

Planning Commission Meeting Date: July 16, 2015

Agenda Item

**PLANNING COMMISSION AGENDA ITEM**  
CITY OF SHORELINE, WASHINGTON

**AGENDA TITLE:** Study of Critical Areas Ordinance Update – Streams and Fish & Wildlife Habitat Areas

**DEPARTMENT:** Planning & Community Development

**PRESENTED BY:** Juniper Nammi, AICP, Associate Planner  
Paul Cohen, Planning Manager

Public Hearing  
 Discussion

Study Session  
 Update

Recommendation Only  
 Other

**INTRODUCTION**

The City of Shoreline began the State required periodic update process of the Critical Areas Ordinance (CAO) in Shoreline Municipal Code (SMC) Chapter 20.80 in May. This meeting is the fourth of six scheduled meetings with Planning Commission for review of the draft changes to these regulations. **An additional meeting was added August 6<sup>th</sup> for Subchapter 1 - General Provisions amendments.**

The July 16, 2015, study session will review regulations for Streams and Fish & Wildlife Habitat Conservation Areas, as well as minor amendments to Aquifer Recharge Areas and Flood Hazard Areas for clarity.

The purpose of this study session is to:

- Review staff recommended code amendments for the following subchapters of Chapter 20.80 SMC Critical Areas:
  - Subchapter 3-Fish and Wildlife Habitat Conservation Areas (SMC 20.80.260 through 20.80.300);
  - Subchapter 5-Flood Hazard Areas (SMC 20.80.360 through 20.80.410)
  - Subchapter 6-Aquifer Recharge Areas (SMC 20.80.420 through 20.80.450)
  - Subchapter 7-Streams (SMC 20.80.460 through 20.80.500); and associated Definitions (SMC Chapter 20.20).
- Respond to questions.
- Receive feedback from the Commission on the proposed amendments.
- Determine what proposed changes may need more research or analysis.
- Develop recommended code amendments to the CAO Fish & Wildlife Habitat Conservation Areas, Aquifer Recharge Area, Flood Hazard and Stream Subchapters and associated definitions for the public hearing.

## 6a. Staff Report - CAO: Streams & Fish, Wildlife Habitat Areas

### **BACKGROUND**

The Commission was introduced to the Critical Areas Ordinance periodic update requirements, as mandated by the Growth Management Act (GMA), on May 21, 2015. Proposed changes for Wetlands, Geologic Hazard Areas, critical areas regulations in the Shoreline Master Program and related definitions and exemptions were presented at the June 4 and June 18, 2015, Planning Commission meetings and can be found in the staff reports and agenda packets for those meetings.

The Planning Commission reviews and makes recommendations to Council on the critical area regulations because they are part of the Title 20 Development Code and include regulations that govern environmental protection, which is a stated purpose of the Planning Commission under SMC 2.20.010 and is a specific duty of the Planning Commission under SMC 2.20.060(B).

The decision criteria for these planned Development Code amendments are found in SMC 20.30.350:

**B. Decision Criteria.** *The City Council may approve or approve with modifications a proposal for the text of the Land Use Code if:*

- 1. The amendment is in accordance with the Comprehensive Plan; and*
- 2. The amendment will not adversely affect the public health, safety or general welfare; and*
- 3. The amendment is not contrary to the best interest of the citizens and property owners of the City of Shoreline.*

The City of Shoreline Comprehensive Plan was updated in December 2012 in compliance with the periodic update requirements of the Growth Management Act. The updated Comprehensive Plan added Element 6-Natural Environment as a new element specifically supporting the City's responsibility for protection of the natural environment. Many of the policies existed previously, but were deemed important enough to separate into their own element and expanded. The Comprehensive Plan goals and policies that support the regulation of land use to protect fish and wildlife habitat conservation areas include:

### **GOALS**

**Goal NE I.** Minimize adverse impacts on the natural environment through leadership, policy, and regulation, and address impacts of past practices where feasible.

**Goal NE II.** Lead and support efforts to protect and improve the natural environment, protect and preserve environmentally critical areas, minimize pollution, and reduce waste of energy and materials.

**Goal NE IV.** Protect, enhance, and restore habitat of sufficient diversity and abundance to sustain indigenous fish and wildlife populations.

**Goal NE VI.** Manage the stormwater system through the preservation of natural systems and structural solutions in order to:

## 6a. Staff Report - CAO: Streams & Fish, Wildlife Habitat Areas

- Protect water quality;
- Provide for public safety and services;
- Preserve and enhance fish and wildlife habitat, and critical areas;
- Maintain a hydrologic balance; and
- Prevent property damage from flooding and erosion.

**Goal NE VIII.** Preserve, protect, and where feasible, restore wetlands, shorelines, and streams for wildlife, appropriate human use, and the maintenance of hydrological and ecological processes.

### ***POLICIES***

#### **General**

**NE2.** Preserve environmental quality by taking into account the land's suitability for development, and directing intense development away from *critical areas*.

**NE3.** Balance the conditional right of private property owners to develop and alter their land with protection of native vegetation and critical areas.

#### **Vegetation Protection**

**NE18.** Develop educational materials, incentives, policies, and regulations to conserve native vegetation on public and private land for wildlife habitat, erosion control, and human enjoyment. The City should establish regulations to protect mature trees and other native vegetation from the adverse impacts of residential and commercial development, including short-plat development.

**NE20.** Minimize clearing and grading if development is allowed in an environmentally critical area or critical area buffer.

**NE21.** Identify and protect wildlife corridors prior to, during, and after land development through public education, incentives, regulation, and code enforcement.

#### **Wetlands and Habitat Protection**

**NE23.** Participate in regional species protection efforts, including salmon habitat enhancement and restoration.

**NE24.** Preserve critical wildlife habitat, including those identified as *priority species* or *priority habitats* by the Washington Department of Fish and Wildlife, through regulation, acquisition, incentives, and other techniques. Habitats and species of local importance will also be protected in this manner.

**NE25.** Strive to achieve a level of no net loss of wetlands function, area, and value within each drainage basin.

#### **Streams and Water Resources**

**NE29.** Stream alterations, other than habitat improvements, should only occur when it is the only means feasible, and should be the minimum necessary.

**NE32.** Preserve and protect natural surface water storage sites, such as wetlands, aquifers, streams, and water bodies that help regulate surface flows and recharge groundwater.

**NE33.** Conserve and protect groundwater resources.

## **PROPOSAL & ANALYSIS**

### **Proposal Summary**

The focus of today's study session is primarily the changes for the Fish and Wildlife Habitat Conservation Areas and Streams subchapters of the Critical Areas Ordinance regulations and related definitions (**Attachment A**). These subchapters regulate properties that have or are near to streams and priority habitat areas for fish, birds, and other animals that reside in Shoreline.

Minor revisions are also proposed to the Aquifer Recharge Areas and Flood Hazard Areas subchapters for consistency with changes to other subchapters and for clarification of the applicability of these regulations (**Attachment A**). No changes are needed to these two sections for consistency with BAS at this time.

The WA Department of Commerce (Commerce) provides guidance to cities for updating critical area regulations to integrate BAS. The Commerce guidance in *Critical Areas Assistance Handbook and Appendices (CTED, 2007)* includes Sample Code Provisions in Appendix A. This sample code appendix was included in the June 18 Planning Commission Agenda Packet as Attachment C and is being used by City staff for guidance in drafting updates to the critical area regulations. Sample code for Fish and Wildlife Habitat Conservation Areas, which includes streams, can be found on Appendix pages A-93 through A-112 of that attachment.

Staff proposes the following changes and additions to the Fish and Wildlife Habitat Conservation Areas, Subchapter 3, of the CAO:

- Combine Streams subchapter regulations with existing Fish and Wildlife Habitat Conservation Areas for better protection of habitat, update based on BAS, and consistency with regional codes in other jurisdictions.
- Add new sections for Mapping, Development Standards, and CAO report requirements to improve clarity and integrate BAS.
- Provide clear standards for when alterations are allowed, allowed with mitigation, or require a reasonable use permit, special use permit, or shoreline variance.
- Add definitions that are currently not included in the CAO or delete definitions that duplicate or conflict with habitat area regulations.

Staff proposes the following changes and additions to the Flood Hazard Areas, Subchapter 5, of the CAO:

- Change section titles for consistency with changes to other critical area subchapters so they can be differentiated more easily.

Staff proposes the following changes and additions to the Aquifer Recharge Areas section of the CAO:

- Change section titles for consistency with changes to other critical area subchapters so they can be differentiated more easily.

## 6a. Staff Report - CAO: Streams & Fish, Wildlife Habitat Areas

- Add language stating that there are no known critical aquifer recharge areas within the City of Shoreline to be designated at this time.

### ***SMC 20.20 Definitions***

The purpose of this code section is to define terms as they shall be applied throughout the City of Shoreline. The definitions reviewed here specifically pertain to fish and wildlife habitat conservation areas, flood hazard areas, aquifer recharge areas, and streams. Definitions proposed for deletion are actually classifications of critical area types that are in the applicable classification sections. Proposed changes or new definitions are recommended for incorporation of BAS or clarity.

The definitions to be added or edited include:

- Anadromous Fish – added
- Aquifer – added
- Aquifer Recharge Areas – added
- Buffer – edited for accuracy
- Critical Areas – edited for consistency with code organization
- Fish and Wildlife Habitat Conservation Areas – added
- Fish Habitat – added
- Functions and Values – added
- Habitat Conservation Areas – added
- Habitats of Local Importance – added
- Hand-held Equipment – added
- Hazardous Substance – edited for clarity/BAS
- Lands Covered by Water – added
- Priority Habitat – added
- Riparian Habitat – added

If there are other terms used in the code that would benefit from being defined, please let staff know so they can look for example language for those terms.

### **Proposed Flood Hazard Area and Aquifer Recharge Area Revisions**

The GMA specifically identifies the types of critical areas that cities and counties must include in their regulations. Flood Hazard and Aquifer Recharge Areas as defined in WAC 365-190-100 and 365-190-110 are included as critical areas primarily due to the potential risk to public health and safety when development is proposed in or adjacent to these areas.

#### ***SMC Chapter 20.80 Critical Areas Subchapter 5. Flood Hazard Areas***

The Flood Hazard Area regulations were updated to incorporate Best Available Science in 2012 to meet a federal mandate to comply with the Endangered Species Act. No additional changes to this subchapter have been identified by City staff to comply with the Growth Management Act. The only changes proposed would rename the sections of this subchapter, adding FLOOD HAZARD to the title of each section, for consistency with the new format of all the

## 6a. Staff Report - CAO: Streams & Fish, Wildlife Habitat Areas

CAO subchapters. These labels are intended to make it easier to distinguish between similar sections for each type of critical area.

### ***SMC Chapter 20.80 Critical Areas*** ***Subchapter 6. Aquifer Recharge Areas***

A similar change to the Aquifer Recharge Area subchapter is proposed to add AQUIFER RECHARGE to each of the subchapter sections. In addition, staff proposes to add a statement indicating that there are no identified critical aquifer recharge areas within the City of Shoreline at this time. Groundwater aquifers within the City are used for supplying water to lakes, wetlands, and streams during the dry season, and for a few private wells that supply water for irrigation and possibly drinking water in isolated instances. Wetlands are thought to be the main groundwater recharge areas in the City.

Staff believes that current stormwater regulations combined with the wetland and stream provisions of the CAO adequately protect the existing aquifers. Staff recommends retaining the regulations for Aquifer Recharge Areas in the CAO in case future investigation identifies recharge areas within the City that must be protected for public water use in neighboring cities or if the City of Shoreline decides in the future to use groundwater for temporary or permanent drinking water supply. Groundwater quality is currently protected through other SMC provisions as required under the City's National Pollutant Discharge Elimination System (NPDES) permit. No additional changes are proposed at this time to incorporate Best Available Science to the Aquifer Recharge Areas subchapter.

### **Proposed Fish and Wildlife Habitat Conservation Area and Streams Revisions**

Fish and Wildlife Habitat Conservation Areas including streams are defined in WAC 365-190-130 and are identified as critical areas for the protection of sensitive fish and wildlife habitats needed to maintain populations of fish and wildlife species identified as important or at risk as well as the beneficial functions these ecosystems provide such as reducing erosion, flooding, water pollution and air pollution.

The key changes proposed to the Fish and Wildlife Habitat Conservation Areas and Streams subchapters, intended to incorporate BAS, are:

- 1) Move stream standards into Subchapter 3 - Fish and Wildlife Habitat, and delete Subchapter 7 – Streams.
- 2) Update the stream classifications for consistency with the Washington Department of Natural Resources (DNR) water typing system as recommended by state agency staff.
- 3) Change provisions for buffer reductions to be replaced with buffer averaging when enhancement is proposed. The total area of buffer may not be reduced consistent with BAS.

## 6a. Staff Report - CAO: Streams & Fish, Wildlife Habitat Areas

Other changes to this subchapter would add clarity, predictability, and incorporate BAS by explicitly including the DNR Priority Habitats and Species known to exist in the City and adding specific mapping resources to help identify potential critical area locations regulated under this subchapter. As with the other CAO subchapters, critical area report requirements are proposed to facilitate consistency in the reports received from qualified professionals. The specific changes proposed are included in more detail in the following sections of this staff report.

### ***SMC Chapter 20.80 Critical Areas***

#### ***Subchapter 3. Fish and Wildlife Habitat Conservation Areas***

The majority of the new regulations proposed for the Fish and Wildlife Habitat Conservation Areas (FWHCAs) subchapter were moved from the existing Streams subchapter.

Additional provisions have been added to provide clarity and predictability in the administration of these regulations. Most of these additions are modeled on the Commerce example code (CTED, 2007) and others are drawn from the regulations of other cities in the region or from the current draft Wetlands subchapter.

The City did not hire a qualified professional to review Best Available Science for this type of critical area. Staff consulted with state agencies to request review of these provisions for incorporation of Best Available Science and reviewed BAS memos prepared for critical area ordinance updates in the cities of Burien, Edmonds, Federal Way, and Woodinville. The documents reviewed are referenced later in this report for incorporation in the public record.

