineers Seattle District, and U.S. Environmental Protection Agency Region 10. April 2021. Wetland Mitigation in Washington State – Part 1: Agency Policies and Guidance (Version 2). Washington State Department of Ecology Publication No. 21-06-003. Olympia, WA, or as amended.

[2] Class I bogs and natural heritage sites are deemed irreplaceable wetlands, and therefore no amount of compensation would replace these ecosystems. Avoidance is the best option. In the rare case when impacts cannot be avoided, replacement ratios will be determined on a case-by-case basis, and will be significantly higher than for other Class I wetlands.

[3] The city may require a buffer enhancement ratio greater than 1:1 for exceptional second growth forest or mitigation of an already functioning buffer based on the critical area report, buffer modification or consideration of vegetation structure slope and flow paths.

(Ord. 1198 § 23 (Exh. E), 2017; Ord. 1176 § 2, 2016).

19.12.180 Mitigation banking.

A. The director may approve mitigation banking as a form of compensatory mitigation for wetland and stream impacts when the provisions of this chapter require mitigation and when it is clearly demonstrated that the use of a mitigation bank will provide equivalent or greater replacement of critical area functions and values when compared to conventional on-site mitigation, provided that all of the following criteria are met:

1. Banks shall only be used when they provide significant ecological benefits including long-term conservation of critical areas, important species, habitats and/or habitat linkages, and when they are consistent with the city's comprehensive plan and create a viable alternative to the piecemeal mitigation for individual project impacts to achieve ecosystem-based conservation goals.

2. The bank shall be established in accordance with the Washington State Mitigation Banking Rule, Chapter 173-700 WAC or as revised, and Chapter 90.84 RCW and the federal mitigation banking guidelines as outlined in the Federal Register Volume 60, No. 228, November 28, 1995. These guidelines establish the procedural and technical criteria that banks must meet to obtain state and federal certification.

3. Preference shall be given to mitigation banks that implement restoration actions that have been identified formally by an adopted shoreline restoration plan, watershed planning document prepared and adopted pursuant to Chapter 90.82 RCW, a salmonid recovery plan or project that has been identified on the salmon recovery board habitat project list or by the Washington Department of Fish and Wildlife as essential for fish and wildlife habitat enhancement.

4. Banks shall only be used if the off-site mitigation has a greater likelihood of providing equal or improved critical areas functions than the altered critical area, and there is a clear potential for success of the proposed mitigation at the identified mitigation site.

B. Mitigation banks shall not be subject to the replacement ratios outlined in the replacement ratio table in Table 19.12.170-2, but shall be determined as part of the mitigation banking agreement and certification process. (Ord. 1198 § 23 (Exh. E), 2017; Ord. 1176 § 2, 2016).

19.12.190 Fish and wildlife habitat conservation areas.

A. Designation. All waters of the state, including wetlands and streams and their buffers, together with all publicly owned open spaces of greater than 10 acres, not including land use perimeter buffers, are hereby designated as fish and wildlife habitat conservation areas, including Meadowbrook Farm, the Two Sisters Return Open Space, Snoqualmie Point, Three Forks Natural Area, the Snoqualmie River Open Space and the Kimball Creek Open Space. Other areas, such as those of primary association for state and federal listed wildlife species, state sensitive species, and Priority Habitat Species as designated by the Washington Department of Fish and Wildlife, as well as Habitats of Local Importance, shall also be designated as fish and wildlife habitat conservation areas based upon a habitat study conducted pursuant to this section.

B. Alteration. Development proposals in or adjacent to a fish and wildlife habitat conservation area shall not disturb the qualities of the habitat that are essential to maintain feeding, breeding or nesting of a listed species that may utilize the habitats within the fish and wildlife habitat conservation area. (Ord. 1198 § 23 (Exh. E), 2017; Ord. 1176 § 2, 2016).

19.12.200 Critical aquifer recharge areas.

A. Designation. Critical aquifer recharge areas are designated as follows:

1. Category I critical aquifer recharge areas include those areas mapped by King County and determined to be highly susceptible to groundwater contamination and that are located within a sole source aquifer or a wellhead protection area.

2. Category II critical aquifer recharge areas include those areas mapped by King County and:

a. Determined to have a medium susceptibility to groundwater contamination and are located in a sole source aquifer or a wellhead protection area; or

b. Are highly susceptible to groundwater contamination and are not located in a sole source aquifer or wellhead protection area.

3. Category III critical aquifer recharge areas include those areas mapped by King County and determined to have low susceptibility to groundwater contamination.

B. Declassification. An applicant may request that the city and King County declassify a specific area included in the map adopted in subsection A of this section. The application must be supported by a critical areas report that includes a hydrogeologic assessment. The application to declassify an area shall be reviewed by the city and a determination made to amend the map as appropriate.

