CITY OF KIRKLAND
PLANNING AND BUILDING DEPARTMENT
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MEMORANDUM

Date: **November 3, 2016**

To: **Kurt Triplett, City Manager**

From: **Teresa Swan, Senior Planner**
Joan Lieberman-Brill, AICP, Senior Planner
Jeremy McMahan, Development Review Manager
Paul Stewart, AICP, Deputy Director
Eric Shields, AICP, Director

Subject: **Study Session: Chapter 90 KZC Amendments (Critical Areas Ordinance/Wetlands, Streams, Fish and Wildlife Conservation Areas and Frequently Flooded Areas Regulations), File CAM15-01832, #4**

I. RECOMMENDATION

- Consider the recommendation of approval from the Planning Commission and Houghton Community Council of the amendments to Chapter 90 of the Kirkland Zoning Code (KZC) regarding critical areas (wetlands, streams, fish and wildlife habitat conservation areas, minor lakes and frequently flooded areas) and other minor code amendments to the Kirkland Zoning Code and the Kirkland Municipal Code. The Planning Commission transmittal memo is noted as Attachment 1. The Chair of the Planning Commission, Eric Laliberte, will present the Commission's recommendation at the study session.

- Provide comments to staff for revisions to the ordinance to be considered for adoption at the December 13, 2016 regular Council Meeting.

II. BACKGROUND

A. Introduction

Over the past 14 months, the City has been working on updating the Critical Area Ordinance (Chapter 90) to be in compliance with the Growth Management Act and the Department of Ecology's guidance on critical areas using best available science. The Planning Commission and Houghton Community Council (HCC) have held several joint study sessions and a joint public hearing on the proposed amendments. Following the hearing, the Commission and HCC discussed the updated regulations and both bodies recommended approval to the City Council. The Planning Commission's transmittal memo is noted as Attachment 1.

At the study session, staff will present an overview of the proposed amendments and the chair of the Planning Commission, Eric Laliberte, will present the Commission's recommendation of

approval to the City Council. Staff is requesting direction from the Council on any revisions to the amendments. Staff will then bring back the ordinance for adoption at the December 13, 2016 Council meeting.

At the study session the Council should consider the following general questions:

- *Does the Council concur with the proposed amendments as recommended by the Planning Commission and Houghton Community Council?*

- *Are there any questions or clarifications that the staff can respond to?*

- *Are there requested revisions to the regulations that the Council would like to consider at the December 13th Council Meeting?*

- *Is the Council in agreement with March 1, 2017 as the effective date of the ordinance (see Section III.G. below)?*

Over the course of this project, staff has briefed the City Council on the progress of this effort and highlighted key questions for the Council. A summary of these are noted below along with a recap of the study sessions/joint meetings and the public hearing.

On February 16, 2016, the City Council held a study session to receive background information on the following:

- City's regulations must be updated under GMA and be consistent with Best Available Science (BAS);
- Background information on wetlands, streams, rating system of the features, buffer widths, buffer reduction options, mitigation, fish and wildlife habitat conservation areas, and frequently flooded areas;
- BAS Report (latest science on the protection of these sensitive area features and the condition of the city's sensitive area features) prepared by The Watershed Company (TWC); and
- Gap Analysis (general code amendments needed to meet BAS on wetlands and streams and Ecology's guidance on wetlands) prepared by TWC.

On June 21, 2016, the City Council held a second study session on the Planning Commission's policy direction on various key issues for the new Chapter 90 KZC, and provided staff with some issues to be addressed as part of the Chapter 90 update process.

The City Council expressed interest in allowing commercial uses to take full advantage of the Reasonable Use Exception provisions in KZC 90.180 and in the new non-conformance provisions in KZC 90.185. The Planning Commission did address both of these issues as stated in its transmittal memo (see Attachment 1). The attached Chapter 90 KZC incorporates the City Council comments (see Attachment 2).

On September 29, 2016, the Planning Commission and Houghton Community Council held a joint public hearing on the Chapter 90 KZC code amendments along with minor code amendments to

the Zoning Code and Municipal Code. Following the meeting on October 24, 2016, the Houghton Community Council deliberated and made a recommendation for approval of the code amendments on a 5-1 vote. Subsequently, Planning Commission unanimously recommended approval (see Attachment 1).

The transmittal memo from the Planning Commission (see Attachment 1) includes the public outreach effort throughout the review process, response to the City Council comments, the Houghton Community Council recommendation, and the rationale for the Planning Commission recommendation.

III. SIGNIFICANT ISSUES RELATING TO CHAPTER 90 KZC CODE AMENDMENTS

Various issues relating to the Chapter 90 KZC amendments are highlighted below

A. Critical Area Buffers

Under the Growth Management Act and best available science for resource protection, critical area buffers have increased, particularly for wetlands with high habitat scores. For Kirkland, the critical area buffers have generally increased significantly. The current buffer standards are based on science dating back to the mid 1990's. Since then the Best Available Science on wetlands and streams has evolved such that it has been determined that wider buffers are needed to maintain the values and functions of critical areas.

It should be noted that in the table of the recommended wetland buffer standards below (KZC 90.55 of Attachment 2), the City does not have any bogs or high conservation value wetlands. It is highly unlikely that the City has any wetlands with habitat scores of 8-9. So under the new Chapter 90 KZC the City will have wetland buffers ranging from 40 feet to 165 feet. Currently, the buffer range is 25 feet to 100 feet.

Recommended Wetland Buffer Standards

Wetland Category and Type	Buffer width (in feet) based on habitat score (3-9)			
	3-4	5	6-7	8-9
I: Bogs and wetlands of high conservation value	190	190	190	225
I: All others	75	105	165	225
II	75	105	165	225
III	60	105	165	225
IV	40	40	40	40

Stream buffers currently range from 25 feet to 75 feet. Under the new Chapter 90 KZC, they will range from 50 feet to 100 feet.

The proposed critical area buffers in Chapter 90 KZC are comparable to other local jurisdictions. They are also now comparable to the City's critical area provisions in the Kirkland Shoreline Master

Program (Chapter 83 KZC) adopted in 2010. It is important to have Chapter 83 KZC and Chapter 90 KZC comparable in regulations.

B. Flexibility in Regulations

The Planning Commission looked for opportunities to provide flexibility in the regulations while still being consistent with GMA and best available science and acceptable to Department of Ecology, Department of Fish and Wildlife and the Muckleshoot Tribe. Codes of other jurisdictions and the Department of Ecology's model ordinance were used as a basis for the flexibility. Examples of the flexibility provisions include the following:

- Buffer Averaging. Buffers can be reduced in one area provided that they are enlarged in another area so that the total buffer area is still provided. This option gives property owners flexibility in siting a development.

- Alternative Buffer. To avoid vegetating and maintaining a required buffer, a property owner may choose to increase the standard buffer by 1/3. This option would be suitable for a property with a larger lot and the owner does not want to install and maintain the required buffer vegetation.

- Reduction in Yard Setbacks. Required front and side yards can be reduced for all residential (similar to Reasonable Use Exception provision). This option helps offset the buffer requirement in siting development.

- Nonconformances. Nonconforming structures would be allowed to be replaced and enlarged with a variety of possible options depending on the location of the replacement or addition.

- Public Agency and Utilities. The Planning Department worked closely with the Public Works Department and local utilities to address all of the wide range of projects that they must do and to streamline the review process for these projects.

C. Cross Kirkland Corridor (CKC)

Review of **non-motorized trail** improvements for the CKC are either exempt under Chapter 90 KZC or are reviewed by the Planning Official. Repair and maintenance of existing trails in the CKC are exempt from the provisions in Chapter 90 KZC other than prohibiting increase of previously approved impervious area and requiring that any area disturbed while doing the work must be restored. See KZC 90.35 Exemptions in Attachment 2.

New, modified or relocated **non-motorized trails** within the Cross Kirkland Corridor or Eastside Rail Corridor are reviewed through the Permitted Standards section of KZC 90.40 of Attachment 2 by the Planning Official (project planner). A critical area report is required to determine the location of the critical areas along the trail and to ensure that mitigation is addressed.

D. <u>Advance Mitigation</u>

This is a new provision under Chapter 90 KZC that allows the City to restore wetlands, streams and critical area buffers in the City and "bank" these improvements for future "credits" towards off-site mitigation. The Public Works Department and the Parks Department may use these credits to offset impacts resulting from projects that impact critical areas or buffers. The provision also allows the City to enter into an agreement with another agency to do advance mitigation in the City that the agency can then use as off-site mitigation for projects they do either in the city or outside of the city. The proposed ordinance establishes the regulations in order for such a "bank" to be used. However, such an approach will require administratively setting up the program and the appropriate procedures.

E. <u>Vesting for Prior Approvals under the Current Chapter 90 KZC</u>

The existing regulations provide additional vesting provisions beyond those available through State statutes. Under the current Chapter 90 KZC, buffers that were approved through a zoning permit or subdivision after 1982 will be applied to initial construction on the property (i.e. - first building permit) – even if the code changes. Any permit after the initial construction must meet the code in place at the time of that subsequent permit.

The City Attorney has determined that the existing vesting section under the current Chapter 90 KZC is not consistent with vesting law. The vesting section under the proposed Chapter 90 KZC is more permissive in that complete building permits, not solely the initial one, are vested if they are submitted while the zoning permit and/or subdivision approval is valid, but not after the permit or approval has lapsed. For zoning permits this would be within five years of the date of approval of the permit. See KZC 90.200 in Attachment 2. This provision may grant broader vested rights than state law, but is consistent with both the judicial and legislative intents underlying the vested rights doctrine.

F. <u>Effective Public Notice</u>

Last January 2016, the City sent out over 12,000 mailed notices to property owners located within 300 feet of any known critical areas, emails to the extensive Development Services list, the neighborhood associations, KAN, local utilities, the school district and other interested parties notifying everyone about the upcoming code amendments. Staff made every effort to make sure that the public "got the message" about the code amendments.

The public outreach was successful based on the hundreds of phone message and emails received about the amendments, the over 270 listserv participants, the high participation in the open houses, the comment letters and public testimony, the extensive number of building permits and subdivision applications that have been submitted to vest under the current code and the number of pre-submittal applications with the intent to make application.

G. Effective Date of the Chapter 90 KZC Ordinance

The Planning Commission and the Houghton Community Council recommend that time be given between the adoption date and the effective date of the ordinance for applicants to complete submitting for permits under the current Chapter 90 KZC and for Planning Department staff to learn the new regulations. **March 1, 2017 is the recommended effective date** if the City Council adopts the ordinance on December 13, 2016. This would provide 77 days between adoption and the date that the ordinance goes into effect.

The Planning Commission did not want to push out the effective date any further since the deadline for adopting the new Chapter 90 KZC was June 30, 2016. Also, if the City is obtaining state grants one of the criteria is to be consistent with the GMA which requires an adopted Comprehensive Plan and the appropriate development regulations.

Does the City Council concur with this effective date?

H. Another Round of Chapter 90 KZC Code Amendments Later Next Year

The chapter is complex and it is likely that staff will find the need to make some "fixes" after the new chapter has been implemented. A future round of code amendments should be included in the work program for review later next year as a follow-up from the initial new Chapter 90 KZC.

IV. SUMMARY OF RECOMMENDED CHAPTER 90 KZC

Attachment 2 contains the recommended Chapter 90 KZC. The new Chapter 90 incorporates the policy direction from the Planning Commission, Houghton Community and City Council over the past 10 months along with consideration of public comments provided at public meetings, open houses, comment letters and emails.

A. Table of Contents

A table of contents with brief summary of what is included in each section is provided below along with whether the section is new or revised.

Summary of Chapter 90

Section	Summary of Topic Addressed
User Guide: 90.05 (p. 2)	• Existing Chapter 90 text retained with edits.
Purpose: 90.10 (p. 2)	• Existing Chapter 90 text retained with edits to reflect new requirements, including for Frequently Flooded Areas and Fish and Wildlife Habitat Conservation Areas section.
Applicability: 90.15 (p.4)	• Existing Chapter 90 text retained with edits to reflect new requirements. • Adds paragraph to clarify that provisions in Chapter 90 may not be varied using provisions in other chapters. • Refer to required state and federal permits that are applicable to critical areas.
Critical Area Maps and Other Resources: 90.20 (p.5)	• Existing Chapter 90 text retained with edits.

Section	Summary of Topic Addressed
Regulated Activities: 90.25 (p.5)	• New section. Lists general categories of activities and conditions that may be regulated under Chapter 90.
City Review Process: 90.30 (p.5)	• New section. Table with overall permit process for different types of activities and uses
Exemptions: 90.35 (p.6)	• Replaces existing Chapter 90 section for exceptions.
Permitted Activities Subject to Development Standards: 90.40 (p. 9)	• Replaces existing Chapter 90 section for exceptions. These public or private activities are reviewed by the Planning Official (planning staff) and require critical area report and mitigation sequencing. These activities have less of an impact than Public Agency Exceptions or Wetland and Stream Modifications.
Public Agency and Public Utilities Exceptions: 90.45 (p. 13)	• New section. These public activities are reviewed by the Planning Director under a Process I depending on the scope of the project. They require critical area report and mitigation sequencing.
Programmatic Permits - Public Agency and Public Utilities: 90.50 (p. 15)	• New section. Programmatic permits are for public projects that involve the same activities done year after year or done in different locations. These public activities are reviewed by the Planning Official (planning staff) or Planning Director under a Process I depending on the scope of the project. They require a critical area report and mitigation sequencing.
Wetlands and Associated Buffer Standards: 90.55 (p. 16)	• Existing Chapter 90 section is completely revised.(reflects Ecology guidance) • Incudes Wetland Category and Rating, Critical Area Determination, Standard and Alternative Wetland Buffer Widths, Wetland Modification and related Buffer Impacts,
Streams and Associated Buffer Standards: 90.65 (p. 19)	• Existing Chapter 90 section is completely revised. • Includes Stream Classification, Critical Area Determination, Standard and Alternative Stream Buffer Widths, Stream Modification and related Buffer Impacts, Daylighting of Stream, Reduction in Buffer Standards for Meandering or Daylighting of Stream, Stream Channel Stabilization and Restoration, Culverts and Storm Water Outfalls on Private Property (reflects Ecology guidance).
Minor Lakes – Totem Lake and Forbes Lake: 90.90 (p. 27)	• Existing Chapter 90 section is revised with minor edits. • Includes public and private moorage facilities and other park activities.
Fish and Wildlife Habitat Conservation Areas: 90.95 (p. 28)	• New section (reflects GMA requirement). • Wetlands, lakes and forested areas are subject to this section. Fish habitat is not subject to this section since the Stream section addresses requirements for buffers, protection of streams and seasonal restrictions for construction in streams. • Includes Location of Habitat Areas, Species and Habitat Criteria, Determination of Habitat Conservation Area, Modification to Habitat Conservation Areas, General Standards and City Designation for species or habitats of local importance.
Frequently Flooded Areas: 90.100 (p. 30)	• Existing Chapter 90 section is revised with one minor edit (reflects Ecology guidance and Endangered Species Act requirements).
GENERAL STANDARDS	
Critical Area Determination: 90.105 (p. 30)	• Completely revised section.

Section	Summary of Topic Addressed
Critical Area Report: 90.110 (p. 31)	• Replaces existing wetland buffer and stream sections. • Includes specific list of requirements for report
Buffer Averaging: 90.115 (p. 34)	• New section. Replaces existing wetland buffer and stream sections (reflects Ecology guidance).
Limited Buffer Waivers: 90.120 (p. 34)	• New section. • Includes Limited Buffer Modification, including interrupted buffer waiver.
Increase in Buffer Width Standard: 90.125 (p. 35)	• New section (reflects Ecology guidance). • There are some very limited situations where buffer width may need to be increased.
Vegetative Buffer Standards: 90.130 (p. 36)	• New section. • Includes Vegetative Standards, Process, When Vegetative Standard Applies, Vegetative Buffer Plan, Installation of Buffer and Maintenance.
Trees in Critical Areas and Buffers: 90.135 (p. 38)	• Section from Chapter 95 (Tree Management) moved to Chapter 90 and revised. Reflects regulations from Chapter 83 (shoreline regulations) concerning tree removal and replacement.
Structure Setback from Buffer: 90.140 (p. 38)	• Existing Chapter 90 section is extensively revised by adding specific, expanded list of what improvements are permitted in the structure setback.
Mitigation – General: 90.145 (p. 39)	• New section. • Includes Mitigation Sequencing, Approaches to Mitigation, Timing of Mitigation, Mitigation Plan, Mitigation and Restoration Standards, Monitoring and Maintenance (reflects Ecology guidance).
Wetland Compensatory Mitigation: 90.150 (p. 42)	• New section (reflects Ecology guidance). • Table contains the required ratio of mitigation for wetland and buffer fill or other types of modifications.
Measures to Minimize Impacts to Wetlands: 90.155 (p. 45)	• New section (reflects Ecology guidance). • Includes lights, noise, toxic runoff, use of pesticides, insecticides and fertilizers, storm water runoff, pets and human intrusions, and dust.
Monitoring and Maintenance: 90.160 (p. 46)	• Replaces part of existing wetland buffer and stream sections. • New is requirement of 10 year period for mitigation of forested and shrub wetlands (not many in Kirkland) which other cities require. • All other mitigation is 5 year time period which is current requirement, except for partial vegetative buffers for minor additions and improvements which require a 2-year time-period. • Includes specific list of requirements for program.
Financial Security for Performance: 90.165 (p. 47)	• Revised section. • Addresses submittal requirements reflecting current department policy. • Adds ability of City to extend security time when site is not maintained.
Subdivision and Maximum Development Potential: 90.170 (p. 49)	• Existing Chapter 90 section is revised to address issues. • Clarifies that a subdivision or lot line adjustment cannot result in the need for reasonable use exception.
Dimensional Design Standards for	• New section. • Allows reduction of internal yard setbacks and front yards to accommodate development with critical areas for residential.

Section	Summary of Topic Addressed
Residential Uses: 90.175 (p. 51)	
Reasonable Use Exception: 90.180 (p. 51)	• Existing Chapter 90 section is revised to address issues, including public comment. • Reasonable Use expanded for commercial uses.
Non-Conformances: 90.185 (p. 56)	• New section. • Includes Maintenance and Repair of Nonconforming Structures, Expansion of Nonconforming Structures that Do Not Increase the Degree of Non-Conformance, Reconstruction of Existing Nonconforming Structures, and Expansion of Nonconforming Structures that Do Increase the Degree of Non-Conformance for both residential and commercial.
Critical Area Markers, Fencing and Signage: 90.190 (p. 60)	• Replaces part of existing wetland buffer and stream sections.
Pesticides and Herbicides: 90.195 (p. 61)	• New section. • Reflects City and State requirements.
Structure Setbacks and Buffer Under Prior Approval: 90.200 (p. 63)	• Existing Chapter 90 section is revised to reflect current vesting rules recommended by the City Attorney's Office. • This section addresses vesting for prior approval and construction,
Code Enforcement: 90.205 (p. 62)	• New section. • Addresses submittal requirements and time period to complete violation.
Dedication of Critical Area and Buffer: 90.210 (p. 63)	• Existing Chapter 90 section is revised with minor edits.
Liability: 90.215 (p. 64)	• No change to existing Chapter 90 section.
Appeals: 90.220 (p. 64)	• Existing Chapter 90 section is revised with minor edits and included Planning Official approval.
Lapse of Approval: 90.225 (p. 64)	• Minor edit to existing section.

B. <u>Review Process</u>

Chapter 90.30 KZC contains a section towards the beginning with a table of the review processes.

Table 90.30.1 City Review Process

Type of Action	City Review Process	Section
Exemptions	Activities permitted outright with no review process (or reviewed with underlying development or land surface modification permit - no review fee)	KZC 90.35
Permitted Activities, Improvements and Uses Subject to Development Standards	Planning Official Decision	KZC 90.40
Exception - Public Agency and	Planning Director - Process I,	KZC 90.45

Public Utility	Chapter 145 KZC	
Programmatic Permits - Public Agency and Public Utility	Planning Official Decision or Planning Director - Process I, Chapter 145 KZC depending on scope of project	KZC 90.50
Wetland Modification	Planning Director - Process I, Chapter 145 KZC	KZC 90.60
Category IV Wetland Exceptions	Planning Official Decision	KZC 90.60
Stream Modification	Planning Director - Process I, Chapter 145 KZC	KZC 90.70
Daylighting of Streams	Planning Official Decision	KZC 90.75
Stream Channel Stabilization	Planning Director - Process I, Chapter 145 KZC –	KZC 90.85
Moorage Facilities and Other Improvements on Minor Lakes	Planning Director - Process I, Chapter 145 KZC	KZC 90.90
Critical Area Determination	Planning Official Decision	KZC 90.105
Buffer Averaging	Planning Official Decision	KZC 90.115
Interrupted Buffer	Planning Official Decision	KZC 90.120
Reasonable Use Exception	Planning Director - Process I, Chapter 145 KZC	KZC 90.180

If a project includes a Process IIA (Hearing Examiner approval) or IIB permit (Hearing Examiner recommendation and then City Council approval), then the review processes under Chapter 90 will bump up and be combined with the Process IIA or IIB permit.

C. Key Regulations

A summary of the key regulations is provided below.

1. Exemptions (KZC 90.35): This section provides a list of 13 activities and improvements that are exempt from the regulations in KZC 90.35 to 90.225 because they have little to no impact to the critical area buffer.

2. Permitted Activities and Improvements (KCZ 90.40): These activities and improvements have minor impact to the critical area buffer. Projects must have a critical area report prepared and must meet certain standards. The Planning Official (project planner) reviews this permit.

3. Exceptions - Public Agency and Public Utility (KZC 90.45): A project for a public agency and public utility that does not meet the threshold of an exemption or a permitted activity and cannot meet the criteria of a wetland and stream modification can apply for an exception using the criteria in this section. The Planning Director reviews these permits under a Process I permit. The exception for public agency and utility is comparable to a reasonable

use exception for a private project.

4. Programmatic Permits for Public Agencies and Utilities (KZC 90.50): These activities and improvements may fall under "Permitted Activities" (No. 2 above) or "Exceptions" (No. 3 above). They involve the same repetitive projects done over several years or in several locations in the city. The agency can bundle the projects under one permit.

