



MEMORANDUM

TO: Planning Policy Commission
Environmental Board

FROM: Minnie Dhaliwal, Director Community Planning and Development

RE: Critical Areas Code update

DATE: February 10, 2022

Meeting Purpose

- A. The public hearing on March 10th is to get public comments on the draft code updates to the Critical Areas Chapter of the Land Use Code, Title 18. Code changes to the following critical areas are being considered:
1. Geologically Hazardous Areas: Coal Mine Hazard Areas; Erosion Hazard Areas; Landslide Hazard Areas; Seismic Hazard Areas; and Steep Slope Areas
 2. Wetlands
 3. Fish and Wildlife Habitat Conservation Areas
 4. Critical Aquifer Recharge Areas

An open house is planned on March 8th where staff will be available to answer any questions from community members.

Background

The Growth Management Act (GMA) requires the use of best available science (BAS) when applying critical areas regulations including geologically hazardous areas, wetlands, streams, and fish and wildlife habitat areas (RCW 36.70A.172). The GMA states: “In designating and protecting critical areas under this chapter, counties and cities shall include the best available science in developing policies and development regulations to protect the functions and values of critical areas. In addition, counties and cities shall give special consideration to conservation or protection measures necessary to preserve or enhance anadromous fisheries.”

The City’s Critical Areas Ordinance is codified in IMC 18.10 and was first adopted in 1996. During the Gap Analysis, staff identified gaps in current code by analyzing adopted City policies, state law, public comment, and staff’s own observations.

Based on recommendation of City Council the following items from the Council's Title 18 Goals and Outcomes chart are relevant to critical areas code changes.

1. Goal 1 Protect Forested Hillides
2. Goal 3 Conserve and protect environmentally critical areas from loss or degradation
3. Goal 4 Enhance wetland and the riparian corridors and improve fish and wildlife habitat
4. Goal 9 Ensure new development demonstrates implementation of community sustainable development and climate goals.

Summary of Changes

General code and content consolidation and reorganization

- Added "Articles" to organizing sections of code.
- Adopted new numbering system – 18.802 for Critical Areas section.
- Moved Definitions section to the end under Article VII.
- Migrated definitions from the existing code that related to policy to their respective sections, especially in updated Description and purpose sections. For example, the definition of "Streams" has been adapted into 18.802.400 Description and purpose for Fish and Wildlife Habitat Conservation Areas (FWHCAs).
- Revised language and phrasing for clarity.
- All code that addresses procedures, variances, and process has been removed to be included and consolidated into a new section of code covering Procedures for all Title 18. For example, text from 18.10.370 will be integrated into Procedures.
- Code from 18.10.840 and 18.12.176 on Violations and penalties will be combined into a unified section on Violations, Penalties, and Enforcement covering all Title 18.
- References to "Native vegetation" edited to specify "King County lowlands" to focus on regional ecology of Issaquah.
- Exemptions section revised (18.802.030)
- Public agency and utility exemption criteria revised (18.802.040)
- Reasonable Use Exception criteria updated (18.802.420)

Consolidated Sections

- Consolidated all sections related to Critical Areas Studies (18.802.060 to .100) Article II
 - Proposes draft Table 18.802.060.D to clearly list when additional study is required
 - Wetland delineation study is valid for five years instead of three, to align with State and Federal requirements – 18.802.080
 - Under study requirements for Critical Aquifer Recharge Areas, added Groundwater Monitoring Plan and Phase 1 Environmental Site Assessment and Hydrogeologic Critical Areas Assessment requirements.
- 18.802.410 Monitoring – new section incorporating general monitoring requirements applicable to all critical areas. Section removes language, "unless authorized by the Director"

New Sections

- New sections on additional development standards for coal mine hazard areas (18.802.140) and Mitigations of geologic hazards (18.802.190)
- Fish and Wildlife Habitat Conservation Areas (FWHCAs) added (Article V). The existing code section on streams was consolidated under this new section, which adds language surrounding designations for fish habitat and regulations.

