Planning Commission Meeting Date: May 21, 2015 **Agenda Item**

PLANNING COMMISSION AGENDA ITEM

CITY OF SHORELINE, WASHINGTON

AGENDA TITLE:	**Discussion of Critical Areas Ordinance Update - Introduction**
DEPARTMENT:	**Planning & Community Development**
PRESENTED BY:	**Juniper Nammi, AICP, Associate Planner**
	Paul Cohen, Planning Manager

☐ **Public Hearing** ☐ **Study Session** ☐ **Recommendation Only**
☒ **Discussion** ☐ **Update** ☐ **Other**

INTRODUCTION

The State of Washington Growth Management Act (GMA) requires the City of Shoreline to periodically update the Comprehensive Plan, Master Plans, and development regulations. The Critical Areas Ordinance (CAO) in Shoreline Municipal Code (SMC) Chapter 20.80 of the Development Code is the final section of development regulations requiring update under this process. The City is required to complete the current periodic update cycle in 2015.

The GMA requires that the critical areas regulations be updated to be consistent with best available science for the respective critical areas that are regulated. In addition to state mandated changes City staff is also recommending changes to increase predictability and clarity in the existing regulations.

The purpose of this discussion session is to:

- Provide the background for this CAO update process.
- Introduce the types of critical areas regulated and the code sections needing to be updated in the current CAO.
- Provide an overview of the changes currently being developed and the proposed timeline for this process.
- Respond to questions regarding the basis for this update process, the CAO as it currently is adopted, and the timeline and process for the CAO update.

BACKGROUND

The State of Washington GMA establishes state goals, sets deadlines for compliance and offers direction on how to prepare local comprehensive plans and development regulations and requirements for early and continuous public participation. The GMA requires state and local governments to manage Washington's growth by identifying and protecting critical areas and natural resource lands, designating urban growth areas, preparing comprehensive plans and implementing them through capital improvements and development regulations. Plans and regulations required under the GMA must be periodically updated and this update of the City's CAO is the last step in the current update cycle.

Approved By: **Project Manager** ____ **Planning Director** ____

Cities in King County, including Shoreline, are required to complete the current periodic update on or before June 30, 2015, under RCW 36.70A.130. Grant funds tied to the GMA may be withheld if Shoreline is more than twelve months out of compliance with this deadline. The proposed timeline for development and adoption will keep Shoreline in compliance, barring significant delays in the process.

The City's periodic update under the GMA includes the following updates already completed:

Comprehensive Plan – 2012
Parks, Recreation, and Open Space Master Plan –2011
Surface Water Master Plan –2011
Transportation Master Plan –2011, 2012 and 2013
Floodplain Management Ordinance – 2012
Shoreline Master Program – 2013
Development Code updates – various

The last development code section requiring periodic update to meet the 2015 deadline is the CAO in SMC Chapter 20.80. The City of Shoreline CAO was originally adopted in 2000 as SMC Chapter 20.80 with Ordinance 238. The City's first periodic update as mandated under the GMA was completed in 2006 with Ordinance 398. Since the original adoption in 2000, miscellaneous changes to terms, procedures, and administration of the CAO were also made through periodic updates to the development code amendment process; the most recent of which was Ordinance 695 adopted in 2014. The critical area regulations as they currently exist are included as Attachment A.

Critical areas, as mandated in the GMA, include:

- Wetlands
- Critical Aquifer Recharge areas
- Fish and Wildlife Habitat Conservation areas (including streams)
- Frequently Flooded areas, and
- Geologically Hazardous areas.

All critical areas must be designated and their functions and values protected using the best available scientific information - known at best available science or BAS.

As stated in SMC 2.20.010 roles and responsibilities, the Planning Commission is tasked with the review of amendments to the Development Code, which includes the City's critical area regulations.

The decision criteria for 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.

Brief presentations were made to the Parks Board (February 26, 2015) and the Council of Neighborhoods (March 4, 2015) regarding the required periodic update, what the Critical Area regulations are, and announcing the timeline for this project.

Two public meetings have been held to date to solicit input from stakeholders for this project - May 5, 2015, at the Richmond Beach Library and May 14, 2015, at the North City Water District building. These meetings were open conversations about the existing regulations with the request for comments on how they could be improved.

The comments from these two meetings were not yet typed up for inclusion at the time of this staff report. They will be included with the staff report for the next study session on this topic schedule for June 4, 2015.

PROPOSAL & ANALYSIS

Review of all existing critical areas regulations in Chapter 20.80, associated definitions, and other Development Code (Title 20) provisions related to critical areas is being completed by City staff. Two sections do not require any substantive updates at this time – Flood Hazards and Critical Aquifer Recharge Areas. Substantive changes will be needed to the regulations for wetlands, fish and wildlife habitat/streams, and geologically hazardous areas. Staff is also proposing changes to general provisions that will add clarity to and specific standards for critical area report and plan submittal, and other administrative provisions. The following overview lays out why changes may or may not be proposed, and what the possible changes may be.

Flood Hazards - SMC 20.80.360 through 20.80.410

The Floodplain Management Ordinance (Ord. 641) updated Shoreline's Flood Hazard Area regulations to bring them into compliance with best available science and the Endangered Species Act by adopting the model code recommended by FEMA for this region of the country. These regulations are now located in SMC Chapter 13.12 Floodplain Management and are administered by the Public Works Department. No additional changes are needed to the regulations for frequently flooded areas.

Critical Aquifer Recharge Areas – SMC 20.80.420 through 20.80.450

There are no Critical Aquifer Recharge areas currently identified in Shoreline. The City does not currently use groundwater for supplying drinking water and neighboring Lake Forest Park does not have any of the critical recharge areas for their aquifers within Shoreline. No other neighboring city currently uses groundwater for drinking water.

This code section is still included in our regulations in the event that public drinking water supply needs change or updated scientific studies identify critical recharge areas within the City limits in the future. Staff has not yet determined if any changes are required in this section to meet best available science.

Geologic Hazard Areas – SMC 20.80.210 through 20.80.250

Todd Wentworth, of AMEC Foster Wheeler, is the geotechnical engineer selected to complete a review of best available science for geologic hazard areas and to provide recommendations for updating the existing regulations for this category of critical area. The final best available science memorandum from Mr. Wentworth will be provided with the staff report and draft code changes for geologic hazard areas scheduled for June 4, 2015.

Anticipated changes include:

- Improving standards for critical area reports and hazards assessment.
- Updating definitions of geologic hazard types for consistency with best available science and to eliminate redundancy.
- Clarifying allowed activities and applicable exemptions.

Wetlands – SMC 20.80.310 through 20.80.350

The Washington State Department of Ecology compiled a broad review and synthesis of best available science for wetlands in 2005 and updated that best available science review in 2013. This documentation is the primary source of information guiding the anticipated changes to the wetlands provisions in the CAO.

Currently the City has two distinctly different sets of regulations for wetlands. With the 2013 adoption of the City's Shoreline Master Program (SMP), the City incorporated best available science and included the DOE wetland rating system and recommended buffer and modification standards in the SMP.

Anticipated changes include:

- Transferring the wetlands regulations from SMP into the Critical Areas Chapter.
- Changing wetland rating standards to be consistent with DOE 2014 *Update of the Wetland Rating System for Western Washington*.
- Clarifying allowed activities and exemptions.

Fish & Wildlife Habitat Conservation Areas and Streams – SMC 20.80.260 through 20.80.300 and 20.80.460 through 20.80.500

Currently, Fish & Wildlife Conservation Areas have a separate section and set of regulations from Streams in the CAO. The State model code and many other jurisdictions combine these two sections. The best available science for these types of critical areas are still being reviewed by staff, however State agency staff have recommended that the City adopt the state water type classifications for streams.

Anticipated changes include:

- Possibly combining Streams with Fish & Wildlife Habitat section based on State model code provisions.
- Updating standards based on state recommendations, including adoption of State Water Type Classification.
- Clarifying allowed activities and exemptions.
- Improving standards for critical area reports.

Critical Area General Provisions – SMC 20.80.010 through 20.80.110, Definitions 20.20, and 20.30.333 to 20.30.336

The general provision in the CAO that facilitates administration of the critical area regulations and set standards that apply to all types of critical areas can be found primarily in SMC 20.80.010 through 20.80.110, but also include sections 20.30.333 and 20.30.336 which provide criteria for Critical Area Special Use and Critical Area Reasonable Use permits. Definitions related to critical areas are found throughout SMC Chapter 20.20. A number of other provisions throughout SMC Title 20 Development Code also address critical areas or cross reference the provisions in SMC Chapter 20.80. These will all be reviewed for consistency with the proposed changes, in addition to any substantive changes proposed for the general provisions. Staff is reviewing the State's model code and best practices adopted by neighboring jurisdictions in the region to identify code clarifications and process improvements for consideration.