#### ***SMC 20.80.260 FISH AND WILDLIFE HABITAT - Description and purpose.***

This section lays out the definition of fish and wildlife habitat conservation areas (consistent with WAC 365-190-130), identifies why they are regulated, and states the City's goals for regulation of this type of critical area. Revision to this description is proposed for consistency with the definition proposed for SMC 20.20.020 and the state definition of fish and wildlife habitat conservation areas.

The designation language is currently located in the next code section and it was simpler to change the section name than to move the designation language.

#### ***SMC 20.80.270 FISH AND WILDLIFE HABITAT – Classification and designation.***

This section states what is being regulated in the subchapter, how it is to be identified and officially designates the described areas as fish and wildlife habitat conservation areas. Changes recommended by City staff incorporate BAS and are based on regulations for habitat conservation areas regionally.

Most jurisdictions in the region and the Commerce example code include streams as a designated type of fish and wildlife habitat conservation area and do not have a separate section for streams. Wetlands are also a designated type of FWHCA, but are incorporated by reference because the state requires them

## 6a. Staff Report - CAO: Streams & Fish, Wildlife Habitat Areas

as a separate type of critical area. FWHCA provisions may result in more restrictive protection of wetlands where two or more FWHCA types are identified if the other habitat types provide more protection than the wetlands provisions alone.

In order to facilitate better identification of fish and wildlife habitat conservation areas based on priority habitat and species as well as threatened and endangered species known to exist in the City of Shoreline, lists of those identified species are proposed for inclusion in this section based on the DNR Priority Habitat and Species List and mapping information.

The stream types are moved here from the streams subchapter (SMC 20.80.470) and updated for incorporation of the State's Water Typing System for consistency with Best Available Science and use of one typing system at the local and state levels. The Piped Stream Segment type from the City's existing regulations is maintained here, though it is not common in other jurisdictions.

### ***SMC 20.80.272 FISH AND WILDLIFE HABITAT – Mapping. (NEW)***

Critical area maps are identified in the general provision SMC 20.80.020, which indicates that critical area maps are adopted by this chapter. The current CAO does not specifically identify or list those maps. The new mapping provisions are intended to identify sources of information for identifying potential fish and wildlife habitat conservation critical areas.

### ***SMC 20.80.274 FISH AND WILDLIFE HABITAT – General development standards. (NEW)***

This proposed new section adds a list of allowed activities and moves the alterations provisions from 20.80.290 up so that what is allowed can be found all in one place. Habitat specific standards were added to the next section.

The current critical areas regulations include exemptions (SMC 20.80.030) and partial exemptions (SMC 20.80.040) for selected activities from the provisions of Chapter 20.80. In addition to general exemptions that would apply in all types of critical areas, specific activities are proposed in this new section that may be allowed without a critical area report, but should be subject to permit review in order to verify no impact to the critical area and that best practices are being followed.

Subsection B and C include provisions moved from the exemptions, partial exemptions or alterations sections of the existing regulations. Subsection C includes activities (in addition to the exempted activities in 20.80.030 and 20.80.040) that are allowed without a critical area report. These are activities that have little to no known impact on habitat conservation areas or are beneficial to the long-term functions and values of these habitat conservation areas.

Subsections D through K are added from the Commerce example code. These provisions do no change substantively what is or is not allowed, but rather it states explicitly how approvals could be obtained. Additionally requirements that



## 6a. Staff Report - CAO: Streams & Fish, Wildlife Habitat Areas

apply for alteration in any type of fish and wildlife habitat conservation area are included here.

### **SMC 20.80.276 FISH AND WILDLIFE HABITAT – Specific Habitat development standards. (NEW)**

This new section includes specific restrictions and standards for development in specific fish and wildlife habitat types. The alterations standards for streams were moved here from 20.80.490. Some FWHCAs may have more than one type of habitat. The most restrictive would apply. The intent is to clearly indicate when alteration is allowed, subject to the critical area reasonable use, critical area special use or shoreline variance regulations or just under the applicable development permit. The language proposed here may need additional editing prior to the public hearing to achieve the level of clarity found in other critical area subchapters.

Alteration of streams currently allowed in SMC 20.80.080 and 20.80.490 permits relocation and stream crossings dependent on the classification of the stream. No mitigation performance standards currently apply to Type IV streams.

The proposed new standards are intended to clarify when alteration of the streams themselves would be allowed by the City only subject to the reasonable use provisions or simply based on the recommendations of a qualified professional. The current proposal allows alteration of Ns (former Type IV) without requiring reasonable use permit process, but with demonstration by the qualified professional that the impact cannot be avoided and the impacts are mitigated.

### **SMC 20.80.280 FISH AND WILDLIFE HABITAT – Required buffer areas.**

Buffers are additional land areas used to protect critical areas from the impacts of development. The size of buffers for fish and wildlife habitat conservation areas depends on the sensitivity of the habitats and species identified as well as the intensity of the development activities proposed.

The proposed buffer requirements for fish and wildlife habitat areas are not explicit as they depend on the specific management recommendations from the Washington State Department of Fish and Wildlife for the identified priority habitats and species or protection requirements for threatened or endangered species.

Stream buffer standards proposed here are basically the same as existing in SMC 20.80.480. The buffer requirement for Type Ns is slightly higher than the current standard buffer for Type IV streams because BAS indicates that stream buffers become ineffective at less than 33 feet (The Watershed Company, 2011). The higher standard buffer allows for a 25 percent reduction for buffer averaging without going below 33 feet wide. Other buffer widths are not proposed to be changed as they appear to be consistent with the recommendations in BAS memos for other jurisdictions in the regions as feasible in urban areas.

## 6a. Staff Report - CAO: Streams & Fish, Wildlife Habitat Areas

The main change regarding buffers is allowing for buffer averaging with enhancement instead of full buffer reductions down to a minimum. This allows for flexibility where the native vegetation buffer is located, but requires that the total area of the buffer is not reduced. This is the same as provisions proposed for wetlands and will result in some properties needing to go through the critical area reasonable use permit process for development within the standard buffer. The same provision for functional isolated and physically separated buffer areas is proposed as was included for wetlands to allow for development where buffer requirement would provide little to no benefit to the critical area.

### ***SMC 20.80.290 Alteration. (moved to 20.80.274 and 20.80.276)***

The current SMC 20.80.290 section setting standards for alteration for fish and wildlife habitat conservation areas is proposed to be edited and moved to the new SMC 20.80.274 and 20.80.276 sections setting general and habitat specific development standards and allowed activities for habitat conservation areas.

### ***SMC 20.80.290 FISH AND WILDLIFE HABITAT – Critical area report requirements. (NEW)***

Critical area reports are required under the general provisions in SMC 20.80.110. Clear report standards, combined with clarification to the qualified professional and third party review standards, will result in better report submittals with less review time or revision requirements. Third party review by a qualified professional contracted by the City adds cost and time to project reviews.

The language proposed in this section comes directly from the Commerce example code provisions for fish and wildlife habitat conservation area report requirements. This section identifies when a critical area report is required, who prepares it, and who pays for it, as well as what code provisions are applied to the critical area report.

Subsection A is intended to augment the requirement in General Provisions SMC 20.80.110 for preparation of the report to be completed by a qualified professional. This section also proposes language identifying when review of the critical area reports will be conducted by a third party qualified professional under contract with the City verses when it is done by City staff assigned to review of the project.

Subsections B through E are intended to identify the sections that should be addressed in a fish and wildlife habitat conservation area report and differentiates levels of detail that a critical area report(s) may include. Additional clarification/editing to the proposed regulations may be required to be sure all relevant types of plans required for fish and wildlife habitat conservation areas included in the critical area report requirements. This will be reviewed after the changes to Subchapter 1 - General Provisions are drafted.

### ***SMC 20.80.300 FISH AND WILDLIFE HABITAT –Mitigation performance standards and requirements.***

## 6a. Staff Report - CAO: Streams & Fish, Wildlife Habitat Areas

Ensuring that mitigation is successfully implemented is necessary for adequate protection of ecosystem functions and values for the maintenance of the identified fish and wildlife populations both on and off site. Mitigation for FWHCAs includes measures that will enhance existing habitat functions and values or mitigate for the potential impacts of the proposed development activities. Mitigations typically include vegetation planting that will not survive if they are not adequately maintained. Maintenance, monitoring, and contingency plans are required to ensure successful establishment of the required vegetation.

The mitigation performance standards currently require use of relevant performance standards in other subchapters and it is often unclear which performance standards might be relevant to projects impacting FWHCAs. The current draft moves the mitigation standards for streams from SMC 20.80.500 to this section to enhance the existing FWHCA mitigation standards. Staff will review the performance standards in this section following drafting of code changes to the Subchapter 1 – General Provisions.

This section should include provisions for:

1. Timing of mitigation relative to the proposed development project;
2. How much and what type of mitigation is required to ensure no increased risk of the hazard;
3. Performance standards for the mitigation projects;
4. Requirements for what to include in mitigation plan reports; and
5. Requirements for monitoring and correcting projects that are not succeeding.

### ***SMC Chapter 20.80 Critical Areas Subchapter 7. Streams***

Subchapter 7 – Streams is proposed to be deleted and the provisions moved to Subchapter 3 - Fish and Wildlife Habitat Conservation Areas with edits to incorporate Best Available Science.

### **Additional Information**

#### **Geologic Hazard Areas follow-up**

At the June 18, Planning Commission meeting a few items that were discussed needed follow-up that staff had planned to present at today's meeting. These items are not yet ready for discussion so will be presented either at the scheduled August 6<sup>th</sup> or August 20<sup>th</sup> meetings. For reference the items identified for follow-up include the following:

- Draft amendment to proposed Geologic Hazards regulations, for Planning Commission consideration, that would facilitate qualified professional review of very high risk landslide hazard areas to determine if this classification is accurate based on site specific investigation of the geologic conditions;

## 6a. Staff Report - CAO: Streams & Fish, Wildlife Habitat Areas

- Special inspection standards and special bonding requirement for contractors working in geologic/landslide hazard areas;
- Liability waiver to be recorded on title for projects in very high risk landslide hazard areas; and
- Example geologic hazard map updates and cost estimates that would improve the percent slope layer and create a new layer identifying areas of prior landslide activity.

### Best Available Science

The following documents are included in the record by reference as the Best Available Science reviewed by the City to inform the update of the fish and wildlife habitat conservation areas section of the CAO:

- CTED. (Washington State Department of Community, Trade, and Economic Development). 2007. Critical Areas Assistance Handbook: Protecting Critical Areas within the Framework of the Washington Growth Management Act.
- EDAW Inc. 2004. The City of Edmonds 2004 Best Available Science Report.
- ESA. November 2014. Critical Areas Ordinance Update – Review of Stream Inventory Memorandum, prepared for the City of Federal Way.
- ESA. March 2015. Final City of Edmonds Critical Areas Ordinance Update: Best Available Science Addendum.
- The Watershed Company. October 2011. Burien Comprehensive Plan Update: Best Available Science Review.
- The Watershed Company. June 2012. Burien Comprehensive Plan Update: Critical Areas Ordinance Gap Analysis.
- Washington State Department of Ecology (Ecology). 2013. *Funding Guidelines: State Fiscal Year 2015 – Water Quality Financial Assistance, Appendix L – Riparian Restoration and Planting*. Ecology Publication No. 13-10-041.

### Public Comment

**Comments to Planning Commission** were received the day of or after June 18<sup>th</sup> Planning Commission meeting regarding concerns about the proposed changes to the critical areas regulations and their incorporation in the Shoreline Master Program and how they may affect property owners' ability to maintain or improve their property within the shoreline jurisdiction. Staff prepared a response to these comments sent June 24, 2015, to the Plancom email list. This staff response is included (**Attachment B**) with this staff report for inclusion in the public record for the CAO update.

**One additional public comment was received** since the June 24, 2015, response to comments mentioned above. This comment is copied here for inclusion in the record.

Received via webpage comment box on June 26, 2015:

*"The trees and vegetation on flat area above critical slopes still have an effect on water saturation on slopes below them. From reading the Oso reports, it seems*

## 6a. Staff Report - CAO: Streams & Fish, Wildlife Habitat Areas

*the timber land was a mile away and it took several years for the water to saturation and conditions to become the devastating land slide it was. The northwest is saturated in the winter months and the natural environment is heavy evergreen trees with humus soils. Those are the natural conditions that we must accommodate for. There needs to be more done to protect the downslope neighbors.”*

### **SCHEDULE**

Staff added one additional meeting to the schedule for the Critical Areas Ordinance update to allow for adequate preparation and review of the remaining CAO subchapters prior to the scheduled public hearing. The updated schedule for Planning Commission study sessions and public hearing is:

- *May 21 – Introduction and Overview*
- *June 4 – Wetlands and Shoreline Master Program*
- *June 18 – Geologic Hazard Areas*
- ***July 16 – Fish & Wildlife Habitat, Flood Hazards, Aquifer Recharge Areas, and Streams (Current meeting)***
- *August 6 – General Critical Area Provisions (added meeting)*
- *August 20 – Public Hearing and Recommendation*

The draft subchapters of the CAO were developed separately. The final draft of the entire CAO may change to remove legal or internal conflicts between subchapters. The final draft will be provided with the staff report for the Public Hearing, currently scheduled for the August 20, 2015, Planning Commission meeting.

City Council review and adoption is still tentatively scheduled for September-October 2015, with staff updates to handouts, forms, processes, and permitting tools to follow thereafter.

The State deadline for completing these updates is June 30, 2015. While there are no immediate ramifications for not meeting the deadline, a number of State grant programs are tied to compliance with the GMA and cannot be awarded if we are not in compliance. Shoreline would be considered to be in compliance if we are not more than twelve months past the deadline and demonstrate substantive progress towards compliance.

In light of the preparation needed for implementation of these new regulations, staff is considering recommending a delayed implementation date for this ordinance. Based on a preliminary inquiry to the Washington Department of Commerce, it seems that delayed implementation would be compatible with the GMA compliance requirements so long as the delay was not too long.

This legislative action is subject to the State Environmental Policy Act (SEPA) and notification of the proposed changes must go to Commerce and DOE. The SEPA Determination and noticing is tentatively scheduled for the first week in August, unless the public hearing date is adjusted.