5. Wetlands (KZC 90.50): Below is a table that summarizes the wetland regulations.

Table 90.55.1 Wetlands and Associated Buffer Standards

<table>
<tr><td>Wetland Classification and Rating</td><td>In accordance with the 2014 Department of Ecology Washington State Wetland Rating System for Western Washington, as revised. Wetland category and rating shall be determined through a survey and field investigation by a qualified critical area professional approved by the City as part of a critical area report in KZC 90.110. Wetland rating categories shall not change due to illegal modification.</td></tr>
<tr><td>Wetland Delineation</td><td>In accordance with the approved federal delineation manual and applicable regional supplements described in WAC 173-22-035 and based on field investigation and a survey. See KZC 90.110.</td></tr>
<tr><td>Wetland Determination</td><td>Planning Official makes determination if a wetland and/or a buffer exist on the subject property, and if so, its category, rating, boundaries and buffer width based on a required critical area report pursuant to KZC 90.110. In addition, the Planning Official makes determination if the standard buffer meets the buffer vegetative standards in KZC 90.130.</td></tr>
<tr><td>Wetland Buffer Width – Standard</td><td>Wetland Buffer Widths
<table>
<tr><td rowspan="2">Wetland Category</td><td colspan="4">Buffer width based on habitat points</td></tr>
<tr><td>3-4 habitat pts.</td><td>5 habitat pts.</td><td>6-7 habitat pts.</td><td>8-9 habitat pts.</td></tr>
<tr><td>Category I: Bogs and High Conservation Areas</td><td>190 feet</td><td>190 feet</td><td>190 feet</td><td>225 feet</td></tr>
<tr><td>Category I: Others</td><td>75 feet</td><td>105 feet</td><td>165 feet</td><td>225 feet</td></tr>
<tr><td>Category II</td><td>75 feet</td><td>105 feet</td><td>165 feet</td><td>225 feet</td></tr>
<tr><td>Category III</td><td>60 feet</td><td>105 feet</td><td>165 feet</td><td>225 feet</td></tr>
<tr><td>Category IV</td><td colspan="4">40 feet</td></tr>
</table></td></tr>
<tr><td>Wetland Buffer Width – Alternative</td><td>Applicant may choose to not meet the vegetative buffer standards above and the mitigating measures by increasing the required buffer width by 33%. All existing structures and improvements in buffer must be removed and all mowing of the buffer must cease. All activities must cease except those permitted in KZC 90.35.12 and 13. In no case shall a standard and an alternate buffer standard be combined for a development proposal.</td></tr>
<tr><td>Other Standards</td><td>• Buffer averaging is permitted for both the standard buffer and the alternative buffer if criteria are met. See KZC 90.115. The Planning Official makes decision.
• Increased buffer width may be required if wetland or its buffer contains or is adjacent to severe erosion area, habitat of certain species or frequently flooded area based on critical area report. See KZC 90.125.
• Wetlands must be restored that have been degraded by removing debris, sediment and/or invasive vegetation and replacing with native plants and other habitat features if the project is subject to KZC 90.130.4.a for a vegetative buffer and/or a wetland modification is proposed.
• Standard buffers must meet the vegetative buffer standards. See KZC 90.130. All existing</td></tr>
</table>

	structures and improvement in the buffer must be removed. • Measures to minimize impact to wetlands must be implemented for standard buffers. See KZC 90.155. • Fencing and signage are required along the entire upland edge of the buffer both during construction and upon completion of the project. See KZC 90.190. • For voluntary restoration, see KZC 90.35 and 90.40. • For code enforcement to correct an illegal modification to a wetland or buffer, see KZC 90.205. • Wetlands and buffers shall be placed in recorded critical area easements or tracts for perpetual protection and maintenance. See KZC 90.210.
Structure Setback from Buffer	A 10-foot wide structure setback is required from upland edge of the entire buffer. Improvements listed in KZC 90.140 are permitted in the setback.
Activities, Improvements and Uses in Wetlands	Activities, improvements and uses are prohibited within wetlands and associated buffers, except those exempted or permitted subject to development standards in KZC 90.35 and KZC 90.40, or those approved under a City review process in this chapter.
Modification to Wetlands and Related Impacts to Buffers	• Modification to a wetland requires approval pursuant to a Process I, Chapter 145 KZC along with a critical area report, mitigation sequencing, and compensatory mitigation plan. See KZC 90.110, 90.145 and 90.150. • Isolated Category IV wetlands less than 4,000 square feet and wetlands less than 1,000 square feet pursuant to KZC 90.60 are not required to meet mitigation sequencing, but compensatory mitigation is required pursuant to KZC 90.150. • Buffer standard may not be modified or reduced, except as part of a wetland modification pursuant KZC 90.60; Permitted Activities pursuant to KZC 90.35, Public Agency Exception pursuant to KZC 90.40, Reasonable Use Exception pursuant to 90.180 or through buffer averaging or a waiver for an interrupted buffer approved. See KZC 90.115 and KZC 90.120. Also see Nonconformances pursuant to KZC 90.185.

6. Streams (KZC 90.65): Below is a table that summarizes the stream regulations.

Table 90.65.1 Streams and Associated Buffer Standards

Stream Classification	In accordance with WAC 222-16-030, as amended. The Planning Official makes the final determination. The stream classification shall not change due to illegal modifications.
Stream Determination	The Planning Official makes the determination if a stream and/or a buffer exist on the subject property, and if so, a stream's classification and boundary, and width of buffer based on a required critical area report pursuant to KZC 90.110. In addition, the Planning Official makes the determination if the standard buffer meets the vegetative buffer standards in KZC 90.130.
Stream Buffer Width Standard	**Stream Buffer Widths** Stream Type: Buffer Width F (Fish bearing): 100 feet Np (Perennial non-fish bearing): 50 feet Ns (Seasonal non-fish bearing): 50 feet
Stream Buffer Width Alternative	Applicant may choose not to meet the vegetative buffer requirements pursuant to KZC 90.130 by increasing the standard buffer width by 33% along the entire edge of the stream. All existing structures and improvements in the buffer must be removed and all mowing must cease. All activities must cease except those permitted in KZC 90.35.12 and 13. A standard and an alternate buffer standard may not be combined for a development proposal.
Other Standards	• Buffer averaging is permitted for both the standard buffer and the alternative buffer if criteria are met. See KZC 90.115. The Planning Official makes decision.

	• Increased buffer width may be required if the stream or its buffer contains or is adjacent to a severe erosion area, habitat of certain species or frequently flooded area based on critical area report**.** See KZC 90.125**.** • Streams must be restored that have been degraded by removing debris, sediment and/or invasive vegetation and replacing with native plants and other habitat features if the project is subject to KZC 90.130.4.a for a vegetative buffer and/or a wetland modification is proposed. • Standard buffers must meet vegetative buffer requirements pursuant to KZC 90.130. All existing structures and improvement in the buffer must be removed. • Buffers shall be provided where a stream abuts an inlet and outlet of culverted streams as shown in Chapter 180 KZC, Plate 16A. • Fencing and signage are required along the entire upland edge of buffer both during construction and upon completion of a project. See KZC 90.190. • Voluntary restoration of streams and buffers or in-stream maintenance is allowed by KZC 90.35 and KZC 90.40. • For code enforcement to correct an illegal modification to a stream or buffer, see KZC 90.205. • Streams and buffers shall be placed in recorded critical area easements or tracts for perpetual protection and maintenance. See KZC 90.210.
Structure Setback from Buffer	A 10-foot wide structure setback is required from upland edge of the entire buffer. Improvements listed in KZC 90.140 are permitted within the setback.
Activities, Improvements and Uses in Streams	Activities, improvements and uses shall be prohibited within streams and associated buffers, except those exempted or as permitted with development standards as found in KZC 90.35 and KZC 90.40, or those approved under another City review process in this chapter.
Modifications to Stream and Related Impacts to Buffer	• Modifications to stream and related impacts to buffers require approval pursuant to Process I, Chapter 145 along with a critical area report, mitigation sequencing and mitigation plan. See KZC 90.70, KZC 90.110 and KZC 90.145. • Impacts to stream buffers shall be mitigated at a minimum ratio of 1:1. • Daylighting of a stream is encouraged. The Planning Official makes the decision unless it is part of approval pursuant to Process I, Chapter 145 KZC. See KZC 90.75. • Buffer standards may not be modified or reduced, except as part of a stream modification in KZC 90.120, Permitted Activities pursuant to KZC 90.35, Public Agency Exception pursuant to KZC 90.40, Reasonable Use Exception pursuant to 90.180 or through buffer averaging, daylighting a stream or a waiver to an interrupted buffer. Also see KZC 90.185 Nonconformances.

7. Fish and Wildlife Habitat Conservation Areas (KZC 90.95): A property that contains or is adjacent to a wildlife habitat for a species of a state or federally endangered, threatened or sensitive species or state priority species must have a management plan prepared to protect the habitat. A management plan may include seasonal restriction of construction activities, vegetative buffer that reflects the sensitivity of the habitat and restrictive access into the habitat area.

8. Buffer Averaging (KZC 90.115): Averaging of a buffer is permitted as long as the total buffer area is not reduced and at no point is the buffer reduced by more than 75% of the standard buffer requirement.

9. Vegetative Buffer Standard (KZC 90.130): This section provides a vegetative buffer standard that all buffers must meet as part of approval of a project. Exceptions are projects where

the new footprint is 1,000 square foot or less. In these cases, the area of the buffer that must be vegetated at a 1:1 ratio of the new footprint.

10. Structure Setback from the Critical Area Buffer (KZC 90.140): Buildings must be setback 10 feet from the buffer, but certain minor improvements can be as close as one (1) foot from the critical area buffer edge depending on the improvement. Fencing on each side of the structure setback can be solid fencing, but fencing along the edge of the buffer must be open slatted, wrought iron, chain link, split rail or similar design to provide openness to the critical area.

11. Subdivision and Maximum Development Potential (KZC 90.170): The provisions in this section clarify that land entirely within a critical area and/or buffer cannot be subdivided. Any subdivided property must be able to accommodate the proposed land use and its requirements. Maximum Development Potential subsection is the same as in the existing Chapter 90.

12. Reduced Dimensional Standards for Residential Uses (KZC 90.175): Applicants of residential use projects may propose a reduction in dimensional standards similar to those allowed under Reasonable Use Exception.

13. Reasonable Use Exception (KZC 90.180): This section is the same as the current Chapter 90, except for minor edits and the allowance of commercial uses to take advantage of the provisions. The lapse of approval has been changed from one year to five years which is consistent with the lapse of approval for other zoning permits.

    Note that the Department of Ecology's model ordinance calls for a Reasonable Use Exception option be made available so that a property owner can at least have one single family home or one commercial use on an encumbered site depending on the zoning of the property.

14. Nonconformances (KZC 90.185): This section allows the following in a critical area buffer:
    - Maintenance and repair of nonconforming structure. Refers to exemption section in KZC 90.35.
    - Reconstruction of nonconforming structure (within same dimensions and footprint). If the foundation is replaced rather than repaired, the foundation must be moved out of the critical area buffer as much as possible with the exception of casualty damage. The foundation for casualty damage may be replaced on the same foundation.
    - Expansions that do not increase the degree of nonconformance, such as second story additions and additions that are outside of the buffer area (no limitation on size of expansion if expansion is outside of buffer)
    - Expansions that do increase the degree of nonconformance. Buildings may be expanded by the following (see Plate 26 in Attachment 3)
        - 1,000 square feet of footprint if the expansion is on the opposite side of the building away from critical area
        - 500 square feet of footprint if the expansion is no closer than the existing building to the critical area or expands into the structure setback. Minimum critical area setback of 60% of the standard buffer is required.

  - 250 square feet of footprint if the expansion is between the existing building and the critical area. Minimum critical area setback of 60% of the standard buffer is required.
- With expansions, upper floors may be added provided that they do not encroach any further into the buffer as the existing buildings
- With expansions, carports and covered decks may be enclosed provided that they do not extend beyond the foundation of the carport or deck

V. MINOR CODE AMENDMENTS

Attachment 3 contains minor code amendments to the Zoning Code and Municipal Code that necessary to implement the Chapter 90 KZC update. Most of the amendments are housekeeping in nature or clarifications, such as changing the word "sensitive area" to "critical area," or changing the Chapter 90 section number references, and stating in several chapters that the provisions in Chapter 90 may not be modified using the provisions in that chapter. The exceptions are the amendments to Chapter 5 – definitions. The amendments contain new, revised or deleted definitions. Many definitions mirror the Department of Ecology's definitions in its model wetland ordinance, some mirror definitions from other jurisdictions and some are recommended from The Watershed Company – the City's environmental consultants on this project (see Chapter 5 in Attachment 3).

Below is a list of the chapters that need to be amended:

KIRKLAND ZONING CODE

- Chapter 1: User Guide
- Chapter 5: Definitions
- Chapter 20: Medium Density Residential Zones
- Chapter 30: Office Zones
- Chapter 53: Rose Hill Business District Zones
- Chapter 79 Holmes Point Overlay Zone
- Chapter 75: Historic Overlay
- Chapter 85 Geologically Hazardous Areas
- Chapter 95: Tree Management and Required Landscaping
- Chapter 113: Cottage, Carriage and Two/Three Unit Homes
- Chapter 114: Low Impact Development
- Chapter 115: Miscellaneous
- Chapter 120: Variances
- Chapter 125: Planned Unit Development
- Chapter 162: Nonconformances
- Chapter 180: New Plates: 16. 16A, 25 and 26 that replace deleted plates. Plate 32 is revised.

KIRKLAND MUNICIPAL CODE:

- Title 7.61.160 License and Regulations
- Title 22 Subdivision

VI. ZONING CODE CRITERIA FOR APPROVING ZONING CODE AMENDMENTS

Chapter 140 of the Zoning Code contains criteria that need to be reviewed and considered when amending the Zoning Code

A. Section 140.25 Kirkland Zoning Code

The City shall take into consideration, but is not limited to, the following factors when considering approval of a proposed amendment to the Comprehensive Plan:

1. The effect upon the physical, natural, economic, and/or social environments.
2. The compatibility with and impact on adjacent land uses and surrounding neighborhoods.
3. The adequacy of and impact on public facilities and services, including utilities, roads, public transportation, parks, recreation, and schools.
4. The quantity and location of land planned for the proposed land use type and density.
5. The effect, if any, upon other aspects of the Comprehensive Plan.

Concerning Section 140.25 KZC, the factors above were considered, where applicable, as part of the Chapter 90 code amendment process

The Zoning Code Amendments are consistent with the Growth Management Act and the Kirkland Comprehensive Plan. They will result in long-term benefits to the community as a whole and is in the best interest of the community.

VII. COMMENTS FROM STATE AGENCIES AND THE MUCKLESHOOT TRIBE

The City sent copies of Chapter 90 KZC directly to Department of Fish and Wildlife, the Department of Ecology, the Muckleshoot Tribe, the Federal Emergency Management Agency (FEMA – which oversees frequently flooded areas), Sound Transit and Puget Sound Energy. The City received the following comments from Department of Fish and Wildlife, the Department of Ecology and the Muckleshoot Tribe (see Attachments 4-6). The three commenting agencies only had a few minor comments and thus generally they have no issue with the Chapter 90 KZC update. Department of Fish and Wildlife was complementary of the concise and easy to follow set of regulations.

A. Department of Fish and Wildlife Comments

The agency was very complimentary of the organization, clarity and substance of the new chapter. One specific comment on the new regulations addressed **structure setback from a critical area buffer in KZC 90.140** (p.37 of Attachment 2). The agency wanted to know why a 15-foot setback instead of a 10 foot structure setback from the critical area is not required.

City Response: We will continue with the existing 10-foot structure setback from the critical area buffer. Current Chapter 90 requires a 10-foot setback and this setback has functioned well in the past to protect the critical area buffer from intrusion due to maintenance and repair of structures

and use of minor improvements in the setback. Some jurisdictions require a 10-foot setback while others require a 15-foot setback.

B. Department of Ecology (DOE) Comments

The agency has the following comments and questions. Attachment 4 just contains the pages of Chapter 90 with the comments:

1. DOE Comment: Provide Ecology with examples of **programmatic permits** for public agencies and public utilities in KZC 90.40 (p. 14 of Attachment 2).

   City Response: Staff will email Department of Ecology explaining the section. A programmatic permit will be for projects that are repeated in several locations in the city or over several years, such as installation of water and sewer lines, or cleaning culverts. Other jurisdictions have provisions for programmatic permits.

2. DOE Comment: **Wildlife corridors** from wetland buffers to other wildlife corridors should be addressed in the wetland section of KZC 90.50 (p. 15 of Attachment 2).

   City Response: A requirement in the Fish and Wildlife Habitat Conservation Area section of KZC 90.95 has been added (p. 27 of Attachment 2) that a wildlife corridor, if appropriate, shall be considered as part of the management plan.

3. DOE Comment: **Standards for a well-functioning vegetative buffer** requirement are usually very general in nature and left to be proposed with each project whereas Chapter 90 KZS includes specific standards for a vegetative buffer.

   City Response: The proposed vegetative buffer requirements in Section 130 (p. 34 of Attachment 2) represent what is needed for a well-functioning, urban vegetative buffer. The standards are general enough to give an applicant a choice in the type of vegetation and layout of the plan while requiring a diversity of trees, shrubs and groundcover important to wildlife habitat. The standards provide clear guidance to staff, the applicant and the applicant's consultant of what is the framework for a well-functioning buffer.

4. DOE Comment: The **monitoring and maintenance** provisions of KZC 90.160 (p. 44 of Attachment 2) provide a specific schedule for site visits and length of monitoring for vegetative buffers. Does this include both enhanced and created buffers? What about other types of mitigation besides vegetation that would involve a wetland modification?

   City Response: Staff clarified in KZC 90.160 (p. 44 of Attachment 2) that for monitoring and maintenance the provisions include both enhanced (revegetating the buffer) and created buffer (part of a wetland or stream modification). A new subsection in monitoring and maintenance program provisions has been added for other mitigation besides vegetation explaining that the program will be determined as part of the mitigation plan. This was already stated in the mitigation provisions of KZC 90.145 (p. 38 of Attachment 2), but is now also stated in KZC 90.160.

5. DOE Comment: The **financial security** section states that the Planning Official will release the financial security once the mitigation, monitoring and maintenance are completed to the satisfaction of the City. Ecology commented that the financial security should be not released until other agencies approve of the release.

   City Response: The financial security is the City's security based on the plan approved under Chapter 90 KZC. The City does not generally work with other agencies on review or implementation of projects. It is up to the applicant to obtain any required permits from state and federal agencies. As a practical matter, the City would not wait to receive correspondence from a state and federal agency on release of a financial security because these agencies are understaffed and do not respond in any timely manner, if at all.

C. Muckleshoot Tribe Comments

1. Tribe Comments 1 and 3: The Muckleshoot Tribe suggested that we **use the interim stream typing of WAC 222-16-031** that agencies have recently developed that addresses fish barriers that may prevent fish from coming down a stream. The interim stream typing would help to type a stream if a stream contains fish in portions of the stream when other portions of the stream contain fish barriers, such as culverts.

   City Response: Continue using WAC 222-10-030 in Section 90.65.1 (p. 19 of Attachment 2) until such time when the interim stream typing replaces WAC 222-10-030. Department of Fish and Wildlife reviewed the draft Chapter 90 and did not recommend that the stream typing be changed. Other jurisdictions use WAC 222-20-030 and the same WAC section is used in the City's Chapter 83 KZC shoreline regulations. According to The Watershed Company, there is still not complete agreement on the interim stream typing standards.

2. Tribe Comment 4: The Muckleshoot Tribe raised the issue of **shading along streams to prevent the rise in water temperature** in streams.

   City Response: Add a provision in the vegetative buffer standard of KZC 90.130 that shading of a stream shall be provided through the use of locating trees and shrubs along the stream appropriate for shading a stream.

VIII. PUBLIC COMMENTS

The Planning Commission carefully considered all of the oral testimony and written comments submitted throughout the review process.

Attachment 7 through 24 are public written comments. Changes were able to be made to Chapter 90 KZC to respond to the comments from Wayne Seminoff (Reasonable Use Exception for commercial uses), Brent Carson (exemptions and permitted uses - see October 24, 2016 for complete responses to each of Mr. Carson's comments and what changes were made), Puget Sound Energy (exemptions and permitted uses), William Anspach and Ecology Solutions (measuring a buffer perpendicular to the opening of a culverted stream rather than around the entire opening), and Kristal Wallstrom (no fencing in buffer required if it contains legally improved

lawn and other improvements). Save Our Trails indicated concern about the protection of the critical areas with development of the Cross Kirkland Corridor.

Tyler Litzenberger's (Attachment 24) property currently has a 75' stream buffer. Half the house is currently in the buffer which makes it nonconforming under the existing regulations. Under the Chapter 90 update, his property would have a 100' buffer (F stream – contains fish). Under the Chapter 90 update, Mr. Tyler (or any property owner) has additional options under the nonconformance provisions that are not available under the current code. Under the new amendments, property owners that have nonconforming buffers can reconstruct the house in its current location, add on to the sides of the house, reduce the front and side yards under a redevelopment plan and add upper floors. Staff is meeting with Mr. Litzenberger to go over these options.

The remainder of the comments were general concerns about the increased width of the new buffer standards.