Anticipated changes include:

- Improving general standards for critical area reports.
- Changing the process for review of critical area reports and involvement of qualified third party reviewers.
- Clarifying allowed activities and exemptions.
- Updating definitions related to critical areas.

Shoreline Master Program – SMC 20.230.030

In addition to the critical areas regulations, changes will be proposed to the Shoreline Master Program, because the SMP include critical areas regulations and references to the original CAO. These changes will bring the references to the CAO up to date and realign the wetlands standards in the shoreline jurisdiction with the rest of the City.

Anticipated changes include:

- Transferring the wetlands regulations from the SMP into the Critical Areas Chapter.
- Updating the reference in the SMP to the CAO to include the most recent update so the same critical areas regulations apply throughout the City.

Public Comment

Comments and suggestions received at the two Critical Area Conversation events in May or via mail, email, and phone during the development of the draft CAO update will be compiled and provided with future staff reports on the CAO. Staff will review these comments and identify topics that are not already being considered in the work program. Planning Commission may be asked for direction on whether to pursue specific ideas or topics proposed by the public.

TIMING AND SCHEDULE

Outreach to the public started in late February/early March with introductory presentations to the Parks Board and the Council of Neighborhoods. These community

leaders were informed of the project and invited to spread the word to their neighbors and the community as a whole to encourage public participation.

Two public meetings were held to start the conversation about critical areas and the planned updates to the CAO. These meetings were held on May 5 and 14, 2015.

The tentative schedule for Planning Commission study sessions and public hearing is:

- *May 21 – Introduction and Overview*
- *June 4 – Geologic Hazard Areas*
- *June 18 – Wetlands and Shoreline Master Program*
- *July 2 – Streams and General Critical Area Provisions*
- *July 16- Public Hearing and Recommendation*

A news article introducing the project and announcing the two public meetings was published in the May Currents newsletter. Additional articles announcing meetings and key decision points in the process will be published in currents in June and the Summer issue as needed. A project webpage was added to the City website and can be accessed at shorelinewa.gov/critical-areas. An email group list will also be used to remind interested community members of upcoming meetings.

City Council review and adoption is tentatively scheduled for August-September 2015, with staff update to handouts, forms, processes, and permitting tools to follow thereafter. A more detailed project work plan is included as Attachment B.

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.

This legislative action is subject to the State Environmental Policy Act (SEPA) and notification of the proposed changes must go to the Washington State Department of Commerce and Department of Ecology. The timing of the SEPA Determination and noticing will depend on whether the current schedule is adjusted or not.

RECOMMENDATION

No action is required of the Planning Commission at this time. This meeting is to introduce the CAO periodic update process and provide an overview of the next four meetings in which the specific code change recommendations will be presented and studied.

ATTACHMENTS

Attachment A – SMC Chapter 20.80 and related Definitions from SMC Chapter 20.20
Attachment B – CAO Update 2015 Work Plan

Chapter 20.80
Critical Areas

Sections:

Subchapter 1. Critical Areas – General Provisions

Subchapter 2. Geologic Hazard Areas

Subchapter 1.
Critical Areas – General Provisions

20.80.010 Purpose.

A. The purpose of this chapter is to establish supplemental standards for the protection of critical areas in compliance with the provisions of the Washington Growth Management Act of 1990 (Chapter 36.70A RCW) and consistent with the goals and policies of the Shoreline Comprehensive Plan in accordance with the procedures of Chapter 20.30 SMC.

B. By identifying and regulating development and alterations to critical areas and their buffers, it is the intent of this chapter to:

1. Protect the public from injury, loss of life, property damage or financial losses due to flooding, erosion, landslide, seismic events, soils subsidence or steep slope failure;

2. Protect unique, fragile and valuable elements of the environment;

3. Reduce cumulative adverse environmental impacts to water quality, wetlands, streams and other aquatic resources, fish and wildlife habitat, steep slopes and geologically unstable features;

4. Ensure the long-term protection of ground and surface water quality;

5. Alert members of the public, including appraisers, assessors, owners, potential buyers, or lessees, to the development limitations of critical areas and their required buffers;

6. Serve as a basis for exercise of the City's substantive authority under the State Environmental Policy Act (SEPA) and the City's Environmental Procedures (Chapter 20.30 SMC, Subchapter 8); and comply with the requirements of the Growth Management Act (Chapter 36.70A RCW) and its implementing rules;

7. Establish standards and procedures that are intended to protect environmentally critical areas while accommodating the rights of property owners to use their property in a reasonable manner; and

8. Provide for the management of critical areas to maintain their functions and values and to restore degraded ecosystems. (Ord. 641 § 5 (Exh. A), 2012; Ord. 398 § 1, 2006; Ord. 324 § 1, 2003; Ord. 238 Ch. VIII § 1(A), 2000).

20.80.020 Critical areas maps.

A. The approximate location and extent of identified critical areas within the City's planning area are shown on the critical areas maps adopted as part of this chapter. These maps shall be used for informational purposes only to assist property owners and other interested parties. Boundaries and locations indicated on the maps are generalized. Critical areas and their buffers may occur within the City which have not previously been mapped.

B. The actual presence or absence, type, extent, boundaries, and classification of critical areas shall be identified in the field by a qualified professional, and determined by the City, according to the procedures, definitions and criteria established by this chapter. In the event of any conflict between the critical area location or designation shown on the City's maps and the criteria or standards of this chapter, the criteria and standards shall prevail.

C. The critical areas maps shall be periodically updated by the City and shall reflect any permit activity, results of special studies and reports reviewed and approved by the City, amendments to the Comprehensive Plan Environmental Element and Department identified errors and corrections. (Ord. 398 § 1, 2006; Ord. 324 § 1, 2003; Ord. 238 Ch. VIII § 1(D), 2000. Formerly 20.80.040.).

20.80.025 Applicability.

A. Unless explicitly exempted, the provisions of this chapter shall apply to all land uses and within all zoning designations in the City of Shoreline. All persons within the City shall comply with the requirements of this chapter.

B. The City shall not approve any permit or otherwise issue any authorization to alter the condition of any land, water or vegetation or to construct or alter any structure or improvement without first assuring compliance with the requirements of this chapter.

C. Approval of a development proposal pursuant to the provisions of this chapter does not discharge the obligation of the applicant to comply with the provisions of this chapter.

D. The provisions of this chapter shall apply to any forest practices over which the City has jurisdiction pursuant to Chapter 76.09 RCW and WAC Title 222. (Ord. 398 § 1, 2006; Ord. 324 § 1, 2003; Ord. 238 Ch. VIII § 1(E), 2000. Formerly 20.80.050.).

20.80.030 Exemptions.

The following activities shall be exempt from the provisions of this chapter:

A. Alterations in response to emergencies which threaten the public health, safety and welfare or which pose an imminent risk of damage to private property as long as any alteration undertaken pursuant to this subsection is reported to the City as soon as possible. Only the minimum intervention necessary to reduce the risk to public health, safety, or welfare and/or the imminent risk of damage to private property shall be authorized by this exemption. The City shall confirm that an emergency exists and determine what, if any, additional applications and/or measures shall be required to protect the environment consistent with the provisions of this chapter, and to repair any damage to a preexisting resource;

B. Public water, electric and natural gas distribution, public sewer collection, cable communications, telephone, utility and related activities undertaken pursuant to City-approved best management practices, and best available science with regard to protection of threatened and endangered species, as follows:

1. Normal and routine maintenance or repair of existing utility structures or rights-of-way;

2. Relocation of electric facilities, lines, equipment or appurtenances, not including substations, with an associated voltage of 55,000 volts or less, only when required by the City of Shoreline, which approves the new location of the facilities;

3. Replacement, operation, repair, modification or installation or construction in an improved City road right-of-way or City-authorized private roadway of all electric facilities, lines, equipment or appurtenances, not including substations, with an associated voltage of 55,000 volts or less;

4. Relocation of public sewer local collection, public water local distribution, natural gas, cable communication or telephone facilities, lines, pipes, mains, equipment or appurtenances, only when required by the City of Shoreline, which approves the new location of the facilities; and

5. Replacement, operation, repair, modification, relocation, installation or construction of public sewer local collection, public water local distribution, natural gas, cable communication or telephone facilities, lines, pipes, mains, equipment or appurtenances when such facilities are located within an improved public right-of-way or City-authorized private roadway;

C. Maintenance, operation, repair, modification or replacement of publicly improved roadways and associated stormwater drainage systems as long as any such alteration does not involve the expansion of roadways or related improvements into previously unimproved rights-of-way or portions of rights-of-way;