## **6a. Staff Report - CAO: Streams & Fish, Wildlife Habitat Areas**

### **RECOMMENDATION**

No decision is required of the Planning Commission at this time. Questions and feedback from Planning Commission on the proposed Fish & Wildlife Habitat, Flood Hazards, Aquifer Recharge Areas, and Streams code language are requested at this time towards development of a recommended code update package for the public hearing on August 20, 2015.

### **ATTACHMENTS**

Attachment A – CAO Subchapters FWHCAs-Flood-Aquifer-Streams - July2015

Attachment B – Response to June 18 Public Comment emails on CAO and SMP

**Title 20**

**DEVELOPMENT CODE**

**Division I. Unified Development Code**

- 20.20** Definitions
- 20.80** Critical Areas

**Chapter 20.20**

**Definitions\***

Sections:

- 20.20.010 A definitions.
- 20.20.012 B definitions.
- 20.20.014 C definitions.
- 20.20.018 E definitions.
- 20.20.020 F definitions.
- 20.20.024 H definitions.
- 20.20.032 L definitions.
- 20.20.038 O definitions.
- 20.20.044 R definitions.
- 20.20.046 S definitions.

\*Code reviser's note: Ordinance 238 provided all of the definitions initially set out in this chapter. History notes following definitions indicate amending ordinances only.

**20.20.010 A definitions.**

Anadromous Fish Fish that spawn and rear in freshwater and mature in the marine environment. While Pacific salmon die after their first spawning, adult char (bull trout) can live for many years, moving in and out of saltwater and spawning each year. The life history of Pacific salmon and char contains critical periods of time when these fish are more susceptible to environmental and physical damage than at other times. The life history of salmon, for example, contains the following stages: upstream migration of adults, spawning, inter-gravel incubation, rearing, smoltification (the time period needed for juveniles to adjust their body functions to live in the marine environment), downstream migration, and ocean rearing to adults.

**Comment [jn1]:** Added based on definitions in Commerce example code. Useful for distinction between salmonids that migrate verses salmonids that are typically resident populations.

Aquifer A geological formation, group of formations, or part of a formation that is capable of yielding a significant amount of water to a well or spring.

**Comment [jn2]:** Aquifer related definitions added for consistent practice of defining critical areas in definitions section. Definitions based on Commerce example code.

Aquifer Recharge Areas Areas that, due to the presence of certain soils, geology, and surface water, act to recharge ground water by percolation. Aquifer recharge areas are only designated as critical areas under WAC 365-190-080(2) when they are determined to have a critical recharging effect on aquifers used for potable water as defined by WAC 365-190-030(2).

**20.20.012 B definitions.**

Biologist A person who has earned at least a Bachelor of Science degree in the biological sciences from an accredited college or university or who has equivalent educational training and experience.

Buffer A designated area contiguous to and protects a critical area which is required for the continued maintenance, functioning and/or structural stability of a critical area, a steep slope or landslide hazard area intended to protect slope stability, attenuation of surface

**Comment [jn3]:** Definition simplified based on Commerce example code.



		<del>water flows and landslide hazards or a designated area contiguous to a stream or wetland intended to protect the stream or wetland and be an integral part of the stream or wetland ecosystem.</del>
20.20.014	<b>C definitions.</b>	
	Contiguous	Next to, abutting, or touching and having a boundary, or portion thereof, in common.
	Corridor, Wildlife or Open Space	Wildlife or open space corridor are a series of undeveloped or minimally developed, interconnected public and private lands that supports the successful function of existing natural systems, provide opportunities for passive and active recreation (where appropriate), and enhances opportunities for wildlife mobility.
	<u>Critical Areas</u>	An area with one or more of the following environmental characteristics: A. Geologic hazard areas, included but not limited to: 1. Landslide hazard areas, 2. Seismic hazard areas, and 3. Erosion hazard areas; B. <del>Flood hazard areas</del> Fish and wildlife habitat conservation areas; C. <del>Stream areas</del> Wetlands; D. <del>Aquifer recharge areas</del> Flood hazard areas; and E. <del>Wetlands</del> Aquifer recharge areas; and F. <del>Fish and wildlife habitat conservation areas</del> . (Ord. 398 § 1, 2006; Ord. 352 § 1, 2004).
20.20.018	<b>E definitions.</b>	
	Enhancement	An action which increases the functions and values of a stream, wetland or other sensitive area or buffer.
20.20.020	<b>F definitions.</b>	
	<u>Fish and Wildlife Habitat Conservation Areas</u>	<del>Areas necessary to maintain species in suitable habitats within their natural geographic distribution so that isolated subpopulations are not created as designated by WAC 365-190-080(5).</del>
	<u>Fish Habitat</u>	<del>Habitat that is used by fish at any life stage at any time of the year, including potential habitat likely to be used by fish that could be recovered by restoration or management and includes off-channel habitat.</del>
	Flood Hazard Areas	Those areas in the city of Shoreline identified as special flood hazard areas and protected areas as defined in Chapter 13.12 SMC, which comprise the regulatory floodplain. (Ord. 641 § 3 (Exh. A), 2012).
	<u>Functions and Values</u>	<del>The beneficial roles served by critical areas and their buffers including, but are not limited to, water quality protection and enhancement; fish and wildlife habitat; food chain support; flood storage, conveyance and</del>

**Comment [jn4]:** Reordered to match organization of Chapter 20.80 SMC, Critical Areas.

**Comment [jn5]:** Definition added for this critical area type based on WAC 365-190-080. Specific types of areas not included here. Listed in SMC 20.80.270.

**Comment [jn6]:** Definition added based on Commerce example code because presence or absence of fish habitat changes the classification of a stream.

**Comment [jn7]:** Term that is important to how mitigation is determined. Definition added based on Commerce example code.

attenuation; ground water recharge and discharge; erosion control; wave attenuation; protection from hazards; historical, archaeological, and aesthetic value protection; educational opportunities; and recreation. These beneficial roles are not listed in order of priority. Critical area functions can be used to help set targets (species composition, structure, etc.) for managed areas, including mitigation sites.

20.20.024 H definitions.

Habitat Conservation Areas

Areas designated as fish and wildlife habitat conservation areas.

**Comment [jn8]:** Habitat definitions added based on Commerce example code.

Habitats of Local Importance

These areas include a seasonal range or habitat element with which a given species has a primary association, and which, if altered may reduce the likelihood that the species will maintain and reproduce over the long-term. These might include areas of high relative density or species richness, breeding habitat, winter range, and movement corridors. These might also include habitats that are of limited availability or high vulnerability to alterations such as cliffs, talus, and wetlands.

Hand-held Equipment

Equipment, such as shovels or chainsaws that are compact enough to be used or operated while being held in the hand or hands. Does not include equipment operated on the ground by pushing or self-propulsion such as lawn mowers or rototillers.

**Comment [jn9]:** Definition added for clarification of equipment that can be used when methods are limited to hand-held equipment in some types of critical areas or buffers.

Hazardous Substance

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 or 173-303-100, as defined in RCW 70.105.010.

**Comment [jn10]:** Updated based Commerce example code for clarity.

20.20.032 L definitions.

Lands Covered by Water

All lands underlying the water areas of the state below the ordinary high water mark, including salt waters, tidal waters, estuarine waters, natural water courses, lakes, ponds, artificially impounded waters, and wetlands consistent with WAC 197-11-756.

**Comment [jn11]:** Add state definition of "lands covered by water" so it is clear when SEPA applies, though all other critical areas and critical area buffers are now exempt from SEPA.

20.20.038 O definitions.

Ordinary High Water Mark (OHWM)

The mark found by examining the bed and banks of a stream, lake, or tidal water and ascertaining where the presence and action of waters are so common and long maintained in ordinary years as to mark upon the soil a vegetative character distinct from that of the abutting upland. In any area where the ordinary high water mark cannot be found, the line of mean high water shall substitute. In any area where neither can be found, the top of the channel bank shall substitute. In braided channels and alluvial fans, the ordinary high water mark or line of mean high water shall be measured so as to include the entire stream feature.

20.20.040 P definitions.

Priority Habitat

Habitat type or elements with unique or significant value to one or more species as classified by the state Department of Fish and Wildlife. A priority habitat may consist of a unique vegetation type or dominant plant species, a described successional stage, or a specific structural element.

**Comment [jn12]:** Definition added based on Commerce example code. Key term for identifying Fish and Wildlife Habitat.

20.20.044 R definitions.

Riparian Habitat

Areas adjacent to aquatic systems with flowing water that contain elements of both aquatic and terrestrial ecosystems that mutually influence each other. The width of these areas extends to that portion of the terrestrial landscape that directly influences the aquatic ecosystem by providing shade, fine or large woody material, nutrients, organic and inorganic debris, terrestrial insects, or habitat for riparian-associated wildlife. Widths shall be measured from the ordinary high water mark or from the top of bank if the ordinary high water mark cannot be identified. It includes the entire extent of the floodplain and the extent of vegetation adapted to wet conditions as well as adjacent upland plant communities that directly influence the stream system. Riparian habitat areas include those riparian areas severely altered or damaged due to human development activities.

**Comment [jn13]:** Definition added based on Commerce example code to support code language in Fish and Wildlife Habitat subchapter.

20.20.046 S definitions.

Salmonid

A member of the fish family salmonidae, including:

- A. Chinook, coho, chum, sockeye and pink salmon;
- B. Rainbow, steelhead and cutthroat salmon;
- C. Brown trout;
- D. Brook and dolly varden char;
- E. Kokanee; and
- F. Whitefish.

Stream Functions

Natural processes performed by streams including functions which are important in facilitating food chain production, providing habitat for nesting, rearing and resting sites for aquatic, terrestrial and avian species, maintaining the availability and quality of water, such as purifying water, acting as recharge and discharge areas for ground water aquifers, moderating surface water and stormwater flows and maintaining the free flowing conveyance of water, sediments and other organic matter.

Streams

Those areas where surface waters produce a defined channel or bed, not including irrigation ditches, canals, storm or surface water runoff devices or other entirely artificial watercourses, unless they are used by salmonids or are used to convey streams naturally occurring prior to construction. A channel or bed need not contain water

Submerged Land

year-round; provided, that there is evidence of at least intermittent flow during years of normal rainfall. (Ord. 398 § 1, 2006).  
Any land at or below the ordinary high water mark.

**Chapter 20.80**

**Critical Areas**

Sections:

Subchapter 3. Fish and Wildlife Habitat Conservation Areas

- 20.80.260 FISH AND WILDLIFE HABITAT - Description and purpose.
- 20.80.270 FISH AND WILDLIFE HABITAT - Classification and designation.
- 20.80.272 FISH AND WILDLIFE HABITAT - Mapping.
- 20.80.274 FISH AND WILDLIFE HABITAT - General development standards.
- 20.80.276 FISH AND WILDLIFE HABITAT - Specific habitat development standards.
- 20.80.280 FISH AND WILDLIFE HABITAT - Required buffer areas.
- 20.80.290 FISH AND WILDLIFE HABITAT - Alteration. Critical area report requirements.
- 20.80.300 FISH AND WILDLIFE HABITAT - Mitigation performance standards and requirements.

Subchapter 5. Flood Hazard Areas

- 20.80.360 FLOOD HAZARD - Description and purpose.
- 20.80.370 FLOOD HAZARD - Classification.
- 20.80.380 FLOOD HAZARD - Development limitations.
- 20.80.390 -
- 20.80.410 *Repealed.*

Subchapter 6. Aquifer Recharge Areas

- 20.80.420 AQUIFER RECHARGE - Description and purpose.
- 20.80.430 AQUIFER RECHARGE - Classification.
- 20.80.440 AQUIFER RECHARGE - Alteration.
- 20.80.450 AQUIFER RECHARGE - Performance standards and requirements.

~~Subchapter 7. Stream Areas~~

- ~~20.80.460 - Designation and purpose.~~
- ~~20.80.470 - Streams.~~
- ~~20.80.480 - Required buffer areas.~~
- ~~20.80.490 - Alteration.~~
- ~~20.80.500 - Mitigation performance standards and requirements.~~

**Comment [jn14]:** Stream regulations moved to Subchapter 3. Fish and Wildlife Habitat Conservation Areas consistent with Commerce example code and commonly adopted regulations in neighboring jurisdictions.

**Subchapter 3.**

**Fish and Wildlife Habitat Conservation Areas**

**20.80.260 FISH AND WILDLIFE HABITAT - ~~Designation~~ Description and purpose.**

A. Fish and wildlife habitat conservation areas (or habitat conservation areas) are lands managed for maintaining populations of species in suitable habitats within their natural geographic distribution so that the habitat available is sufficient to support viable populations over the long term and isolated subpopulations are not created. This does not mean maintain all individuals of all species at all times, but it does mean not degrading or reducing populations or habitats so they are no longer viable over the long term. Fish and wildlife habitat conservation areas include nesting and breeding grounds for State and Federal threatened, endangered, critical or priority species listed by the Washington State Department of Fish and Wildlife, including corridors which connect priority habitat, and those areas which provide habitat for species of local significance which have been or may be identified in the City of Shoreline Comprehensive Plan. Fish and wildlife habitat conservation areas

**Comment [jn15]:** New text added for consistency with WAC 365-190-130 and to meet GMA requirement for no net loss of FWHCA function and values. Designation is actually located in 20.80.270 following classification.

also include stream areas and buffers which provide important habitat corridors; help maintain water quality, storage and conveyance stormwater and floodwater; recharge groundwater, and serve as areas for recreation, education, scientific study, and aesthetic appreciation.

B. ~~The purpose of fish and wildlife habitat conservation areas shall be to provide opportunities for food, cover, nesting, breeding and movement for fish and wildlife within the City; maintain and promote diversity of species and habitat within the City; coordinate habitat protection with elements of the City's established open space corridors wherever possible; help to maintain air and water quality; control erosion; provide areas for recreation, education and scientific study and aesthetic appreciation; and contribute to the established character of the City; protect and conserve the habitat of fish and wildlife species and thereby maintain or increase their populations. The primary purpose of this section is to minimize development impacts to habitat conservation areas and to:~~

Comment [jn16]: Reorganized purpose statement for clarity.

1. Protect federal and state listed habitats and species and give special attention to protection and enhancement of anadromous fish populations; and
2. Maintain a diversity of species and habitat within the City; and
3. Coordinate habitat protection to maintain and provide habitat connections; and
4. Help maintain air and water quality and control erosion.