IX. ATTACHMENTS

1. Planning Commission's transmittal memo dated November 2, 2016
2. Chapter 90 KZC update
3. Minor Code amendments to the Zoning Code and Kirkland Municipal Code
4. Department of Fish and Wildlife comments dated 09/06/ 2016
5. Department of Ecology comments dated 09/08/2016
6. Muckleshoot Tribe comments dated 09/15/2016
7. Wayne Seminoff comment dated 01/08/2016
8. Wayne Seminoff comment dated 02/12/2016
9. Save Our Trails comment dated 02/16/2016
10. Raedeke Associates comment dated 03/24/2016
11. Brent Carson comment dated 04/22/2016
12. Stephen Haugen comment dated 04/24/2016
13. The Calvin Group comment dated 06/14/2016
14. Ecological Solutions for William Anspach comment dated 06/20/2016
15. William Anspach comment dated 06/21/2016
16. William Anspach comment dated 07/27/2016
17. Puget Sound Energy comment dated 07/25/2016
18. Pat Moir and Bruce Burke comment dated 09/17/2016
19. Pat Moir and Bruce Burke comment dated 09/27/2016
20. Brent Carson comment dated 09/29/2016
21. Greg Rairdon comment dated 09/29/2016
22. Brent Carson comment dated 09/30/2016
23. Kristal Wallstrom comment dated 10/19/2016
24. Tyler Litzenberger comment dated 10/24/2016

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MEMORANDUM

To: City Council

From: Planning Commission
Eric Laliberte, Chair

Date: November 2, 2016

Subject: **Planning Commission Recommendation, Chapter 90 KZC: Wetlands, Streams, Fish and Wildlife Habitat Conservation Areas, Minor Lakes and Frequently Flooded Areas, and Minor Code Amendments related to the Chapter 90 KZC Update, File No. CAM15-01832, #2**

I. INTRODUCTION

The Planning Commission is pleased to submit our recommendation of approval to the City Council on the update to Chapter 90 KZC addressing wetlands, streams, minor lakes, frequently flooded areas, fish and wildlife habitat conservation area along with minor code amendments to the Zoning Code and Municipal Code. The update to the City's critical area regulations has been through an extensive public review process starting in January 2016. After six study sessions, a joint public hearing with the Houghton Community Council (including a follow-up joint meeting for final deliberations), four open houses, and two briefings before the City Council, the Planning Commission is transmitting the proposed critical area ordinance along with minor code amendments in compliance with the requirements of the Growth Management Act, the Department of Ecology guidance and Best Available Science.

Before the process began, as suggested by the Planning Commission, notice was mailed out to over 12,000 property owners within 300 feet of any known wetland and stream making them aware of the upcoming Chapter 90 update. The Commission wanted to ensure that property owners who could be affected by changes to the existing regulations were notified. An email notice was sent out to the City's Development Services listserv that goes to the development community. Notice was also sent to neighborhood associations, local, state and federal agencies, the Muckleshoot Tribe, local utility providers, environmental groups and other interested parties. A City web site was created with the option to sign up for a listserv notice. Monthly listserv notices were sent out before each meeting updating participants with new information. There are currently over 270 listserv participants.

On January 28, 2016, the Planning Commission and the Houghton Community Council held a joint study session to receive background information on the upcoming amendments. Since then, the Planning Commission held five study sessions on February 25, 2016, March 24, 2016,

April 28, 2016, June 23, 2016, and July 28, 2016 to provide staff with policy direction for preparation of the new Chapter 90 KZC. The Houghton Community Council held two study sessions on May 23, 2016 and July 25, 2016 to review the direction of the Planning Commission and provide comments. A joint public hearing with the Houghton Community Council was held on September 29, 2016 with a follow-up joint meeting for final deliberations on October 24, 2016.

On February 16, 2016, the City Council had a briefing to receive background information on upcoming Chapter 90 code amendments. On June 21, 2016, the City Council held a study session on the Chapter 90 amendments to review the Planning Commission's direction along with the comments from the Houghton Community Council. The City Council provided direction on several issues relating to reasonable use exceptions and nonconformances for commercial uses. These are discussed below.

II. RESPONSE TO CITY COUNCIL COMMENTS

At the City Council meeting of June 21, 2016, the City Council indicated two areas that they would like addressed in Chapter 90 KZC:

- Commercial uses being able to fully take advantage of Reasonable Use Exception. Totem Lake development was one example discussed.

- Commercial uses being able to take advantage of the new non-conformance provisions for single family that allow certain expansions into the critical area buffer for existing nonconforming buildings that are located in the buffer.

Both of these topics have been addressed by staff and the Planning Commission. Under the proposed regulations, commercial zones and the type of uses that are permitted to make reasonable use exception applications have been expanded. In addition, commercial and mutilfamily uses can request reduction in required yard setbacks similar to single family uses. See KZC 90.180 of Attachment 2. Commercial and multifamily uses are eligible to use the new non-conformance provisions as do single family uses. See KZC 90.185 of Attachment 2.

III. RECOMMENDATION OF THE HOUGHTON COMMUNITY COUNCIL

At the conclusion of the joint public hearing on October 24, 2016, the Houghton Community Council made a recommendation to the Planning Commission and City Council on Chapter 90 KZC and the minor code amendments. The Houghton Community Council by a vote of 5 to 1 recommended approval with one change to the October 24, 2016 version of Chapter 90 KZC as recommended by city staff. The change related to requiring a single family homeowner of a nonconforming home to move a foundation out of the critical area buffer to the maximum extent possible if the foundation needed to be replaced due to casualty damage. Replacing a foundation is a key opportunity to move the foundation out of the buffer to the maximum extent possible thus reducing the impact of nonconforming structures on buffers.

The Planning Commission agreed with the Houghton Community Council on the one issue that a homeowners should be able to replace the foundation in a critical area buffer due to casualty loss, such as a fire or earthquake, and not be required to move the new foundation out of the buffer to the maximum extent possible. This is reflected in KZC 90.185.4 of Attachment 2 – Chapter 90 KZC.

IV. RATIONALE FOR RECOMMENDATION

The Planning Commission's rationale for its recommendation is based on the following:

- Be consistent with the Growth Management Act (GMA), Ecology guidance and Best Available Science (BAS), and minimize likelihood of appeals from the state, the tribes, individuals and other concerned parties;

- Implement the City's Vision Statement and Guiding Principles, and goals and policies of the Environment Chapter of the Comprehensive Plan to preserve and where possible enhance Kirkland's wetlands and streams;

- Be consistent with the BAS Report prepared for the City by The Watershed Company (TWC) that addresses the latest science on the protection of these sensitive area features and the condition of the city's sensitive area features;

- Implement the code amendments needed to meet BAS on wetlands, streams and fish and wildlife habitat conservation areas and Ecology's guidance on wetlands listed in the Gap Analysis prepared by TWC;

- Find opportunities to provide flexibility for property owners to off-set the increase in buffer widths and other regulations through exemptions, permitted uses, non-conformance provisions, off-site mitigation options and reasonable use exceptions;

- Have regulations comparable with the critical area provisions in the City's Shoreline Master Program (Chapter 83 KZC);

- Have regulations that are comparable with other local jurisdictions;

- Incorporate a list of suggested changes from staff dating back to 1999 that include clarifications, opportunities for more flexibility and streamlining processes;

- Reflect the recommendation of the Houghton Community Council; and

- Have a code that is concise, user friendly and somewhat easy to administer.

Over the past several months, the Planning Commission and Houghton Community Council worked closely with City staff including a number of joint meetings. There were a variety of complex issues we discussed in depth throughout the course of this effort. It required all involved to strive to reach a balance among a variety of interests. We have done so through carefully considering the GMA, the Department of Ecology guidance, the Best Available Science standards and public comments. We believe we have stayed within the framework of the state requirements while also providing flexibility. We respectfully recommend the City Council adopt the ordinance as recommended by both the Planning Commission and Houghton Community Council.

Chapter 90 – CRITICAL AREAS: WETLANDS, STREAMS, MINOR LAKES, FISH AND WILDLIFE HABITAT CONSERVATION AREAS, AND FREQUENTLY FLOODED AREAS

Sections:

Introduction

90.05 User Guide
90.10 Purpose
90.15 Applicability
90.20 Critical Area Maps and Other Resources
90.25 Regulated Activities

Review Process

90.30 City Review Process
90.35 Exemptions
90.40 Permitted Activities, Improvements and Uses Subject to Development Standards
90.45 Public Agency and Public Utility Exception -
90.50 Programmatic Permits - Public Agency and Public Utility

Critical Area Regulations

90.55 Wetlands and Associated Buffer Standards
90.60 Wetland Modification

90.65 Streams and Associated Buffer Standards
90.70 Stream Modification
90.75 Daylighting of Streams
90.80 Buffer Reduction for Meandering or Daylighting of Stream
90.85 Stream Channel Stabilization

90.90 Minor Lakes – Totem Lake and Forbes Lake
90.95 Fish and Wildlife Habitat Conservation Areas
90.100 Frequently Flooded Areas

General Standards

90.105 Critical Area Determination
90.110 Critical Area Report
90.115 Buffer Averaging
90.120 Limited Buffer Waivers
90.125 Increase in Buffer Width Standard
90.130 Vegetative Buffer Standards
90.135 Trees in Critical Areas and Critical Area Buffers
90.140 Structure Setback from Critical Area Buffer
90.145 Mitigation – General
90.150 Wetland Compensatory Mitigation
90.155 Measures to Minimize Impacts to Wetlands
90.160 Monitoring and Maintenance
90.165 Financial Security for Performance, Maintenance and Monitoring

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90.170 Subdivisions and Maximum Development Potential
90.175 Dimensional Design Standards for Residential Uses
90.180 Reasonable Use Exception
90.185 Non-Conformances
90.190 Critical Area Markers, Fencing and Signage
90.195 Pesticide and Herbicide Use
90.200 Critical Area Buffers and Structure Setbacks from Buffers Under Prior Approvals
90.205 Code Enforcement
90.210 Dedication and Maintenance of Critical Area and Buffer
90.215 Liability
90.220 Appeals
90.225 Lapse of Approval

90.05 User Guide

The regulations in this chapter apply to activities, uses, alterations, work, and conditions in or near any wetland, stream, minor lake, fish and wildlife habitat conservation areas, or frequently flooded area. These regulations add to and in many cases supersede other City regulations. Anyone interested in conducting any development activity on or near one of these critical areas; wanting to participate in the City's decision on a proposed development under this chapter; or wishing to have a determination made as to the presence of one of these areas on their property, should read these regulations.

For properties within jurisdiction of the Shoreline Management Act, the regulations in Chapter 83 KZC shall be met. Chapter 83 KZC contains wetland, stream and flood hazard reduction regulations for properties located within its jurisdiction. However, regulations contained in this chapter that are not addressed in Chapter 83 KZC continue to apply, such as performance security, dedication and liability.

90.10 Purpose

These regulations were prepared to comply with the Growth Management Act and implement the goals and policies of the City' Comprehensive Plan. The purpose of these regulations is to protect the environment, human life, and property. This purpose will be achieved by preserving the important ecological functions of wetlands, streams, minor lakes, fish and wildlife habitat conservation areas, and frequently flooded areas using best available science. The designation, classification, and regulation of critical areas are intended to protect property rights while assuring preservation and protection of critical areas from loss or degradation, ensuring no net loss of ecological functions and restricting incompatible land uses.

These critical areas perform a variety of valuable biological, chemical, and physical functions that benefit the City and its residents. The functions of these critical areas include, but are not limited to, the following:

1. Wetlands – Wetlands help store and convey flood and storm water, support base stream flow and recharge groundwater, provide erosion control and shoreline protection, maintain and improve water quality, provide fish and wildlife habitat, and provide cultural and socioeconomic values. Wetland functions for flood and stormwater control, erosion protection, and water quality improvement are particularly valuable to protect infrastructure and to limit the effects of development on water quality in Kirkland's streams and lakes.

   Wetland buffers protect wetlands from or reduce the impacts of adjacent land uses. Buffers

serve to moderate runoff volume and flow rates and stormwater inputs (hydrology maintenance), remove sediment, excess nutrients, synthetic organic chemicals (e.g., pesticides, oils, and greases) and other toxic substances (water quality improvement), provide shade for surface water temperature (moderate temperature), and deter harmful intrusion into wetlands by humans and pets (disturbance barrier). Buffers provide terrestrial habitat for wetland-dependent species that need both aquatic and terrestrial habitats for their life cycle maintain habitat connectivity (wildlife habitat).

The primary purpose of wetland regulations is to achieve a goal of no net loss of wetland function, value, and acreage, which, where possible, includes enhancing and restoring wetlands.

2. Streams – Streams and their associated buffers provide important fish and wildlife habitat and travel corridors; help maintain water quality; store and convey storm and flood water; recharge groundwater; and serve as areas for recreation, education, scientific study, and aesthetic appreciation.

   Stream buffers serve an important role in maintaining stream functions that are important for supporting diverse and productive fish population. These include water quality (i.e. protection from sediment, nutrients, metals, pathogens, herbicides, and pharmaceuticals), water temperature and microclimate, bank stability, invertebrate communities, inputs of organic detritus, instream habitat complexity, including large woody debris, and habitat travel corridors.

   The primary purpose of stream regulations is to avoid damage to stream and riparian corridor functions, and where possible, to enhance and restore streams and riparian areas.

3. Minor Lakes – Minor Lakes provide important fish and wildlife habitat; store and convey storm and flood water; recharge, storage, and discharge of ground water;; and serve as areas for recreation, education, scientific study, and aesthetic appreciation. Because the shallow perimeter of minor lakes often meets the definition of a wetland, many uses and activities in and around lakes are regulated under the wetland regulations.

   The primary purpose of minor lake regulations is to avoid impacts to lakes and contiguous stream and wetland areas, and where possible, to enhance and restore minor lakes.

4. Fish and Wildlife Habitat Conservation Areas – Fish and wildlife habitat conservation areas provide important nesting territory as well as spawning and protection areas for state and federally listed endangered, threatened, and sensitive species that have a primary association with that habitat area and state priority habitat that include species of local importance. These habitat areas help maintain long-term viability of these species and contribute to the state's biodiversity. Preservation of the vegetation, faunal, and hydrologic characteristics of these habitat areas is critical to maintaining these species.

   The primary purpose of fish and wildlife habitat conservation area regulations is to protect habitats from impacts of adjacent urban uses by minimizing fragmentation of native habitat, controlling invasive species, maintaining or providing habitat connectivity with vegetated corridors between habitat patches, preserving habitat features including native vegetative, snags and downed wood, and providing buffers of adequate width adjacent to the habitat areas.

5. Frequently Flooded Areas – Frequently flooded areas are areas of special flood hazard that help

to store and convey storm and flood water; recharge ground water; provide important riparian habitat for fish and wildlife; protect the functions and values of floodplains and serve as areas for recreation, education, and scientific study. Development within these areas can be hazardous to those inhabiting such development, and to those living upstream and downstream. Flooding also can cause substantial damage to public and private property that result in significant costs to the public as well as to private individuals.

The primary purpose of frequently flooded areas regulations is to manage potential risks to public safety and damage to public and private property due to flooding, and to protect instream habitat areas. The City of Kirkland uses the Federal Emergency Management Agency (FEMA) maps as a basis for a determination of the location of frequently flooded areas.

90.15 Applicability

1. General – These regulations apply to land within the City of Kirkland that contains any of the following:

   a. Wetlands;

   b. Streams;

   c. Minor Lakes;

   d. Fish and Wildlife Habitat Conservation Areas;

   e. Frequently Flooded Areas; and

   f. Vegetative buffers required for the above.

2. Conflicting Provisions – The regulations in this chapter supersede any conflicting regulations in the Kirkland Zoning Code. For properties within jurisdiction of the Shoreline Management Act, the regulations in Chapter 83 KZC supersede any conflicting regulation in this chapter. If more than one regulation applies to the subject property, then the regulation that provides the greatest protection to critical areas shall apply.

3. Modifications to Provisions in this Chapter – The regulations in this chapter may not be modified using other provisions in this code, such as but not limited to historic overlay (Chapter 75 KZC), variances (Chapter 120 KZC), or planned unit developments (Chapter 125 KZC), unless as specified in Reasonable Use Exception Section 90.170 of this Chapter.

4. Other Jurisdictions – Nothing in these regulations eliminates or otherwise affects the responsibility of an applicant or property owner to comply with all other applicable local, state, and federal regulations and permits that may be required.

5. SEPA Compliance – Nothing in these regulations or the decisions made pursuant to these regulations affects the authority of the City to review, condition, and deny projects under the State Environmental Policy Act, Chapter 43.21C RCW.

90.20 Critical Areas Maps and Other Resources

The City maintains general mapping of known critical areas. These maps and other available resources (such as topographic maps, soils maps, and aerial photos) are intended only as guides. They depict the approximate location and extent of known critical areas. Some critical areas depicted in these resources may no longer exist and critical areas not shown in these resources may occur. The provisions of this Chapter and the findings of a critical areas report and review of the report by the City take precedence over the City's mapping. It is strongly advised that property owners and project applicants to retain qualified critical area professionals to conduct site-specific studies for the presence of critical areas and related buffers.

The City's map relating to Chapter 90 KZC is entitled "Wetlands, Streams and Minor Lakes" map.

90.25 Regulated Activities

Regulated activities have the potential to adversely impact a critical area or its established buffer. This chapter shall regulate the following activities:

1. Removal, excavation, grading or dredging of material of any kind;
2. Dumping of, discharging of, or filling with any material;
3. Draining, flooding, or disturbing the water level or water table;
4. Driving pilings or placing obstructions;
5. Construction or reconstruction, or expansion of any structure;
6. Destruction or alteration of vegetation through clearing, pruning, topping, harvesting, shading, intentional burning, or planting of vegetation that would alter the character of a regulated critical area;
7. Activities that result in significant changes of water temperature and physical or chemical characteristics of water sources to the critical area, including quantity and pollutants;
8. Any other development activity; and
9. Application of herbicides and pesticides.

90.30 City Review Process

1. Activities regulated by this chapter shall be considered using the following decision processes:

Table 90.30.1 City Review Process

Type of Action	City Review Process	Section
Exemptions	Activities permitted outright with no review process (or reviewed with underlying development or land surface modification permit - no review fee)	KZC 90.35
Permitted Activities, Improvements and Uses Subject to Development Standards	Planning Official Decision	KZC 90.40
Exception - Public Agency and Public Utility	Planning Director - Process I, Chapter 145 KZC	KZC 90.45
Programmatic Permits - Public Agency and Public Utility	Planning Official Decision or Planning Director - Process I,	KZC 90.50

	Chapter 145 KZC depending on scope of project	
Wetland Modification	Planning Director - Process I, Chapter 145 KZC	KZC 90.60
Category IV Wetland Exceptions	Planning Official Decision	KZC 90.60
Stream Modification	Planning Director - Process I, Chapter 145 KZC	KZC 90.70
Daylighting of Streams	Planning Official Decision	KZC 90.75
Stream Channel Stabilization	Planning Director - Process I, Chapter 145 KZC –	KZC 90.85
Moorage Facilities and Other Improvements on Minor Lakes	Planning Director - Process I, Chapter 145 KZC	KZC 90.90
Critical Area Determination	Planning Official Decision	KZC 90.105
Buffer Averaging	Planning Official Decision	KZC 90.115
Interrupted Buffer	Planning Official Decision	KZC 90.120
Reasonable Use Exception	Planning Director - Process I, Chapter 145 KZC	KZC 90.180

2. If a development, use or activity requires approval through Planning Official or Process I pursuant to this Chapter is part of a proposal that requires additional approval through Process IIA or Process IIB, the entire proposal shall be decided upon using that other process.
   a. The decisional criteria for a permit reviewed under a Process I in this chapter shall be used for the Process IIA or Process IIB decision.
   b. The decisional criteria, standards and/or requirements for a decision reviewed under a Planning Official Decision in this chapter shall be used for the Process IIA or Process IIB decision.

90.35 Exemptions

The following activities, improvements and uses have little or no environmental impact, are temporary in nature, or are an emergency and are therefore exempt from the provisions of KZC 90.40 through KZC 90.225 of this chapter, unless otherwise determined by the Planning Official.

An exemption does not give permission to degrade a critical area or ignore risk from natural hazards. All exempted activities shall use reasonable methods to avoid impacts to critical areas or their buffers. Any temporary damage to, or alteration of a critical area or buffer, shall be restored, rehabilitated, or replaced to prior condition or better at the responsible party's expense. Revegetation shall occur during the wet season, but no later than 180 days after the damage or alteration of the critical area or buffer occurred. All other restoration or rehabilitation shall be completed within 60 days of the damage or alteration, unless otherwise approved by the Planning Official.

The following activities, improvements and uses are exempt:

1. Repair and Maintenance of Structures. Repair and maintenance of existing legally established, functioning structures. This provision excludes public streets and utilities. [1]

2. Public Streets. Repair, maintenance, reconstruction and minor expansion of existing public streets, including associated appurtenances, bike lanes, and sidewalks. [2, 5, 6]

3. Utilities. Repair and maintenance of utility structures and conveyance systems and their associated facilities including service lines, pipes, mains, poles, equipment and appurtenances - both above and below ground. Replacement, installation, or construction of new utility structures and conveyance systems and their associated facilities within existing improved rights-of-way, existing legally improved private roadways, utility corridors or the Cross Kirkland Corridor and Eastside Rail Corridor. This provision does not include upgrading electric facilities that exceed 115 KV or replacement of hazardous liquid pipelines that increase existing pipeline circumference, or installation of additional hazardous liquid pipelines.[3, 5, 6]

4. Demolition. Removal of structures in critical area buffers, provided that all disturbed soils are stabilized and revegetated with appropriate native vegetation and at spacing intervals listed in the City's Critical Area Plant List using the Vegetative Buffer Standards in KZC 90.130 as a guideline for plant diversity and type.

5. Existing Non-Motorized Trails. Repair and maintenance of existing, legally established non-motorized trails, including the Cross Kirkland Corridor and Eastside Rail Corridor. [1, 5]

6. Existing Landscaping. Landscape maintenance of legally established lawns and gardens; including mowing, pruning, weeding, and planting; provided that such activities do not expand any further into critical areas or buffers, excludes removal of significant trees, and the use and application of chemical fertilizers, herbicides and insecticides comply with provisions in KZC 90.195.

7. HVAC Equipment. Addition of HVAC equipment with a footprint of less than nine (9) square feet, provided that:
   a. There is no feasible alternative location available;
   b. It does not expand the area of beyond legally established landscaping or improvements;
   c. It is not located in the critical area and is as far as possible from the critical area;
   d. Noise minimization techniques are provided. HVAC equipment shall be baffled, shielded, and enclosed to ensure compliance with the noise provisions of KZC 115.95, except that the receiving property shall also include the upland edge of the critical area buffer; and
   e. It must meet the setback requirements in KZC 115.115.