D. Maintenance, operation or repair of publicly improved recreation areas as long as any such activity does not involve the expansion of uses and/or facilities into a previously unimproved portion of a preexisting area. Maintenance, operation and repair of publicly improved recreation areas within designated fish and wildlife habitat areas shall be permitted if all activities are performed consistent with the development standards of this chapter, best available science or adaptive management plans as recognized by the City;

E. Activities affecting isolated Type IV wetlands which are individually smaller than 1,000 square feet;

F. Activities occurring in areas which may be considered small steep slopes (areas of 40 percent slope or greater with a vertical elevation change of up to, but not greater than 20 feet), such as berms, retaining walls, excavations and small natural slopes, and activities on steep slopes created through prior legal grading activity may be exempted based upon City review of a soils report prepared by a qualified geologist or geotechnical engineer which demonstrates that no adverse impact will result from the exemption;

G. Minor conservation and enhancement of critical areas that does not alter the location, dimensions or size of the critical area or buffer, and results in improvement of the critical area functions;

H. Removal of active or imminent hazardous trees in accordance with SMC 20.50.310(A)(1)(c);

I. Removal of not active or imminent hazardous trees in accordance with the following:

1. For hazardous circumstances that are not active or imminent, such as suspected tree rot or diseased trees or less obvious structural wind damage to limbs or trunks, a permit exemption request form must be submitted by the property owner together with a risk assessment form. Both the permit exemption request form and risk assessment form shall be provided by the Director;

2. The permit exemption request form shall include a grant of permission for the Director and/or his qualified professionals to enter the subject property to evaluate the circumstances. Attached to the permit exemption request form shall be a risk assessment form that documents the hazard and which must be signed by a certified arborist or professional forester;

3. No permit exemption request shall be approved until the Director reviews the submitted forms and conducts a site visit. The Director may direct that a peer review of the request be performed at the applicant’s cost, and may require that the subject tree(s) and vegetation be cordoned off with yellow warning tape during the review of the request for exemption;

4. Approval to cut or clear trees may only be given upon recommendation of the City-approved arborist that the condition constitutes an actual threat to life or property in homes,

private yards, buildings, public or private streets and driveways, sidewalks, improved utility corridors, or access for emergency vehicles and any trail as proposed by the property owner and approved by the Director for purposes of this section;

5. The Director shall authorize only such alteration to existing trees and vegetation as may be necessary to eliminate the hazard and shall condition authorization on means and methods of removal necessary to minimize environmental impacts, including replacement of any significant trees. The arborist shall include an assessment of whether a portion of the tree suitable for a snag for wildlife habitat may safely be retained. All work shall be done utilizing hand-held implements only, unless the property owner requests and the Director approves otherwise in writing. The Director may require that all or a portion of cut materials be left on site;

J. Site investigative work and studies necessary for preparing land use applications, including soils tests, water quality studies, wildlife studies and similar tests and investigations; provided, that any disturbance of the critical area shall be the minimum necessary to carry out the work or studies;

K. When it can be demonstrated that there will be no undue adverse effect, the following activities may be allowed within critical areas and their buffers: educational activities, scientific research, and outdoor recreational activities, including but not limited to interpretive field trips, bird watching, public beach access including water recreation-related activities, bicycling and hiking, that will not have an undue adverse effect on the critical area;

L. Normal and routine maintenance and operation of existing landscaping and gardens, provided they comply with all other regulations in this chapter;

M. Minor activities not mentioned above and determined by the City to have minimal impacts to a critical area;

N. Notwithstanding the exemptions provided by this section, any otherwise exempt activities occurring in or near a critical area should meet the purpose and intent of SMC 20.80.010 and should consider on-site alternatives that avoid or minimize impacts; and

O. Mitigation projects related to utilities construction in critical areas or their buffers. (Ord. 640 § 1 (Exh. A), 2012; Ord. 398 § 1, 2006; Ord. 324 § 1, 2003; Ord. 238 Ch. VIII § 1(G), 2000. Formerly 20.80.070.).

20.80.040 Partial exemptions.

A. The following are exempt from the provisions of this chapter except for the notice to title provisions and the flood hazard area provisions, if applicable.

1. Structural modification of, addition to, or replacement of structures, except single detached

residences, in existence before November 27, 1990, which do not meet the building setback or buffer requirements for wetlands, streams or steep slope hazard areas if the modification, addition, replacement or related activity does not increase the existing building footprint of the structure lying within the above-described building setback area, sensitive area or buffer;

2. Structural modification of, addition to, or replacement of single detached residences in existence before November 27, 1990, which do not meet the building setback or buffer requirements for wetlands, streams or steep slope hazard areas if the modification, addition, replacement or related activity does not increase the existing footprint of the residence lying within the above-described buffer or building setback area by more than 750 square feet over that existing before November 27, 1990, and no portion of the modification, addition or replacement is located closer to the critical area or, if the existing residence is within the critical area, extend farther into the critical area; and

3. Maintenance or repair of structures which do not meet the development standards of this chapter for landslide or seismic areas if the maintenance or repair does not increase the footprint of the structure and there is no increased risk to life or property as a result of the proposed maintenance or repair.

B. A permit or approval sought as part of a development proposal for which multiple permits are required is exempt from the provisions of this chapter, except for the notice to title provisions, as applicable if:

1. The City of Shoreline has previously reviewed all critical areas on the site; and

2. There is no material change in the development proposal since the prior review; and

3. There is no new information available which may alter previous critical area review of the site or a particular critical area; and

4. The permit or approval under which the prior review was conducted has not expired or, if no expiration date, no more than five years have lapsed since the issuance of that permit or approval; and

5. The prior permit or approval, including any conditions, has been complied with. (Ord. 398 § 1, 2006; Ord. 324 § 1, 2003; Ord. 238 Ch. VIII § 1(H), 2000. Formerly 20.80.080.).

20.80.045 Relationship to other regulations.

A. These critical area regulations shall apply as an overlay and in addition to zoning, land use and other regulations established by the City of Shoreline. In the event of any conflict between these regulations and any other regulations of the City, the regulations which provide greater protection to the environmentally critical areas shall apply.

B. Areas characterized by particular critical areas may also be subject to other regulations established by this chapter due to the overlap or multiple functions of some critical areas. Wetlands, for example, may be defined and regulated according to the provisions for fish and wildlife habitat conservation areas contained in this chapter, as well as provisions regulating wetlands. In the event of any conflict between regulations for particular critical areas in this chapter, the regulations which provide greater protection to environmentally critical areas shall apply. (Ord. 398 § 1, 2006; Ord. 324 § 1, 2003; Ord. 238 Ch. VIII § 1(K), 2000. Formerly 20.80.110.).

20.80.050 Notice to title.

A. To inform subsequent purchasers of real property of the existence of critical areas, when development is permitted in an identified critical area or its associated buffer, a notice to title applicable to the property shall be filed with the King County Department of Records. The notice shall state that critical areas or buffers have been identified on the property and the fact that limitations on actions in or affecting the critical area or buffer may exist. The notice shall run with the land. This notice shall not be required for development by a public agency or public or private utility when:

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

2. On the site of a permanent public facility.

B. Subdivisions, short subdivisions, development agreements, and binding site plans shall establish a separate tract (a critical areas tract) as a permanent protective measure for wetlands, streams, fish and wildlife habitat, landslide hazard areas and their buffers. The plat or binding site plan for the project shall clearly depict the critical areas tract, and shall include all of the subject critical area and any required buffer, as well as additional lands, as determined by the developer. Restrictions to development within the critical area tract shall be clearly noted on the plat or plan. Restrictions shall be consistent with this chapter for the entire critical area tract, including any additional areas included voluntarily by the developer. Should the critical area tract include several types of critical areas, the developer may wish to establish separate critical areas tracts. (Ord. 398 § 1, 2006; Ord. 324 § 1, 2003; Ord. 238 Ch. VIII § 1(M), 2000. Formerly 20.80.130.).

20.80.060 Permanent field marking.

A. All critical areas tracts, easements or dedications shall be clearly marked on the site using permanent markings, placed every 300 feet, which include the following text:

This area has been identified as a <<INSERT TYPE OF CRITICAL AREA>> by the City of Shoreline. Activities, including clearing and grading, removal of vegetation, pruning, cutting of trees or shrubs, planting of nonnative species, and other alterations may be prohibited. Please contact the City of Shoreline Department of Development (206) 546-1811 for further information.

B. It is the responsibility of the landowner to maintain and replace if necessary all permanent field markings. (Ord. 398 § 1, 2006; Ord. 324 § 1, 2003; Ord. 238 Ch. VIII § 1(N), 2000. Formerly 20.80.140.).

20.80.070 Alteration of critical areas.

Alteration of critical areas, including their established buffers, may only be permitted subject to the criteria in this chapter, and compliance with any Federal and/or State permits required. (Ord. 398 § 1, 2006; Ord. 324 § 1, 2003; Ord. 238 Ch. VIII § 2(A), 2000. Formerly 20.80.160.).