C. ~~The City of Shoreline has given special consideration to the identification and regulation of fish and wildlife habitat conservation areas that support anadromous fisheries in order to preserve and enhance species which are or may be listed as endangered, threatened or priority species by State and Federal agencies. (Ord. 398 § 1, 2006; Ord. 238 Ch. VIII § 4(A), 2000).~~

**20.80.270 FISH AND WILDLIFE HABITAT – Classification and designation.**

Comment [jn17]: Categories of fish and wildlife habitat conservation areas updated for consistency with WAC 365-190-130 and to add and update stream classifications from 20.80.470.

A. Fish and wildlife habitat conservation areas are those areas designated by the City based on review of the best available science; input from Washington Department of Fish and Wildlife, Washington Department of Ecology, and other agencies; and any of the following criteria:

~~**1A. Areas where State or Federally Designated Endangered, Threatened, and Sensitive Species Have a Primary Association.** The presence of species proposed or listed by the Federal government or the State of Washington as endangered, threatened, critical, or priority; or~~

1. Federally designated endangered and threatened species are those fish and wildlife species identified by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service that are in danger of extinction or threatened to become endangered. The U.S. Fish and Wildlife Service and the National Marine Fisheries Service should be consulted for current listing status. Federally designated endangered and threatened species known to be identified and mapped by DFW in Shoreline include but may not be limited to the following:
  - a. Chinook (*Oncorhynchus tshawytscha*);
  - b. Coho (*Oncorhynchus kisutch*);
2. State designated endangered, threatened, and sensitive species are those fish and wildlife species native to the state of Washington identified by the Washington Department of Fish and Wildlife, that are in danger of extinction, threatened to become endangered, vulnerable, or declining and are likely to become endangered or threatened in a significant portion of their range within the state without cooperative management or removal of threats. State designated endangered, threatened, and sensitive species are periodically recorded in WAC 232-12-014 (state endangered species) and WAC 232-12-011 (state threatened and sensitive species). The state Department of Fish and Wildlife maintains the most current listing and should be consulted for current listing status. State designated endangered, threatened, and

sensitive species known to be identified and mapped by DFW in Shoreline include but may not be limited to the following:

- a. Northern goshawk (*Accipiter gentilis*);
- b. Osprey (*Pandion haliaetus*);
- c. Purple martin (*Progne subis*);

B. **State Priority Habitats and Areas Associated With State Priority Species.** ~~The presence of heron rookeries or raptor nesting trees; or~~ Priority habitats and species are considered to be priorities for conservation and management. Priority species require protective measures for their perpetuation due to their population status, sensitivity to habitat alteration, and/or recreational, commercial, or tribal importance. Priority habitats are those habitat types or elements with unique or significant value to a diverse assemblage of species. A priority habitat may consist of a unique vegetation type or dominant plant species, a described successional stage, or a specific structural element. Priority habitats and species are identified by the State Department of Fish and Wildlife (DFW). Priority habitats and species known to be identified and mapped by DFW in Shoreline include but may not be limited to the following:

1. Biodiversity areas and corridors at Boeing Creek Park and Innis Arden Reserve Park;
2. Chinook/Fall Chinook (*Oncorhynchus tshawytscha*);
3. Coho (*Oncorhynchus kisutch*);
4. Dungeness crab;
5. Estuarine intertidal aquatic habitat;
6. Geoduck;
7. Northern goshawk (*Accipiter gentilis*);
8. Pacific sand lance (*Ammodytes hexapterus*);
9. Purple martin (*Progne subis*);
10. Resident coastal cutthroat (*Oncorhynchus clarki*);
11. Surf smelt (*Hypomesus pretiosus*);
12. Waterfowl concentrations at Ronald Bog;
13. Wetland aquatic habitats; and
14. Winter steelhead (*Oncorhynchus mykiss*).

C. **Commercial and Recreational Shellfish Areas.** These areas include all public and private tidelands or bedlands suitable for shellfish harvest, including shellfish protection districts established pursuant to Chapter 90.72 RCW.

D. **Kelp and Eelgrass Beds and Herring and Smelt Spawning Areas.**

E. **Waters of the State.** Waters of the state include 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, as classified in WAC 222-16-030.

F. **Wetlands.** All wetlands as designated and classified in SMC 20.80.320.

G. **Streams and wetlands and their associated buffers that provide significant habitat for fish and wildlife.** Those areas where surface waters produce a defined channel or bed, not including irrigation ditches, canals, storm or surface water runoff devices or other entirely artificial watercourses, unless they are used by salmonids or are used to convey streams naturally occurring prior to construction. A channel or bed need not contain water year-round; provided that there is evidence of at least intermittent flow during years of normal rainfall. Streams shall be classified in accordance with the Washington Department of Natural Resources water typing system (WAC 222-16-030) hereby adopted in its entirety by reference and summarized as follows:

1. **Type S:** streams inventoried as “shorelines of the state” under Chapter 90.58 RCW and the rules promulgated pursuant to Chapter 90.58 RCW;
2. **Type F:** streams which contain fish habitat;
3. **Type Np:** perennial nonfish habitat streams;
4. **Type Ns:** seasonal nonfish habitat streams; and
5. **Piped stream segments:** those segments of streams, regardless of their type, that are fully enclosed in an underground pipe or culvert.
6. Not all streams that are known to exist with fish habitat support anadromous fish populations, or have the potential for anadromous fish occurrence because of obstructions, blockages or access restrictions resulting from existing conditions. Therefore, in order to provide special consideration of and increased protection for anadromous fish in the application of development standards, Shoreline streams shall be further classified as follows:
  - a. **Anadromous fishbearing streams.** These streams include:
    - i. Streams where naturally recurring use by anadromous fish populations has been documented by a government agency;
    - ii. Streams that are fish passable or have the potential to be fish passable by salmonid populations, including those from Lake Washington or Puget Sound, as determined by a qualified professional based on review of stream flow, gradient and barriers and criteria for fish passability established by the Washington Department of Fish and Wildlife; and
    - iii. Streams that are planned for restoration in a six-year capital improvement plan adopted by a government agency or planned for removal of the private dams that will result in a fish passable connection to Lake Washington or Puget Sound; and
  - b. **Nonanadromous fishbearing streams.** Streams which contain existing or potential fish habitat, but do not have the potential for anadromous fish use due to barriers to fish passage with no plans for their removal per SMC 20.80.270(G)(6)(a).

The general areas and stream reaches with access for anadromous fish are indicated in the City of Shoreline Stream and Wetland Inventory and Assessment (2004) and basin plans. The potential for anadromous fish access shall be confirmed in the filed by a qualified professional as part of a critical area report.

B. The City designates ~~the following fish and wildlife habitat conservation~~ all areas that meet one or more of the above criteria, regardless of any formal identification, as critical areas and as such they are subject to the provisions of this Title. They shall be managed consistent with best available science; including the Washington State Department of Fish and Wildlife’s Management Recommendations for Priority Habitat and Species. The following fish and wildlife habitat conservation areas are specifically designated and this

**Comment [jn18]:** Stream classifications updated to state types based BAS. Recommended because it takes into consideration all types of fish habitat, not just salmonids.



designation does not preclude designation of additional areas as provided in subsection (A) of this section:

1. All regulated streams and wetlands and their associated buffers as determined by a qualified specialist.
2. The waters, bed and shoreline of Puget Sound up to the ordinary high water mark. (Ord. 398 § 1, 2006; Ord. 238 Ch. VIII § 4(B), 2000).

**20.80.272 FISH AND WILDLIFE HABITAT - Mapping.**

Comment [jn19]: Added to facilitate critical area identification and transparency.

**A. Mapping.** The approximate location and extent of fish and wildlife habitat areas are shown in the following maps and inventories hereby adopted:

1. Washington Department of Fish and Wildlife Priority Habitat and Species maps;
2. Washington State Department of Natural Resources, Official Water Type Reference maps, as amended;
3. Washington State Department of Natural Resources Puget Sound Intertidal Habitat Inventory maps;
4. Washington State Department of Natural Resources Shorezone Inventory;
5. Washington State Department of Natural Resources Natural Heritage Program mapping data;
6. Washington State Department of Health Annual Inventory of Shellfish Harvest Areas;
7. Anadromous and resident salmonid distribution maps contained in the Habitat Limiting Factors reports published by the Washington Conservation Commission;
8. Washington State Department of Natural Resources State Natural Area Preserves and Natural Resource Conservation Area maps; and
9. Fish and Wildlife habitat data layers, such as stream and wetland data, maintained in the City of Shoreline geographic information system (GIS).

The inventories and cited resources are to be used as a guide for the City of Shoreline, project applicants, and/or property owners, and may be continuously updated as new fish and wildlife habitat conservation areas are identified or critical area reports are submitted for known habitat conservation areas. They are a reference and do not provide a final critical area designation.

**20.80.274 FISH AND WILDLIFE HABITAT - General development standards.**

Comment [jn20]: Section added based on Commerce example code. Replaces 20.80.290 in part.

**A.** Activities and uses shall be prohibited in fish and wildlife habitat conservation areas and associated buffers, except as provided for in this subchapter. Unless specifically exempted under SMC 20.80.030 and 20.80.040 or allowed under subsection C below or SMC 20.80.276, development activities and uses that result in alteration of fish and wildlife habitat conservation areas shall be subject to the critical area reasonable use and special use provisions of SMC 20.30.333 and 20.30.336 or subject to the provisions of the Shoreline Master Program where located within the shoreline jurisdiction.

**B.** Any proposed alterations permitted, consistent with special use or reasonable use review, to fish and wildlife habitat conservation area shall require the preparation of a habitat management plan, consistent with the requirements of the Washington State Department of Fish and Wildlife Priority Habitat Program. The habitat management plan shall be prepared by a qualified professional and reviewed and approved by the City.

Comment [jn21]: Provision moved from SMC 20.80.290 Alterations.

**C.** Activities Allowed in Fish and Wildlife Habitat Conservation Areas. These activities listed below are allowed in fish and wildlife habitat conservation areas subject to applicable permit approvals. Additional exemptions are listed in the provisions of SMC 20.80.030 and 20.80.040. These activities do not require the

submission of a critical area report and are exempt from monitoring and financial guarantee requirements, except where such activities result in a loss of the functions and values of a fish and wildlife habitat conservation area or related buffer. These activities include:

1. Conservation or preservation of soil, water, vegetation, fish, shellfish, and/or other wildlife that does not entail changing the structure or functions of the existing habitat conservation area.
  2. The harvesting of wild crops in a manner that is not injurious to natural reproduction of such crops and provided the harvesting does not require tilling of soil, planting of crops, chemical applications, or alteration of the habitat conservation area by changing existing topography, water conditions, or water sources.
  3. Enhancement of a fish and wildlife habitat conservation area or buffer through the select removal of nonnative invasive plant species consistent with all of the following:
    - a. Removal of invasive plant species shall be restricted to hand labor and hand-held equipment unless The Washington State or King County Noxious Weed Control Board otherwise prescribe the use of riding mowers, light mechanical cultivating equipment, herbicides or biological control methods with permit approval from the City for the alternate treatment methods;
    - b. Not more than 500 square feet of area may be cleared, as calculated cumulatively over one (1) year, on private property without a permit;
    - c. Not more than 3,000 square feet of soil may be exposed at any one time on City owned park property without a permit consistent with SMC 20.50.320;
    - d. All removed plant material shall be taken away from the site and disposed of appropriately;
    - e. Plants that appear on the Washington State Noxious Weed Control Board list of noxious weeds or the King County Noxious Weed List must be handled and disposed of according to best practices appropriate to that species and approved by the City when permit review is applicable; and
    - f. Revegetation with appropriate native species at natural densities is required in conjunction with removal of invasive plant species.
  4. Permitted alteration to a legally constructed structure existing within a fish and wildlife habitat conservation area buffer that does not increase the footprint of the development or hardscape or increase the impact to a fish and wildlife habitat conservation area.
  5. Buildings and structures (excluding fences and arbors) are prohibited within the required 10 foot stream buffers for a piped stream segment. Other development activities, such as paving, stormwater facilities, clearing (including tree removal) and grading are allowed if no other critical area or buffer is present.
- D. Non-indigenous Species.** No plant, wildlife, or fish species not indigenous to the region shall be introduced into a fish and wildlife habitat conservation area unless authorized by a state or federal permit or approval.
- E. Mitigation and Contiguous Corridors.** Mitigation sites shall be located to preserve or achieve contiguous wildlife habitat corridors in accordance with a mitigation plan that is part of an approved critical area report to minimize the isolating effects of development on habitat areas, so long as mitigation of aquatic habitat is located within the same aquatic ecosystem as the area disturbed.

**Comment [jn22]:** Provisions for limited enhancement based on language previously proposed for Wetlands regulations – moved from SMP. Edited here for clarity and consistency with SMC 20.50.310(A)(6).

**F. Approvals of Activities.** The Director shall condition approvals of activities allowed within or adjacent to a habitat conservation area or its buffers, as necessary to minimize or mitigate any potential adverse impacts. Conditions shall be based on the best available science and may include, but are not limited to, the following:

1. Establishment of buffers;
2. Preservation of important vegetation and/or habitat features such as snags and downed wood specific to the priority wildlife species in the habitat conservation area;
3. Limitation of access to the habitat area, including fencing to deter unauthorized access;
4. Seasonal restriction of construction activities;
5. Establishment of a duration and timetable for periodic review of mitigation activities; and
6. Requirement of a performance bond, when necessary, to ensure completion and success of proposed mitigation.

**G. Mitigation and Equivalent or Greater Biological Functions.** Mitigation of alterations to habitat conservation areas shall achieve equivalent or greater biologic and hydrologic functions and shall include mitigation for adverse impacts upstream or downstream of the development proposal site. Mitigation shall address each function affected by the alteration to achieve functional equivalency or improvement on a per function basis. Mitigation shall be located on-site except when demonstrated that a higher level of ecological functioning would result from an off-site location. Mitigation shall be detailed in a fish and wildlife habitat conservation area mitigation plan consistent with the requirements of SMC 20.80.300.

**H. Approvals and the Best Available Science.** Any approval of alterations or impacts to a habitat conservation area shall be supported by the best available science.