8. Site Investigative Work and Studies. Site investigative work and studies necessary for development permits, including geotechnical tests, water quality studies, wildlife studies, and critical area investigations; provided, that any disturbance of the critical area or its buffer shall be the minimum necessary to carry out the work or studies and the area must be restored with native vegetation after testing is done. Use of any mechanized equipment requires prior approval of the Planning Official.

9. Public Restoration. [6]
   Restoration of a critical area and its buffer through the removal of non-native plant species provided all of the following apply:
   a. The entire area cleared of plants must be revegetated with appropriate native vegetation and at spacing intervals listed in the City's Critical Area Plant List using the Vegetative Buffer Standards in KZC 90.130 as a guideline for plant diversity and type;
   b. The subject property is not located in a high landslide hazard area;
   c. No grading or filling is required to remove non-native invasive plants or revegetate with native species;
   d. Restoration work shall be restricted to hand removal. Hand removal equipment includes shovels, tillers, clippers, loppers, weed wrenches, and brush cutters and any hand held gas or electric

equipment; except that machinery can be used if machinery can access the buffer from an abutting paved roadway without encroaching into the buffer;

e. Replanting with native vegetative must take place immediately following removal of invasive species;
f. Goats may be used to remove invasive species only, provided their use does not adversely affect stream or wetland functions and they are restricted from access to the wetland or stream. Use of goats may be limited or prohibited by the Planning Official in areas where native vegetation is present and could be damaged;
g. In all cases, non-native, invasive species removal shall avoid impacts to native species; and
h. Citizen volunteers doing restoration must be under the direct supervision of City staff.

10. Private Restoration. [6]
Restoration of a critical area and its buffer through the removal of non-native invasive plant species listed in the King County Noxious Weed List provided all of the following apply:
    a. The entire area cleared of invasive plants shall be revegetated with appropriate native vegetation and at spacing interval and plant size listed in the City's Critical Area Plant List using the Vegetative Buffer Standards in KZC 90.130 as a guideline for plant diversity and type
    b. The subject property is not located in a high landslide hazard area;
    c. No grading or filling is required to remove non-native invasive vegetation or revegetate with native species;
    d. A planting restoration plan must be submitted to the Planning Official for review and approval prior to any disturbance to the buffer. The plan must include the area to be restored, method of removal, a detailed native planting plan with a plant list and schedule for commencement and completion of the project;
    e. Restoration work shall be restricted to hand held equipment. Hand held equipment includes shovels, tillers, clippers, loppers, weed wrenches, and brush cutters and any hand held gas or electric equipment; machinery such as excavators and bulldozers is not allowed;
    f. Replanting with native vegetative must take place immediately following removal of invasive species;
    g. All removed plant material shall be taken away from the site; and plants that appear on the King County Noxious Weed List must be handled and disposed of according to a noxious weed control plan appropriate to that species; and
    h. In all cases, non-native, invasive species removal shall avoid impacts to native species.

11. Storm Water Dispersion Flow Path. Creation of a vegetated flow path from a dispersion device that is located outside the critical area buffer that flows into the critical area buffer provided the buffer meets the Vegetative Buffer Standards in KZC 90.130, and the design is part of an approved development permit.

12. Other. Educational activities, scientific research, and passive outdoor recreational activities such as bird watching, fishing, and hiking, not including trail building or clearing.

13. Emergency Activities. Emergency activities necessary to prevent an immediate threat to public health, safety, or welfare. Alterations shall be reported to the City within seven (7) days and include evidence of threat or imminent danger. The City may require a permit to be obtained after-the-fact and require the critical area and its buffer to be fully restored in accordance with a critical area report and mitigation/maintenance plan.[4]

Notes:

[1] Repair and maintenance shall not increase the previously approved structure footprint or

impervious area, including paving and previously approved private roadways and driveways and parking areas within a critical area or its buffer, and shall not include foundation replacement. Foundation and complete structure replacement is regulated under KZC 90.185 of this chapter.

[2] Public street activities shall not increase the impervious area in the right-of-way, or reduce flood storage capacity in the critical area or critical area buffer. Public street activities in this provision also include expansion of pavement into existing impervious street shoulders.

[3] Utility activities shall not increase the impervious area in the right-of-way or private roadway or utility corridor or the Cross Kirkland and Eastside Rail Corridors, (except utility poles), or reduce flood storage capacity in the critical area or critical area buffer. Replaced overhead electric utilities and their associated facilities shall not be exempt if the work results in additional vegetation disturbance of the critical area or its buffer because of ongoing required vegetation maintenance due to wider vegetation clearance requirements. Utility activities in this provision also include expansion of existing structures such as substations into existing impervious areas.

[4] All restoration and mitigation shall occur within the timeframe established with the underlying permit, but in no case more than one year from the date of the emergency.

[5] The construction drawings shall show the edge of the right-of-way, private roadway or utility corridor, and the existing impervious shoulder area. The drawings shall also specify that all affected critical areas and buffers shall be restored to their pre-project condition or better, including soil stabilization and revegetation.

[6] All activities shall be undertaken using best management practices as determined by the Planning Official and adhere to the fish and wildlife seasonal restrictions on construction activities as determined by the Washington State Department of Fish and Wildlife.

90.40 Permitted Activities, Improvements or Uses Subject to Development Standards

1. Permitted Activities, Improvements and Uses. Activities, improvements and uses identified in this section are permitted subject to the following approval and development standards. Those activities and uses not identified or not meeting the standards in this section may be proposed under other sections of this chapter.

2. Process. The Planning Official shall review and decide on an application for a permitted activity or use. The general and specific standards in subsections 5 and 6 below along with the mitigation plan shall be conditions of approval.

3. Decisional Criteria. the Planning Official may approve a permitted activity or use if it is determined that:
   a. There is no practical alternative location with less adverse impact on the critical area or its buffer based on a critical area report and mitigation sequencing pursuant to KZC 90.145.
   b. The mitigation plan pursuant to KZC 90.145 sufficiently mitigates impacts; and
   c. The project plans meet the general and specific standards in subsections 5 and 6 below.

4. Critical Area Determination and Report. The applicant shall submit a critical area determination pursuant to KZC 90.105 and a critical area report pursuant to KZC 90.110.

5. Standards.

a. Application for permitted activities, improvements or uses identified in this section shall demonstrate that they meet the following standards except as noted in subsection 6 below.
   1) General mitigation requirements including mitigation sequencing pursuant to KZC 90.145;
   2) If located in a wetland or wetland buffer, requirements for wetland compensatory mitigation, pursuant to KZC 90.150;
   3) Implement a mitigation plan pursuant to KZC 90.145 and/or KZC 90.150;
   4) If located in a fish or wildlife habitat conservation area, requirements of KZC 90.95;
   5) Monitoring and maintenance requirements pursuant to KZC 90.160;
   6) Financial security requirements pursuant to KZC 90.165;
   7) Critical area markers, fencing and signage requirements pursuant to KZC 90.190.
   8) Dedication of critical area and buffers requirements pursuant to KZC 90.210;
   9) No adverse impact on water quality or conveyance or degradation of critical area functions and values;
   10) Structures and improvements located to minimize removal of significant trees;
   11) Restoration of temporary disturbance areas associated with the work to pre-project conditions or better shown on construction drawings and expeditiously done; and

b. Except as provided in subsection 5a above, the list of permitted activities, improvements or uses are not subject to General Standards pursuant to KZC 90.105 through KZC 90.225.

6. <u>List of Permitted Activities, Improvements and Uses</u>. The following activities and uses may be permitted, provided that the specific standards applicable to each activity or use and the general standards in subsection 5 above are met.

   a. <u>Private Repair and Maintenance of Culverts</u>.

      1) Work limited to removing impediments to improve flow conveyance,
      2) Work must be done by hand; and
      3) Shall comply with Washington State Fish and Wildlife's seasonal restrictions on in stream work.

   b. <u>Private Roadways</u> – New private driveway or easement road through a buffer if there is no other option available to access a property that is both a legal building site and a buildable site, provided:

      1) The driveway or easement road is the minimum width and length necessary to access the buildable site;
      2) Buffer disturbance for installation of the driveway or easement road is the minimum necessary;
      3) Buffer area and function are equal or better than pre-project condition;
      4) The buffer vegetation is at a minimum equal to the width of the roadway and disturbed areas using KZC 90.130 as a guideline for plant diversity and type; and
      5) The project does not include a Wetland Modification or Stream Modification pursuant to KZC 90.60 or KZC 90.70, or a Reasonable Use Exception pursuant to KZC 90.180.

   c. <u>Private and Public Non-motorized Trails, Stream Crossings, and Benches and Public Wildlife Viewing Structures.</u>

      1) The improvement shall be located only in the outer 25% of the buffer area. Exceptions are stream crossings, and trail access to Forbes Lake and Totem Lake which may require access through a buffer or wetland to get to the lake, and public wildlife viewing structures,
      2) Stream crossings are not permitted in Type F streams under this section. See KZC 90.70 for

proposing stream crossing of Type F streams,

3) Trails shall be limited to the least impactful pervious surfaces. Raised boardwalks utilizing approved non-treated pilings are acceptable if found to be the least impacting alternative,
4) Private trails shall be no more than three (3) feet in width. Public trails shall be no more than five (5) feet in width,
5) Stream crossings shall meet the standards for crossings in KZC 90.70 and Washington State Department of Fish and Wildlife's Water Crossing Guidelines, and other state and federal permits; and
6) Vegetative buffers shall be provided where possible equal to the width of the trail corridor and disturbed areas using KZC 90.130 as a guideline for plant diversity and type.
7) For public improvements, financial security standards of KZC 90.165 and dedication of critical area and buffer requirements of KZC 90.210 are waived.

d. Private and Public Utilities.

1) New sewer and stormwater lines in critical area buffers where necessary to allow for gravity flow, provided they shall be located as far as possible from the critical area edge.
2) New utilities in critical area buffers, other than addressed in 1. above, provided that:
   (a) The facility shall be only located in the outer 25% of the buffer area;
   (b) The facility is not a hazardous liquid or gas pipeline; and
   (c) The facility is not a substation.
3) New stormwater outfalls and associated dissipation devices, such as flow spreaders and rock pads, within critical area buffers, provided:
   (a) Discharge of stormwater outside of the buffer is not feasible as determined by the City, or;
   (b) If property adjoining the buffer is greater than 15% slope, a specific study by a geotechnical engineer or engineering geologist must show that discharge outside of the buffer will cause slope instability or excessive erosion, and therefore the discharge needs to be in the buffer, and
   (c) The outfall is located as far as possible from the critical area.
4) Boring for utilities/utility corridor under a critical area, provided:
   (a) Not permitted in a Category I Wetland,
   (b) Entrance/exit portals must be located in the outer 25% of the critical area buffer,
   (c) Boring does not interrupt the ground water connection to the wetland or percolation of surface water down through the soil column; and
   (d) A specific study by a hydrologist is required to determine whether the ground water connection to the critical area or percolation of surface water down through the soil column will be disturbed.
5) For City utility projects, financial security standards of KZC 90.165 are waived.
6) For public utility projects, dedication of critical area and buffers requirements pursuant to KZC 90.210 may be waived if the planning official determines that they are not warranted; and
7) For private and public utility projects, critical area markers, permanent fencing and signage requirements pursuant to KZC 90.190 may be waived if the planning official determines that they are not warranted.

e. Private and Public In-Stream Maintenance.

1) Work limited to removing inorganic debris, sediment, invasive vegetation and replanting of streambank with native vegetation to improve in-stream fish habitat, fish passage and flow conveyance;

2) Work must be done by hand. Hand removal equipment may include shovels, tillers, clippers, loppers, weed wrenches, and brush cutters and any hand held gas or electric equipment;
3) Public work may include machinery if it can access the buffer from an abutting paved roadway without encroaching into the buffer; and
4) Maintenance shall comply with Washington State Fish and Wildlife's seasonal restrictions on stream work, including state permit approvals.
5) For public in-stream maintenance, financial security standards of KZC 90.165 are waived; and
6) For public in-stream maintenance, dedication of critical area and buffers requirements pursuant to KZC 90.210 may be waived if the planning official determines that they are not warranted; and
7) For private and public in-stream maintenance, critical area markers, permanent fencing and signage requirements pursuant to KZC 90.190 may be waived if the planning official determines that they are not warranted.

f. Private and Public Restoration.

Restoration of a critical area and its buffer in high landslide hazard areas and/or where grading is necessary for the removal of non-native plants, provided:

1) The entire area cleared of invasive plants shall be revegetated with appropriate native vegetation and at spacing intervals listed in the City's Critical Area Plant list, using the Vegetative Buffer Standards in KZC 90.130 as a guideline for plant diversity and type;
2) The City shall require a geotechnical investigation in high landslide hazard areas pursuant to Chapter 85 KZC, and if determined to be necessary based on the investigation, a geotechnical report with recommendations on special mitigation techniques or measures, along with an erosion control plan;
3) Removal of invasive plant species and other restoration work shall be restricted to work by hand, including use of shovels, tillers, clippers, loppers, weed wrenches, and brush cutters and any hand held gas or electric equipment;
4) Replanting with native vegetative must take place immediately following removal of invasive species;
5) For public restoration, machinery may be used if the use of such equipment is determined acceptable by the geotechnical investigation and/or report;
6) For public restoration, citizen volunteers doing restoration must be under the direct supervision of City staff;
7) For private restoration, removed invasive plant material shall be taken off the site; and plants that appear on the King County Noxious Weed List must be handled and disposed of according to a noxious weed control plan appropriate to that species; and
8) For public restoration, financial security standards of KZC 90.165 are waived.

g. Private and Public Demolition. Removal of structures in critical areas provided that:

1) All disturbed soils are stabilized and revegetated with appropriate native vegetation and at spacing intervals listed in the City's Critical Area Plant List using the Vegetative Buffer Standards in KZC 90.130 as a guideline for plant diversity and type;
2) Replanting with native vegetative must take place immediately following the clearing activity;
3) For public demolition, financial security standards of KZC 90.165 are waived; and
4) For public demolition, dedication of critical area and buffers requirements pursuant to KZC 90.210 and critical area markers; and
5) For private and public demolition, permanent fencing and signage requirements pursuant to KZC 90.190 may be waived if the planning official determines they are not warranted.

h. Public Streets - Widening of existing public streets in critical area buffers, provided:

1) The street shall only be located in the outer 25% of the buffer area,
2) Any necessary culvert modification or extension is designed to meet the Washington Department of Fish and Wildlife's Water Crossing Guidelines,
3) Financial security standards of KZC 90.165 and dedication of critical area and buffers requirements pursuant to KZC 90.210 are waived; and
4) Critical area markers, permanent fencing and signage requirements pursuant to KZC 90.190 may be waived if the planning official determines that they are not warranted.

i. Improvements Associated with the Cross Kirkland Corridor and Eastside Rail Corridor.

New, modified or relocated public non-motorized trails within the Cross Kirkland Corridor and Eastside Rail Corridor and connecting to either corridor approved under the City's Cross Kirkland Corridor Master Plan or as amended. Financial security standards of KZC 90.165 and dedication of critical area and buffers requirements pursuant to KZC 90.210 are waived.

j. Improvements Associated with City Park, Transportation, and Utility Master Plans.

Any new or modified City projects, other than those associated with the Cross Kirkland Corridor or Eastside Rail Corridor, approved under a master plan approved by the City Council, for which a critical area determination and delineation pursuant to KZC 90.105 and location of critical areas have been considered as part of the master plan process. Financial security standards of KZC 90.165 and dedication of critical area and buffers requirements pursuant to KZC 90.210 are waived.

90.45 Public Agency and Public Utility Exceptions -

If strict application of this chapter would prohibit a development proposal by a public agency or public utility, the agency may apply for an exception pursuant to this section.

1. General: Prior to seeking approval through this section, the Planning Official in conjunction with a public agency or public utility shall first determine that:

a. The project scope cannot be approved under KZC 90.60 for Wetland Modifications; KZC 90.70 for Stream Modifications; KZC 90.85 for Stream Channel Stabilization, and KZC 90.95 for Wildlife Habitat Conservation Areas; and

b. The project cannot meet the requirements under KZC 90.130 Vegetative Buffer Standards, and KZC 90.140 Structure Setback from Critical Area Buffer; or any other provision in this chapter.

2. Process. A critical area exception for public agencies and public utilities shall be reviewed and decided upon using Process I, pursuant to KZC Chapter 145.

3. Decisional Criteria. The Planning Director shall make a decision based on the following criteria:

a. There is no other practical alternative to the proposed project with less impact on the critical areas or buffer;
b. Strict application of this chapter would unreasonably restrict or prohibit the ability to provide

public utilities or public agency services to the public;

c. The proposal minimizes impacts to the critical area or buffer through mitigation sequencing, and through type and location of mitigation, pursuant to KZC 90.145 and KZC 90.150 if applicable, including such installation measures as locating facilities in previously disturbed areas, boring rather than trenching, and using pervious or other low impact materials; and
d. The proposal protects and/or enhances critical area and buffer functions and values, consistent with the best available science and with the objective of no net loss of critical area functions and values.

4. Submittal Requirements: The application shall include the City's critical area determination pursuant to KZC 90.105 and a critical area report pursuant to KZC 90.110, a mitigation plan pursuant to KZC 90.145, and KZC 90.150 if a wetland is to be modified, a response to the decisional criteria in subsection 3 above, and the following documents based upon the type of exception proposed in order to determine that the strict application of this chapter would otherwise prohibit a development proposal:

   a. Wetland Modifications.
      1) The public agency or public utility shall submit a wetland modification assessment pursuant to KZC 90.60.6; and
      2) The public agency or public utility shall demonstrate that the requirements in KZC 90.60.8 through 10 cannot be met.

   b. Stream Modifications.
      1) The public agency or public utility shall submit a stream modification assessment pursuant to KZC 90.70.5; and
      2) The public agency or public utility shall demonstrate that the requirements in KZC 90.70.6 and 7 cannot be met.

   c. Daylighting of Stream. The public agency or public utility shall submit a stream daylighting plan demonstrating that the requirements in KZC 90.75.3 cannot be met.

   d. Stream Channel Stabilization. The public agency or public utility shall submit a streambank assessment and stream channel stabilization plan demonstrating that the requirements in KZC 90.85.5 and 6 cannot be met.

   e. Wildlife Habitat Conservation Area Modifications.
      1) The public agency or public utility shall submit an assessment of a habitat conservation area pursuant to KZC 90.95.3, a habitat management plan pursuant to KZC 90.95.6 ; and
      2) The public agency or public utility shall demonstrate that the requirements in KZC 90.95.7 cannot be met.

   f. Buffer Averaging. The public agency or public utility shall demonstrate that the standards in KZC 90.115.2 cannot be met.

   g. Vegetative Buffer Standards. The public agency or public utility shall demonstrate that the standards in 90.130.2 through 4 cannot be met.

   h. Structure Setback. The public agency or public utility shall demonstrate that the standards in KZC 90.140 cannot be met.

5. Waiver. Planning Official may waive a specific submittal requirement if it is determined not to be applicable or necessary.

90.50 Programmatic Permit– Public Agency and Public Utility

1. General. A public programmatic permit may be issued for either a permitted activity subject to the submittal requirements and development standards of Permitted Activities, Improvements and Uses with Standards in KZC.90.40 or Public Agency or Public Utility Exception in KZC 90.45, if it meets the requirements of this section, as determined by the Planning Official. Exempted activities pursuant to KZC 90.35 do not require a programmatic permit.

2. Criteria for a Programmatic Permit. The activity shall:
   a. Be repetitive and part of a maintenance program or other similar program;
   b. Have the same or similar identifiable impacts, as determined by the City, each time the activity is repeated at all sites covered by the programmatic permit; and
   c. Be suitable to having standard conditions that will apply to all sites.

3. Process.
   a. For an activity that would otherwise be approved as a permitted activity subject to development standards, the Planning Official shall make the decision on the programmatic permit.
   b. For an activity that would otherwise be approved as a public agency or public utility exception, the programmatic permit shall be reviewed and decided upon pursuant to a Process I described in Chapter 145 KZC.

4. Required Conditions. The City shall uniformly apply conditions to each activity authorized under the programmatic permit at all locations covered by the permit. The City may require that the applicant develop and have uniformly applicable conditions as part of the programmatic permit application, subject to City approval. The City shall not issue a programmatic permit until applicable conditions are developed and approved by the City.

5. Inspections. Activities authorized under a programmatic permit shall be subject to inspection by the Planning Official and pre-arranged in advance. The Planning Official may require that the applicant submit periodic status reports. The frequency, method and contents of the inspection notifications and reports shall be specified as conditions in the programmatic permit.

6. Revisions and Modifications to Permit. The Planning Official may subsequently require revisions, impose new conditions or otherwise modify the programmatic permit or withdraw the permit and require that the applicant undergo review for a new permitted activity approval or new exception for a public agency and public utility, if the Planning Official determines that:
   a. The programmatic permit or activities authorized under the permit no longer comply with this chapter;
   b. The programmatic permit does not provide adequate regulation of the activity;
   c. The programmatic permit conditions or the manner in which the conditions are implemented are not adequate to protect against the impacts resulting from the activity; or
   d. A site requires site-specific regulation.

7. Other Agency Requirements. If an activity covered by a programmatic permit also requires other county, state and/or federal approvals, to the extent feasible, the City shall reference those conditions of other approvals in the programmatic permit.

WETLANDS

90.55 Wetlands and Associated Buffer Standards

Wetlands and associated buffer standards are provided in this section. The table below is a summary of the wetland regulations. More details are provided for some of the regulations elsewhere in this chapter.