C. Category I Prohibited Uses. The following new uses or activities are not allowed in Category I critical aquifer recharge areas:

1. Transmission pipelines carrying petroleum or petroleum products;

2. Sand and gravel, and hard rock mining on land that is not zoned for mining as of the effective date of the ordinance codified in this chapter;

3. Mining of any type below the upper surface of the saturated groundwater that could be used for potable water supply;

4. Processing, storage, and disposal of radioactive wastes, as defined in Chapter 43.200 RCW;

5. Hydrocarbon extraction;

6. Commercial wood treatment facilities on permeable surfaces;

7. Asphalt and concrete facilities;

8. Animal containment areas;

9. Golf courses;

10. Cemeteries;

11. Wrecking and salvage yards;

12. Landfills for hazardous waste, municipal solid waste, or special waste;

13. On-site septic systems on lots smaller than one acre without a treatment system that results in effluent nitrate-nitrogen concentrations below 10 milligrams per liter;

14. All underground storage tanks, including tanks that are exempt from the requirements of WAC Title 173, with hazardous substances, as defined in Chapter 70.105 RCW, that do not comply with standards of Chapter 173-360 WAC; and

15. Aboveground storage tanks for hazardous substances, as defined in Chapter 70.105 RCW, unless protected with primary and secondary containment areas and a spill protection plan.

D. Category II Prohibited Uses. The following new uses or activities are not allowed in Category II critical aquifer recharge areas:

1. Mining of any type below the upper surface of the saturated groundwater that could be used for potable water supply;

2. Disposal of radioactive wastes, as defined in Chapter 43.200 RCW;

3. Hydrocarbon extraction;

4. Commercial wood treatment facilities located on permeable surfaces;

5. Underground storage tanks with hazardous substances, as defined in Chapter 70.105 RCW, that do not meet the requirements of Chapter 173-360 WAC;

6. Aboveground storage tanks for hazardous substances, as defined in Chapter 70.105 RCW, unless protected with primary and secondary containment areas and a spill protection plan;

7. Wrecking yards;

8. Landfills for hazardous waste, municipal solid waste, or special waste;

9. On-site septic systems on lots smaller than one acre without a treatment system that results in effluent nitrate-nitrogen concentrations below 10 milligrams per liter.

E. Category III Prohibited Uses. The following new uses or activities are not allowed in Category III critical aquifer recharge areas:

1. Disposal of radioactive wastes, as defined in Chapter 43.200 RCW;

2. Hydrocarbon extraction;

3. Commercial wood treatment facilities located on permeable surfaces;

4. Underground storage tanks, including tanks that are exempt from the requirements of WAC Title 173, with hazardous substances, as defined in Chapter 70.105 RCW, that do not comply with standards of Chapter 173-360 WAC;

5. Aboveground storage tanks for hazardous substances, as defined in Chapter 70.105 RCW, unless protected with primary and secondary containment areas and a spill protection plan;

6. Wrecking yards; and

7. Landfills for hazardous waste, municipal solid waste, or special waste.

F. Hydrogeologic Assessment. Land uses and activities shall not measurably degrade the quality of groundwater in a critical aquifer recharge area. Development proposals or alterations involving the following uses of land or activities shall prepare and submit, as part of their critical area report pursuant to SMC 19.12.060, a hydrogeologic assessment of the proposed site to determine if the development proposal or alteration will cause contaminants to enter a critical aquifer recharge area:

1. Hazardous substance processing or handling;

2. On-site sewage disposal for subdivisions, short plats, and commercial and industrial sites;

3. Land application of sludge on sites with an application rate of more than 20 dry tons of sludge per 10-year period or 4.3 dry tons per acre per year;

4. Landfills;

5. Animal containment areas;

6. Mining operations;

7. Golf courses;

8. Cemeteries;

9. Asphalt and concrete facilities;

10. Wrecking and salvage yards;

11. Any other activity that the director, in his or her discretion, determines has the potential to threaten the quality of groundwater in a critical aquifer recharge area.

G. Containment. Every development proposal involving hazardous substance processing or handling which is located in or adjacent to a critical recharge area shall provide containment devices adequate in size to contain on site any unauthorized release of hazardous substances from any area where these substances are either stored, handled, treated, used, or produced. Containment devices shall prevent such substances from penetrating into the ground. This provision also applies to releases that may mix with storm runoff.

H. Hazardous Substances Management Plan. Every development proposal involving hazardous substance processing or handling which is located in or adjacent to a critical recharge area shall prepare a plan containing procedures to be followed to prevent, control, collect, and dispose of any unauthorized release of a hazardous substance.