**I. Buffers.**

1. **Establishment of Buffers.** The Director shall require the establishment of buffer areas for activities adjacent to habitat conservation areas when needed to protect habitat conservation areas. Buffers shall consist of an undisturbed area of native vegetation or areas identified for restoration established to protect the integrity, functions, and values of the affected habitat. Required buffer widths shall reflect the sensitivity of the habitat and the type and intensity of human activity proposed to be conducted nearby and shall be consistent with the management recommendations issued by the Washington Department of Fish and Wildlife.
2. **Seasonal Restrictions.** When a species is more susceptible to adverse impacts during specific periods of the year, seasonal restrictions may apply. Larger buffers may be required and activities may be further restricted during the specified season.
3. **Habitat Buffer Averaging.** The Director may allow the recommended habitat area buffer width to be reduced in accordance with a critical area report, the best available science, and the management recommendations issued by the Washington Department of Fish and Wildlife, only if:
  - a. It will not reduce stream or habitat functions;
  - b. It will not adversely affect salmonid habitat;
  - c. It will provide additional natural resource protection, such as buffer enhancement;
  - d. The total area contained in the buffer area after averaging is no less than that which would be contained within the standard buffer; and

- e. The buffer area width is not reduced by more than twenty-five percent (25%) in any location.

**J. Signs and Fencing of Habitat Conservation Areas.**

1. **Temporary Markers.** The outer perimeter of the fish and wildlife habitat conservation area or buffer and the limits of those areas to be disturbed pursuant to an approved permit or authorization shall be marked in the field in such a way as to ensure that no unauthorized intrusion will occur and verified by the [director] prior to the commencement of permitted activities. This temporary marking shall be maintained throughout construction and shall not be removed until permanent signs, if required, are in place.
2. **Permanent Signs.** As a condition of any permit or authorization issued pursuant to this Chapter, the Director may require that applicant to install permanent signs along the boundary of a habitat conservation area or buffer, as recommended in a critical are report.
  - a. Permanent signs shall be made of a metal face and attached to a metal post or another material of equal durability and nonhazardous material. Signs must be posted at an interval of one per lot or every fifty (50) feet, whichever is less and must be maintained by the property owner in perpetuity. The signs shall be worded consistent with the text specified in SMC 20.80.060 or with alternative language approved by the Director.
  - b. The provisions of subsection (a) of this section may be modified as necessary to assure protection of sensitive features or wildlife.
3. **Fencing.**
  - a. The Director shall determine if fencing is necessary to protect the functions and values of the critical area as demonstrated in a critical area report. If found to be necessary, the Director shall condition any permit or authorization issued pursuant to this Chapter to require the applicant to install a permanent fence at the edge of the habitat conservation area or buffer, when fencing will prevent future impacts to the habitat conservation area.
  - b. The applicant shall be required to install a permanent fence around the habitat conservation area or buffer when domestic grazing animals, only as allowed under SMC 20.40.240, are present or may be introduced on site.
  - c. Fencing installed as part of a proposed activity or as required in this Subsection shall be design so as to not interfere with species migration, including fish runs, and shall be constructed in a manner that minimizes habitat impacts.

**K. Subdivisions.** The subdivision and short subdivision of land in fish and wildlife habitat conservation areas and associated buffers is subject to the following:

1. Land that is located wholly within a habitat conservation area or its buffer may not be subdivided;
2. Land that is located partially within a habitat conservation area or its buffer may be divided provided that the developable portion of each new lot and its access is located outside of the habitat conservation area or its buffer and meets the minimum lot size requirements of SMC 20.50.020.
3. Access roads and utilities serving the proposed subdivision may be permitted within the habitat conservation area and associated buffers only if the applicant's civil engineer demonstrates and the City determines that no other feasible alternative exists and when consistent with this Title.

**20.80.276 FISH AND WILDLIFE HABITAT – Specific habitat development standards.**

In addition to the provision in SMC 20.80.274, the following development standards apply to the specific habitat types

identified below.

**A. Endangered, Threatened, and Sensitive Species.**

1. No development shall be allowed within a fish and wildlife habitat conservation area or buffer with which state or federally endangered, threatened, or sensitive species have a primary association, except that which is provided for by a management plan established by the Washington Department of Fish and Wildlife or applicable state or federal agency.
2. Whenever activities are proposed adjacent to a fish and wildlife habitat conservation area with which state or federally endangered, threatened, or sensitive species have a primary association, such area shall be protected through the application of protection measures in accordance with a critical area report prepared by a qualified professional and approved by the City. Approval for alteration of land adjacent to the habitat conservation area or its buffer shall not occur prior to consultation with the Washington Department of Fish and Wildlife for animal species, the Washington State Department of Natural Resources for plant species, and other appropriate federal or state agencies.

**B. Anadromous Fish.**

1. All activities, uses, and alterations proposed to be located in water bodies used by anadromous fish or in areas that affect such water bodies shall give special consideration to the preservation and enhancement of anadromous fish habitat, including, but not limited to, adhering to the following standards:
  - a. Subsection A above applies to anadromous fish where those populations are identified as endangered, threatened or sensitive species;
  - b. Activities shall be timed to occur only during the allowable work window as designated by the Washington Department of Fish and Wildlife for the applicable species;
  - c. An alternative alignment or location for the activity is not feasible;
  - d. The activity is designed so that it will not degrade the functions or values of the fish habitat or other critical areas;
  - e. Shoreline erosion control measures shall be designed to use bioengineering methods or soft armoring techniques, according to an approved critical area report; and
  - f. Any impacts to the functions or values of the habitat conservation area are mitigated in accordance with an approved critical area report.
2. Structures that prevent the migration of salmonids shall not be allowed in the portion of water bodies currently or historically used by anadromous fish. Fish bypass facilities shall be provided that allow the upstream migration of adult fish and shall prevent fry and juveniles migrating downstream from being trapped or harmed.
3. Fills, when authorized by the City and all applicable Joint Aquatic Resource Permit Application approvals, shall not adversely impact anadromous fish or their habitat or shall mitigate any unavoidable impacts and shall only be allowed for a water-dependent use.

**C. Wetland Habitats.** All proposed activities within or adjacent to habitat conservation areas containing wetlands shall conform to the wetland development performance standards set forth in SMC Chapter 20.80, Subchapter 4. Wetlands. If non-wetlands habitat and wetlands are present at the same location, the provisions of this subchapter or the Wetlands subchapter, whichever provides greater protection to the habitat, apply.

**D. Streams.** Activities, uses and alterations of streams shall be prohibited subject to the reasonable use provisions (SMC 20.30.336) or special use provisions (SMC 20.30.333), unless otherwise allowed by the exemptions or

**Comment [jn23]:** Alteration of streams currently allowed in SMC 20.80.80 and 20.80.490 currently allows for relocation and stream crossings dependent on the classification of the stream. No mitigation performance standards currently apply to Type IV streams.

The proposed new standards are intended to clarify when alteration of the Streams themselves would be allowed by the City ONLY subject to the reasonable use provisions or simply based on the recommendations of a qualified professional. The current proposal allows alteration of Ns (former Type IV) without requiring reasonable use permit process, but with demonstration by the qualified professional that the impact cannot be avoided and the impacts are mitigated.

allowed activities provisions of this Title, or subject to the provisions of the Shoreline Master Program, SMC Title 20, Division II. No alteration to a stream buffer shall be permitted unless consistent with the provisions of this title and the specific standards for development outlined below.

1. **Type S and Type F-anadromous streams.** Development activities and uses that result in alteration of Type S and Type F-anadromous streams and their associated buffers shall be prohibited subject to the critical area reasonable use and critical area special use provisions of SMC 20.30.333 and 20.30.336, unless otherwise allowed by the exemptions or allowed activities provisions of this Title, or subject to the provisions of the Shoreline Master Program, SMC Title 20, Division II, where the proposed development activity is located within the shoreline jurisdiction.
2. **Type F-nonanadromous and Type Np streams.** Development activities and uses that result in alteration of Type F-nonanadromous and Type Np streams are prohibited subject to the critical area reasonable use and critical area special use provisions of SMC 20.30.333 and 20.30.336, unless otherwise allowed by the exemptions or allowed activities provisions of this Title, or subject to the provisions of the Shoreline Master Program, SMC Title 20, Division II, where the proposed development activity is located within the shoreline jurisdiction.
3. **Type Ns streams.** Development activities and uses that result in unavoidable impacts may be permitted in Type Ns streams and associated buffers in accordance with an approved critical area(s) report and compensatory mitigation plan, and only if the proposed activity is the only reasonable alternative that will accomplish the applicant's objectives. Full compensation for the loss of acreage and functions of wetland and buffers shall be provided in compliance with the mitigation performance standards and requirements of these regulations.
4. **Stream Crossing.** Crossing of streams may be permitted based on the findings in a critical area report, subject to the limitation in subsections 1, 2, and 3 above, and consistent with the following:
  - a. **Bridges.** Bridges shall be used to cross Type S and Type F-anadromous streams. Culverted crossings and other obstructive means of crossing Type S and Type F-anadromous streams shall be prohibited; and
  - b. **Culverts.** Culverts are allowable for crossing of Type F-nonanadromous, Np, and Ns streams when fish passage will not be impaired and when the following design criteria and conditions are met:
    - i. Oversized culverts will be installed;
    - ii. Culverts will include gradient controls and creation of pools within the culvert for Type F streams where appropriate;
    - iii. Gravel substrate will be placed in the bottom of the culvert to a minimum depth of one foot for Type F streams;
    - iv. A maintenance covenant shall be recorded on title with King County that requires the property owner to at all times, keep any culvert free of debris and sediment to allow free passage of water and, if applicable, fish; and
    - v. The City may require that a culvert be removed from a stream as a condition of approval, unless it is demonstrated conclusively that the culvert is not detrimental to fish habitat or water quality, or removal would be detrimental to fish or wildlife habitat or water quality.
5. **Relocation.** Relocation of a Type S, F, or Np stream may be allowed, subject to the limitation in subsections 1 and 2 above, and only when the proposed relocation is part of an approved mitigation or rehabilitation plan, will result in equal or better habitat and water quality, and will not diminish the flow capacity of the stream. Relocation of a Type Ns stream may be allowed, subject to the limitation in subsections 3 above, and only when the proposed relocation will result in equal or better habitat and water quality and will not diminish the flow capacity of the stream.

- 6. **Restoring Piped Watercourses.** The City allows the voluntary opening of previously channelized/culverted streams and the rehabilitation and restoration of streams. Restoring piped watercourses may be approved consistent with the following:
  - a. When piped watercourse sections are restored, a protective buffer shall be required of the stream section. The buffer distance shall be based on an approved restoration plan, regardless of stream classification, and shall be a minimum of 35 to 50 feet, based on a restoration plan at the discretion of the Director, to allow for restoration and maintenance. The stream and buffer area shall include habitat improvements and measures to prevent erosion, landslide, and water quality impacts. Opened channels shall be designed to support fish access, unless determined to be unfeasible as demonstrated in a restoration plan reviewed and approved by the City;
  - b. Removal of pipes conveying streams shall only occur when the City determines that the proposal will result in a new improvement of water quality and ecological functions and will not significantly increase the threat of erosion, flooding, slope stability or other hazards; and
  - c. Where the buffer of the restored stream would extend onto an adjacent property, the applicant shall obtain a written agreement from the affected neighboring property owner prior to the City approving the restoration of the piped watercourse.

**20.80.280 FISH AND WILDLIFE HABITAT - Required buffer areas.**

- A. Buffer widths for fish and wildlife habitat areas shall be based on consideration of the following factors: species-specific recommendations of the Washington State Department of Fish and Wildlife; recommendations contained in a habitat management plan submitted by a qualified ~~consultant~~ professional; and the nature and intensity of land uses and activities occurring on the land adjacent to the site.
- B. Low impact uses and activities which are consistent with the purpose and function of the habitat buffer and do not detract from its integrity may be permitted within the buffer depending on the sensitivity of the habitat area. Examples of uses and activities which may be permitted in appropriate cases include trails that are pervious, viewing platforms, stormwater management facilities such as bio-swales, utility easements and other similar uses and activities; provided, that any impacts to the buffer resulting from such permitted facilities shall be fully mitigated as detailed in an approved critical area report and mitigation plan prepared by a qualified professional.
- C. **Standard Required Stream Buffer Widths.** Buffer widths shall reflect the sensitivity of the stream type, the risks associated with development and, in those circumstances permitted by these regulations, the type and intensity of human activity and site design proposed to be conducted on or near the stream area. Stream buffers shall be measured from the ordinary high water mark (OHWM) or the top of the bank, if the OHWM cannot be determined. Buffers shall be measured with rounded ends where streams enter or exit piped segments.
  - 1. The following buffers are established for streams based upon the Washington State Department of Natural Resources water typing system and further classification based on anadromous or nonanadromous fish presence for the Type F streams:

**Table 20.80.280(1)**

<u>Stream Type</u>	<u>Standard Buffer Width (ft)</u>
Type S	150
Type F - anadromous	115
Type F - nonanadromous	75
Type Np	65

**Comment [jn24]:** Stream types updated for consistency with the State Water typing system. Only one change to standard buffer widths as current buffer widths are generally consistent with the recommended buffer widths in BAS reports for other jurisdictions in the region. Type Ns buffer increased based on BAS.

The state recommended stream buffer widths range from 75 to 300 feet. BAS memos for other jurisdictions generally conclude that larger buffer widths are not feasible in developed urban areas that characterize suburban cities like Shoreline. As such staff is not recommending increases to the standard buffer widths at this time.

Type Ns	45
Piped Stream Segments	10

- 2. **Increased Stream Buffer Widths.** The recommended stream buffer widths shall be increased, as follows:
  - a. When the qualified professional determines that the recommended width is insufficient to prevent habitat degradation and to protect the structure and functions of the habitat area;
  - b. When the flood hazard area exceeds the recommended stream buffer width, the stream buffer area shall extend to the outer edge of the flood hazard area;
  - c. When a channel migration zone is present, the stream buffer width shall be measured from the outer edge of the channel migration zone;
  - d. When the habitat area is in an area of high blowdown potential, the stream buffer width shall be expanded an additional fifty (50) feet on the windward side; or
  - e. When the habitat area is within an erosion or landslide hazard area, or buffer, the stream buffer width shall be the recommended distance, or the erosion or landslide hazard area or buffer, whichever is greater.
  