Table 90.55.1 Wetlands and Associated Buffer Standards

<table>
<tr><td>Wetland Classification and Rating</td><td>In accordance with the 2014 Department of Ecology Washington State Wetland Rating System for Western Washington, as revised. Wetland category and rating shall be determined through a survey and field investigation by a qualified critical area professional approved by the City as part of a critical area report in KZC 90.110. Wetland rating categories shall not change due to illegal modification.</td></tr>
<tr><td>Wetland Delineation</td><td>In accordance with the approved federal delineation manual and applicable regional supplements described in WAC 173-22-035 and based on field investigation and a survey. See KZC 90.110.</td></tr>
<tr><td>Wetland Determination</td><td>Planning Official makes determination if a wetland and/or a buffer exist on the subject property, and if so, its category, rating, boundaries and buffer width based on a required critical area report pursuant to KZC 90.110. In addition, the Planning Official makes determination if the standard buffer meets the buffer vegetative standards in KZC 90.130.</td></tr>
<tr><td>Wetland Buffer Width Standard</td><td>Wetland Buffer Widths
<table>
<tr><td rowspan="2">Wetland Category</td><td colspan="4">Buffer width based on habitat points</td></tr>
<tr><td>3-4 habitat pts.</td><td>5 habitat pts.</td><td>6-7 habitat pts.</td><td>8-9 habitat pts.</td></tr>
<tr><td>Category I: Bogs and High Conservation Areas</td><td>190 feet</td><td>190 feet</td><td>190 feet</td><td>225 feet</td></tr>
<tr><td>Category I: Others</td><td>75 feet</td><td>105 feet</td><td>165 feet</td><td>225 feet</td></tr>
<tr><td>Category II</td><td>75 feet</td><td>105 feet</td><td>165 feet</td><td>225 feet</td></tr>
<tr><td>Category III</td><td>60 feet</td><td>105 feet</td><td>165 feet</td><td>225 feet</td></tr>
<tr><td>Category IV</td><td colspan="4">40 feet</td></tr>
<tr><td></td><td colspan="4">See KZC 90.130 for buffer vegetation requirements</td></tr>
</table></td></tr>
<tr><td>Wetland Buffer Width Alternative</td><td>Applicant can choose not to comply with the Vegetative Buffer Standards in KZC 90.130 by complying with the following requirements: 1.) Increase buffer width listed above in Wetland Buffer Widths by 33% within entire buffer. 2.) Remove all structures and improvements within the buffer 3) Discontinue any maintenance of lawn and non-native vegetation within the buffer. 4) Cease all activities in the buffer, except those permitted under KZC 90.35.12 and 13. In no case shall a standard and an alternate buffer standard be combined for a development proposal.</td></tr>
<tr><td>Other Standards</td><td>• Buffer averaging is permitted for both the standard buffer and the alternative buffer if criteria are met. See KZC 90.115.
• Increased buffer width may be required if wetland or its buffer contains or is adjacent to severe erosion area, habitat of certain species or frequently flooded area based on critical area report. See KZC 90.125.
• Wetlands that are degraded must be restored if the project is subject to KZC 90.130.3.a for the vegetative buffer standard and/or a wetland modification is proposed. A critical area report shall address any needed restoration due to degraded vegetation, habitat, water quality and hydrologic functions.
• Standard buffers must meet the vegetative buffer standards. See KZC 90.130.</td></tr>
</table>

	• Measures to minimize impact to wetlands must be implemented for standard buffers. See KZC 90.155. • Fencing and signage are required along the entire upland edge of buffer both during construction and upon completion of the project. See KZC 90.190. • For voluntary restoration, see KZC 90.35 and 90.40. • For code enforcement to correct an illegal modification to a wetland or buffer, see KZC 90.205. • Wetlands and buffers shall be placed in recorded critical area easements or tracts for perpetual protection and maintenance. See KZC 90.210.
Structure Setback from Buffer	10-foot wide structure setback is required from upland edge of the entire buffer. Improvements listed in KZC 90.140 are permitted in the setback.
Activities, Improvements and Uses in Wetlands	Activities, improvements and uses are prohibited within wetlands and associated buffers, except those exempted or permitted subject to development standards in KZC 90.35 and KZC 90.40, or those approved under a City review process in this chapter.
Modification to Wetlands related Impacts to associated Buffers	• Modification to a wetland and related impacts to buffers require approval pursuant to a Process I, Chapter 145 KZC along with a critical area report, mitigation sequencing, and compensatory mitigation plan. See KZC 90.110, 90.145 and 90.150. • Buffer standard may be modified for vehicular access to a property that is both a legal building site and a buildable site pursuant to KZC 90.40 and for an interrupted buffer pursuant to See KZC 90.120. Also, see Nonconformances pursuant to KZC 90.185. • Isolated Category IV wetlands less than 4,000 square feet and wetlands less than 1,000 square feet pursuant to KZC 90.60 are not required to meet mitigation sequencing, but compensatory mitigation is required pursuant to KZC 90.150.

90.60 Wetland Modification

1. Modifications to Wetlands. Modifications to wetlands and related impacts to associated buffers shall be prohibited, except as permitted as part of a wetland modification approved under this section. Wetland modifications and the associated buffers may also be approved in certain circumstances under a Reasonable Use Exception pursuant to KZC 90.180, Permitted Activities, Improvements and Uses Subject to Development pursuant to KZC 90.40, Exception - Public Agency and Public Utility pursuant to KZC 90.45 or Programmatic Permit – Public Agency and Public Utility pursuant to KZC 90.50.

   The following modifications may be proposed:
   a. Fill of a wetland;
   b. Structures and improvements in a wetland and
   c. Removal and/or alteration of vegetation in wetland; and
   d. Impacts to associated buffer as part of wetland modification

2. Exception. The following limited types of wetlands are not required to meet mitigation sequencing pursuant KZC 90.145 and may be filled if the impacts are fully mitigated. The applicant shall submit a critical area report pursuant to KZC 90.105 and KZC 90.110 verifying that the following criteria are met.

   a. Category IV isolated wetlands less than 4,000 square feet that:
      1) Are not associated with streams or their buffers;
      2) Are not part of a wetland mosaic;
      3) Do not score 5 or more points for habitat function; and
      4) Do not contain designated state or federal designated endangered, threatened or sensitive species or their habitats or state priority habitats, including species of local importance identified in KZC 90.95.

The Planning Official may approve an application under this exception only if the applicant provides compensatory mitigation for both wetland and buffer loss pursuant to KZC 90.150. Impacts shall be mitigated through an in-lieu fee or mitigation bank program if a program is available otherwise, preference for mitigation location shall be pursuant to KZC 90.145.

It is the applicant's responsibility to arrange a jurisdictional determination by the U.S. Army Corps of Engineers on whether a wetland is isolated but regulated by the Department of Ecology for filling a Category IV isolated wetland.

b. Category IV isolated wetlands less than 1,000 square feet that meet subsection 2a above are exempt from buffer requirements. The Planning Official may approve an application under this exception only if the applicant provides compensatory mitigation pursuant to KZC 90.150 for the wetland loss. No compensatory mitigation is required for the buffer loss.

3. Limited Buffer Modification. A wetland buffer may not be modified or otherwise reduced, except if part of an approved wetland modification in this section. Wetland buffer modifications may be approved in limited circumstances under Permitted Activities Improvements and Uses Subject to Development Standards pursuant to KZC 90.40, under Exception - Public Agency and Public Utility pursuant to KZC 90.45, under Programmatic Permits - Public Agencies pursuant to KZC 90.50, or under a Reasonable Use Exception pursuant to KZC 90.180.

   The following wetland buffer modifications may be proposed:
   a. Vehicular access to a legal developable site if no other option is possible pursuant to KZC 90.40;
   b. Buffer averaging permitted pursuant to KZC 90.115; or
   c. Interrupted buffer waiver permitted pursuant to KZC 90.120.

4. Process. Unless otherwise specified in KZC 90.40, KZC 90.115 or KZC 90.120, any proposal to modify a wetland and its buffer shall be reviewed and approved pursuant to Process I, described in Chapter 145 KZC.

5. Decisional Criteria. In addition to the criteria of a Process I, the Planning Director shall only approve a modification to a wetland and buffer if:
   a. Mitigation sequencing requirements have been met. See KZC 90.145;
   b. Compensatory mitigation and mitigation plan requirements are approved. See KZC 90.150;
   c. It will not adversely affect fish, wildlife, or their habitat, including habitat for endangered, threatened or sensitive species, or species of local significance. See KZC 90.95;
   d. It will not adversely affect water quality;
   e. It will not have an adverse effect on drainage and/or storm water detention capabilities either on-site or to the adjacent area;
   f. It will not result in unstable geologic and soil conditions or create an erosion hazard;
   g. It will not have fill material that contains organic or inorganic material that would be detrimental to water quality or fish and wildlife habitat; and
   h. All exposed areas will be stabilized with native vegetation normally associated with wetlands and/or buffers, as appropriate.

   The wetland compensatory mitigation plan, additional requirements in subsection 9 below and any conditions of approval for the modification shall be conditions for all related land surface modification and/or building permit approvals.

6. Wetland Modification Assessment. As part of the application for a wetland modification, the applicant shall submit a wetland modification assessment prepared by a qualified critical area professional

approved by the City, and also fund the City's peer review of the assessment. The assessment shall contain:

a. The City's final critical area determination and critical area report along with the survey of the wetland and/or buffer on the subject property pursuant to KZC 90.105;
b. Description of the proposed modification to the wetland and associated impact to the buffer if applicable;
c. Analysis of mitigation sequencing for the proposal and mitigation as required in KZC 90.145. If the vegetative buffer standards are required under KZC 90.130, the required enhanced buffer may not be used towards mitigating a modified buffer;
d. Evaluation of the effects of the proposed modification on the functions and values of the wetland and the buffer. The assessment shall look at impacts to water quality, storm water detention, erosion protection, functions of the wetland and wildlife habitat and frequently flooded areas and any other potential impact determined by the Planning Official; and
e. Any other information or studies determined necessary by the Planning Official.

7. Wetland Compensatory Mitigation Plan. As part of the application for a wetland modification, the applicant shall submit a compensatory mitigation plan pursuant to KZC 90.150 that is prepared by a qualified critical area professional approved by the City. The applicant shall also fund City peer review of the plan. The plan shall include mitigation for lost or affected functions; type, location, and approach of compensation; timing of the mitigation; a monitoring and maintenance plan and financial security estimate as required in KZC 90.160 and KZC 90.165.

8. Buffers for Mitigation Sites. A wetland that is created, restored, or enhanced as on-site or off-site compensation within Kirkland for an approved wetland modification shall have a buffer width that is applicable to the wetland category for the created, restored, or enhanced wetland.

9. Additional Requirements for Approved Wetland Modification.

   a. All work shall be carried out under the direct supervision of a qualified critical area professional approved by the City and paid for by the applicant during all phases of the project;
   b. The requirements for wildlife habitat conservation areas in KZC 90.95 and frequently flooded areas in KZC 90.100 shall be met if applicable;
   c. If a proposed wetland modification will result in the creation or expansion of a wetland or its buffer on any property other than the subject property, a statement signed by the owners of all affected properties, in a form approved by the City Attorney, shall be submitted with the modification application and recorded in the King County Recorder's Office. The statement shall consent to the critical area and/or buffer creation or increase on their property; and
   d. Any required state and federal permits and authorizations shall be obtained prior to conducting site work.

STREAMS

90. 65 Streams and Associated Buffer Standards

Stream and associated buffers standards are provided in the section. The table below is a summary of the stream regulations. More details are provided for some of the regulations elsewhere in this chapter.

Table 90.65.1 Streams and Associated Buffer Standards

<table>
<tr><td>Stream Classification</td><td>In accordance with WAC 222-16-030, as amended. The Planning Official makes final determination. Stream classification shall not change due to illegal modifications.</td></tr>
<tr><td>Stream Determination</td><td>Planning Official makes determination if a stream and/or a buffer exist on the subject property, and if so, a stream's classification and boundary, and width of buffer based on required critical area report pursuant to KZC 90.110. In addition, the Planning Official makes determination if the standard buffer meets the vegetative buffer standards in KZC 90.130.</td></tr>
<tr><td>Stream Buffer Width Standard</td><td>Stream Buffer Widths
<table>
<tr><th>Stream Type</th><th>Buffer Width</th></tr>
<tr><td>F (Fish bearing)</td><td>100 feet</td></tr>
<tr><td>Np (Perennial non-fish bearing)</td><td>50 feet</td></tr>
<tr><td>Ns (Seasonal non-fish bearing)</td><td>50 feet</td></tr>
<tr><td></td><td>See KZC 90.130 for buffer vegetation requirements</td></tr>
</table></td></tr>
<tr><td>Stream Buffer Width Alternative</td><td>Applicant may choose not to comply with the Vegetative Buffer Standards in KZC 90.130 by complying with the following requirements: 1.) Increase buffer width listed above in Stream Buffer Widths by 33% within entire buffer. 2.) Remove all structures and improvements within the buffer 3) Discontinue any maintenance of lawn and non-native vegetation within the buffer. 4) Cease all activities in the buffer, except those permitted under KZC 90.35.12 and 13. In no case shall a standard and an alternate buffer standard be combined for a development proposal.</td></tr>
<tr><td>Other Standards</td><td>• Buffer averaging is permitted for both the standard buffer and the alternative buffer if criteria are met. See KZC 90.115. The Planning Official makes decision.
• Increased buffer width may be required if the stream or its buffer contains or is adjacent to a severe erosion area, habitat of certain species or frequently flooded area based on critical area report. See KZC 90.125.
• Streams that are degraded must be restored if the project is subject to KZC 90.130.3.a for a vegetative buffer and/or a stream modification is proposed. A critical area report shall address any needed restoration due to degraded vegetation, habitat, water quality and hydrologic functions.
• Standard buffers must meet vegetative buffer requirements pursuant to KZC 90.130.
• Buffers shall be provided where a stream abuts an inlet and outlet of culverted streams as shown in Chapter 180 KZC, Plate 16A.
• Fencing and signage are required along the entire upland edge of buffer both during construction and upon completion of a project. See KZC 90.190.
• Voluntary restoration of streams and buffers or in-stream maintenance, see KZC 90.35 and KZC 90.40.
• For code enforcement to correct an illegal modification to a stream or buffer, see KZC 90.205.
• Streams and buffers shall be placed in recorded critical area easements or tracts for perpetual protection and maintenance. See KZC 90.210.</td></tr>
<tr><td>Structure Setback from Buffer</td><td>10-foot wide structure setback is required from upland edge of the entire buffer. Improvements listed in KZC 90.140 are permitted within the setback.</td></tr>
<tr><td>Activities, Improvements and Uses in Streams</td><td>Activities, improvements and uses shall be prohibited within streams and associated buffers, except those exempted or as permitted with development standards as found in KZC 90.35 and KZC 90.40, or those approved under another City review process in this chapter.</td></tr>
<tr><td>Modifications to Stream and Impacts to associated Buffer</td><td>• Modifications to stream and related impacts to buffers require approval pursuant to Process I, Chapter 145 along with a critical area report, mitigation sequencing and mitigation plan. See KZC 90.70, KZC 90.110 and KZC 90.145.
• Buffer standards may be modified for vehicular access to a property that is both a legal building site and a buildable site pursuant to KZC 90.40, for daylighting a stream pursuant to KZC 90.75, and for an interrupted buffer pursuant to KZC 90.80. Also, see KZC 90.185 Nonconformances.
• Impacts to stream buffers shall be mitigated at a minimum of a 1:1 ratio.</td></tr>
</table>

	• Daylighting of a stream is encouraged. The Planning Official makes decision unless it is part of approval pursuant to Process I, Chapter 145 KZC. See KZC 90.75.

90.70 Stream Modification

1. Stream Modification. Modifications to streams and associated impacts to buffers are prohibited, except as approved as part of a stream modification in this section. Stream modifications may also be approved in certain circumstances under Permitted Activities; Improvements and Uses Subject to Development Standards pursuant to KZC 90.40; Public Agency and Public Utility Exception - pursuant to KZC 90.45; Programmatic Permit - Public Agency and Public Utility pursuant to KZC 90.50, or Reasonable Use Exception pursuant to KZC 90.180.

   The following stream modifications may be considered:
   a. Stream crossings for Type F steams; (see KZC 90.40 for Type NP and NS)
   b. Culverts and bridges;
   c. Change in meandering course of a stream;
   d. Relocation of a Type NS or NP stream. Relocation of a Type F stream is not permitted; and
   e. Impacts to buffers associated with a stream modification.

2. Limited Buffer Modification. A stream buffer may not be modified or otherwise reduced, except if part of an approved stream modification in this section. Stream buffer modifications may also be approved in limited circumstances under Permitted Activities, Improvements and Uses Subject to Development Standards pursuant to KZC 90.40; Public Agency and Public Utility Exception pursuant to KZC 90.45; Programmatic Permits - Public Agencies pursuant to KZC 90.50, or Reasonable Use Exception pursuant to KZC 90.180.

   The following stream buffer modifications may also be proposed in conjunction with the following sections:
   a. Change to meandering course of a stream pursuant to KZC 90.80;
   b. Daylighting of a stream pursuant to KZC 90.80;
   c. Buffer averaging permitted pursuant to KZC 90.115; or
   d. Interrupted buffer waiver permitted pursuant to KZC 90.120.

3. Process. Any proposal to modify a stream and buffer shall be reviewed and decided upon pursuant to Process I, described in Chapter 145 KZC.

4. Decisional Criteria. In addition to criteria of Process I, the Planning Director shall only approve a modification to a stream and impact to the buffer if:
   a. Mitigation sequencing requirements have been met. See KZC 90.145; and
   b. The applicant has demonstrated where applicable, based on information provided by a civil engineer and a qualified critical area professional approved by the City, that:
      1) It will not be detrimental to fish habitat, including fill material that contains organic or inorganic material;
      2) It will not have an adverse effect on drainage, storm water detention capabilities and base flood storage volume and function;
      3) It will not have an adverse effect on water quality or frequently flooded areas;
      4) It will not increase velocity upstream or downstream;
      5) It will not increase sediment load upstream or downstream;

6) It will not result in unstable geologic and soil conditions and slope conditions or create an erosion hazard or contribute to scouring actions;
7) All exposed areas are stabilized with vegetation normally associated with native stream buffers, as appropriate;
8) Existing native trees and other native vegetation are retained to the maximum extent feasible given site conditions and the proposal;
9) The stream modification plan is sufficient to mitigate identified impacts;
10) For streams placed in culverts or stream crossings, fish passage will not be impaired and the Washington State Department of Fish and Wildlife's design criteria for road culverts for fish passage are met;
11) For change in meandering course for the stream, demonstrate that the change is the only feasible option to stop excessive erosion to protect legally established buildings that cannot be achieved through streambank stabilization and will improve the overall functions and value of the stream;
12) For stream crossings, demonstrate that crossings shall have no adverse impact on in-stream habitat and flow conveyance;
13) For relocation of a Type Ns or Np stream, demonstrate that relocation would improve stream functions; and
14) With the exception of meandering a stream, submit a statement signed by each owner of all adjacent affected properties consenting to the modification if it results in creation or expansion of a stream or stream buffer on their properties.

The stream and/or associated buffer modification plan, the additional requirements in subsection 7 below and any conditions of approval shall be conditions for all related land surface modification and/or building permit approvals.

5. Stream Modification Assessment. As part of the application for a modification, the applicant shall submit a stream modification assessment prepared by a qualified critical area professional approved by the City. The applicant shall also fund the City's peer review of the assessment. The assessment shall contain:

   a. The City's final stream determination decision pursuant to KZC 90.105 and critical area report pursuant KZC 90.110 including the vegetative buffer assessment, and a survey of the stream and its buffer;
   b. Description of the proposed modification to the stream and impact to the associated buffer if applicable;
   c. Analysis of mitigation sequencing and proposed mitigation as required in KZC 90.145. If the vegetative buffer standards are required under KZC 90.130, the enhanced buffer may not be used towards mitigating a proposed impacted buffer;
   d. Modeling of impacts to stream;
   e. Evaluation of the effects of the proposed modification on the functions and values of the stream and the buffer, including on water quality and fish and wildlife habitat pursuant to KZC 90.95; and
   f. Any other information or studies determined necessary by the Planning Official.

6. Stream Modification Plan. As part of the application for a modification, the applicant shall submit a stream modification plan prepared by a qualified critical area professional approved by the City. Also,

the applicant shall fund the City's peer review of the plan. The plan shall contain:

a. A topographic survey showing existing and proposed topography and improvements;
b. Schedule of the project for all work;
c. Written description of how the proposed modification plan will mitigate any adverse impacts identified in the stream modification assessment and any associated impact to the buffer if applicable in subsection 5 above.
d. Written description of how the proposed modification plan will improve water quality, conveyance, fish and wildlife habitat, wetland recharge (if hydrologically connected to a wetland), and storm water detention capabilities of the stream;
e. Detailed vegetation plan for stream channel if applicable and stream buffer vegetation meeting the vegetative buffer standard in KZC 90.130.
f. For an impacted stream buffer, propose mitigation at a minimum of 1:1 ratio depending on the location and functions of impacts and proposed mitigation, including consideration of vegetation structure, slope and flow paths;
g. Demonstrate that flow and velocity of the stream after modification shall not be increased or decreased at the points where the stream enters and leaves the subject property, unless the change has been approved by the City to improve fish and wildlife habitat or to improve storm water management;
h. Protective measures needed, such as siltation prevention measures and scheduling the construction activity to avoid interference with fisheries rearing and spawning activities;
i. Description of performance standards for post-installation, a monitoring and maintenance schedule along with a financial security estimate for the entire mitigation plan that meet the standards in KZC 90.160 and KZC 90.165;
j. For stream channel relocation or meandered stream, a survey of the new location of the stream;
k. For stream channel relocation, meandered stream, a new or replacement stream crossing or culvert, demonstrate that the stream channel, or crossing or culvert can accommodate flow and velocity of 100-year storm events;
l. For stream channel relocation, prior to diverting water into a new stream channel, a qualified critical area professional approved by the City shall inspect the completed new channel and issue a written report to the City stating that the new stream channel complies with the requirements of this section prior to diverting the stream. Cost of the inspection and report shall be funded by the applicant;
m. For stream crossings and culverts:
    1) Demonstrate that there is no other feasible alternative route for the crossing with less impact on the environment;
    2) Designed shall meet Department of Fish and Wildlife design standards for fish passage projects;
    3) For crossings over Type F streams, only bridge structures, bottomless culverts or other appropriate methods shall be used that provide fisheries protection and fish passage;
    4) For crossings for all other streams, bridge or bottomless culvert is preferred over traditional pipe-style culvert. Where culverts are applicable, single barrels shall be used;
    5) Roads and associated crossings shall be perpendicular to the stream to the maximum extent feasible;
n. For changing the meandering course of the stream or relocating a stream, show that the design achieves:
    1) Creation of natural meander patterns;
    2) Formation of gentle and stable side slopes, no steeper than two (2) feet horizontal to one (1) foot vertical, and the installation of both temporary and permanent erosion-control features

that includes native vegetation on stream banks. The steepness of the slope of the stream may be modified given existing conditions;

3) Native vegetation normally associated with streams, emphasizing native plants with high food and cover value for fish and wildlife and approved by the City;
4) Restoration of water flow characteristics compatible with fish habitat areas; and

o. For changing the meandering of a stream course, see buffer reduction option in KZC 90.80.