Changes to standard and clarifications

Wetlands

- Wetland rating system and buffer width table has been updated to follow Ecology's 2018 best available science recommendation (18.802.210 and 18.802.220) Bog considerations were also added to the definition of wetlands under 18.802.210.
- This table shows in underline /strikeout format (~~existing~~/proposed) buffer widths.

Table 18.10.640.C Wetland Buffer Standards¹

Category	Wetland Characteristic	Intensity of Impact of Adjacent Land Use ²		
		Buffer Low	Moderate	High
I and II (Wetlands with a total score of 23 to 27 points or more for Category I ; and 20 to 22 points for Category II ; or wetlands rated by "Special Characteristics" identified on their DOE Wetland Rating form)	Natural heritage wetlands <u>Bogs and Wetlands of High Conservation Value³</u> Bogs	190-125 feet <u>190 feet</u>	190 feet	250 feet
	Forested	Based on score for habitat or water quality functions		
	Habitat score of 8 to 9 ³	225-150 feet	<u>225 feet</u>	<u>300 feet</u>
	Habitat score of 6 to 7	450-75 feet	<u>110 feet</u>	<u>150 feet</u>
	Habitat score of 5 to 6 <u>Habitat score less than 6 and water quality score 8 to 9³</u>	400-50 feet	<u>75 feet</u>	<u>100 feet</u>
	Habitat score of 3 to 4 <u>Not meeting any of the above characteristics</u>	75-50 feet	<u>75 feet</u>	<u>100 feet</u>
III (Wetlands with a total score of 16 to 19 points on the DOE Wetland Rating form)	Habitat score of 8 to 9 ³ <u>7</u>	140-150 feet	<u>225 feet</u>	<u>300 feet</u>
	Habitat score of 5 <u>6</u> to 6 <u>7</u>	75 feet	<u>110 feet</u>	<u>150 feet</u>
	Habitat score of 3 to 4 <u>5</u>	50-40 feet	<u>60 feet</u>	<u>80 feet</u>
IV over 2,500 square feet (Wetlands with a total score of 9 to 15 less than 16 points on the DOE Wetland Rating form)	Total score for functions of 9 to 15 points <u>Any habitat score</u>	40-25 feet	<u>40 feet</u>	<u>50 feet</u>
IV less than 2,500 square feet	-	No buffer required		

- All Category IV wetlands have buffer protection regardless of size. This change can be found in IMC 18.802.210
- Language has been added to clarify how a buffer is measured in IMC 18.802.230.B
- Removed wetland buffer width exceptions (18.10.650). All development must comply with the standard buffer with outlined in IMC 18.802.220.

- Removed Density Credits section
- Updated language around mitigation bank for wetland enhancement based on feedback from US Army Corp of Engineers (USACOE) and Washington State Department of Ecology. USACOE prefers mitigation bank in advance of wetland impacts instead of permittee responsible on-site wetland mitigation. See IMC 18.802.1270.G
- Updated surface water management to only allow stormwater Low Impact Development Best Management Practices in wetland buffers. Stormwater facilities such as vaults or structures are not allowed in wetland buffers IMC 18.802.240.B.4.
- Language has been included to include site investigative work to be restored to previous condition
- 18.802.260 adds examples of resource agencies and clarifies that non-native vegetation is not allowed. Protective fencing updated under (C)(6). Adds reference to MC 13.29 on best practices and enforcement of pesticide use.
- 18.802.270 Mitigating for impacts to wetlands clarifies reference to Interagency Joint Guidance, and resolves conflict between City and Army Corps of Engineers by changing mitigation hierarchy to resemble the Army Corps of Engineers’.
- 18.802.280 Mitigation plan requirements changes include:
 - “Evaluation criteria” changed to “Performance standards”
 - Adds new two new requirements under subsection 5 on Detailed landscape construction plans: minimizing invasive species and licensed landscape architect certification.
 - Specific standards have been updated for mitigation plan requirements. Some standards such as planting density and plant size have been excluded since mitigation requirements may vary by wetland habitat type and for an expanded variety of plants found in the Puget Sound Lowlands.