20.80.080 Alteration or development of critical areas – Standards and criteria.

This section applies to mitigation required with all critical areas reviews, approvals and enforcement pursuant to this chapter. This section is supplemented with specific measures under subchapters for particular critical areas. The proponent for a project involving critical areas shall avoid, minimize and mitigate the impacts to the critical areas through actions that occur in the following sequence:

A. Avoiding the impact altogether by not taking a certain action or parts of actions;

B. Minimizing impacts by limiting the degree or magnitude of the action and its implementation;

C. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;

D. Reducing or eliminating the impact over time through preservation and maintenance operations during the life of the action;

E. Compensating for the impact by replacing or providing substitute resources or environments; and/or

F. Monitoring, measuring and reporting the impact to the Planning Director and taking appropriate corrective measures. (Ord. 398 § 1, 2006; Ord. 324 § 1, 2003; Ord. 238 Ch. VIII § 2(B), 2000. Formerly 20.80.170.).

20.80.085 Pesticides, herbicides and fertilizers on City-owned property.

Pesticides, herbicides and fertilizers which have been identified by State or Federal agencies as harmful to humans, wildlife, or fish, shall not be used in a City-owned riparian corridor, shoreline habitat or its buffer, wetland or its buffer, except as allowed by the Director for the following circumstances:

A. When the Director determines that an emergency situation exists where there is a serious threat to public safety, health, or the environment and that an otherwise prohibited application must be used as a last resort.

B. Compost or fertilizer may be used for native plant revegetation projects in any location. (Ord. 398

§ 1, 2006)

20.80.090 Buffer areas.

The establishment of buffer areas shall be required for all development proposals and activities in or adjacent to critical areas. In all cases the standard buffer (i.e., the maximum buffer required by the City) shall apply unless the Director determines that no net loss of functions and values will occur. The purpose of the buffer shall be to protect the integrity, function, value and resource of the subject critical area, and/or to protect life, property and resources from risks associated with development on unstable or critical lands. Buffers shall consist of an undisturbed area of native vegetation established to achieve the purpose of the buffer. If the buffer area has previously been disturbed, it shall be revegetated pursuant to an approved planting plan. Buffers shall be protected during construction by placement of a temporary barricade if determined necessary by the City, on-site notice for construction crews of the presence of the critical area, and implementation of appropriate erosion and sedimentation controls. Restrictive covenants or conservation easements may be required to preserve and protect buffer areas. (Ord. 398 § 1, 2006; Ord. 324 § 1, 2003; Ord. 238 Ch. VIII § 2(C), 2000. Formerly 20.80.180.).

20.80.100 Classification and rating of critical areas.

To promote consistent application of the standards and requirements of this chapter, critical areas within the City of Shoreline shall be rated or classified according to their characteristics, function and value, and/or their sensitivity to disturbance. Classification of critical areas shall be determined by the City using the following tools:

A. Application of the criteria contained in these regulations;

B. Consideration of the technical reports submitted by qualified professionals in connection with applications subject to these regulations; and

C. Review of maps adopted pursuant to this chapter. (Ord. 398 § 1, 2006; Ord. 324 § 1, 2003; Ord. 238 Ch. VIII § 2(E), 2000. Formerly 20.80.200.).

20.80.110 Critical areas reports required.

If uses, activities or developments are proposed within critical areas or their buffers, an applicant shall provide site-specific information and analysis as determined by the City. The site-specific information must be obtained by expert investigation and analysis. This provision is not intended to expand or limit an applicant's other obligations under WAC 197-11-100. Such site-specific reviews shall be performed by qualified professionals, as defined by SMC 20.20.042, who are approved by the City or under contract to the City. (Ord. 581 § 1 (Exh. 1), 2010; Ord. 515 § 1, 2008; Ord. 406 § 1, 2006; Ord. 398 § 1, 2006).

Subchapter 2.

Geologic Hazard Areas

20.80.210 Designation and purpose.

A. Geologic hazard areas are those lands that are affected by natural processes that make them susceptible to geologic events, such as landslides, seismic activity and severe erosion, especially bluff and ravine areas and steep slopes. Areas susceptible to one or more of the following types of hazards shall be designated as geologically hazardous areas:

1. Erosion hazard;

2. Landslide hazard;

3. Seismic hazard.

B. The primary purpose of geologic hazard area regulations is to avoid and minimize potential impacts to life and property from geologic hazards, conserve soil resources, and minimize structural damage relating to seismic hazards. This purpose shall be accomplished through appropriate levels of study and analysis, application of sound engineering principles, and regulation or limitation of land uses, including maintenance of existing native vegetation, regulation of clearing and grading activities, and control of stormwater. (Ord. 398 § 1, 2006; Ord. 238 Ch. VIII § 3(A), 2000).

20.80.220 Classification.

Geologic hazard areas shall be classified according to the criteria in this section as follows:

A. **Landslide Hazard Areas.** Landslide hazard areas are classified as follows:

1. Moderate Hazard: Areas with slopes between 15 percent and 40 percent and that are underlain by soils that consist largely of sand, gravel or glacial till.

2. High Hazard: Areas with slopes between 15 percent and 40 percent that are underlain by soils consisting largely of silt and clay.

3. Very High Hazard: Areas with slopes steeper than 15 percent with zones of emergent water (e.g., springs or ground water seepage), areas of landslide deposits regardless of slope, and all steep slope hazard areas sloping 40 percent or steeper.

B. **Seismic Hazard Areas.** Seismic hazard areas are lands that, due to a combination of soil and ground water conditions, are subject to severe risk of ground shaking, subsidence or liquefaction of soils during earthquakes. These areas are typically underlain by soft or loose saturated soils (such as alluvium) and have a shallow ground water table.

C. **Erosion and Sedimentation Hazards.** Erosion hazard areas are lands or areas underlain by soils identified by the U.S. Department of Agriculture Natural Resources Conservation Service

(formerly the Soil Conservation Service) as having “severe” or “very severe” erosion hazards. This includes, but is not limited to, the following group of soils when they occur on slopes of 15 percent or greater: Alderwood-Kitsap (AkF), Alderwood gravelly sandy loam (AgD), Kitsap silt loam (KpD), Everett (EvD) and Indianola (InD). (Ord. 398 § 1, 2006; Ord. 238 Ch. VIII § 3(B), 2000).

20.80.230 Required buffer areas.

A. Required buffer widths for geologic hazard areas shall reflect the sensitivity of the hazard area and 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 area.

B. In determining the appropriate buffer width, the City shall consider the recommendations contained in a geotechnical report required by these regulations and prepared by a qualified consultant.

C. For landslide hazard areas, the standard buffer shall be 50 feet from all edges of the landslide hazard area. Larger buffers may be required as needed to eliminate or minimize the risk to people and property based on a geotechnical report prepared by a qualified professional.

D. Landslide hazard area buffers may be reduced to a minimum of 15 feet when technical studies demonstrate that the reduction will not increase the risk of the hazard to people or property on- or off-site.

E. Landslide hazard 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 landslide hazard 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 § 3(C), 2000).

20.80.240 Alteration.

A. The City shall approve, condition or deny proposals in a geologic hazard area as appropriate based upon the effective mitigation of risks posed to property, health and safety. The objective of mitigation measures shall be to render a site containing a geologic hazard as safe as one not containing such hazard. Conditions may include limitations of proposed uses, modification of density, alteration of site layout and other appropriate changes to the proposal. Where potential impacts cannot be effectively mitigated to eliminate a significant risk to public health, safety and property, or important natural resources, the proposal shall be denied.

B. **Very High Landslide Hazard Areas.** Development shall be prohibited in very high landslide

hazards areas or their buffers except as granted by a critical areas special use permit or a critical areas reasonable use permit.

C. **Moderate and High Landslide Hazards.** Alterations proposed to moderate and high landslide hazards or their buffers shall be evaluated by a qualified professional through the preparation of the geotechnical report. However, for proposals that include no development, construction, or impervious surfaces, the City, in its sole discretion, may waive the requirement for a geotechnical report. The recommendations contained within the geotechnical report shall be incorporated into the alteration of the landslide hazard area or their buffers.

The geotechnical engineer and/or geologist preparing the report shall provide assurances that the risk of damage from the proposal, both on-site and off-site, are minimal subject to the conditions set forth in the report, that the proposal will not increase the risk of occurrence of the potential landslide hazard, and that measures to eliminate or reduce risks have been incorporated into the report's recommendations.

D. **Seismic Hazard Areas.**

1. For one-story and two-story residential structures, a qualified professional shall conduct an evaluation of site response and liquefaction potential based on the performance of similar structures with similar foundation conditions; or

2. For all other proposals, the applicant shall conduct an evaluation of site response and liquefaction potential including sufficient subsurface exploration to determine the site coefficient for use in the static lateral force procedure described in the International Building Code.