7. Additional Requirements for Stream Modification.

a. All work shall be carried out under the direct supervision of a qualified critical area professional approved by the City and paid for by the applicant during all phases of the project;
b. Work must be done during the summer low flow and timed to avoid stream disturbance during periods when use of the stream is critical to fish consistent with the Department of Fish and Wildlife construction window; if applicable;
c. For stream crossings and culverts, record a perpetual maintenance agreement on a form approved by the City for continued maintenance of the stream crossing and culvert;
d. For changing the meandering of a stream course, a survey must be provided of the new stream course;
e. If a proposed stream modification will result in the creation or expansion of a stream or its buffer on any adjacent property other than the subject property, a statement signed by the owners of all affected properties, in a form approved by the City Attorney, shall be submitted with the modification application and recorded in the King County Recorder's Office. The statement shall consent to the critical area and/or buffer creation or increase on the other property. Exempt from this provision is a meandering stream. See buffer reduction option in KZC 90.80; and
f. Any required state and federal permits and authorizations shall be obtained prior to conducting site work.

90.75 Daylighting of Streams

1. Daylighting. The City encourages opening up a stream that is located in a culvert to restore the stream to a more natural and open condition. The purpose is to improve the values and functions of the stream, including maintaining water quality, reducing storm and flooding water flow, and providing wildlife habitat.

2. Process. The Planning Official may approve removal of a stream from a culvert based on a critical area report pursuant to KZC 90.110 and an approved stream daylighting plan prepared by a qualified critical area professional approved by the City.

3. Stream Daylighting Plan. The plan shall include the following:
   a. Detailed site plan of existing improvements and utilities in relationship to the daylighting, topography, daylighted stream course, hydrologic flow before and after daylighting and where the daylighted stream will connect once the culvert is removed;
   b. Demonstrate that the design achieves:
      1) Creation of natural meander patterns;
      2) Formation of gentle and stable side slopes, no steeper than two (2) feet horizontal to one (1) foot vertical, and the installation of both temporary and permanent erosion-control features that includes native vegetation on stream banks. The steepness of the slope of the stream may be modified given existing conditions;
      3) Native vegetation normally associated with streams, emphasizing native plants with high food and cover value for fish and wildlife and approved by the City;

4) Restoration of water flow characteristics compatible with fish habitat areas; and

c. Prior to placing the stream into a new stream channel, a qualified critical area professional approved by the City shall inspect the completed new channel and issue a written report to the City stating that the new stream channel complies with the requirements of this section prior to daylighting the stream. Cost of the inspection and report shall be funded by the applicant;
d. A survey of the daylighted stream;
e. Stream channel planting plan using appropriate native stream vegetation;
f. Vegetative buffer plan meeting KZC 90.130, except as permitted to be reduced pursuant to KZC 90.80; and
g. Any other information deemed necessary by the Planning Official. See requirements for stream modification plan pursuant to KZC 90.70.

4. Requirement to Daylight a Stream. The City may require a stream to be daylighted as part of a Process IIA pursuant to Chapter 150 KZC or IIB permit pursuant to Chapter 152 KZC if the required daylighting is proportionate to the scope and nature of the Process IIA or IIB permit. Where stream daylighting is required, the applicant shall submit a plan as outlined in subsection 3.

90.80 Buffer Reduction for Meandering or Daylighting of Stream

1. On-Site Stream Buffer Reduction.
   a. A reduction to the required stream buffer standard may only be approved as part of approval for:
      1) Changing the course to create a meandering stream if the modification improves in-stream habitat and flow conveyance; or
      2) Daylighting a stream.
   b. The buffer width reduction shall be the minimum necessary to accommodate existing and proposed improvements and/or site conditions; and
   c. For any reduction in the buffer, the required vegetative standards in KZC 90.130 shall be increased proportionally to the extent feasible based on an appropriate planting density within the reduced buffer to mitigate the impact to the critical area.

2. Off-Site Stream Buffer Waiver.
   a. The buffer standard requirements for adjacent properties shall not increase due to the deliberate change in the meandering course of the stream or daylighting of a stream;
   b. The City shall record the buffer waiver on the title of those affected properties with King County Recorder Office. The City shall contact any affected property owners in writing to notify them of the buffer waiver notice and the applicable survey, and to determine if the property owner chooses to opt out having the notice and survey recorded on their property title;
   c. The applicant shall pay for the fees to record the buffer waiver notice and the survey; and
   d. There is no waiver to the existing buffer requirement prior to the change in the adjacent stream, or to any future change to the City's buffer standards.

90.85 Stream Channel Stabilization

1. When Permitted. Stream channel stabilization may be permitted if demonstrated to be necessary for the following:
   a. Protecting existing legal structures and/or utilities that serve the structure(s), public facilities or improvements, unique natural resources determined by the City or where erosion results from the stream channel itself, rather than from unregulated stormwater flows to its banks; or
   b. Providing the only feasible vehicular access to a property.

2. Stabilization Measures Options.
   a. Measures including vegetation enhancement, upland drainage control, or protective walls or embankments placed outside of the stream and buffer shall be considered and utilized where feasible.
   b. Soft-bank stabilization measures may only be used if it is demonstrated that the measures in subsection 2a above are not a feasible alternative due to site-specific soil, geologic, and/or hydrologic conditions, or location of existing primary structures, utilities or public facilities. The soft-bank stabilization measures may include bank enhancement, anchor trees, gravel placement, stepped back rockeries, vegetative plantings and similar measures that use natural materials engineered to preserve functions and values of the stream.
   c. Hard-bank stabilization measures may only be used if it is demonstrated first that the measures in subsection 2a and 2b above are not feasible due to site-specific soil, geologic and/or hydrologic conditions. Hard-bank measures may include rock revetments, gabions, retaining walls, bulkheads and similar measures that present a vertical or nearly vertical interface with the water.

3. Process. Any proposal for stream channel stabilization shall be reviewed and decided upon pursuant to a Process I, described in Chapter 145 KZC.

4. Decisional Criteria. In addition to criteria of Process I, the Planning Director shall only approve stream channel stabilization if:
   a. Mitigation sequencing found in KZC 90.145 has been met;
   b. There is a demonstrated risk to legal primary structures and/or utilities due to erosion or slope failure and that stabilization is necessary to prevent damage to these improvements;
   c. Stream channel stabilization plan will prevent stream bank erosion while minimizing impacts to the stream and the buffer; and
      1) For proposed hard-bank measures, show evidence that soft-bank measures cannot be used, consistent with subsection 2b above;
      2) The ability of both permanent and temporary impacts to the stream can be mitigated.
   d. There will be no adverse impact to water quality;
   e. There will be no adverse impact to fish, wildlife, and their habitat;
   f. There will be no increase in the velocity of stream flow, unless approved by the City to improve fish habitat;
   g. There will be no decrease in flood storage volumes; and
   h. The installation of the stabilization measure will not lead to unstable earth conditions, create erosion hazards or contribute to scouring actions.

   The stream channel stabilization plan, the additional requirements in subsection 7 below and any conditions of approval shall be conditions for all related land surface modification and/or building permit approvals.

5. Streambank Assessment. As part of the application for stream channel stabilization, the applicant shall submit a streambank assessment prepared by a qualified critical area professional approved by the City. The applicant shall also fund the City's peer review of the assessment. The assessment shall contain the following:
   a. The City's stream determination decision pursuant to KZC 90.105 and the critical area report pursuant to KZC 90.110, including the vegetative buffer assessment, and a survey of the stream and its buffer;
   b. Level and extent of risk to a primary structure and/or utilities due to erosion or slope failure and

the ability of the proposed measure to mitigate that risk;

c. Description of the proposed modification to the streambank;
d. Analysis of mitigation sequencing in KZC 90.145;
e. Description of the proposed method to stabilize a streambank and why the method must be used. If soft or hard stabilization is proposed, justify its use;
f. Whether the level and extent of risk of damage from erosion is substantially more compared to the environmental impact of the proposed disturbance to the stream, including any continued impacts on functions and values over time;
g. Evaluation of the effects of the proposed stream channel stabilization on the functions and values of the stream and the buffer, including on water quality and fish habitat, and suitability of the proposed stabilization;
h. The ability of both permanent and temporary impacts to the stream and fish passage can be mitigated; and
i. Any other information or studies determined necessary by the Planning Official.

6. Stream Channel Stabilization Plan. The plan shall include the following:
   a. Detailed site plan and cross elevation of the stabilization measure in relationship to the stream, topography, soil conditions and existing improvements; and
   b. Explanation on how the stream channel stabilization measure is consistent with Washington Department of Fish and Wildlife's guidelines on streambank protection;

7. Additional Requirements for Stream Channel Stabilization.
   a. All work shall be carried out under the direct supervision of a qualified critical area professional approved by the City and paid for by the applicant during all phases of the project;
   b. Work must be done during the summer low flow and timed to avoid stream disturbance during periods when use of the stream is critical to fish consistent with the Department of Fish and Wildlife construction window; if applicable; and
   c. Any required state and federal permits and authorizations shall be obtained prior to conducting site work.

90.90 MINOR LAKES - TOTEM LAKE AND FORBES LAKE

The majority, if not the entirety, of the perimeters of Totem Lake and Forbes Lake are wetlands. All activities in the shallow areas of the lakes relating to contiguous wetlands located above the high waterline are regulated pursuant to KZC 90.55 and KZC 90.60.

Activities and uses waterward of the lakes' perimeter wetlands and outside of the wetland shall be regulated as follows:

1. General Standards. As part of a permit or approval under this chapter, the City may require maintenance or rehabilitation of the lake as part of a project by removing material detrimental to the lake, such as inorganic debris, sediment, or non-native vegetation. Rehabilitation is required when an existing condition is detrimental to water quality or habitat.

2. Moorage Facilities. Moorage facilities may be constructed, expanded or replaced using the process and meeting the standards below.

   a. Process. Any proposal for a moorage facility shall be reviewed and decided upon pursuant to a Process I, described in Chapter 145 KZC.

b. Decision Criteria. A new, expanded or replaced moorage structure may be approved if the standards in subsection c. below are met.

c. Standards.
   1) Moorage structure shall not extend farther than 25 feet waterward of the high waterline;
   2) Only one (1) moorage structure may be located on a subject property;
   3) It is accessory to an allowed use on the subject property;
   4) Moorage structure associated with a dwelling unit shall be for the exclusive use of the residents and guests of the associated dwelling unit. Structures shall not be leased, rented or sold;
   5) Moorage structure shall not be treated with creosote or oil base or toxic substances;
   6) Any existing in-water structures abandoned or in disrepair must be removed as part of a new permit;
   7) A critical area determination shall be made pursuant to KZC 90.105 and a critical area report shall be prepared pursuant to KZC 90.110 to assess impacts to wetlands and streams and any wildlife habitat area due to construction and use of the moorage structures. If any impacts are identified, a mitigation plan shall be prepared and implemented pursuant to KZC 90.145 and KZC 90.150; and.
   8) For pedestrian access trails or boardwalks, see KZC 90.40.

3. Repair of Moorage Facilities. Moorage facilities may be repaired and maintained as an exempted activity pursuant to KZC 90.35, but they may not be reconstructed or expanded under repair and maintenance.

4. Viewing Platforms.
   a. Public viewing platforms in a lake associated with a public park may be approved as part of a Park Master Plan process, pursuant to KZC 90.40.6.
   b. If the platform would be located in a wetland, the final critical area determination and critical report is required pursuant to KZC 90.105 and KZC 90.110, and mitigation is required pursuant to KZC 90.145 and KZC 90.150.
   c. The platform shall not be treated with creosote or oil base or toxic substances.
   d. Private viewing platforms are not permitted.

5. Public Park. Construction of a park associated with a minor lake shall be reviewed through a Park Master Plan process, pursuant to KZC 90.40.6.

90.95 FISH AND WILDLIFE HABITAT CONSERVATION AREAS

1. Location of Fish and Wildlife Habitat Areas.

   a. Fish and wildlife habitat conservation areas can be found in or near critical areas, forested areas or Lake Washington.
   b. Fish habitat is protected under the provisions of KZC 90.65, Streams. Thus, the provisions in subsections 3 through 7 of this section do not apply to fish habitat.

2. Criteria. Fish and wildlife habitat conservation areas are those that meet one or more of the following species listed and habitat criteria:

   a. State or federally designated endangered, threatened, and sensitive species that have a primary

association with the habitat area.

b. State priority habitats and habitats with which State priority species have a primary association that are located in the City. Those in Kirkland are deemed to be Habitats and Species of Local Importance.

3. Wildlife Habitat Conservation Area Assessment. As part of a critical area report pursuant to KZC 90.110, a determination shall be made if a wildlife habitat conservation area exists on the subject property or near the property by a qualified critical area professional approved by the City with experience preparing reports for the relevant type of habitat. The assessment shall include the following information:

   a. Evaluation. Evaluation of the presence or absence of potential wildlife habitat on the subject property or within the vicinity. A wildlife habitat assessment shall include the following information:
      1) Identification of state priority species, or state or federally listed endangered, threatened or sensitive species that have a primary association with habitat on or in the vicinity of the property;
      2) Extent of wildlife habitat areas, including acreage, and required buffers based on the species;
      3) Vegetative, faunal, and hydrologic characteristics;
      4) Evaluation of direct and indirect potential impacts on habitat by the project, including potential impacts to water quality; and
      5) A discussion of any federal, state, or local special management recommendations, including Washington Department of Fish and Wildlife habitat management recommendations that have been developed for the species or habitats.

   b. Maps. The following maps shall be used in the evaluation:
      1) Department of Fish and Wildlife priority habitat and species maps; and
      2) Federal and state information and maps related to those species and habitat identified in subsection 2 above.

4. Process. Modification to wildlife habitat conservation areas shall be proposed as part of the required critical area approval under this chapter for a project.

5. Decisional Criteria. Modification to wildlife habitat conservation areas may only be approved if the following criteria are met:
   a. Mitigation sequencing is met pursuant to KZC 90.145;
   b. It can be demonstrated that required habitat areas can be protected through implementation of protection measures in accordance with a management plan; and
   c. It can be demonstrated that the management plan and requirements in subsections 6 and 7 can be met with the proposed project.

6. Wildlife Habitat Management Plan.
   a. A wildlife habitat management plan shall be prepared by a qualified critical area professional with experience preparing reports for the relevant type of habitat and approved by the City and based on recommendations from the Washington State Department of Fish and Wildlife;
   b. The applicant shall fund the cost and implementation of the management plan, and also fund peer review by the City of the management plan;
   c. The plan shall establish:
      1) Seasonal restriction of construction activities as determined by the Washington State Department of Fish and Wildlife;
      2) Duration and timetable for periodic review of mitigation activities;

3) Vegetative buffer widths that reflect the sensitivity of the habitat and the type and intensity of activity or use proposed to be conducted nearby. The buffer widths shall be consistent with the management recommendations issued by the Washington Department of Fish and Wildlife and U.S Fish and Wildlife Services;
4) Measures to provide appropriate wildlife corridor for the conservation of the species if a wetland scoring 5 or greater is within 300 feet of the habitat area;
5) Limitations on pesticide and herbicide use in conservation area; and
6) Monitoring and maintenance program for the mitigating measures. The applicant shall fund the monitoring and maintenance program and also fund peer review by the City. Installation of vegetation shall follow the monitoring and maintenance schedule for a 5-year program pursuant to KZC 90.160;

d. Clustering of a development shall be considered in the plan if a project contains more than one dwelling unit or building if it would provide less impact and/or greater protection of the conservation area; and
e. Consultation with the Washington State Department of Fish and Wildlife, affected tribes or other appropriate agency regarding the effectiveness of any proposed mitigating measures shall occur if the Planning Official determines that it is needed.

7. Standard Requirements for Wildlife Habitat Conservation Area. Improvements, structures or activities located in or near wildlife habitat conservation areas shall meet the following standards:
   a. Preservation of critically important vegetation and/or habitat features, such as large trees, snags and downed wood;
   b. Buffers shall consist of an undisturbed area of native vegetation or areas identified in a management plan for restoration to protect the integrity, functions, and values of the affected habitat;
   c. Limitation of access to the wildlife habitat area, including fencing and signage, to deter unauthorized access;
   d. Introduction of any plant or wildlife not indigenous to the region shall be prohibited unless authorized by a state or federal approval;
   e. A performance, monitoring and maintenance security shall be submitted pursuant to KZC 90.165 to ensure completion and success of proposed mitigation; and
   f. The management plan shall be implemented through the life of the use or activity.

8. Designation of Wildlife Habitats or Species of Local Importance. The City may designate additional habitat or species of local importance as an amendment to the definition in Chapter 5 KZC through Chapter 160 KZC.

90.100 FREQUENTLY FLOODED AREAS

No disturbance or land surface modification may take place and no improvements or activities may be located in frequently flooded areas that are areas of special flood hazard, except as specifically provided in Chapter 21.56 KMC, Flood Damage Prevention. See Federal Emergency Management Agency (FEMA) for flood maps.

GENERAL STANDARDS

90.105 Critical Area Determination

1. Initial Determination. Either prior to or during review of a development application, the Planning Official shall make an initial assessment based on a site inspection and other information as to

whether:

a. A wetland is present on any portion of the subject property or surrounding area within 300 feet of the subject property. If a site inspection does not indicate the presence of a wetland on the subject property or within 300 feet of the subject property, no additional wetland assessment will be required.

b. If the initial determination indicates that a wetland exists or may exist on the subject property or within 300 feet of the subject property and/or a stream exists on the subject property or within 125 feet of the subject property, then the applicant shall have a critical area report prepared pursuant to KZC 90.110.

c. A stream is present on any portion of the subject property or surrounding area within 125 feet of the subject property. If a site inspection does not indicate a stream on or within 125 feet of the subject property, no additional stream assessment will be required.

d. If the Planning Official is not able to determine the classification of a stream or is uncertain if a watercourse is classified as a stream, a critical area report shall include a recommendation on a stream determination as to whether the site does contain a stream and if so, its classification. If the critical area report determines that no stream exists on or within 125 feet of the subject property, no further assessment is need.

2. Final Determination. The Planning Official shall make a final determination based on the critical area report. As part of the critical area determination, the Planning Official shall determine:
   a. The critical area boundaries, wetland category and rating and/or stream classification;
   b. The location of the buffer and buffer width standards for the critical area;
   c. Whether the wetland or stream needs to be restored due to degraded vegetation, wildlife habitat, water quality and hydrologic functions, and if so, what measures are needed.
   d. Whether the required buffer meets the vegetative standards found in KZC 90.130. If not, what changes need to be made to the buffer to meet the standard;
   e. Whether the subject property contains or is within the vicinity of a known habitat for species that are federally or state listed pursuant KZC 90.95; and
   f. Whether the standard buffer width must be increased due to severe erosion area, fish and wildlife habitat conservation area or frequently flooded area on or adjacent to the subject property pursuant to KZC 90.125.

3. Development Review. The determination shall apply to any development permit application or request that would modify a site that includes a critical area or associated buffer, other than those exempted pursuant to KZC 90.35.

4. Validity of Determination. The critical area determination is valid for five (5) years from the date of the decision. However, the Planning Official may modify the final critical area determination whenever physical circumstances have markedly and demonstrably changed on the subject property or within 300 feet of the subject property for wetlands and 125 feet for streams because of natural processes or authorized human activity.

90.110 Critical Area Report

1. General. An application for a development permit that includes a critical area and/or its buffer, except those exempted pursuant to KZC 90.35, shall provide a critical area report that uses the best available

science to evaluate the proposal and all probable impacts.

2. Preparation of Report.
   a. The critical area report shall be prepared by a qualified critical area professional.
   b. The applicant shall either:
      1) Fund a report prepared by the City or the City's consultant; or
      2) Submit a report prepared by a qualified critical area professional approved by the City. In addition, fund a peer review of the critical area report by the City or the City's consultant.

3. Report Format. The critical area report shall be provided in electronic form. The City may establish specific administrative requirements for the format of the report.

4. Report Content – General. A critical area report shall evaluate the subject property and critical areas within 300 feet of the subject property for wetlands and 125 feet for streams. A critical area report shall include the following information:

   a. The name and contact information of the applicant; the name, qualifications, and contact information from the primary author(s) of the report;
   b. Documentation of any fieldwork performed on the site, including field data sheets for wetland delineation and rating system forms, stream classification, baseline hydrologic data;
   c. A description of the methodologies used to conduct the wetland delineations and rating system forms, stream classification if done as part of the critical area report, and impact analyses including references;
   d. Identification, characterization and boundaries of all critical area, and buffers on or adjacent to the subject property. For areas off site of the subject property, estimated conditions within 300 feet of the subject property boundaries for a wetland and 125 feet of a stream using the best available information;
   e. A vicinity map and a site plan of the property, drawn to scale, with existing improvements and site features, including significant trees;
   f. Project narrative describing the proposal; anticipated temporary and permanent impacts to critical area or its buffer, construction activities and sequencing of construction, and other relevant information;
   g. A description of existing native, ornamental or invasive vegetation, fauna, and hydrologic characteristics found in the critical area and its buffer both on-site and on adjacent properties;
   h. An assessment of whether the wetland or stream needs to be restored due to degraded vegetation, wildlife habitat, water quality and hydrologic functions, and if so, what measures are needed.
   i. An assessment of existing vegetation in the required buffer and whether it meets the vegetative buffer standards found in KZC 90.130. If the vegetation in the buffer does not meet the vegetative standards, submit a detailed preliminary re-vegetation plan meeting KZC 90.130. If re-vegetation of the buffer is part of a stream or wetland modification proposal, the plan must be a detailed final re-vegetation plan;
   j. An assessment of whether the standard buffer width must be increased due to severe erosion area, fish and wildlife habitat conservation area or frequently flooded area on or adjacent to the subject property pursuant to KZC 90.125;
   k. An assessment of any existing habitat for species that are federally or state listed or priority species, including species of local importance pursuant to KZC 90.95 on the subject property or in the vicinity;
   l. A professional survey as specified in subsection 7 below;
   m. A statement specifying the accuracy of the report and all assumptions made and relied upon; and

n. Any other information deemed necessary by the Planning Official.