- 3. **Stream Buffer Width Averaging with Enhancement.** The Director may allow the recommended stream buffer width to be reduced in accordance with an approved critical area report and the best available science on a case-by-case basis by averaging buffer widths. Any allowance for averaging buffer widths shall only be granted based on the development and implementation of a buffer enhancement plan for areas of buffer degradation consistent with the provisions in subsection 4 below. Only those portions of the stream buffer existing within the project area or subject parcel shall be considered in the total buffer area for buffer averaging. Averaging of buffer widths may only be allowed where a qualified professional demonstrates that:
  - a. The width reduction and buffer enhancement plan provides evidence that the stream or habitat functions, including those of nonfish habitat and riparian wildlife, will be:
    - i. Increased or maintained through plan implementation for those streams where existing buffer vegetation is generally intact native vegetation; or
    - ii. Increased through plan implementation for those streams where existing buffer vegetation is inadequate to protect the functions and values of the stream;
  - b. The total area contained in the buffer area of each stream on the development proposal site is not decreased after averaging;
  - c. The recommended riparian habitat area width is not reduced by more than twenty-five percent (25%) in any one location; and
  - d. The width reduction will not be located within another critical area or associated buffer.
  
- 4. **Stream Buffer Enhancement Measures.** The measures determined most applicable and/or appropriate will be considered in buffer averaging requirements. These include but are not limited to:
  - a. Removal of fish barriers to restore accessibility to anadromous fish.
  - b. Enhancement of fish habitat using log structures incorporated as part of a fish habitat enhancement

The Shoreline Municipal Code is current through Ordinance 715, and legislation passed through June 1, 2015.



plan.

- c. Enhancement of fish and wildlife habitat structures that are likely to be used by wildlife, including wood duck houses, bat boxes, nesting platforms, snags, rootwads/stumps, birdhouses, and heron nesting areas.
- d. Additional enhancement measures may include:
  - i. Planting native vegetation within the buffer area, especially vegetation that would increase value for fish and wildlife, increase stream bank or slope stability, improve water quality, or provide aesthetic/recreational value; or
  - ii. Creation of a surface channel where a stream was previously underground, in a culvert or pipe. Surface channels which are "daylighted" shall be located within a buffer area and shall be designed with energy dissipating functions such as meanders to reduce future erosion;
  - iii. Removal or modification of existing stream culverts (such as at road crossings) to improve fish passage and flow capabilities; or
  - iv. Upgrading of retention/detention facilities or other drainage facilities beyond required levels.

**D. Stream Buffer Allowed Uses and Alteration.** Activities and uses shall be prohibited in stream buffers, except as provided for in this title. Stream buffers shall be maintained as undisturbed or restored natural vegetation. No clearing or grading activities are allowed within required stream buffers except as allowed under SMC 20.80.030, 20.80.040, 20.80.274, or consistent with an approved buffer enhancement plan consistent with the provisions of this subchapter. No structures or improvements shall be permitted within the stream buffer area, including buildings, decks, docks, except as otherwise permitted or required under the Shoreline Master Program, SMC Title 20, Division II, or under one of the following circumstances:

- 1. When the improvements are part of an approved rehabilitation or mitigation plan; or
- 2. For the construction of new roads and utilities, and accessory structures, when no feasible alternative location exists; or
- 3. **Trails.** The construction of trails over and in the buffer of piped stream segments, and the construction of trails near other stream segments consistent with the following criteria:
  - a. Trails should be constructed of permeable materials;
  - b. Trails shall be designed in a manner that minimizes impact on the stream system;
  - c. Trails shall have a maximum trail corridor width of 8 feet; and
  - d. Trails should be located within the outer half of the buffer, i.e., that portion of the buffer that is farther away from the stream; or
- 4. The construction of footbridges; or
- 5. **Informational Signs.** The construction and placement of informational signs or educational demonstration facilities limited to no more than one square yard surface area and four feet high, provided there is no permanent infringement on stream flow; or
- 6. **Stormwater Management Facilities.** The establishment of stormwater management facilities, limited to outfalls, pipes and conveyance systems, stormwater dispersion outfalls and bioswales, may be allowed within stream buffers; provided that:
  - a. No other location is feasible;

- b. Pipes and conveyance facilities will be in in the outer twenty-five percent (25%) of the standard buffer area as set forth in Table 20.80.280(1);
- c. Stormwater dispersion outfalls, bioswales, bioretention facilities, and other low impact facilities may be allowed anywhere within stream buffers when determined by a qualified professional that the location of the facility will enhance the buffer area and protect the stream; and
- d. Such facilities are designed consistent with the requirements of SMC 20.70.330.

7. **Development Proposals within Physically Separated and Functionally Isolated Stream Buffers.** Consistent with the definition of “buffers” (SMC 20.20.012), areas that are functionally isolated and physically separated from stream due to existing, legally established roadways, paved trails eight (8) feet or more in width, or other legally established structures or paved areas eight (8) feet or more in width that occurs between the area in question and the stream shall be considered physically isolated and functionally separated stream buffer. Once determined by the Director based on a submitted critical area report to be a physically separated and functionally isolated stream buffer, development proposals shall be allowed in these areas.

- C. Fish and wildlife habitat conservation areas and their associated buffers shall be placed either in a separate tract on which development is prohibited, protected by execution of an easement, dedicated to a conservation organization or land trust, or similarly preserved through a permanent protective mechanism acceptable to the City. The location and limitations associated with the critical habitat and its buffer shall be shown on the face of the deed or plat applicable to the property and shall be recorded with the King County Department of Records and Elections. (Ord. 398 § 1, 2006; Ord. 238 Ch. VIII § 4(C), 2000).

**20.80.290 Alteration.**

- A. Alterations of fish and wildlife habitat conservation areas shall be avoided, subject to the reasonable use provision section (SMC 20.30.336) or special use permit section (SMC 20.30.333).
- B. Any proposed alterations permitted, consistent with special use or reasonable use review, to fish and wildlife habitat conservation area shall require the preparation of a habitat management plan, consistent with the requirements of the Washington State Department of Fish and Wildlife Priority Habitat Program. The habitat management plan shall be prepared by a qualified consultant and reviewed and approved by the City. (Ord. 398 § 1, 2006; Ord. 238 Ch. VIII § 4(D), 2000).

**20.80.290 FISH AND WILDLIFE HABITAT - Critical area report requirements.**

In addition to the general critical area report requirements of SMC 20.80.110 critical area reports for habitat conservation areas must meet the requirements of this Section. Critical area reports for two or more types of critical areas must meet the report requirements for each relevant type of critical area.

- A. **Preparation by a Qualified Professional.** A critical areas report for a habitat conservation area shall be prepared by a qualified professional who is a biologist. Third party review by a qualified professional under contract with the City will be required, at the applicant’s expense in any of the following circumstances:
  - 1. The project requires a critical area reasonable use permit, critical area special use permit, or shoreline variance application; or
  - 2. Mitigation is required for impacts to Type S, Type F, or Type Np streams and/or buffers; or
  - 3. Mitigation is required for impacts to Type Ns streams.
- B. **Areas Addressed in Critical Area Report.** The following areas shall be addressed in a critical area report for habitat conservation areas:

**Comment [jn25]:** This provision is similar to one suggested for wetlands. Buffer science as analyzed by the WA Department of Ecology concludes that buffer areas that are physically separated and functionally isolated for both stream and wetlands do not provide most of the functions and values assumed on contiguous buffers. Protection of these areas would not add to the protection of the critical areas unless the buffer area were reconnected to the critical area.

**Comment [jn26]:** This provision only applies with subdivisions, binding site plans, and other land use permit process. Provisions are included under provisions for subdivisions or as decision criteria for land use approvals such as binding site plans and master plans.

**Comment [jn27]:** Replaced with new sections 20.80.274 and 20.80.276.

1. The project area of the proposed activity;
2. All habitat conservation areas and recommended buffers within three hundred (300) feet of the project area;
3. All shoreline areas, floodplains, other critical areas, and related buffers within two hundred (200) feet of the project area; and
4. A discussion of the efforts taken to avoid and minimize potential effects to these resources and the implementation of mitigation/enhancement measures as required.

C. **Habitat Assessment.** A habitat assessment is an investigation of the project area to evaluate the potential presence or absence of designated critical fish or wildlife species or habitat. A critical area report for a habitat conservation area shall contain an assessment of habitats including the following site- and proposal-related information at a minimum:

1. Detailed description of vegetation on and adjacent to the project area and its associated buffer;
2. Identification of any species of local importance, priority species, or endangered, threatened, sensitive, or candidate species that have a primary association with habitat on or adjacent to the project area, and assessment of potential project impacts to the use of the site by the species;
3. A discussion of any federal, state, or local special management recommendations, including Washington Department of Fish and Wildlife habitat management recommendations, that have been developed for species or habitats located on or adjacent to the project area;
4. A detailed discussion of the direct and indirect potential impacts on habitat by the project, including potential impacts to water quality;
5. A discussion of measures, including avoidance, minimization, and mitigation, proposed to preserve existing habitats and restore any habitat that was degraded prior to the current proposed land use activity and to be conducted in accordance with SMC 20.80.080 ; and
6. A discussion of ongoing management practices that will protect habitat after the project site has been developed, including proposed monitoring and maintenance programs.
7. A copy of the site plan sheet(s) for the project must be included with the written report and must include, at a minimum:
  - a. Maps (to scale) depicting delineated and surveyed fish and wildlife habitat conservation areas 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 fish and wildlife habitat conservation areas and/or buffers (include square footage estimates);
  - b. 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 fish and wildlife habitat conservation areas associated with anticipated hydroperiod alterations from the project; and
8. A cost estimate for the installation of any required mitigation (including site preparation, plant materials, and installation, fertilizers, mulch, and stakes) and the proposed monitoring and maintenance work for the required number of years.

D. **Additional Technical Information Requirements for Streams.** Critical area reports for streams must be consistent with the specific development standards for stream in SMC 20.80.276 and 20.80.280 and may be met

through submission of one or more specific report types. If stream buffer enhancement is proposed to average stream buffer width, a stream buffer enhancement plan must be submitted in addition to other critical area report requirements of this section. If no project impacts are anticipated and standard stream buffer width are retained, a stream delineation report, general critical areas report or other reports alone or in combination may be submitted as consistent with the specific requirements of this section. In addition to the basic critical area report requirements for fish and wildlife habitat conservation areas provided in subsections (A) through (C) of this section, technical information on streams shall include the following information at a minimum:

1. A written assessment and accompanying maps of the stream and associated hydrologic features within 200 feet of the project area, including the following information at a minimum:
  - a. Stream survey showing the ordinary high water mark(s);
  - b. Standard stream buffer boundary;
  - c. Boundary for proposed stream buffers averaging, if applicable;
  - d. Vegetative, faunal, and hydrologic characteristics;
  - e. Soil and substrate conditions; and
  - f. Topographic elevations, at two-foot contours;
2. A detailed description and functional assessment of the stream buffer under existing conditions pertaining to the protection of stream functions, fish habitat and, in particular, potential anadromous fisheries;
3. A habitat and native vegetation conservation strategy that addresses methods to protect and enhance on-site habitat and stream functions;
4. Proposed buffer enhancement, if needed, including a written assessment and accompanying maps and planting plans for buffer areas to be enhanced, including the following information at a minimum:
  - a. A description of existing buffer conditions;
  - b. A description of proposed buffer conditions and how proposed conditions will increase buffer functions in terms of stream and fish habitat protection;
  - c. Performance standards for measuring enhancement success through a monitoring period of at least five years; and
  - d. Provisions for monitoring and submission of monitoring reports documenting buffer conditions as compared to performance standards for enhancement success;
5. A discussion of ongoing management practices that will protect stream functions and habitat value through maintenance of vegetation density within the stream buffer.

**E. Additional Information May Be Required.** When appropriate due to the type of habitat or species present or the project area conditions, the Director may also require the habitat management plan to include:

1. Third party review by a qualified professional under contract with the City may be required at the applicants expense of the critical area report analysis and the effectiveness of any proposed mitigating measures or programs, to include any recommendations as appropriate;
2. A request for consultation with the Washington Department of Fish and Wildlife or the local Native American Indian Tribe or other appropriate agency; and

3. Detailed surface and subsurface hydrologic features both on and adjacent to the site.

**20.80.300 FISH AND WILDLIFE HABITAT - Mitigation performance standards and requirements.**

**Comment [jn28]:** Highlighted items need to be reviewed for applicability after revisions to the general provisions are completed. Current text is combined from Fish and Wildlife Habitat provisions and Stream provisions.

- A. **Relevant performance standards for other critical areas** (such as wetlands and ~~streams~~ **geologic hazard areas**) that may be located within the fish and wildlife habitat conservation area, as determined by the City, shall be incorporated into mitigation plans.
- B. The following additional mitigation measures shall be reflected in fish and wildlife habitat conservation area mitigation planning:
1. The maintenance and protection of habitat values shall be considered a priority in site planning and design.
  2. Buildings and structures shall be located in a manner that preserves and minimizes adverse impacts to important habitat areas. This may include clustering buildings and locating fences outside of habitat areas.
  3. Retained habitat shall be integrated into open space and landscaping.
  4. Where possible, habitat and vegetated open space shall be consolidated in contiguous blocks.
  5. Habitat shall be located contiguous to other habitat areas, open space or landscaped areas both on- and off-site to contribute to a continuous system or corridor that provides connections to adjacent habitat areas.
  6. Native species shall be used in any landscaping of disturbed or undeveloped areas and in any enhancement of habitat or buffers.
  7. The heterogeneity and structural diversity of vegetation shall be emphasized in landscaping.
  8. Significant trees, ~~preferably in groups,~~ shall be preserved, ~~consistent with the requirements of Chapter 20.50 SMC, Subchapter 5, Tree Conservation, Land Clearing and Site Grading, and with the objectives found in these standards.~~ (Ord. 398 § 1, 2006; Ord. 238 Ch. VIII § 4(E), 2000).