E. **Erosion Hazard Areas.**

1. Up to 1,500 square feet may be cleared on any lot in an erosion hazard area without a permit, unless the site also contains another type of critical area or any other threshold contained in SMC 20.50.320 would be exceeded.

2. All development proposals on sites containing erosion hazard areas shall include a temporary erosion and sediment control plan consistent with the requirements of the adopted surface water design manual and a revegetation plan to ensure permanent stabilization of the site. Specific requirements for revegetation plans shall be determined on a case-by-case basis during permit review and administrative guidelines shall be developed by the Department. Critical area revegetation plans may be combined with required landscape, tree retention, and/or other critical area mitigation plans as appropriate.

3. All subdivisions, short subdivisions or binding site plans on sites with erosion hazard areas shall comply with the following additional requirements:

a. Except as provided in this section, existing vegetation shall be retained on all lots until building permits are approved for development on individual lots;

b. If any vegetation on the lots is damaged or removed during construction of the subdivision infrastructure, the applicant shall be required to implement the revegetation plan in those areas that have been impacted prior to final inspection of the site development permit or the issuance of any building permit for the subject property;

c. Clearing of vegetation on individual lots may be allowed prior to building permit approval if the City of Shoreline determines that:

i. Such clearing is a necessary part of a large scale grading plan,

ii. It is not feasible to perform such grading on an individual lot basis, and

iii. Drainage from the graded area will meet water quality standards to be established by administrative rules.

4. Where the City of Shoreline determines that erosion from a development site poses a significant risk of damage to downstream receiving water, the applicant shall be required to provide regular monitoring of surface water discharge from the site. If the project does not meet water quality standards established by law or administrative rules, the City may suspend further development work on the site until such standards are met.

5. The City may require additional mitigation measures in erosion hazard areas, including, but not limited to, the restriction of major soil-disturbing activities associated with site development between October 15th and April 15th to meet the stated purpose contained in SMC 20.80.010 and 20.80.210.

6. The use of hazardous substances, pesticides and fertilizers in erosion hazard areas may be prohibited by the City of Shoreline. (Ord. 695 § 1 (Exh. A), 2014; Ord. 398 § 1, 2006; Ord. 352 § 1, 2004; Ord. 324 § 1, 2003; Ord. 299 § 1, 2002; Ord. 238 Ch. VIII § 3(D), 2000).

20.80.250 Mitigation performance standards and requirements.

The following performance standards shall apply to any mitigations for development proposed within geologic hazard areas located within the City:

A. Relevant performance standards from SMC 20.80.080, 20.80.300, 20.80.350 and 20.80.500 as determined by the City, shall be incorporated into mitigation plans.

B. The following additional performance standards shall be reflected in proposals within geologic

hazard areas:

1. Geotechnical studies shall be prepared by a qualified consultant to identify and evaluate potential hazards and to formulate mitigation measures.

2. Construction methods will reduce or not adversely affect geologic hazards.

3. Site planning should minimize disruption of existing topography and natural vegetation.

4. Impervious surface coverage should be minimized.

5. Disturbed areas should be replanted as soon as feasible pursuant to an approved landscape plan.

6. Clearing and grading regulations as set forth by the City shall be followed.

7. The use of retaining walls that allow maintenance of existing natural slope areas are preferred over graded slopes.

8. Temporary erosion and sedimentation controls, pursuant to an approved plan, shall be implemented during construction.

9. Undevelopable geologic hazard areas larger than one-half acre shall be placed in a separate tract, provided this requirement does not make the lot nonconforming.

10. A monitoring program shall be prepared for construction activities permitted in geologic hazard areas.

11. A bond, guarantee or other assurance device approved by the City shall be posted to cover the cost of monitoring, maintenance and any necessary corrective actions.

12. Development shall not increase instability or create a hazard to the site or adjacent properties, or result in a significant increase in sedimentation or erosion. (Ord. 398 § 1, 2006; Ord. 238 Ch. VIII § 3(E), 2000).

Subchapter 3.
Fish and Wildlife Habitat Conservation Areas

20.80.260 Designation and purpose.

A. 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.

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.

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 Classification.

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:

1. The presence of species proposed or listed by the Federal government or the State of Washington as endangered, threatened, critical, or priority; or

2. The presence of heron rookeries or raptor nesting trees; or

3. Streams and wetlands and their associated buffers that provide significant habitat for fish and wildlife.

B. The City designates the following fish and wildlife habitat conservation areas that meet the above criteria, and this 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).

20.80.280 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; 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.

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).

20.80.300 Mitigation performance standards and requirements.

A. Relevant performance standards for other critical areas (such as wetlands and streams) 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).

Subchapter 4.
Wetlands

20.80.310 Purpose.

A. Wetlands are those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

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

B. Wetlands help to maintain water quality; store and convey stormwater and floodwater; recharge ground water; provide important fish and wildlife habitat; and serve as areas for recreation, education, scientific study and aesthetic appreciation.

C. The City's overall goal shall be to achieve no net loss of wetlands. This goal shall be implemented through retention of the function, value and acreage of wetlands within the City. Wetland buffers serve to moderate runoff volume and flow rates; reduce sediment, chemical nutrient and toxic pollutants; provide shading to maintain desirable water temperatures; provide habitat for wildlife; protect wetland resources from harmful intrusion; and generally preserve the ecological integrity of

the wetland area.

D. The primary purpose of the wetland regulations is to avoid detrimental wetland impacts and achieve a goal of no net loss of wetland function, value and acreage; and where possible enhance and restore wetlands. (Ord. 695 § 1 (Exh. A), 2014; Ord. 398 § 1, 2006; Ord. 238 Ch. VIII § 5(A), 2000).

20.80.320 Designation, delineation and classification.

A. The identification of wetlands and the delineation of their boundaries shall be done in accordance with the Federal Wetland Delineation Manual and applicable regional supplements approved by the Washington State Department of Ecology per WAC 173-22-035.

B. All areas identified as wetlands pursuant to subsection A of this section, are hereby designated critical areas and are subject to the provisions of this chapter.

C. Wetlands, as defined by this subchapter, shall be classified according to the following criteria:

1. “Type I wetlands” are those wetlands which meet any of the following criteria:

a. The presence of species proposed or listed by the Federal government or State of Washington as endangered, threatened, critical or priority, or the presence of critical or outstanding actual or potential habitat for those species; or

b. Wetlands having 40 percent to 60 percent open water in dispersed patches with two or more wetland subclasses of vegetation; or

c. High quality examples of a native wetland listed in the terrestrial and/or aquatic ecosystem elements of the Washington Natural Heritage Plan that are presently identified as such or are determined to be of heritage quality by the Department of Natural Resources; or

d. The presence of plant associations of infrequent occurrence. These include, but are not limited to, plant associations found in bogs and in wetlands with a coniferous forested wetland class or subclass occurring on organic soils.

2. “Type II wetlands” are those wetlands which are not Type I wetlands and meet any of the following criteria:

a. Wetlands greater than one acre (43,560 sq. ft.) in size;

b. Wetlands equal to or less than one acre (43,560 sq. ft.) but greater than one-half acre (21,780 sq.ft.) in size and have three or more wetland classes; or

c. Wetlands equal to or less than one acre (43,560 sq. ft.) but greater than one-half acre (21,780 sq.ft.) in size, and have a forested wetland class or subclasses.

3. "Type III wetlands" are those wetlands that are equal to or less than one acre in size and that have one or two wetland classes and are not rated as Type IV wetlands, or wetlands less than one-half acre in size having either three wetlands classes or a forested wetland class or subclass.

4. "Type IV wetlands" are those wetlands that are equal to or less than 2,500 square feet, hydrologically isolated and have only one, unforested, wetland class. (Ord. 695 § 1 (Exh. A), 2014; Ord. 398 § 1, 2006; Ord. 238 Ch. VIII § 5(B), 2000).

20.80.330 Required buffer areas.

A. Required wetland buffer widths shall reflect the sensitivity of the area and resource or 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 critical area. Wetland buffers shall be measured from the wetland's edge as delineated in accordance with the Federal Wetland Delineation Manual and applicable regional supplements approved by the Washington State Department of Ecology per WAC 173-22-035.

B. Wetland buffers shall be established as follows:

Table 20.80.330B

Wetland 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

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 area is adequate to protect the wetland functions and one or both of the following:

1. The proposed use and activities are considered low impact, and may include the following:

a. A site layout with no parking, outdoor storage, or use of machinery;

b. The proposed use does not involve usage or storage of chemicals; and

c. Passive areas are located adjacent to the subject buffer; and

d. Both the wetland and its buffer are incorporated into the site design in a manner which eliminates the risk of adverse impact on the subject critical area.