- **Fish and Wildlife Habitat Conservation Areas (FWHCAs)**

- Streams are now regulated under Chapter 18.802 Article V FWHCA and definition of a stream has been updated in IMC 18.802.590
- Washington State DNR system of stream designations adopted, which considers the stream’s capacity to support fish. Stream classifications updated to be consistent with Washington State’s water typing system described in WAC 222-16-030, which classifies water bodies as Type S, Type F, Type Np, Type Ns (formerly Type 1, 2, 3, 4 or 5) according to documented fish use, physical criteria to potentially be used by fish, and seasonality of flow.

Table 18.802.320.F Required Stream Buffer Widths

Stream Type	Required Buffer (feet)
S	100
F	100
Np	75
Ns	50

- Updated the code to make the definition of “Class 2 Streams with Salmonids” easier to understand by clarifying that the main criteria are the presence of fish, regardless of stream flow. This change can be found in IMC 18.802.310 .The definition of Class 3 streams is revised to means those streams that are intermittent or ephemeral during years of normal rainfall and are not used by salmonids. The description of Class 3 streams has been changed to Type Np. The description has been updated in IMC 18.802.310
 - Conditions and considerations for habitat corridors added, with reference to WDFW’s WDFW Priority Habitat and Species (PHS) lists and maps. [Here is the link to this map](#). Click on layers and select “priority species and habitat” layer and then click on the mapped area on the map to get a list of species. These habitats are included in Article V.
 - Low Impact Development Best Management Practices added to the section with reference to adopted Stormwater Design Manual
 - Requirement for a civil engineer changed to “Professional Engineer licensed in Washington” to allow for geotechnical engineers.
 - Section of code removed allowing fees in lieu of mitigation.
 - Removed stream buffer reduction. The code will now only allow buffer averaging IMC 18.802.320.L
 - Added Culvert Replacement Requirement in IMC 18.802.330.D
 - Updated surface water management to only allow stormwater Low Impact Development Best Management Practices in stream buffers. Stormwater facilities or structures are not allowed in stream buffers IMC 18.802.330.G
- **Critical Aquifer Recharge Areas (CARA)**
 - Adopts recommendation of four CARA designations based on best available science and the Hydrogeologic Study done by the city.
 - Adds reference to IMC 13.29 (Groundwater Quality Monitoring) on best management practices.
 - Incorporates updated CARA maps into city code.
 - Provide details on prohibited land uses and business types within each level of CARA and Well Head Protection Areas classification.
- **Geologically Hazardous Areas**

There are five critical area types grouped generally as Geologically Hazardous areas:

 - Coal Mine
 - Erosion
 - Landslide
 - Seismic
 - Steep Slope

Proposed updates incorporate best available science with changes generally summarized as follows:

- Updated required **critical area study contents** and added additional specific information required for each type of geologically hazardous area.
- Added or updated **classifications** of each geologically hazardous areas.
- Added or updated **development standards** for each geologically hazardous area to define specifically when development is allowed.
- Added **mitigation section** allowing for possible mitigation of Landslide, Seismic and Coal Mine Hazards.
- Clarified and updated required **buffers and setbacks** for each geologically hazardous area