5. Additional Report Content – Wetlands. In addition to the requirements for the General Report Content pursuant to subsection 4. above, the critical area report shall include:

   a. Identification of wetlands and delineation of their boundaries in accordance with the current approved federal delineation manual and applicable regional supplements described in WAC 173-22-035, as amended. All determinations and delineations of wetlands shall be based on the entire extent of the wetland, irrespective of property lines, ownership patterns, existing improvements or features;
   b. Wetland rating and category including the rationale for the proposed rating and the required buffer based on the regulations in this code;
   c. A completed Army Corps of Engineers Wetland Field Data Form;
   d. Existing wetland acreage that may be approximated if the wetland extends onto adjacent properties;
   e. Soil and substrate conditions;
   f. A description of historical hydrologic, vegetative, habitat, topographic, and soil modifications, if any; and
   g. Description of the water sources entering and leaving the wetland and documentation of hydrologic regime (locations of inlet and outlet features, water depths throughout the wetland, evidence of recharge or discharge, evidence of water depths throughout the year – drift lines, algal layers, water marks, and sediment deposits).

6. Additional Report Content – Streams. In addition to the requirements for the General Report Content pursuant to subsection 4 above, the critical area report shall include the stream classification and rationale, based on WAC 222-16-030, as amended. Best available information shall be used to determine if fish are present in the stream given know fish barriers and other conditions.

7. Professional Survey and Measuring Buffer Boundary.

   a. The survey shall be based on the King County Datum (NAVD 88 vertical, NAD 83/91 horizontal) and shall indicate the temporary or permanent benchmark used in the survey depicting:

      1) The approved delineation marking of a wetland and/or buffer boundary on the subject property and an estimate of the location of off-site wetlands and buffers within 300 feet of the subject property, based on the determined wetland category and rating, and the buffer standards in this chapter; and/or
      2) The ordinary high water mark (OHWM) of any stream or the opening of a pipe where any stream enters or exits a pipe and/or any buffer surveyed on the subject property and an estimate of the location of any off-site stream and buffer within 125 feet of the subject property based on the stream classification determination and the buffer standards in this chapter.

   b. For wetlands, buffer widths shall be measured along the outer edge of the entire wetland.

   c. For streams, buffer widths shall be measured outward in each direction on the horizontal plane from the OHWM or from the top of the bank if the OHWM cannot be identified (see Chapter 180

KZC, Plate 16). Where a stream enters or exits a pipe, the buffer shall be measured perpendicular at the pipe opening (see Chapter 180 KZC, Plate 16A).

8. Site and Construction Plans. For a site proposed to be developed, the critical area report shall include general plans showing the following:

   a. Site plan-view cross-sectional drawings;
   b. Slope gradients, and existing and final grade elevations at two-foot intervals;
   c. The type and extent of all critical areas and buffers on the subject property and an estimate of any offsite critical areas and buffer within 300 feet of any wetland and 125 feet of any stream measured from the subject property;
   d. An approximate location of springs, steeps, surface water runoff features, or other surface expressions of groundwater on or within 300 feet of a wetland and 125 feet of a stream from the subject property;
   e. Proposed development, including the location of existing and proposed structures, fill, grading clearing limits with dimensions indicating distances to the critical area, areas of proposed impacts to the critical areas and/or buffers (include square footage estimates), and storage of construction materials and equipment if available;
   f. A depiction of the proposed stormwater management facility and outlets for the project, including estimated areas of permanent and temporary intrusion into the critical area buffer;
   g. Other drawings to demonstrate construction techniques; and
   h. Any other information deemed necessary by the Planning Official.

9. Waiver. The Planning Official may waive the requirement of certain information for the report if it is determined that:
   a. The information is not needed to evaluate a critical area or requirement of this chapter; or
   b. If the development proposal will affect only a part of the subject property, the Planning Official may limit the scope of the required report to include only that part of the site that would be affected by the development.

90.115 Buffer Averaging

1. Applicability. Buffer averaging may be applied to wetland and stream buffers. Both the standard buffer and the alternative buffer may use buffer averaging pursuant to this section.

2. Standards. Averaging of buffer widths for either the standard buffer or alternative buffer may only be allowed if all of the following criteria are met as demonstrated in a critical area report:
   a. The applicable standard buffer or alternative buffer width is not reduced below 75% of the required width in any location;
   b. The total area contained in the buffer area after averaging is no less than that which would be contained within the applicable standard buffer or alternative buffer and must be contiguous to the buffer;
   c. Buffer averaging will provide additional protection to the critical area and result in a net improvement of the critical area habitat, functions, and values; and
   d. The critical area contains variations in sensitivity due to existing physical characteristics or the character of the buffer varies in slope, soils, or vegetation, and the wetland or stream would benefit from a wider buffer in one area and would not be adversely impacted by a narrower buffer in another area.

3. Process. The Planning Official makes the decision based on the standards of subsection 2 above and review of the critical area report described in KZC 90.110.

90.120 Limited Buffer Waivers

1. Interrupted Buffer Waiver.

   a. The Planning Official may waive the required critical area buffer in that portion of the buffer isolated from the critical area where an existing legally established and improved public right-of-way or improved easement road interrupts a portion of the critical area buffer from the portion of the buffer adjacent to the critical area, The Planning Official may require a critical area report be prepared to address the criteria in KZC 90.120.1.d below.
   b. The Planning Official may waive the required critical area buffer in that portion of the buffer isolated from the critical area where an existing legally established building, detached garage, accessory dwelling unit, driveway, commercial parking area or retaining wall over six feet in height divides a portion of the critical area buffer from the portion of the buffer adjacent to the critical area. For the buffer wavier to be approved, the applicant must demonstrate conclusively in a critical area report that all of the criteria in KZC 90.120 1.d below are met.
   c. A wavier may not be requested for such improvements as fences, sheds, patios, decks or other minor structures and impervious surfaces.
   d. The Planning Official may waive the buffer requirement if the waiver request is found to meet the following criteria (see Chapter 180 KZC, Plate 25):
      1) The existing legal improvement creates a substantial barrier to the buffer function;
      2) The interrupted buffer does not provide additional protection of the critical area from the proposed development; and
      3) The interrupted buffer does not provide significant hydrological, water quality and wildlife buffer functions relating to the portion of the buffer adjacent to the critical area.
   e. If the applicant's consultant prepares the critical area report, the applicant shall also fund peer review of the report by the City's consultant.

90.125 Increase in Buffer Width Standard

1. Criteria to Require Increase in Buffer Width. The City shall determine if a critical area buffer must be increased beyond the standards in this chapter based on best available science and the recommendation of a critical area report for a project. The increase in buffer width may be required when a larger buffer is necessary to protect critical area functions and values either on the subject property or on an adjacent property. This determination shall be based on one or more of the following criteria:

   a. Severe Erosion Areas. If the critical area buffer abuts land that contains a slope with severe erosion, has minimal vegetative cover and is designated as hazardous in Chapter 85. KZC, and erosion control measures will not effectively prevent adverse impacts on the critical area based on a geotechnical study, a larger buffer shall be required;

   b. Fish and Wildlife Habitat Conservation Areas. If the wetland or stream contains documented habitat for state or federally listed endangered, threatened, and sensitive species or state priority species, including species of local importance, a larger buffer may be required to protect the habitat consistent with the management recommendations issued by the Washington Department of Fish and Wildlife or the United States Fish and Wildlife Services; or

c. Frequently Flooded Areas. If a site contains a frequently flooded area and the frequently flooded area is wider than the buffer standard required for a wetland or stream, the buffer shall be increased to incorporate the entire frequently flooded area.

2. Process. The Planning Official shall make a determination if a buffer width must be increased beyond the standard buffer width based on the critical area report as part of the final critical area determination in KZC 90.105.

90.130 Vegetative Buffer Standards

1. General. The entire Wetland Buffer width of KZC 90.55 and Stream Buffer width of KZC 90.65, referred hereafter, as the "buffer" shall be vegetated pursuant to the requirements of this section.

2. Vegetative Buffer Standard.
   The following vegetative buffer standards shall be met:
   a. Native cover of at least 80% on average throughout the buffer area. Additionally, two out of three of the following strata of native plant species each must compose of at least 20% areal cover:
      1) Multi-age forest canopy (combination of existing and new vegetation);
      2) Shrubs; and
      3) Woody groundcover (such as kinnikinnick, salal and sword fern) or unmowed herbaceous groundcover;
   b. At least three (3) native species each making up a minimum of 10% coverage (for diversity);
   c. Less than 10% noxious weeds cover using King County weed list and permanent removal of all knotweed; and
   d. Removal of lawn and any illegal fill as determined by the City.

3. When Vegetative Buffer Standard Applies.
   a. The complete vegetative buffer standard shall be installed either when:
      1) The total new net impervious surface on the entire subject property exceeds 1,000 square feet, or
      2) The cost of new or replacement improvements exceeds 50 percent of the assessed or appraised value of the existing improvements on the entire subject property, whichever is greater. This 50% threshold shall not apply to detached dwelling units approved for expansion pursuant to KZC 90.185.
   b. A partial vegetative buffer shall be installed when:
      1) The total new net impervious area is between 50 square feet and 1,000 square feet on the subject property.
         a) The buffer shall be vegetated at a minimum 1:1 ratio (new net impervious area is equal to the total square feet of buffer vegetation) meeting the vegetated buffer standard at the proportional rate of the standard;
         b) If the new net impervious area results in removal of a significant tree in a buffer, the tree shall be replaced with two (2) native trees in the buffer. The replacement trees shall be six (6) foot tall for a conifer and 2-inch caliper for deciduous or broadleaf. For a removed significant tree in a buffer that is 24" in diameter, the tree shall be replaced with three (3) native trees;
         c) The vegetated buffer area shall be located in the buffer abutting or nearest to the critical area at a minimum width of 10 feet;
         d) The location of the vegetation in the buffer shall be across from the new structure footprint and approved by the Planning Official;
      2) When a new net impervious surface on the subject property totals less than 50 square feet,

no vegetation is required to be planted in the buffer; and

3) For new utility poles the buffer shall be calculated based on the combined area of all new utility pole footprints and be vegetated at a minimum 1:1 ratio (net new impervious area equals total square feet of buffer vegetation), meeting the vegetated buffer standard at a proportional rate.

c. For Permitted Activities, Improvements and Uses Subject to Development Standards pursuant to KZC 90.40, vegetative buffer requirements will be determined as part of mitigation sequencing.
d. For Nonconformances, see KZC 90.185.

4. Additional Standards.
   a. All existing improvements and structures in a buffer must be removed when the vegetative buffer installation is required pursuant to subsection 3.a above;
   b. All activities in the buffer must cease, except those permitted under KZC 90.35.12 and 13;
   c. Native vegetation appropriate for wetlands and streams shall be used based on the City's Critical Areas Plant List. Other vegetation may be proposed if appropriate for the site and approved by the City;
   d. Trees and shrubs in the buffer shall be located along the bank of streams to provide effective shading of the stream to lower water temperature;
   e. Existing healthy native vegetation may count towards meeting the requirements if the overall standard is met;
   f. The City may require amended soil if needed to provide a well-functioning buffer;
   g. The City may require supplemental mulch to meet the Planning and Building Department standards;
   h. A reliable temporary irrigation source must be available while the vegetation is being established and the source must be indicated on the planting plan;
   i. Installation shall be done by hand unless use of mechanical equipment is specifically authorized due to site conditions. By hand includes any hand held equipment that is gas or electric powered;
   j. A Perpetual Landscape Maintenance Agreement, in a form approved by the City, shall be recorded over the vegetated buffer prior to final inspection; and
   k. Buffers shall not be mowed and animals may not be used to remove weeds, except goats may be used to remove invasive species for only public restoration projects pursuant to KZC 90.35 and KZC 90.40.

5. Process. The Planning Official shall determine whether an existing buffer meets the standards in KZC 90.130.2 above as part of the final critical area determination based on information in the critical area report.

6. Submittal of Vegetative Buffer Plan - Timing and Contents.

   a. When an existing buffer does not meet the standards in subsection 2 above, the applicant shall submit a final vegetative buffer plan with the development permit application;
   b. The vegetative buffer plan shall be prepared by a qualified critical area professional. The applicant shall also submit funds to the City for peer review of the vegetative buffer plan; and
   c. The Planning Official shall approve the plan only if it meets the vegetative buffer standard in this section.
   d. If a modification is proposed to a wetland or stream pursuant to KZC 90.60 or 90.70, a detailed planting plan shall be submitted with the wetland or stream modification plan.

7. Maintenance, Monitoring and Financial Security. A maintenance and monitoring program pursuant to KZC 90.160 and a financial security pursuant to KZC 90.165 for the vegetative buffer shall be

submitted prior to issuance of a building permit or before commencement of an activity.

8. Protection and Maintenance of Vegetative Buffer. Critical areas and buffers shall be placed in recorded critical area easements or tracts pursuant to KZC 90.210 and shall be maintained in perpetuity.

90.135 Trees in Critical Areas and Critical Area Buffer

1. Removal of Trees.
   a. Other than as specifically approved as part of a critical area approval under this chapter, no trees shall be removed from a critical area of critical area buffer unless determined to be nuisance or hazardous trees. Any removal shall be authorized in advance through a tree removal permit pursuant to Chapter 95 KZC unless tree removal is an emergency to prevent immediate damage to a structure. In case of an emergency, documentation to the City must be provided within seven (7) days of removal that supports that the tree was a nuisance or hazardous.
   b. If a tree in a critical area or its buffer meets the criteria of a nuisance or hazard based on this code at the determination of the Planning Official, then a snag tree shall be created;
   c. If creation of a snag is not feasible, then the felled tree shall be left in place unless the Planning Official approves tree removal in writing; and
   d. Any tree approved to be removed or created as a snag or felled must be replaced with one (1) to three (3) native trees at a minimum height of six (6) feet in the buffer depending on the size, quality and species of removed tree. The Planning Official shall determine the required number of replacement trees.

2. Pruning of Trees. Pruning or topping of trees in critical areas or buffers is prohibited other than City approved creation of snags for nuisance or hazard trees.

90.140 Structure Setback from Critical Area Buffer

1. Buildings and other structures shall be set back at least 10 feet from the edge of the wetland or stream buffer to ensure adequate width for construction staging, maintenance and repair of primary buildings and accessory structures, and use of improvements without disturbing the critical area buffer or critical area. This section does not apply to:
   a. Category IV wetlands that are less than 1,000 square feet that do not have a buffer requirement and thus no building setback requirement.
   b. Those linear utility improvements associated with either Permitted Activities, Improvements or Uses or Public Agency and Utility Exceptions that have been approved to be located in a critical area or buffer and therefore can traverse the structure setback.

2. The following improvements may extend into the structure setback, provided that they do not necessitate encroachment into the critical area buffer for construction, maintenance and use. No other improvements are permitted.

Table 90.140.1 Structure Setback from Critical Area Buffers

Structure Setback	Improvement	Location within Setback:
10 feet in width from edge of buffer	Chimneys, bay windows, greenhouse windows, eaves, cornices, awnings and canopies, and decks above the ground floor	May extend no more than 18 inches into structure setback
		May extend no more

	Uncovered improvements less than 18 inches above finished grade to 4 inches above finished grade, such as ground floor decks, and railings less than 4 feet above finished grade	than 5 feet into structure setback
	Uncovered play structures	
	Rockeries and retaining walls that are not more than 4 feet above finished grade	
	Uncovered improvements less than 4 inches above finished grade, such as patios, driveways and parking areas, including curbing	May extend no more than 9 feet into structure setback
	Garden sculpture, light fixtures, trellises and similar decorative structures	
	Benches, walkways, paths and pedestrian bridges	
	Bio-retention, such as rain gardens, and dispersion techniques that result in sheet flow such as level spreaders, dispersion trenches, splash blocks and similar techniques	
	Fence perpendicular to the structure setback at up to 6 feet in height above finished grade	May extend to the upland edge of the critical area buffer
	Split rail, open slatted with at least 18" spacing, wrought iron and chain link, or similar non-solid fence parallel to the structure setback up to 6 feet in height above finished grade. Solid fencing is not permitted. Except for split rail, a gate is required for access to the buffer.	Along the entire upland edge of the buffer

90.145 Mitigation - General

1. General. If a modification is proposed to a critical area or buffer, as part of the application the applicant must have the proposal evaluated using mitigation sequencing and then submit a mitigation plan that addresses the impacts to the critical area.

2. Mitigation Sequencing. The intent of mitigation sequencing is to evaluate and implement opportunities to avoid, minimize, eliminate or compensate for impacts to critical areas while still meeting the objectives of the project. When a modification to a critical area and buffer is proposed, the modification shall be avoided, minimized, or compensated for, as outlined by WAC 197-11-768, in the following order of preference:
   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 by 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 the impacts and compensation projects and taking appropriate corrective measures.

3. Location of Mitigation.

   a. Preference. Preference shall be given to the location of the mitigation in the following order unless it can be demonstrated that off-site in-kind mitigation is ecologically preferable:
      1) On-site in-kind
      2) Off-site in City in-kind
      3) Off-site in-kind within the Lake Washington/Cedar/Sammamish Watershed

   b. On-Site versus Off–Site Mitigation.
      1) Mitigation shall occur on-site except when the City determines that the following criteria have been met as part of a proposal under this chapter:
         a) There is no opportunity for on-site mitigation or on-site opportunities do not have a high likelihood of success due to the size of the property, site constraints, or size and quality of the wetland or location and quality of the stream;
         b) Off-site mitigation has a greater likelihood of providing equal or improved critical area functions than the impacted critical area;
         c) Off-site locations shall be in the same Water Resource Inventory Area (WRIA) 8 Lake Washington/Cedar/Sammamish Watershed as the impacted critical area; and
         d) The off-site critical area mitigation will best meet formally established watershed goals for water quality, flood or conveyance, habitat, or other wetland functions that have been established and strongly justify location of mitigation at another site.
      2) When considering mitigation outside of the City, preference should be given to using mitigation banking or an in-lieu fee program pursuant to subsection 4 below.

4. Responsible Party for Mitigation Site. Mitigation for lost or diminished critical area functions and values for either wetlands or streams shall use the following options:

   a. Applicant-Responsible Mitigation The applicant is responsible for the implementation, monitoring and success of the mitigation pursuant to this Chapter.

   b. Non-Applicant Responsible Mitigation – Mitigation Bank and In-lieu Fee Mitigation.

      1) Funds are collected from the applicant by the sponsoring agency, non-profit, private party or jurisdiction. The sponsor is responsible from that point forward for the completion and success of the mitigation. The applicant's fee is based on the project impact and includes all costs for the mitigation, including design, land acquisition, materials, construction, administration, monitoring, and stewardship.
      2) Credits purchased by an applicant from a mitigation bank or in-lieu program that is certified under Federal and State rules may be used as a method of mitigation if approved by the City to compensate for impacts when all of the following apply:
         a) The City determines as part of the critical area approval that it would provide appropriate compensation for the proposed impacts;
         b) Projects shall have debits associated with the proposed impacts calculated by the applicant's qualified critical area professional using the credit assessment method or appropriate method for the impact as specified in the approved instrument for the program. The assessment shall be reviewed and approved by the City;
         c) The proposed use of credits is consistent with the terms and conditions of the certified mitigation bank or in-lieu fee program instrument; and

d) The record of payment for credits shall be provided to the City in advance of the authorized impacts but no later than issuance of the building or land surface modification permit.

c. City-Responsible Mitigation – Advance Mitigation.

The City does mitigation on City-owned property as mitigation credit either for City critical area projects or at the discretion of the City for other public agencies with critical area projects. The mitigation program shall be implemented pursuant to federal and state rules, and state water quality regulations.

5. Timing of Mitigation.

a. On-Site Mitigation.

1) On-site mitigation shall be completed immediately before or following disturbance and prior to use or final inspection of the activity or development. Construction of mitigation projects shall be timed to reduce impacts to existing fisheries, wildlife and flora; and.
2) The Planning Official may allow flexibility with respect to seasonal timing of excavation or planting for mitigation. If on-site mitigation must be completed after final inspection of a building or land surface modification permit or commencement of an activity, a performance financial security shall be required pursuant to KZC 90.165 along with a timeline commitment for completion.

b. Off-Site Mitigation.

1) For in-lieu fee, mitigation bank or advance mitigation programs:
   a) Mitigation shall be completed based on the programs established timeline, except advance mitigation shall be completed prior to issuance of the development permit;
   b) The applicant shall provide documentation of the proof of purchase of credits for in-lieu fee and mitigation banking in advance of the authorized impacts but no later than issuance of the building or land surface modification permit. However, if the program sponsor requires proof of development permit prior to credit purchase, the documentation may be provided to the City prior to final inspection; and.
   c) For advanced mitigation, the applicant shall submit documentation of completion of the advance mitigation prior to issuance of a land surface modification or building permit.

2) For all other off-site mitigation:
   a) Mitigation shall be completed immediately before or following disturbance and prior to use or final inspection of the activity or development. Construction of mitigation projects shall be timed to reduce impacts to existing fisheries, wildlife and flora. The Planning Official may allow flexibility with respect to seasonal timing of excavation or planting for mitigation; and
   b.) Documentation of the proof of purchase of off-site property shall be provided in advance of the authorized impacts but no later than issuance of the building or land surface modification permit.