C. **Appropriate Stream Mitigation Sequence and Actions.** Where impacts cannot be avoided, and the applicant has exhausted feasible design alternatives, the applicant or property owner shall seek to implement other appropriate mitigation actions in compliance with the intent, standards and criteria of this section. Mitigation provisions shall be applied through the critical area reasonable use or critical area special use provisions in SMC 20.30.333 and 20.30.336, or subject to the provisions of the Shoreline Master Program, SMC Title 20, Division II, where the proposed development activity is located within the shoreline jurisdiction, unless mitigated alterations are specifically allowed by the provisions of this subchapter. In an individual case, these actions may include consideration of alternative site plans and layouts, reductions in the density or scope of the proposal, and/or implementation of the performance standards listed in this section.

D. Significant adverse impacts to stream area functions and values shall be mitigated. Mitigation actions shall be implemented in the preferred sequence: Avoidance, minimization, restoration and replacement. Proposals which include less preferred and/or compensatory mitigation shall demonstrate that:

1. All feasible and reasonable measures will be taken to reduce impacts and losses to the stream, or to avoid impacts where avoidance is required by these regulations; and
2. The restored, created or enhanced stream area or buffer will be available and persistent as the stream or buffer area it replaces; and
3. No overall net loss will occur in stream functions and values.

**E. Location and Timing of Stream Mitigation.**

1. Mitigation shall be provided on-site, unless on-site mitigation is not scientifically feasible due to the physical features of the property. The burden of proof shall be on the applicant to demonstrate that mitigation cannot be provided on-site.
2. When mitigation cannot be provided on-site, mitigation shall be provided in the immediate vicinity of the permitted activity on property owned or controlled by the applicant such as an easement, provided such mitigation is beneficial to the critical area and associated resources. It is the responsibility of the applicant to obtain title to off-site mitigation areas.
3. In-kind mitigation shall be provided except when the applicant demonstrates and the City concurs that greater functional and habitat value can be achieved through out-of-kind mitigation.
4. Only when it is determined by the City that subsections (B)(1), (2), and (3) of this section are inappropriate and impractical shall off-site, out-of-kind mitigation be considered.
5. When stream mitigation is permitted by these regulations on-site or off-site, the mitigation project shall occur near an adequate water supply (stream, groundwater) with a hydrologic connection to the mitigation area to ensure successful development or restoration.
6. Any agreed upon mitigation proposal shall be completed prior to project construction, unless a phased schedule, that assures completion concurrent with project construction, has been approved by the City.
7. Restored or created streams, where permitted by these regulations, shall be an equivalent or higher stream value or function than the altered stream.

F. The performance standards in this section and the relevant performance standards located within the wetland standards of **SMC 20.80.350(E)(1) through (17)** shall be incorporated into mitigation plans submitted to the City for impacts to fish and wildlife habitat conservation critical areas. The performance standards shall apply to any mitigations proposed within streams or stream buffers within the City.

G. On completion of construction, any approved mitigation project must be signed off by the applicant's qualified professional and approved by the City. Signature of the qualified professional and approval by the City will indicate that the construction has been completed as planned.

H. **Monitoring Program and Contingency Plan.** A monitoring program shall be implemented by the applicant to determine the success of the mitigation project and any necessary corrective actions. This program shall determine if the original goals and objectives are being met. The monitoring program will be established consistent with the guidelines contained in **SMC 20.80.350(G)**.

**Subchapter 5.**

**Flood Hazard Areas**

**20.80.360 FLOOD HAZARD - Description and purpose.**

A. A flood hazard area consists of the special flood hazard areas and protected areas as defined in Chapter 13.12 SMC, which comprise the regulatory floodplain.

B. It is the purpose of these regulations to ensure that the City of Shoreline meets the requirements of the National Flood Insurance Program and maintains the City as an eligible community for Federal flood insurance benefits. (Ord. 641 § 5 (Exh. A), 2012; Ord. 398 § 1, 2006; Ord. 238 Ch. VIII § 6(A), 2000).

**20.80.370 FLOOD HAZARD - Classification.**

Flood hazard areas shall be determined pursuant to the requirements of the floodplain management regulations, Chapter 13.12 SMC, which include, at a minimum, all lands identified on the 100-year floodplain designations of the current Federal Emergency Management Agency (FEMA) flood insurance rate map for King County as identified in SMC 13.12.300. (Ord. 641 § 5 (Exh. A), 2012; Ord. 398 § 1, 2006; Ord. 238 Ch. VIII § 6(B), 2000).

**20.80.380 FLOOD HAZARD - Development limitations.**

All development within designated flood hazard areas shall comply with Chapter 13.12 SMC, Floodplain Management, as now or hereafter amended, and is not subject to the regulations of this chapter. (Ord. 641 § 5 (Exh. A), 2012; Ord. 398 § 1, 2006; Ord. 238 Ch. VIII § 6(C), 2000).

**20.80.390 Zero-rise floodway – Development standards and permitted alterations.**

*Repealed by Ord. 641.* (Ord. 398 § 1, 2006; Ord. 238 Ch. VIII § 6(D), 2000).

**20.80.400 FEMA floodway – Development standards and permitted alterations.**

*Repealed by Ord. 641.* (Ord. 398 § 1, 2006; Ord. 238 Ch. VIII § 6(E), 2000).

**20.80.410 Flood hazard areas – Certification by engineer or surveyor.**

*Repealed by Ord. 641.* (Ord. 398 § 1, 2006; Ord. 238 Ch. VIII § 6(F), 2000).

**Subchapter 6.**

**Aquifer Recharge Areas**

**20.80.420 AQUIFER RECHARGE - Description and purpose.**

A. Aquifer recharge areas provide a source of potable water and contribute to stream discharge during periods of low flow. Urban-type pollutants may enter watercourse supplies through potential infiltration of pollutants through the soil to ground water aquifers.

B. The primary purpose of aquifer recharge area regulations is to protect aquifer recharge areas by providing for regulation of land use activities that pose a risk of potential aquifer contamination and to minimize impacts through the application of strict performance standards. (Ord. 398 § 1, 2006; Ord. 238 Ch. VIII § 7(A), 2000).

C. At the time of adoption of the updated critical areas ordinance, Chapter 20.80, Critical Areas, in October 2015, there were no identified critical aquifer recharge areas identified within the City of Shoreline.

**Comment [jn29]:** Provision added to make it clear that there are no designated Critical Aquifer Recharge Areas within the City of Shoreline at this time. Confirm date reference for final ordinance.

**20.80.430 AQUIFER RECHARGE - Classification.**

Aquifer recharge areas shall be classified based on the soil and ground water conditions and risks to surface water during periods of low hydrology. Classification depends on the combined effects of hydrogeological susceptibility to contamination and contaminant loading potential, and includes upland areas underlain by soils consisting largely of silt, clay or glacial till, upland areas underlain by soils consisting largely of sand and gravel, and wellhead protection areas and areas underlain by soils consisting largely of sand and gravel in which there is a predominantly downward or lateral component to ground water flow. (Ord. 398 § 1, 2006; Ord. 238 Ch. VIII § 7(B), 2000).

**20.80.440 AQUIFER RECHARGE - Alteration.**

The following land uses and activities shall require implementation of Best Management Practices (BMPs) as established by the Department of Ecology:

A. Land uses and activities that involve the use, storage, transport or disposal of significant quantities of chemicals, substances or materials that are toxic, dangerous or hazardous, as those terms are defined by State and Federal regulations.

B. On-site community sewage disposal systems.

C. Underground storage of chemicals.

D. Petroleum pipelines.

E. Solid waste landfills. (Ord. 398 § 1, 2006; Ord. 238 Ch. VIII § 7(C), 2000).

**20.80.450 AQUIFER RECHARGE - Performance standards and requirements.**

Any uses or activities located in an aquifer recharge area, as defined within this subchapter, that involve the use, storage, transport or disposal of significant quantities of chemicals, substances, or materials that are toxic, dangerous or hazardous, as those terms are defined by State and Federal regulations, shall comply with the following additional standards:

A. Underground storage of chemicals, substances or materials that are toxic, hazardous or dangerous is discouraged.

B. Any chemicals, substances or materials that are toxic, hazardous or dangerous shall be segregated and stored in receptacles or containers that meet State and Federal standards.

C. Storage containers shall be located in a designated, secured area that is paved and able to contain leaks and spills, and shall be surrounded by a containment dike.



- D. Secondary containment devices shall be constructed around storage areas to retard the spread of any spills and a monitoring system should be implemented.
- E. A written operations plan shall be developed, including procedures for loading/unloading liquids and for training of employees in proper materials handling.
- F. An emergency response/spill clean-up plan shall be prepared and employees properly trained to react to accidental spills.
- G. Any aboveground storage tanks shall be located within a diked containment area on an impervious surface. The tanks shall include overflow protection systems and positive controls on outlets to prevent uncontrolled discharges.
- H. Development should be clustered and impervious surfaces limited where possible.
- I. No waste liquids or chemicals of any kind shall be discharged to storm sewers.
- J. All development shall implement Best Management Practices (BMPs) for water quality, as approved by the City, including the standards contained within the City of Shoreline adopted Stormwater Design Manual, such as biofiltration swales and use of oil-water separators, and BMPs appropriate to the particular use proposed. (Ord. 398 § 1, 2006; Ord. 238 Ch. VIII § 7(D), 2000).

**Comment [jn30]:** Term update for consistency with other sections of SMC.

**Subchapter 7.**

**Stream Areas**

**20.80.460 — Designation and purpose.**

- A. ~~Streams are those areas where surface waters produce a defined channel or bed, not including irrigation ditches, canals, storm or surface water runoff devices or other entirely artificial watercourses, unless they are used by salmonids or are used to convey streams naturally occurring prior to construction. A channel or bed need not contain water year round; provided, that there is evidence of at least intermittent flow during years of normal rainfall.~~
- B. ~~Stream areas and their associated buffers provide important fish and wildlife habitat and corridors; help to maintain water quality; store and convey stormwater and floodwater; recharge groundwater; and serve as areas for recreation, education and scientific study and aesthetic appreciation.~~
- C. ~~The primary purpose of the stream area regulations is to avoid impacts to streams and associated riparian corridors and where possible, provide for stream enhancement and rehabilitation. (Ord. 398 § 1, 2006; Ord. 238 Ch. VIII § 8(A), 2000).~~

**Comment [jn31]:** Streams regulations combined with Fish and Wildlife Habitat Area regulations for consistency with Commerce example code and current approach taken by many cities in the region. Stream and riparian habitat and salmonid species are the primary fish and wildlife habitats (together with wetlands) present in shoreline that the Fish and Wildlife Habitat regulations are intended to protect. The applicability of the Fish and Wildlife Habitat regulations was left unclear by the separation of these sections.

**20.80.470 — Streams.**

- A. ~~“Type I streams” are those streams identified as “Shorelines of the State” under the City Shoreline Master Program.~~
- B. ~~“Type II streams” are those streams that are not Type I streams and are either perennial or intermittent and have one of the following characteristics:~~
  - 1. ~~Salmonid fish use; or~~
  - 2. ~~Demonstrated salmonid habitat value as determined by a qualified professional.~~
- C. ~~“Type III streams” are those streams which are not Type I or Type II streams with perennial (year round) or intermittent flow with channel width of two feet or more taken at the ordinary high water mark and are not used by salmonid fish.~~

- D. ~~“Type IV streams,” which are not Type I, Type II, or Type III, are those streams with perennial or intermittent flow with channel width less than two feet taken at the ordinary high water mark that are not used by salmonid fish.~~
- E. ~~“Piped stream segments” are those segments of streams, regardless of their type, that are fully enclosed in an underground pipe or culvert.~~
- F. ~~For the purposes of this section, “salmonid fish use” and “used by salmonid fish” is presumed for:~~
  - 1. ~~Streams where naturally recurring use by salmonid populations has been documented by a government agency;~~
  - 2. ~~Streams that are fish passable or have the potential to be fish passable by salmonid populations, including those from Lake Washington or Puget Sound, as determined by a qualified professional based on review of stream flow, gradient and barriers and criteria for fish passability established by the Washington Department of Fish and Wildlife; and~~
  - 3. ~~Streams that are:~~
    - a. ~~Planned for restoration in a six year capital improvement plan adopted by a government agency that will result in a fish passable connection to Lake Washington or Puget Sound.~~
    - b. ~~Planned removal of the private dams that will result in a fish passable connection to Lake Washington and Puget Sound. (Ord. 398 § 1, 2006; Ord. 238 Ch. VIII § 8(B), 2000).~~

**20.80.480 Required buffer areas.**

- A. ~~Required buffer widths shall reflect the sensitivity of the stream type, the risks associated with development and, in those circumstances permitted by these regulations, the type and intensity of human activity and site design proposed to be conducted on or near the stream area. Stream buffers shall be measured from the ordinary high water mark (OHWM) or the top of the bank, if the OHWM can not be determined.~~
- B. ~~The following buffers are established for streams:~~

Table 20.80.480B

Stream Type	Standard Buffer Width (ft)	Minimum Buffer Width (ft)
Type I	150	115
Type II	115	75
Type III	65	35
Type IV	35	25
Piped Stream Segments	10	10

- C. ~~The standard buffer width shall be established; provided, that the buffer may be reduced to the minimum buffer listed above if the applicant can demonstrate that a smaller buffer is adequate to protect the stream functions and implements one or more enhancement measures to result in a net improvement to the stream and buffer. The measures determined most applicable and/or appropriate will be considered in reducing buffer requirements. These include but are not limited to:~~
  - 1. ~~Removal of fish barriers to restore accessibility to anadromous fish.~~
  - 2. ~~Enhancement of fish habitat using log structures incorporated as part of a fish habitat enhancement plan.~~

The Shoreline Municipal Code is current through Ordinance 715, and legislation passed through June 1, 2015.