2. Wetland and buffer enhancement is implemented that will result in equal or greater wetland functions. This includes but is not limited to the following:

a. Enhancement of fish and wildlife habitat by incorporating 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.

b. Planting native vegetation that would increase value for fish and wildlife habitat, improve water quality, or provide aesthetic/recreational value.

D. When a wetland has salmonid fish use consistent with SMC 20.80.470, the corresponding wetland or stream buffer, whichever is greater, shall be established.

E. The City may extend the width of the buffer on the basis of site-specific analysis when necessary to achieve the goals of this subchapter.

F. Wetland 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 will not result in a buffer width being reduced by more than 25 percent of the required buffer as set forth in Table 20.80.330B 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 wetland report prepared by a qualified professional.

G. Low impact uses and activities which are consistent with the purpose and function of the wetland buffer and do not detract from its integrity may be permitted within the buffer depending on the sensitivity of the wetland. Examples of uses and activities which may be permitted in appropriate

cases include trails constructed in a manner to reduce impervious surfaces, viewing platforms, and utility easements; provided, that any impacts to the buffer resulting from such permitted activities are fully mitigated. Uses permitted within the buffer shall be located as far from the wetland as possible.

H. Stormwater management facilities, such as bio-swales, may not be located within the minimum buffer area as set forth in Table 20.80.330B unless it is determined that the location of the facility will enhance the buffer area, and protect the wetland.

I. A regulated wetland and its associated buffer shall either be placed 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 wetland 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. (Ord. 695 § 1 (Exh. A), 2014; Ord. 469 § 1, 2007; Ord. 398 § 1, 2006; Ord. 238 Ch. VIII § 5(C), 2000).

20.80.340 Alteration.

A. **Type I Wetlands.** Alterations of Type I wetlands shall be prohibited subject to the reasonable use provisions and special use permit provision of this title.

B. **Type II, III and IV Wetlands.**

1. Any proposed alteration and mitigation shall comply with the mitigation performance standards and requirements of these regulations; and

2. No net loss of wetland function and value may occur; and

3. Where enhancement or replacement is proposed, ratios shall comply with the requirements of this subchapter. (Ord. 398 § 1, 2006; Ord. 238 Ch. VIII § 5(D), 2000).

20.80.350 Mitigation performance standards and requirements.

A. **Appropriate Wetland 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 subchapter.

B. Impacts to wetland 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 critical area, or to avoid impacts where avoidance is required by these regulations; and

2. The restored, created or enhanced critical area or buffer will be as available and persistent as the critical area or buffer area it replaces; and

3. In the case of wetlands and streams, no overall net loss will occur in wetland or stream functions and values.

C. **Location and Timing of Wetland Mitigation.**

1. Wetland 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 (C)(1), (2), and (3) of this section are inappropriate and impractical shall off-site, out-of-kind mitigation be considered.

5. When wetland mitigation is permitted by these regulations on-site or off-site, the mitigation project shall occur near an adequate water supply (river, stream, ground water) with a hydrologic connection to the proposed wetland 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. Wetland acreage replacement ratios shall be as specified in this section.

8. When wetland mitigation is permitted by these regulations, native plant materials salvaged from the original wetland area shall be utilized to the maximum extent possible.

D. **Wetland Replacement Ratios.**

1. Where wetland alterations are permitted by the City, the applicant shall restore or create

areas of wetlands in order to compensate for wetland losses. Equivalent areas shall be determined according to acreage, function, type, location, timing factors and projected success of restoration or creation.

2. When creating or enhancing wetlands, the following acreage replacement ratios shall be used:

Table 20.80.350D

Wetland Type	Wetland Creation Replacement Ratio (Area)	Wetland Enhancement Ratio (Area)
Type I	6:1	16:1
Type II	3:1	12:1
Type III	2:1	8:1
Type IV	1.5:1	6:1

The Department shall have discretion to increase these standards where mitigation is to occur off-site or in other appropriate circumstances based on the recommendations of a wetlands report that includes best available science and is prepared by a qualified professional.

3. Enhanced wetlands shall have higher wetland values and functions than the altered wetland. The values and functions transferred shall be of equal or greater quality to assure no net loss of wetland values and functions.

4. Enhanced and created wetlands shall be appropriately classified and buffered.

5. An enhanced or created wetland and its associated buffer 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 and shall be recorded with the King County Department of Records.

E. **Wetlands Performance Standards.** The performance standards in this section 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 following performance standards shall apply to any mitigations proposed within Type I, Type II, Type III and Type IV wetlands and their buffers.

1. Plants indigenous to the region (not introduced or foreign species) shall be used.

2. Plant selection shall be consistent with the existing or projected hydrologic regime, including base water levels and stormwater event fluctuations.

3. Plants should be commercially available or available from local sources.

4. Plant species high in food and cover value for fish and wildlife shall be used.

5. Mostly perennial species should be planted.

6. Committing significant areas of the site to species that have questionable potential for successful establishment shall be avoided.

7. Plant selection must be approved by a qualified consultant.

8. The following standards shall apply to wetland design and construction:

   a. Water depth shall not exceed six and one-half feet (two meters).

   b. The grade or slope that water flows through the wetland shall not exceed six percent.

   c. Slopes within the wetland basin and the buffer zone shall not be steeper than 3:1 (horizontal to vertical).

   d. The wetland (excluding the buffer area) should not contain more than 60 percent open water as measured at the seasonal high water mark.

9. Substrate should consist of a minimum of one foot, in depth, of clean (uncontaminated with chemicals or solid/hazardous wastes) inorganic/organic materials.

10. Planting densities and placement of plants should be determined by a qualified consultant and shown on the design plans.

11. The planting plan shall be approved by the City.

12. Stockpiling should be confined to upland areas and contract specifications should limit stockpiling of earthen materials to durations in accordance with City clearing and grading standards, unless otherwise approved by the City.

13. Planting instructions shall be submitted which describe proper placement, diversity, and spacing of seeds, tubers, bulbs, rhizomes, sprigs, plugs, and transplanted stock.

14. Controlled release fertilizer shall be applied (if required) at the time of planting and afterward only as plant conditions warrant (determined during the monitoring process).

15. An irrigation system shall be installed, if necessary, for the initial establishment period.

16. All construction specifications and methods shall be approved by a qualified consultant and the City.

17. Construction management shall be provided by a qualified consultant. Ongoing work on-site shall be inspected by the City.

F. **Approved Wetland Mitigation Projects – Signature.** On completion of construction, any approved mitigation project shall 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.

G. **Monitoring Program and Contingency Plan.**

1. 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.

2. A contingency plan shall be established for indemnity in the event that the mitigation project is inadequate or fails. A performance and maintenance bond or other acceptable financial guarantee is required to ensure the applicant's compliance with the terms of the mitigation agreement. The amount of the performance and maintenance bond shall equal 125 percent of the cost of the mitigation project in addition to the cost for monitoring for a minimum of five years. The bond may be reduced in proportion to work successfully completed over the period of the bond. The bonding period shall coincide with the monitoring period.

3. Monitoring programs prepared to comply with this section shall reflect the following guidelines:

a. Scientific procedures shall be used to establish the success or failure of the project.

b. For vegetation determinations, permanent sampling points shall be established.

c. Vegetative success shall, at a minimum, equal 80 percent survival of planted trees and shrubs and 80 percent cover of desirable understory or emergent plant species at the end of the required monitoring period. Additional standards for vegetative success, including (but not limited to) minimum survival standards following the first growing season, may be required after consideration of a report prepared by a qualified consultant.

d. Monitoring reports on the current status of the mitigation project shall be submitted to the City. The reports are to be prepared by a qualified consultant and reviewed by the City

or a consultant retained by the City and should include monitoring information on wildlife, vegetation, water quality, water flow, stormwater storage and conveyance, and existing or potential degradation, as applicable, and shall be produced on the following schedule: at the time of construction; 30 days after planting; early in the growing season of the first year; at the end of the growing season of the first year; twice during the second year; and annually thereafter.

e. Monitoring programs shall be established for a minimum of five years.

f. If necessary, failures in the mitigation project shall be corrected.

g. Dead or undesirable vegetation shall be replaced with appropriate plantings.

h. Damage caused by erosion, settling, or other geomorphological processes shall be repaired.

i. The mitigation project shall be redesigned (if necessary) and the new design shall be implemented and monitored, as in subsection (G)(3)(d) of this section.

j. Correction procedures shall be approved by a qualified consultant and the City. (Ord. 581 § 1 (Exh. 1), 2010; Ord. 398 § 1, 2006; Ord. 238 Ch. VIII § 5(E), 2000).

Subchapter 5.
Flood Hazard Areas

20.80.360 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 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 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 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).

20.80.430 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 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 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 overfill 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 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).

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).