I. Storage Tanks.

1. Building and Fire Code Compliance. All storage tanks proposed to be located in a critical aquifer recharge area must comply with local building code requirements and must conform to the requirements for secondary containment as provided in the current edition of the International Fire Code, adopted in Chapter 15.04A SMC or as amended.

2. Underground Tanks. All new underground tanks located in or adjacent to a critical recharge area shall be designed and constructed so as to:

a. Prevent releases due to corrosion or structural failure for the operational life of the tank;

b. Be protected against corrosion, constructed of noncorrosive material, steel-clad with a noncorrosive material, or designed to include a secondary containment system to prevent the release or threatened release of any stored substance; and

c. Use material in the construction or lining of the tank which is compatible with the substance to be stored.

3. Aboveground Tanks. No new above-ground storage tank located in or adjacent to a critical recharge area shall be installed, used or maintained in any manner which may allow the release of a hazardous substance to the ground, groundwaters, or surface water.

J. Agriculture. Agricultural activities in or adjacent to a critical recharge area shall use best management practices to prevent ground quality degradation from livestock waste.

K. Sewage Disposal. All residential, commercial or industrial development proposals located in or adjacent to a critical recharge area and within 150 feet of a public sewer system shall be connected to the sewer system.

L. Golf Courses. Golf course operations proposed in or adjacent to a critical recharge area shall be subject to a golf course maintenance plan using best management practices to protect groundwater quality. The plan shall detail the proposed use of fertilizers, herbicides, pesticides, fungicides, or other maintenance agents, with projected application methods and schedules and measures to prevent pollution of groundwater.

M. Commercial Vehicle Repair and Servicing. Commercial vehicle repair and servicing must be conducted over impermeable pads and within a covered structure capable of withstanding normally expected weather conditions. Chemicals used in the process of vehicle repair and servicing must be stored in a manner that protects them from weather and provides containment should leaks occur. No dry wells shall be allowed in critical aquifer recharge areas on sites used for vehicle repair and servicing. Dry wells existing on the site prior to facility development must be abandoned using techniques approved by the Washington State Department of Ecology prior to commencement of the proposed activity.

N. Other Uses. All other uses shall be conditioned in accordance with the applicable state and federal regulations as necessary to protect critical aquifer recharge areas. (Ord. 1198 § 23 (Exh. E), 2017; Ord. 1176 § 2, 2016).

19.12.210 Administration and enforcement.

A. This chapter shall be administered by the director, who shall be responsible for the interpretation and application of the provisions hereof. No department of the city shall issue any permit or approval to which the provisions of this chapter apply without the approval of the director.

B. Application for or acceptance of any permit or approval for any use, activity or development proposal constitutes the consent of the applicant for the director to enter the subject site during regular business hours to inspect any use, activity or development proposal for which a permit or approval has been applied for or granted to ensure compliance with the provisions of this chapter, to verify the accuracy of information provided by the applicant or to verify that work is being performed in accordance with approved plans and permits.

C. Stop Work Orders. In the event the director shall determine that any use, activity or construction on a development proposal is not in compliance with the requirements of this chapter or the conditions of any permit or approval relating to critical areas, the director is authorized to issue a stop work order. The stop work order shall be posted prominently on the site. When a stop work order has been posted, the use, activity or construction on the development proposal shall not continue until the violation has been corrected. It shall be a misdemeanor to continue the use, activity or construction on a development proposal after the posting of a stop work order, and it shall further be a misdemeanor to remove a stop work order prior to correction thereof.

D. Enforcement Penalties. Any unauthorized alteration of a critical area shall constitute a public nuisance subject to abatement, and any knowing and intentional unauthorized alteration of a critical area shall constitute a misdemeanor. Each day of violation shall constitute a separate offense. The director or his or her designee shall have a right to enter upon any property at reasonable times and to make such inspection necessary to determine compliance with the provisions of this chapter. If the property is occupied, the director shall make reasonable effort to locate the owner or person in charge to request entry. The director is further authorized to take such actions as may be necessary to enforce the provisions of this chapter.

E. Notice to Restore. In addition to all other remedies, the director shall have the authority to issue a notice to restore any unauthorized alteration of a critical area within a reasonable time specified in the notice. For purposes of this subsection, what constitutes a reasonable time shall be determined with due consideration of the environmental harm caused by the alteration and the potential environmental harm caused by delay in restoration. The notice shall be given by in-person delivery, or mailing to the person responsible for the alteration, to his agent, or to the record owner of the property, and shall be given by certified mail, return receipt requested, and ordinary mail; provided, the failure of the addressee to accept the certified mailing shall not affect the director's authority hereunder. If the site is not restored within the time specified in the notice, then the director may cause the site to be restored to the extent necessary to prevent further environmental harm, and the person responsible for the alteration shall be responsible for the full cost of such restoration.