3. ~~Enhancement of fish and wildlife habitat structures that are likely to be used by wildlife, including wood duck houses, bat boxes, nesting platforms, snags, rootwads/stumps, birdhouses, and heron nesting areas.~~
  4. ~~Additional enhancement measures may include:~~
    - a. ~~Planting native vegetation within the buffer area, especially vegetation that would increase value for fish and wildlife, increase stream bank or slope stability, improve water quality, or provide aesthetic/recreational value; or~~
    - b. ~~Creation of a surface channel where a stream was previously underground, in a culvert or pipe. Surface channels which are "daylighted" shall be located within a buffer area and shall be designed with energy dissipating functions such as meanders to reduce future erosion;~~
    - c. ~~Removal or modification of existing stream culverts (such as at road crossings) to improve fish passage and flow capabilities; or~~
    - d. ~~Upgrading of retention/detention facilities or other drainage facilities beyond required levels.~~
- D. ~~No structures or improvements shall be permitted within the stream buffer area, including buildings, decks, docks, except as otherwise permitted or required under the City's adopted Shoreline Master Program, or under one of the following circumstances:~~
1. ~~When the improvements are part of an approved rehabilitation or mitigation plan; or~~
  2. ~~For the construction of new roads and utilities, and accessory structures, when no feasible alternative location exists; or~~
  3. ~~The construction of trails over and in the buffer of piped stream segments, and the construction of trails near other stream segments consistent with the following criteria:~~
    - a. ~~Trails should be constructed of permeable materials;~~
    - b. ~~Trails shall be designed in a manner that minimizes impact on the stream system;~~
    - c. ~~Trails shall have a maximum trail corridor width of 10 feet; and~~
    - d. ~~Trails should be located within the outer half of the buffer, i.e., that portion of the buffer that is farther away from the stream; or~~
  4. ~~The construction of footbridges; or~~
  5. ~~The construction and placement of informational signs or educational demonstration facilities limited to no more than one square yard surface area and four feet high, provided there is no permanent infringement on stream flow; or~~
  6. ~~The establishment of stormwater management facilities, such as bio-swales, over and in the buffer of piped stream segments and when located outside of the minimum buffer area for other stream segments as set forth in the Table 20.80.480B.~~
- E. ~~The City may extend the width of the buffer on the basis of site specific analysis when necessary to comply with an adopted basin plan in accordance with City, County, State or Federal plans to preserve endangered or threatened species.~~
- F. ~~Stream buffer widths may be modified by averaging buffer widths as set forth herein. Buffer width averaging shall be allowed only where the applicant demonstrates to the City:~~
1. ~~The ecological structure and function of the buffer after averaging is equivalent to or greater than the structure and function before averaging;~~

- ~~2. That the total area contained within the buffer after averaging is no less than that contained within the standard buffer prior to averaging;~~
- ~~3. Buffer averaging shall not result in the buffer width being reduced by more than 25 percent of the required buffer as set forth in the table in subsection (B) of this section and in no case may the buffer be less than the stated minimum width.~~
- ~~4. A habitat survey shall be conducted within the area of concern in order to identify and prioritize highly functional fish and wildlife habitat within the study area.~~

~~The City may require buffer averaging to be designed to protect areas of greater sensitivity and function based on the recommendations of a stream report prepared by a qualified professional.~~

~~G. Relocation of a Type I, II, or III shall be allowed only when the proposed relocation is part of an approved mitigation or rehabilitation plan, will result in equal or better habitat and water quality, and will not diminish the flow capacity of the stream. Relocation of a Type IV stream shall be allowed only when the proposed relocation will result in equal or better habitat and water quality and will not diminish the flow capacity of the stream.~~

~~H. Restoring Piped Watercourses:~~

- ~~1. The City allows the voluntary opening of previously channelized/culverted streams and the rehabilitation and restoration of streams, especially on public property or when a property owner is a proponent in conjunction with new development.~~
- ~~2. When piped watercourse sections are restored, a protective buffer shall be required of the stream section. The buffer distance shall be based on an approved restoration plan, regardless of stream classification, and shall be a minimum of 10 to 25 feet, at the discretion of the Director, to allow for restoration and maintenance. The stream and buffer area shall include habitat improvements and measures to prevent erosion, landslide and water quality impacts. Opened channels shall be designed to support fish access, unless determine to be unfeasible by the City.~~
- ~~3. Removal of pipes conveying streams shall only occur when the City determines that the proposal will result in a new improvement of water quality and ecological functions and will not significantly increase the threat of erosion, flooding, slope stability or other hazards.~~
- ~~4. Where the buffer of the restored stream would extend beyond a required setback on an adjacent property, the applicant shall obtain a written agreement from the affected neighboring property owner. (Ord. 398 § 1, 2006; Ord. 299 § 1, 2002; Ord. 238 Ch. VIII § 8(C), 2000).~~

**20.80.490 — Alteration:**

~~A. Bridges shall be used to cross Type I streams. Culverted crossings and other obstructive means of crossing Type I streams shall be prohibited.~~

~~B. Culverts are allowable only under the following circumstances:~~

- ~~1. Crossing of Type II, III, and IV streams;~~
- ~~2. When fish passage will not be impaired;~~
- ~~3. When the following design criteria are met:~~
  - ~~a. Oversized culverts will be installed;~~
  - ~~b. Culverts will include gradient controls and creation of pools within the culvert for Type II streams where appropriate; and~~
  - ~~e. Gravel substrate will be placed in the bottom of the culvert to a minimum depth of one foot for Type II~~

~~streams;~~

~~4. The applicant or successors shall, at all times, keep any culvert free of debris and sediment to allow free passage of water and, if applicable, fish.~~

~~C. The City may require that a culvert be removed from a stream as a condition of approval, unless it is demonstrated conclusively that the culvert is not detrimental to fish habitat or water quality, or removal would be detrimental to fish or wildlife habitat or water quality. (Ord. 398 § 1, 2006; Ord. 238 Ch. VIII § 8(D), 2000).~~

~~**20.80.500 Mitigation performance standards and requirements.**~~

~~A. **Appropriate Stream Mitigation Sequence and Actions.** Where impacts cannot be avoided, and the applicant has exhausted feasible design alternatives, the applicant or property owner shall seek to implement other appropriate mitigation actions in compliance with the intent, standards and criteria of this section. In an individual case, these actions may include consideration of alternative site plans and layouts, reductions in the density or scope of the proposal, and/or implementation of the performance standards listed in this section.~~

~~B. Significant adverse impacts to stream area functions and values shall be mitigated. Mitigation actions shall be implemented in the preferred sequence: Avoidance, minimization, restoration and replacement. Proposals which include less preferred and/or compensatory mitigation shall demonstrate that:~~

- ~~1. All feasible and reasonable measures will be taken to reduce impacts and losses to the stream, or to avoid impacts where avoidance is required by these regulations; and~~
- ~~2. The restored, created or enhanced stream area or buffer will be available and persistent as the stream or buffer area it replaces; and~~
- ~~3. No overall net loss will occur in stream functions and values.~~

~~**C. Location and Timing of Stream Mitigation.**~~

- ~~1. Mitigation shall be provided on site, unless on site mitigation is not scientifically feasible due to the physical features of the property. The burden of proof shall be on the applicant to demonstrate that mitigation cannot be provided on site.~~
- ~~2. When mitigation cannot be provided on site, mitigation shall be provided in the immediate vicinity of the permitted activity on property owned or controlled by the applicant such as an easement, provided such mitigation is beneficial to the critical area and associated resources. It is the responsibility of the applicant to obtain title to off site mitigation areas.~~
- ~~3. In kind mitigation shall be provided except when the applicant demonstrates and the City concurs that greater functional and habitat value can be achieved through out of kind mitigation.~~
- ~~4. Only when it is determined by the City that subsections (B)(1), (2), and (3) of this section are inappropriate and impractical shall off site, out of kind mitigation be considered.~~
- ~~5. When stream mitigation is permitted by these regulations on site or off site, the mitigation project shall occur near an adequate water supply (river, stream, groundwater) with a hydrologic connection to the mitigation area to ensure successful development or restoration.~~
- ~~6. Any agreed upon mitigation proposal shall be completed prior to project construction, unless a phased schedule, that assures completion concurrent with project construction, has been approved by the City.~~
- ~~7. Restored or created streams, where permitted by these regulations, shall be an equivalent or higher stream value or function than the altered stream.~~

~~D. The performance standards in this section and the relevant performance standards located within the wetland standards of SMC 20.80.350(E)(1) through (17) shall be incorporated into mitigation plans submitted to the~~

~~City for impacts to critical areas. In addition, the City may prepare a technical manual which includes guidelines and requirements for report preparation. The performance standards shall apply to any mitigations proposed within Type I, Type II or Type III streams within the City.~~

- ~~E. On completion of construction, any approved mitigation project must be signed off by the applicant's qualified consultant and approved by the City. Signature of the qualified consultant and approval by the City will indicate that the construction has been completed as planned.~~
- ~~F. **Monitoring Program and Contingency Plan.** A monitoring program shall be implemented by the applicant to determine the success of the mitigation project and any necessary corrective actions. This program shall determine if the original goals and objectives are being met. The monitoring program will be established consistent with the guidelines contained in SMC 20.80.350(G). (Ord. 398 § 1, 2006; Ord. 238 Ch. VIII § 8(E), 2000).~~

## 6a. Staff Report - Attachment B Response to Public Comment

**From:** [Juniper Nammi](#)  
**To:** [Plancom](#)  
**Cc:** [Juniper Nammi](#)  
**Subject:** Response to June 18 Public Comment emails on CAO and SMP  
**Date:** Wednesday, June 24, 2015 12:42:30 PM

---

Commissioners,

The City received eleven emails from concerned property owners on or after June 18<sup>th</sup> regarding their concerns about the proposed changes to the Critical Areas Ordinance and related regulations in the Shoreline Master Program. Additionally, a letter from the Richmond Beach Preservation Association was submitted at the June 18 Planning Commission meeting expressing similar concerns. Staff responded generally to these comments during the June 18<sup>th</sup> presentation. We would now like to take this opportunity to respond more directly and specifically to two main questions that were raised repeatedly in these public comments. The concerned residents are copied on this email to provide them with the same response from staff.

1. *Why are the critical areas regulations incorporated in the Shoreline Master Program (SMP) up for updating now when the SMP was just adopted in 2013?*

The proposed changes to the SMP only involve the critical area regulations incorporated in SMC 20.230.030. Staff recommends these changes so that only one set of critical area regulations apply throughout the City for simplicity in administration and equal treatment of property under the critical areas regulations, to the extent allowable by the Shoreline Management Act.

Currently SMC 20.80.030 and 20.80.040 do not apply within the shoreline jurisdiction and would not apply under the proposed changes. Exemptions E and F under 20.80.030 are proposed for deletion and instead, alteration of these exempted areas would be allowed with mitigation for proposed impacts as recommended by a qualified professional. By changing the classification and regulations governing allowed activities, properties in the shoreline jurisdiction would now be allowed to modify slopes greater than 40 percent that do not exceed 20 feet in height if it is safe to do so. Currently this is not allowed within the shoreline jurisdiction. Similarly, allowances for mitigated impacts to small, hydrologically isolated wetlands of low habitat value are proposed to be allowed throughout the City, where currently the exemption only applies outside of the shoreline jurisdiction.

The changes proposed to SMC 20.80.040 do not apply within the shoreline jurisdiction. Provisions for maintenance, repair, and replacement of existing structures, as well as other permit exemptions within the shoreline jurisdiction area still found in 20.220.030. No changes are proposed to this section.

The proposed code additions for mapping, report requirements, and clarification of allowed activities and alterations are all intended to provide predictability, set uniform standards for report requirements, and generally make the regulations clearer with regard to what is allowed and when additional requirements or restrictions apply.

## 6a. Staff Report - Attachment B Response to Public Comment

No changes to the critical area regulations in the SMP are required this year. The next periodic review of our SMP would be in 2020. Please note that the City is still waiting to hear back from the Washington State Department of Ecology regarding whether the proposed changes to the city-wide critical area regulations are acceptable for incorporation in the SMP. The alternative is leaving the SMP unchanged, with different critical area regulations in effect within the shoreline jurisdiction. If no changes are made to the critical area regulations in the SMP, staff anticipates confusion on the part of property owners, developers, and staff, in trying to apply differing regulations (as adopted in Ordinance 398) within the shoreline jurisdiction. The SMP does require that no net loss and mitigation requirements must utilize the most current and relevant science on a project by project basis. This is easier to do when the BAS is already incorporated into the regulations. Not updating the critical area regulations in the SMP may also require an administrative interpretation of the wetland rating if both state and local review is needed because the ratings adopted in the SMP are now out of date.

2. *How might the proposed changes affect property owner's ability to maintain or improve their property in the shoreline jurisdiction? Will the changes further limit or deny this ability?*

Staff believes that the proposed changes to the critical area regulations (wetlands and geologic hazards drafted to date) will have limited effect on properties within the shoreline jurisdiction. The provisions for permit exemptions within the shoreline jurisdiction are in SMC 20.220.030 and are not proposed for change. The changes to SMC 20.80.030 and 20.80.040 do not apply within the shoreline jurisdiction.

The proposed changes to the wetland regulations effectively apply the regulations currently in the SMP to the rest of the City. The provision proposed allowing development if a buffer area is functionally isolated from a wetland may apply within the shoreline jurisdiction where a break such as a road or railroad separates the buffer area from the wetland, thereby allowing development where it would currently be prohibited.

The proposed changes to geologic hazard classifications would allow for mitigated modification of slopes less than 20 feet tall that are 40 percent or steeper, whereas currently they are not allowed.

All critical area sections being updated are adding provisions to provide predictability for process and critical area report requirements with the hopes that multiple rounds of correction and revisions are not needed to arrive at a proposal that can be reviewed and approved. These are intended to make it clear when reports are required, when alteration is allowed, and what level of mitigation, permitting, and review will apply. These are things already required, but not spelled out in the regulations. As such, applications do not always include all the information needed in critical area reports and plans for permit review to be completed. These changes would apply through-out the City, both within and outside of the shoreline jurisdiction.

Please let me know if you have any additional questions regarding the public comments received or the staff responses above.



## 6a. Staff Report - Attachment B Response to Public Comment

Thank you for your time and attention to this matter.

Sincerely,

**Juniper Nammi, AICP**  
**Associate Planner**  
City of Shoreline  
17500 Midvale Avenue N  
Shoreline, WA 98133-4905  
[jnammi@shorelinewa.gov](mailto:jnammi@shorelinewa.gov)  
P: (206) 801-2525 / F: (206) 801-2788  
[www.shorelinewa.gov](http://www.shorelinewa.gov)