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.

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

c. 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).

Chapter 20.20

Definitions*

Sections:

*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.

Abate	To repair, replace, remove, destroy or otherwise remedy a condition which constitutes a Code Violation by such means, in such a manner, and to such an extent as the Director determines is necessary in the interest of the general health, safety and welfare of the community and the environment. (Ord. 406 § 1, 2006).
Adverse Impact	A condition that creates, imposes, aggravates, or leads to inadequate, unsafe, or unhealthy conditions on a site proposed for development or on off-tract property or facilities.

(Ord. 689 § 1 (Exh. A), 2014).

20.20.012 B definitions.

Best Management Practices (BMPs)	A system of practices and management measures that minimize adverse impacts to an identified resource.
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.
Bond	A surety bond, cash deposit, escrow account assignment of savings, irrevocable letter of credit or other means acceptable to, or required by, the Director to guarantee work is in compliance with all applicable requirements.
Buffer	A designated area contiguous to a steep slope or landslide hazard area intended to protect slope stability, attenuation of surface 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.
Buildable Area	The area of a lot remaining after the minimum yard and open space requirements of the Development Code have been met, not including critical areas and their buffers.

20.20.014 C definitions.

Certified Arborist	A person or firm with specialized knowledge of the horticultural requirements of trees, certified by the International Society of Arborculture or the National Arborist Association.
Clearing	The limbing, pruning, trimming, topping, cutting or removal of vegetation or other organic plant matter by physical, mechanical, chemical or other means.
Consultant, Qualified	A person who is licensed to practice in the professional field of the requested consultation or who has equivalent educational training and at least four years of professional experience.
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.
Critical Areas	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. Flood hazard areas;

C. Stream areas;

D. Aquifer recharge areas;

E. Wetlands; and

F. Fish and wildlife habitat conservation areas. (Ord. 398 § 1, 2006; Ord. 352 § 1, 2004).

20.20.016 D definitions.

Development	The division of a parcel of land into two or more parcels; the construction, reconstruction, conversion, structural alteration, relocation, or enlargement of any structure; any mining, clearing, or grading; changes to surface or ground waters; or any use, change of use, or extension of the use of land. (Ord. 324 § 1, 2003).

20.20.018 E definitions.

Enhancement	An action which increases the functions and values of a stream, wetland or other sensitive area or buffer.
Erosion	The wearing away of the land surface by running water, wind, ice, or other geological agents, including such processes as gravitational creep. Also, detachment and movement of soil or rock fragments by water, wind, ice, or gravity. (Ord. 531 § 1 (Exh. 1), 2009).
Erosion Hazard Areas	Those areas in the City of Shoreline underlain by soils which are subject to severe erosion when disturbed. Such soils include, but are not limited to, those classified as having a severe to very severe erosion hazard according to the USDA Soil Conservation Service, the 1973 King County Soils Survey or any subsequent revisions or addition by or to these sources. These soils include, but are not limited to, any occurrence of River Wash (Rh) or Coastal Beaches (Cb) and the following when they occur on slopes 15 percent or steeper:

A. The Alderwood gravely sandy loam (AgD);

B. The Alderwood and Kitsap soils (AkF);

C. The Beausite gravely sandy loam (BeD and BeF);

		D. The Kitsap silt loam (KpD); E. The Ovall gravely loam (OvD and OvF); F. The Ragnar fine sandy loam (RaD); and G. The Ragnar-Indianola Association (RdE).
	Excessive Pruning	Pruning more than four years of branch growth, unless necessary to restore the vigor of the tree or to protect life and property.
20.20.020	**F definitions.**	
	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).
20.20.022	**G definitions.**	
	Geologist	A person who has earned at least a Bachelor of Science degree in the geological sciences from an accredited college or university or who has equivalent educational training and at least four years of professional experience.
	Geotechnical Engineer	A practicing geotechnical/civil engineer licensed as a professional civil engineer by the State of Washington who has at least four years of professional employment as a geotechnical engineer.
	Grading	Any excavation, filling, removing the duff layer or any combination thereof.
	Groundcover	Living plants designed to grow low to the ground (generally one foot or less) and intended to stabilize soils and protect against erosion.
20.20.024	**H definitions.**	
	Hazardous Substance	A substance as defined in RCW 70.105.010.
20.20.032	**L definitions.**	
	Landscape Architect	A person licensed by the State of Washington to engage in the practice of landscape architecture as defined by RCW 18.96.030.
	Landslide	Episodic downslide movement of a mass including, but not limited to, soil, rock or snow.

Landslide Hazard Areas	Those areas in the City of Shoreline subject to severe risks of landslides, including the following: A. Any area with a combination of: 1. Slopes steeper than 15 percent; 2. Impermeable soils, such as silt and clay, frequently interceded with granular soils, such as sand and gravel; and 3. Springs or ground water seepage; B. Any area which has shown movement during the Holocene epoch, from 10,000 years ago to the present, or which is underlain by mass wastage debris from that epoch; C. Any area potentially unstable as a result of rapid stream incision, stream bank erosion or undercutting by wave action; D. Any area which shows evidence of or is at risk from snow avalanches; or E. Any area located on an alluvial fan, presently subject to or potentially subject to inundation by debris flows or deposition of stream-transported sediments.

20.20.034 M definitions.

Mitigation	The use of any or all of the following actions listed in descending order of preference: A. Avoiding the impact by not taking a certain action; B. Minimizing the impact by limiting the degree or magnitude of the action by using appropriate technology or by taking affirmative steps to avoid or reduce the impact; C. Rectifying the impact by repairing, rehabilitating or restoring the affected sensitive area or buffer; D. Reducing or eliminating the impact over time by preservation or maintenance operations during the life of the development proposal; E. Compensating for the impact by replacing, enhancing or providing substitute sensitive areas and environments; and

		F. Monitoring the impact and taking appropriate corrective measures.
	Monitoring	Evaluating the impacts of development proposals on biologic, hydrologic and geologic systems and assessing the performance of required mitigation through the collection and analysis of data for the purpose of understanding and documenting changes in natural ecosystems, functions and features including, but not limited to, gathering baseline data.
20.20.036	**N definitions.**	
	Native Growth Protection Area (NGPA)	A tract or easement recorded with a City-approved subdivision established for the purposes of protecting vegetation, providing open space, maintaining wildlife corridors, maintaining slope stability, controlling runoff and erosion, and/or any other purpose designated in the subdivision approval.
	Native Vegetation, Native Plant(s)	A tree, shrub or groundcover plant of a species that is native to western Washington.
	Noxious Weed	Any plant which is highly destructive, competitive or difficult to control by cultural or chemical practices, limited to those plants on the State noxious weed list contained in Chapter 16-750 WAC.
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.**	
	Protected Tree/Protected Vegetation	A tree or area of understory vegetation identified on an approved tree protection and replacement plan (or other plan determined to be acceptable by the Director) to be retained and protected during construction and/or permanently protected by easement, tract, or covenant restriction. A protected tree may be located outside or within a NGPA, sensitive area or sensitive area buffer.
	Protection Measure	A practice or combination of practices (e.g., construction barriers, protective fencing, tree wells, etc.) used to control construction or development impacts to vegetation that is

		approved for protection.
	Protective Fencing	A temporary fence or other structural barrier installed to prevent permitted clearing or construction activity from adversely affecting vegetation which is designated for retention.

20.20.042 Q definitions.

	Qualified Professional	A person with experience, training and competence in the pertinent discipline. A qualified professional must be licensed to practice in the State of Washington in the related professional field, if such field is licensed. If not licensed, a qualified professional must have a national certification in the pertinent field. If national certification in the field does not exist, the minimum qualification should be a bachelor's degree with 10 years of related professional work, or master's degree in the field and three years of related professional work. (Ord. 324 § 1, 2003).

20.20.044 R definitions.

	Reasonable Use	The minimum use to which a property owner is entitled under applicable State and Federal constitutional provision, including takings and substantive due process. (Ord. 398 § 1, 2006; Ord. 324 § 1, 2003).
	Remediation	To restore a site to a condition that compiles with sensitive area or other regulatory requirements as they existed when the violation occurred; or, for sites that have been degraded under prior ownerships, restore to a condition which does not pose a probable threat to the environment or to the public health, safety or welfare.
	Restoration	Returning a stream, wetland, other sensitive area or any associated buffer to a state in which its stability and functions approach its unaltered state as closely as possible.

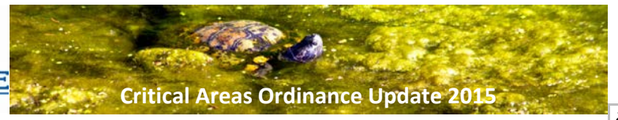
20.20.046 S definitions.