F. Permit Revocation. In addition to all other remedies, a permit or approval that is subject to critical areas review may be revoked or suspended upon a finding by the director that the development is proceeding in violation of any of the terms or conditions of the permit or approval relating to the critical areas.

G. Administrative Rules. The director shall have the authority to adopt administrative rules not inconsistent with the provisions of this chapter that are necessary for the implementation of this chapter and to incorporate best management practices in any alterations authorized under this chapter. If any administrative rule prescribed or authorized by this chapter has not been adopted at the time of an application requiring critical areas review, the director shall have the authority to require the use of appropriate guidance documents recommended by the Department of Ecology or standards recommended by the city's qualified critical area consultant. (Ord. 1198 § 23 (Exh. E), 2017; Ord. 1176 § 2, 2016).

19.12.220 Severability.

If any provision of this chapter or its application to any person or property is held invalid, the remainder of the chapter or the application of the provision to other persons or property shall not be affected. (Ord. 1198 § 23 (Exh. E), 2017; Ord. 1176 § 2, 2016).

19.12.230 Liberal construction.

This chapter shall be liberally construed to give full effect to the objectives and purposes for which it was enacted. (Ord. 1198 § 23 (Exh. E), 2017; Ord. 1176 § 2, 2016).

State of Washington
DEPARTMENT OF FISH AND WILDLIFE
North Puget Sound • Region 4 • 16018 Mill Creek Blvd., Mill Creek, WA 98012-1296
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September 26, 2025

City of Snoqualmie
38624 SE River St
Snoqualmie, WA 98065

RE: Proposed Amendments relating to the Critical Area Ordinance pursuant to the Growth Management Act, amending the City of Snoqualmie's Municipal Code 19.12 Critical Areas – Fish and Wildlife Habitat Conservation Areas

Dear Planning Staff, Members of the Planning Commission, and Members of the City Council,

Thank you for giving the Washington Department of Fish and Wildlife (WDFW) the opportunity to comment **in support** of the proposed riparian buffer amendments to Snoqualmie's Critical Areas Ordinance (CAO), Chapter 19.12.

We would like to provide additional information that could preemptively address questions, clarify Growth Management Act (GMA) requirements, and emphasize the vital connection between healthy environments and thriving communities.

Under the GMA, jurisdictions are required to include Best Available Science (BAS) when updating their CAOs to ensure regulations are grounded in science and achieve no net loss of critical area functions and values[1]. The importance of adhering to BAS is underscored by the legal case involving an appeal to the Growth Management Hearings board disputing the City of Anacortes' CAO. The Board remanded the CAO back to the city after determining that the proposed stream buffer widths did not adequately reflect BAS. Following the Board's decision, Anacortes adopted revised stream buffers informed by WDFW's BAS recommendations.

The BAS underpinning WDFW's riparian buffer recommendations is found in our **Riparian Ecosystems, Volume 1: Science Synthesis and Management Implications**. This document synthesizes peer-reviewed research regarding riparian area functions, such as pollution filtering, flood control, and nutrient cycling.

While Volume 1 is WDFW's BAS, **Volume 2** translates this science into practical management recommendations. The two volumes work together, with Volume 1 establishing the scientific foundation and Volume 2 providing actionable guidance for implementing that science in policy.

[1] Washington Administrative Code (WAC 365-195-900 through WAC 365-195-925)

Recognizing the importance of WDFW's BAS, many jurisdictions—including Clark, Pierce, Kitsap, Skagit, and King counties—have updated, or are actively updating, their stream buffer regulations to align with WDFW's recommendations.

Snoqualmie is similarly making meaningful progress by proposing a minimum 100-foot buffer for Class 3 and 4 streams to ensure, at the very least, pollution is filtered before reaching waterways. The proposed increase in buffer size for Class 2 streams also better reflects the space required for riparian ecosystems to function effectively. By integrating WDFW's BAS, Snoqualmie is strengthening its CAO, aligning with neighboring jurisdictions, and improving its ability to achieve the overarching goals of critical area protections.

It is important to note that riparian areas are essential in maintaining ecosystem services that directly benefit communities. Riparian areas filter pollutants, reduce flood risks, stabilize streambanks, and support critical habitat for fish and wildlife, including salmon. Protecting riparian areas is not simply an environmental mandate; it is a fundamental investment in public health, safety, and resilience.

We commend the city for valuing the health of local communities and the environment by incorporating WDFW's BAS into its regulations. The connection between healthy environments and healthy communities cannot be overstated.

If additional technical assistance or clarification is needed, WDFW is available to support your efforts.

Thank you,

Marcus Reaves, Regional Habitat Program Manager (Marcus.Reaves@dfw.wa.gov)