Table 1. Geologically Hazardous Area Buffer Summary

Geologically Hazardous Area Type	Buffers Y/N	Building Setback¹ Y/N	Classification	Standard Buffer	Minimum Buffer Allowed⁴
Erosion	N	N	N/A	N/A	N/A
Steep Slope					
	Y	Y	From Crest	50 feet	10 feet
	Y	Y	From Sides	50 feet	10 feet
	Y	Y	From Toe	50 feet	10 feet
Landslide					
	Y	Y	From Crown	50 feet ²	N/A ³
	Y	Y	From Sides	50 feet	15 feet ³
	Y	Y	From Toe	50 feet ²	N/A ³
Seismic					
	N	N	Liquefaction	N/A	N/A
	N	N	Lateral Spreading	N/A	N/A
	Y	Y	Fault Rupture	Site Specific	N/A
Coal Mine					
	N	N	Declassified	N/A	N/A
	N	N	Moderate	N/A	N/A
	Y	Y	Severe	15 feet	15 feet

¹ Building Setbacks for all geologic hazard zones (except seismic) is 15 feet from edge of buffer.

² Buffers may be larger than 50 feet depending on the type of landslide hazard (i.e. debris flows, deep seated landslides)

³ Landslide buffer reduction/elimination possible if landslide movement is permanently stabilized

⁴ Buffer reductions may be approved by the Director based on assessment standards applied to site specific peer reviewed critical area report

In addition to what is discussed above, selected notable items specific to the type of geological hazardous areas are highlighted, as follows.

Coal Mine Hazard Areas;

- New requirement for buffers from severe mine hazards.
- New section for development standards, including exceptions for additions to existing single-family residences and limited development within severe mine hazard areas if risk of surface collapse is removed, with mitigation.

- Decision to permit construction over mitigated moderate or severe mine hazards made on a case by case basis.

Erosion Hazard Areas;

- No specific updates proposed beyond the generally described items.

Landslide Hazard Areas;

- May be altered if no decrease in slope stability on adjacent properties and can be designed to eliminate or mitigate the hazard to the property and adjacent properties.
- May be mitigated with a detailed mitigation design demonstrating how all significant risks for future slope movement have been permanently eliminated.

Seismic Hazard Areas

- Clarified seismic hazard area building restrictions and requirements for mitigation. There are additional regulations contained in the Building Code adopted under IMC 16.04
- If mitigated, structure, pavement, utilities and grading may be permitted in area. Performance criteria and monitoring established via collaboration and must be approved by City.

Steep Slope Areas;

- Explicitly states that steep slope buffers larger than 50-ft will be required if necessary to mitigate landslide and erosion hazards and to protect public health safety and welfare.
- Added assessment standards for buffer reduction requests, primarily base on stability analysis and engineering design considerations to ensure stability with defined factors of safety.
- Clarified that engineered walls and reinforced, stabilized slopes are not considered steep slopes.
- Alteration may be allowed for:
 - Surface water conveyance facilities consistent with adopted stormwater regulations – must minimize disturbance to slope and vegetation.
 - Trails - if documented that there is no loss of buffer function and value and other standards are followed.
 - Utilities – if it doesn't subject the area to risk of landslide or erosion.
 - View corridors – limited trimming with no soil disturbance.
- Includes criteria for very limited removal of vegetation.
- Includes exemptions for:
 - Steep slopes with vertical change of less than 20-ft if critical area and soils study demonstrates no adverse impact due to project.
 - Steep slopes created through previous, legal grading activities. If the previous slope remains at 40% or greater, must meet requirements of chapter.

Previous Meetings

- July 22,2021, Joint PPC and Environmental Board Meeting ([agenda/](#) [video](#) / [minutes](#))
- August 26, 2021, Joint PPC and Environmental Board Meeting ([agenda/](#) [video](#) / [minutes](#))

Things to Consider: Policy Discussion

Do the proposed changes adequately address the goals and outcomes identified by Council?

B. Timeline

1. February 24, 2022: PPC/EB Discussion Draft Public Hearing (Natural Environment- Shoreline and Outdoor Lighting)
2. March 10, 2022: PPC/EB Discussion Draft Public Hearing (Natural Environment-Critical Areas)
3. March 24, 2022: PPC Deliberation and Recommendation
4. August/September 2022: PPC Public Hearing on Title 18 Consolidated Draft