	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.
Seismic Hazard Areas	Those areas in the City of Shoreline subject to severe risk of earthquake damage as a result of soil liquefaction in areas underlain by cohesionless soils of low density and usually in association with a shallow ground water table or of other seismically induced settlement.
Site Development Permit	A permit, issued by the City, to develop, redevelop or partially develop a site exclusive of any required building or land use permit. A site development permit may include one or more of the following activities: paving, grading, clearing, tree removal, on-site utility installation, stormwater facilities, walkways, striping, wheelstops or curbing for parking and circulation, landscaping, or restoration. (Ord. 439 § 1, 2006; Ord. 352 § 1, 2004).
Special Use Permit	A permit issued by the City that must be acquired before a special exception use can be constructed.
Steep Slope Hazard Areas	Those areas in the City of Shoreline on slopes 40 percent or steeper within a vertical elevation change of at least 10 feet. A slope is delineated by establishing its toe and top and is measured by averaging the inclination over at least 10 feet of vertical relief. For the purpose of this definition: A. The toe of a slope is a distinct topographic break in slope which separates slopes inclined at less than 40 percent from slopes 40 percent or steeper. Where no distinct break exists, the toe of a steep slope is the lower most limit of the area where the ground surface drops 10 feet or more vertically within a horizontal distance of 25 feet; and B. The top of a slope is a distinct, topographic break in slope which separates slopes inclined at less than 40 percent from slopes 40 percent or steeper. Where no distinct break exists, the top of a steep slope is the upper most limit of the area where the ground surface drops 10 feet or more vertically within a horizontal distance of 25 feet.
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 year-round; provided, that there is evidence of at least intermittent flow during years of normal rainfall. (Ord. 398 § 1, 2006).
	Submerged Land	Any land at or below the ordinary high water mark.
	Substantial Development	Any extension, repair, reconstruction, or other improvement of a property, the cost of which equals or exceeds 50 percent of the fair market value of a property either before the improvement is started or, if the property has been damaged and is being restored, before the damage occurred.
20.20.048	**T definitions.**	
	Tree, Hazardous	A tree that is dead, or is so affected by a significant structural defect or disease that falling or failure appears imminent, or a tree that impedes safe vision or traffic flow, or that otherwise currently poses a threat to life or property.
20.20.050	**U definitions.**	
	Understory Vegetation	Small trees, shrubs, and groundcover plants, growing beneath and shaded by a significant tree which affect and are affected by the soil and hydrology of the area surrounding the significant tree roots.
20.20.052	**V definitions**	
	Vegetation	Any and all plant life growing at, below or above the soil surface.
20.20.054	**W definitions.**	
	Wetland Edge	The line delineating the outer edge of a wetland established by using the Federal Manual for Identifying and Delineating Jurisdictional Wetlands, 1987, jointly published by the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers and the U.S. Soil Conservation Service.
	Wetland Functions	Natural processes performed by wetlands 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, acting as recharge and discharge areas for ground water aquifers and moderating surface water and stormwater flows, as well

	as performing other functions.
Wetland, Forested	A wetland which is characterized by woody vegetation at least 20 feet tall.
Wetland, Isolated	A wetland which has a total size less than 2,500 square feet excluding buffers, which is hydrologically isolated from other wetlands or streams and which does not have permanent open water.
Wetlands	Those areas in Shoreline which are inundated or saturated by ground or surface water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas.



A Work Sessions
PC CC Interactions with City Leaders
Key Product Delivery Timeframes
1 Public/Stakeholder Workshops/Meetings
Consultant Activities and Review Timeframes

2014 2015

Nov-2014 | Dec-2014 | Jan-2015 | Feb 2-6 | Feb 9-13 | Feb 16-20 | Feb 23-27 | Mar 2-6 | Mar 9-13 | Mar 16-20 | Mar 23-27 | Mar 30- Apr 3 | Apr 6-10 | Apr 13-17 | Apr 20-24 | Apr 27- May 1 | May 4-8 | May 11-15 | May 16-22 | May 25-29 | June 1-5 | June 8-12 | June 15-19 | June 22- 26 | June 29- July 3 | July 6-10 | July 13-17 | July 20-24 | July 27-31 | Aug 3-7 | Aug 10-14 | Aug 17-21 | Aug 24-28 | Aug 31- Sep 4 | Sep 7-11 | Sep 14-18 | Sep 21-25 | Sep 28- Oct 2 | Oct 5-9 | Oct 12-16 | Oct 19-23 | Oct 26-30 | Nov 2-6 | Nov 9-13 | Nov 16-20 | Nov 23-27 | Nov 30- Dec 4 | Dec 7-11 | Dec 14-18 | Dec 21-25

CRITICAL AREAS ORDINANCE UPDATE - DEVELOPMENT
Research State requirements, model codes, guidelines, best available science for all sections of CAO.
Clarify any other areas of Shoreline Municipal Code that may need to be updated.
Draft Best Available Science memo(s) - Fish & Wildlife, Wetlands, Flood Hazard, Aquifers, and Streams.
Manage contract for geotechnical review of BAS and recommendations for updating these standards.
Draft proposed changes distinguishing between required, recommended, and desired changes.
Draft CAO Update Findings including issues addressed, sources of BAS, public participation, and uncertainties.
Send DOCom, DOE, and DNR draft CAO regulations and findings for informal review as available.
Internal Staff Reviews by draft section - PW, PARKS, ATTORN
Finalize Recommended CAO regulations and findings.

CRITICAL AREAS ORDINANCE UPDATE - PUBLIC PARTICIPATION
Plan public participation opportunities for proposed CAO and related code changes.
Intro/Overview presentation to Council of Neighborhoods, Neighborhood Assocs, and Parks Board
Publicize public participation events - press release, currents, website, listserve, other.
Host public participation opportunities - East side @ Water District; West side @ RB Library

CRITICAL AREAS ORDINACE UPDATE - SEPA/GMA PROCESSES
Complete SEPA Environmental Checklist for Non-Project Review (as Integrated Document with GMA/SMP).
Issue SEPA Threshold Determination and 60-day notice to Dept. of Commerce.
SEPA Public Hearing (combined with GMA/SMP required public participaton) at Planning Commission.
Issue SEPA Notice of Adoption and Adoption notice to Dept. of Commerce.

CRITICAL AREAS ORDINANCE UPDATE - ADOPTION
1-on-1 background briefings with CC as desired - TBD
Planning Commission CAO Update Study Session 1 - Intro/Overview
Planning Commission CAO Update Study Session 2 - Geologic Hazard Areas
Planning Commission CAO Update Study Session 3 - Wetlands/SMP
Planning Commission CAO Update Study Session 4 - Streams and Genral CA Provisions
Planning Commission CAO Update Public Hearing - Wrap-Up, Public Hearing, and Recommencation
Council CAO Update Study Session 1 - Intro, General Provisions & GeoHazards
Council CAO Update Study Session 2 - Wetlands/SMP & Streams
Council CAO Update Adoption

SHORELINE MASTER PROGRAM - LIMITED AMENDMENT PROCESS
Identify and draft related changes needed in the Shoreline Master Program.
Send draft CAO regulations and findings to DOE for informal review as available.
Consult with and solicit comments of DOE and any persons, groups, agencies, or tribes with interest.
Planning Commission discussion session
Publish Notice of the public hearing
Conduct at leas one public hearing
Approve the Proposal
Prepared Master Program Submittal Checklist and submit with documentation to DOE.

CAO/SMP UPDATE - IMPLEMENTATION
Form and Submittal Requirement updates
Procedure updates
Hansen Changes
Staff training
Website updates/Customer education on changes

Draft
Final
Draft 6/1
Final 6/19
Wet Draft 5/8
Stream Draft 5/22
Mar 10 Planner Other Staff mtg
Geo Draft 4/17
GeoHazards
Wetlands
Streams
PC Recommendation
CoN -TBD
Parks - 26th
May Currents draft 3/28
May Currents 5/1
June Currents draft 4/30
June Currents 6/2
West 5/5
East 5/14
Summer Currents draft 6/18
September Currents draft 7/23
Summer Currents 7/23
September Currents 9/2
PC Hearing 7/16
9/14 Council Adoption
Draft 6/8
Final Checklist 6/25
~July 13 SEPA?SMP Notice 60-day notice
~July 1 Public Hearing notice due
July 16
September 24 10-day notice
May 21
June 4
June 18
July 2
July 16
August 17
August 24
Sept. 14
5/14 draft
5/28 draft
6/4 final
6/11 draft
6/18 final
6/25 draft
7/2 final
7/30 draft
8/6 draft
8/27 draft
FORMAL REVIEW AND ADOPTION TIMEFRAME
Draft
~July 13 SEPA?SMP Notice 60-day notice
June 18
~June 1 Public Hearing notice
Public Hearing - July 16
Sept. 14
Submit to DOE