6. Mitigation Plan Standards. All critical area mitigation plans, except mitigation met through mitigation bank or an in-lieu fee program, shall meet the following standards. In addition, for wetlands the standards for Wetland Compensatory Mitigation pursuant to KZC 90.150 shall be followed.

a. A mitigation plan shall be prepared by a qualified critical area professional, approved by the City that:
   1) Addresses the impacts to a critical area and buffer based on best available science;
   2) Is designed to maintain and enhance ecological functions and values, and to prevent risk from hazards posed to the critical area; and
   3) Provides a description of the mitigation site, including location and vicinity map, and rationale for selection of the mitigation site.

b. The plan shall show that:
   1) The vegetative buffer standards and requirements in KZC 90.130 are met. If the buffer does not currently meet the vegetative buffer standards, a detailed final revegetation plan shall be submitted including specification on size and type of each native species of plants, and number and spacing of the plants meeting the City of Kirkland's Critical Area Plant List and standards;
   2) Seed source must be as local as possible, and plants must be nursery propagated unless transplanted from on-site areas approved for disturbance. These requirements must be included in the mitigation plan specifications;
   3) Plant materials may be supported with material (e.g. stakes, guy wires) only when necessary. Staking and ties shall follow the International Society of Arboriculture standards. Where support is necessary, stakes, guy wires, or other measures must be removed as soon as the plant can support itself, usually after the first growing season;
   4) The stream buffer mitigation area replacement at a minimum ratio of 1:1 pursuant to KZC 90.65 is met;
   5) Proposed erosion control measures comply with the City's Public Works Pre-Approved Plans;
   6) Mitigation is consistent with other requirements in this code, including site distance requirements at intersection pursuant to Chapter 115 KZC; and
   7) All planted areas of the mitigation project have a temporary, above ground sprinkler system set to automatic timers. Temporary sprinkler systems shall be removed in the final year of monitoring once vegetation is well established. When public or private water is not available, a plan for reliable watering by truck or hand shall be included.

90.150 Wetland Compensatory Mitigation

1. General. Compensatory mitigation for modifications to wetlands and related impacts to buffers shall be used for impacts that cannot be avoided or minimized and shall achieve equivalent or greater wetland functions. Approved modifications to a wetland and related impacts to the buffer require compensatory mitigation based on mitigation ratios in subsection 2 below so that the goal of no net loss of wetland functions and values is achieved.

2. Compensatory Wetland Mitigation Ratios.

   a. Acreage Replacement Ratios.

      The following ratios shall apply to creation, re-establishment, rehabilitation, and enhancement of wetlands. These ratios do not apply to the use of credits from a state-certified wetland mitigation bank or in-lieu fee program pursuant to KZC 90.145.4. The first ratio number specifies the acreage of replacement wetlands and the second number specifies the acreage of wetlands altered.

Table 90.150.1 Mitigation Ratios for Wetlands and Buffers

Category of Wetland Impacted	Creation	Re-establishment-Rehabilitation Only	Creation and Rehabilitation	Creation and Enhancement	Enhancement Only
Category IV	1.5:1	3:1	1:1 C and 1:1 RH	1:1 C and 2:1 E	6:1
Category III	2:1	4:1	1:1 C and 2:1 RH	1:1 C and 4:1 E	8:1
Category II	3:1	6:1	1:1 C and 4:1 RH	1:1 C and 8:1 E	12:1
Category I: Forested	6:1	12:1	1:1 C and 10:1 RH	1:1 C and 20:1 E	24:1
Category I: based on total functions	4:1	8:1	1:1 C and 6:1 RH	1:1 C and 12:1 E	16:1
Category - I: Bog	Not possible	6:1 RH of a bog 8:1	Not possible	Not possible	Case-by-case
Buffer (see additional requirements in subsection 2. c. below)	Minimum of 1:1	Minimum of 1:1	Minimum of 1:1	Minimum of 1:1	Minimum of 1:1

Legend: C = Creation, RH = Rehabilitation, E = Enhancement

b. Remedial Action: Remedial actions resulting from unauthorized alterations of a wetland or its buffer may require greater ratios depending on the extent of impact to the value and function of the wetland based on an analysis by a critical area professional and a final determination by the Planning Official.

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

d. Credit/Debit Method. As an alternative to the mitigation ratios, the City may allow mitigation based on the "credit/debit" method developed by the Department of Ecology. This method may be appropriate where a wetland is not eliminated, but is otherwise modified.

3. Mitigation for Lost Values and Affected Functions. Compensating for lost values and affected functions must be addressed in the compensatory mitigation plan of subsection 6 below to achieve functional equivalency or improvement. The goal and preference shall be for the compensatory mitigation to provide in-kind wetland functions for those lost, except when:

a. The filled/impacted wetland provides minimal functions as determined by a site-specific function assessment, and the proposed mitigation action(s) will provide equal or greater functions or will provide functions shown to be limited within Kirkland's watershed; or

b. Out-of-kind replacement will best meet formally identified Water Resource Inventory Area (WRIA) 8 Lake Washington/Cedar/Sammamish Watershed goals, such as replacement of historically diminished wetland types.

4. Preference of Compensation.

a. Compensation shall occur in the following order of preference based on in-kind mitigation:

1) Restoring wetlands on upland sites that were formerly wetlands. This action includes re-establishment and rehabilitation;

2) Creating/establishing wetlands on disturbed upland sites, such as those with vegetative cover consisting primarily of non-native species;

3) Enhancing significantly degraded wetlands; or

4) Preserving/maintaining a wetland to remove threat or prevent decline, such as purchasing land. Preservation does not result in gain of wetland acres.

b. Location of compensatory mitigation shall occur in the order of preference established in KZC 90.145.3.

5. Compensatory Mitigation Plan. A compensatory mitigation plan shall be prepared by a qualified critical area professional approved by the City consistent with state guidelines and submitted with the wetland modification assessment of KZC 90.60 for approval as part of the critical area permit using Process I. The plan shall contain the following:

a. A topographic survey showing existing and proposed topography and improvements. Surveys should be of sufficient quality to determine accurate 1-foot minimum contour intervals;
b. Description of the compensatory mitigation site, including location and vicinity map, rationale for selection of site and how it meets the required mitigation ratios of subsection 2 above;
c. Description of proposed actions for compensation of wetland and buffer areas affected by the project, overall goals and targets of the proposed mitigation plan, and proposed mitigation timing. Documentation if the compensatory mitigation will be done through a mitigation banking or fee-in-lieu program pursuant to KZC 90.145;
d. Protective construction measures that are necessary, such as siltation prevention measures and scheduling the construction activity to avoid interference with wildlife nesting activities;
e. Description of surface and subsurface hydrologic conditions, including an analysis of existing and proposed hydrologic regimes for enhanced, created or restored compensatory mitigation areas;
f. Schedule of the project for all work;
g. Description of performance standards for post-installation, a monitoring and maintenance schedule based on the time period required in KZC 90.160 along with a financial security estimate for the entire compensatory mitigation project that meet the standards in KZC 90.165;
h. Proof of title ownership for the wetlands and buffers, including the compensatory mitigation areas, when mitigation is done by the applicant;
i. If the applicant does not hold title ownership to the applicant-responsible mitigation site, proof of perpetual right to locate the mitigation shall be provided; and
j. List of all local, state and/or federal wetland-related permits required for the project.

6. Timing of Compensatory Mitigation. See KZC 90.145.5 for when an applicant must install the compensatory mitigation or document if a non-applicant responsible mitigation program is used to meet the mitigation requirement.

90.155 Measures to Minimize Impacts to Wetlands

The following measures must be incorporated into the design of a site containing a wetland and/or buffer. The Planning Official shall determine the applicability of each measure based on the uses, improvements and/or activities on the subject property.

Table 90.155.1 Measures to Minimize Impact to Wetlands and Associated Buffers

Disturbance	Required Measures to Minimize Impacts
Lights	- Shield exterior lights that face the wetland or buffer so that they are downcast and directed away from critical area and associated buffer pursuant to Chapter 115 KZC.
Noise	- Activities that generate noise, such as parking lots, drive thru facilities, generators and HVAC units shall be located away from the wetland or buffer to the maximum extent possible, or noise shall be minimized through use of design measures, insulation techniques and/or additional native vegetation. - Activities or uses that generate relatively continuous, potentially disruptive exterior noise, such as certain industrial, manufacturing and repair services shall provide an additional 10 feet in width of heavily vegetated buffer strip immediately adjacent to the outer wetland buffer that meets KZC 95.42, Buffer Standard 1.
Toxic runoff	- Treat all runoff from pollution generating surfaces prior to discharge to the wetlands. - Establish covenants for homeowner's associations and commercial developments where applicable for restriction of pesticide use within 150 feet of wetland. - Apply integrated pesticides management pursuant to KZC 90.195.
Stormwater runoff	- As part of redevelopment, replacement or expansion of an existing development, retrofit stormwater flow control and treatment for public streets when the value of all improvements, including interior improvements exceed 50% of the assessed value (or replacement value) of the existing site improvements. - Control stormwater flow and improve water quality from new and redevelopment, including to wetlands, through the requirements of the Western Washington Phase II Municipal Stormwater Permit, National Pollutant Discharge Elimination System (NPDES), administered by the Washington State Department of Ecology. - Use low impact development techniques per the City's standards.
Pets and human disturbance	- Install fence and signage pursuant to KZC 90.190 along the edge of the buffer. - Place wetland and buffer in a separate conservation easement or tract pursuant to KZC 90.210.
Dust	- Use best management practices to control dust.

90.160 Monitoring and Maintenance

1. Timing.
   a. After installation and acceptance by the Planning Official of the mitigation, the monitoring and maintenance program shall commence.
   b. A monitoring report shall be submitted to the Planning Official after each site visit, pursuant to subsection 3.b below.

2. Monitoring and Maintenance Program for Buffer. Requirements for a monitoring and maintenance program for revegetation of a buffer shall include the following, unless an alternative program is approved by the City.
   a. The goals and objectives of the monitoring and maintenance program;
   b. The performance standards by which the mitigation will be assessed. At a minimum, buffer vegetation mitigation shall include the following performance standards:
      1) Year-1: 100 percent survival of installed vegetation through a combination of survival and replacement;
      2) Year-2: 80 percent survival of installed vegetation;
      3) Year-3: At least 50 percent native vegetation coverage within the enhanced and created buffer for installed vegetation;
      4) Year-5:
         a) At least 80 percent native vegetation coverage on average throughout the mitigation area. Additionally, two out of three of the following strata of native plant species each must compose at least 20% areal cover;
            (1) Trees;
            (2) Shrubs; and
            (3) Woody groundcover (such as kinnikinnick, salal and sword fern);
         b) At least three native species each making up a minimum of 10 percent coverage;
      5) All years:
         a) Less than 10 percent noxious weeds cover using King County weed list, except less than 20 percent cover of reed canarygrass where a pre-existing or proximate monoculture occurred; and
         b) No presence of knotweed at any time during the duration of the program period.
   c. Contingency plan identifying a course of action, corrective measures and a timetable to be taken if monitoring indicates that the performance measures have not been met.

3. Monitoring and Maintenance Program for Critical Area Mitigation. A monitoring and maintenance program shall be established for restoration for a wetland or stream due to prior degradation or an approved modification project as part of the mitigation plan. The monitoring and maintenance plan shall address goals and objectives as well as performance standards and a contingency plan.

4. Duration and Schedule of Monitoring and Maintenance Program. Unless otherwise required by the Planning Official, the minimum duration of the program shall be as follows:

   a. Three growing seasons for new structures of less than 1,000 square feet of footprint approved pursuant to KZC 90.130 and for additions to nonconformances pursuant to KZC 90.185.
   b. Five growing seasons for mitigation projects and revegetating a buffer to meet the buffer standards in KZC 90.130, except for forested and scrub –shrub wetlands; and
   c. Ten growing seasons for forested or scrub -shrub wetland creation.
   d. The required schedule for site visits and reporting for monitoring and maintenance is as follows:

1) For three-year program: two site visits for each of the first two years;
2) For five-year program: two site visits for each of the first two years and one site inspection every 12 months for subsequent years; and
3) For ten-year program: visits in growing seasons 1, 2, 3, 5, 7 and 10.

e. The Planning Official may extend the duration of the program and the number of visits at the end of the established monitoring and maintenance period if the program requirements have not been met.

5. Maintenance Work. Prior to final inspection of the vegetation and any other mitigating measures required in this chapter, the applicant shall submit a copy of a signed contract with a qualified maintenance company with experience in maintaining critical area vegetation and other improvements, approved by the City. The contract shall be funded by the applicant and cover the life of the monitoring period.

6. Options for Monitoring Work. The applicant may choose one of the following methods for who performs the monitoring work:

   a. City Does Work. If the City will oversee the maintenance and monitoring through the City's consultant, the monitoring fee will be based on an actual cost estimate of the work. The applicant shall submit a cash prepayment for all work to the City prior to issuance of the development permit.

   b. Applicant's Consultant Does Work.

      1) If the City will not perform the monitoring, the applicant shall submit a signed contract to fund a qualified critical area professional, approved by the City, to monitor the maintenance and perform the monitoring over the life of the program. The cost of the work must be included in the performance security under KZC 90.165; and
      2) In addition, the applicant shall submit a cash prepayment prior to final inspection of the development permit for the cost of the City to do peer review of the monitoring reports.

7. Financial Security. A financial security for performance, monitoring and maintenance is required pursuant to KZC 90.165.

90.165 Financial Security for Performance, Maintenance and Monitoring

1. Performance or Maintenance Security Requirement.

   a. A security is required in the amount and form as the Planning Official deems necessary to assure that all work or actions are satisfactorily completed and maintained in accordance with the approved plans, specifications, and permit or approval requirements.
   b. State agencies and local government bodies, including school districts, shall not be required to provide a performance or maintenance security. The Planning Official may enforce compliance by not approving final inspection, by administrative enforcement action, or by any other legal means.
   c. The security shall be conditioned on the work being completed or maintained in accordance with requirements, approvals, or permits for the site being left or maintained in a safe condition. Also for on the site and adjacent or surrounding areas being restored in the event of damages or other environmental degradation from development or maintenance activities conducted pursuant to the permit or approval.

2. Submitted Documents.
   a. The security shall be in the form of a:
      1) Surety bond obtained from companies registered as surety in the state or certified as acceptable sureties on federal bonds;
      2) Assignment of funds or account;
      3) Escrow agreement;
      4) Irrevocable letter of credit; or
      5) Other financial security device.
   b. A completed security information form, security agreement and License to Enter Property document along with the required recording fee for that document shall be submitted. All forms shall as provided by the City.

3. When Submitted. A financial security for performance, monitoring and maintenance shall be submitted prior to issuance of a land surface modification or building permit for plantings, improvements and other mitigation measures required in this chapter. The performance portion of the security will be released upon City approval of the installed mitigation.

4. Determination of the Security Amount.

   a. Determination of the security amount shall be done using the City's security value worksheet based on the approved plans, specifications, permit or approval requirements, and applicable regulations. Construction, maintenance and monitoring costs shall be based on King County's or the City of Kirkland's Critical Areas Mitigation Bond Quantity Worksheet. The City may request changes in unit pricing if the worksheet is found to be out of date with respect to current market prices;
   b. The financial security shall be equal to or greater than 150 percent of the estimated cost of conformance to plans, specifications and permit or approval requirements of this chapter, including corrective work, compensation, enhancement, mitigation, monitoring, maintenance and restoration of critical areas; and
   c. Actual security costs shall include all labor, materials, erosion control and other general items, and sales tax associated with the required work. The security shall be sufficient to guarantee that all required improvements and measures will be completed in a timely manner and with sufficient funds in accordance with this chapter. The security shall cover all work or actions not satisfactorily completed or maintained that need to be corrected to comply with the approved plans.

5. Cash Deposit. A cash deposit for the cost of City administration of the security shall be submitted with the financial security.

6. Duration of Performance, Monitoring and Maintenance Security.
   a. Duration of monitoring and maintenance security shall be consistent with the approved program pursuant to KZC 90.160;
   b. The performance or maintenance security may be released upon written notification by the Planning Official, following final site inspection or when the Planning Official is satisfied that the work or activity complies with permits or approved requirement;
   c. The Planning Official may require a security longer than stated in KZC 90.160 for complex mitigation projects, such as creation of wetlands, daylighting of a stream or relocating a stream channel, or to extend the length of a security for projects where vegetation or other improvements have been poorly maintained over several years or for code enforcement actions; and
   d. No portion of the security may be released early during the established monitoring and maintenance period to ensure that potential catastrophic failure of the plantings and other

improvements that may occur in the future are covered.

7. Corrective Measures.
   a. If, during the term of the performance, maintenance and monitoring security, the Planning Official determines that conditions exist which do not conform with the plans, specification, approval or permit requirements, the Planning Official may issue a stop work order prohibiting any additional work or maintenance until the condition is correct;
   b. The Planning Official may call in all or a portion of a performance, maintenance and monitoring security to correct conditions that are not in conformance with plans, specifications, approval or permit requirements; and
   c. Where monitoring reveals a failure of mitigation or maintenance measures, the applicant shall be responsible for appropriate corrective action which, when approved by the Planning Official, shall be subject to further monitoring. The Planning Official shall determine the additional monitoring requirements as needed.

8. Transfer of Security. In the event that a performance, monitoring and maintenance security is transferred to a subsequent property owner or management entity:
   a. An additional City administrative fee shall be charged for transferring a security to a subsequent owner;
   b. The applicant and the subsequent owner must document the transfer authority of the security; and
   c. A written agreement from the subsequent owner shall be submitted agreeing to the costs and other responsibilities of the maintenance and monitoring program.

9. Obligation. Any inability of a security device to fund the cost of the security shall not discharge the obligation of an applicant or violator to complete the required mitigation, maintenance or monitoring.

90.170 Subdivisions and Maximum Development Potential

1. Subdivisions - The subdivision and/or short subdivision of land in a wetland, stream or related buffer is subject to the following criteria and subsections 2 through 4 below:

   a. Land that is located entirely within a wetland, stream or related buffer may not be subdivided.
   b. Land that is located partially within a wetland, stream or related buffer may be subdivided if, as part of the short plat or subdivision application, the applicant demonstrates that :
      1) Each lot contains sufficient developable area to accommodate the allowed use(s) in that zone, including required vehicular access, parking, and stormwater management facilities outside of the critical area and its buffer; and
      2) Each lot meets all zoning requirements applicable to that zone, except for reduced Dimensional Design Standards for Residential Uses pursuant to KZC 90.175.

2. Calculating Allowed Number of Dwelling Units. The maximum potential number of dwelling units for a subject property that contains a wetland, stream, minor lake or their buffers is reduced from the maximum potential number of dwelling units that otherwise are allowed in the underlying zone.

3. Maximum Development Potential Calculation.

   a. The maximum potential number of dwelling units shall be the buildable area in square feet divided by the minimum lot area per unit or the maximum units per acre as specified by Chapters 15 through 56 KZC, plus the area of the required critical area buffer in square feet divided by the

minimum lot area per unit, the maximum units per acre or as specified by Chapters 15 through 56 KZC, multiplied by the development factor derived from subsection 2 of this section as provided in the formula below:

MAXIMUM DWELLING UNIT POTENTIAL = (BUILDABLE AREA/THE PRESCRIBED MINIMUM LOT AREA PER UNIT OR MAXIMUM UNITS PER ACRE) + [(BUFFER AREA/THE PRESCRIBED MINIMUM LOT AREA PER UNIT OR MAXIMUM UNITS PER ACRE) X (DEVELOPMENT FACTOR)]

b. For purposes of this subsection only, "buildable area" means the total area of the subject property minus critical areas and their buffers.

c. A professional survey of the approved delineation markings shall determine the area of critical area and buffer on the subject property pursuant to KZC 90.110.

d. For multifamily development, and single family development in RSA zones, if application of the maximum development potential formula results in a fraction, the number of permitted dwelling units shall be rounded up to the next whole number (unit) if the fraction of the whole number is at least 0.50.

e. For single family development in low density zones other than the RSA zones, the number of permitted dwelling units shall be rounded down to the previous whole number (unit) regardless of the fraction of the whole number.

f. For developments providing affordable housing units pursuant to Chapter 112 KZC, or cottage, carriage or two/three unit homes pursuant to Chapter 113 KZC, or low impact development pursuant to Chapter 114 KZC, the maximum dwelling unit potential of this section establishes the base density allowed. The additional density or bonus units allowed by those chapters shall be in addition to the maximum dwelling unit potential.

g. The provisions in KZC 125.30 for density under a Planned Unit Development shall not be applied to properties containing critical areas or buffers.

h. The maximum development potential formula shall not be construed to preclude application of Chapter 22.28 KMC (lot size reduction, low impact development, small lot single family, and historic preservation) to potentially achieve an increased number of single-family dwelling units for short plats and subdivisions.

i. Lot size and/or density may be limited by or through other provisions of this code or other applicable law, and the application of the provisions of this chapter may result in the necessity for larger lot sizes or lower density due to inadequate buildable area.

4. Development Factor – The development factor, consisting of a "percent credit," to be used in computing the maximum potential number of dwelling units for a site which contains a critical area buffer is derived from the following table:

Table 90.170.1 Maximum Development Potential

Percentage of Site in Critical Area Buffer			**Counted at**
< 1%	To	10%	100%
> 10%	To	20%	90%

Percentage of Site in Critical Area Buffer			Counted at
> 20%	To	30%	80%
> 30%	To	40%	**70%**
> 40%	To	50%	60%
> 50%	To	60%	50%
> 60%	To	70%	40%
> 70%	To	80%	30%
> 80%	To	90%	20%
> 90%	To	100%	10%

90.175 Dimensional Design Standards for Residential Uses

1. Reduced Dimensional Standards for Residential Uses. The following dimensional requirements may be reduced for the non-critical area portion of the site to accommodate the constraints of the buildable area of the site, provided that the applicant shall demonstrate that:

   a. The reduction is be the minimum necessary to allow avoidance of the critical area, critical area buffer and structure setback; and
   b. The resulting development is compatible with other development or potential development in the immediate vicinity of the subject property in the same zone and with similar site constraints.

2. Standards. The reduced standards are as follows:

Table 90.175.1 Reduced Dimensional Standards for Residential Uses

Reduced Dimensional Standards for Residential Uses	
Minimum Required Yards	• 0' for interior side and rear yards within the proposed development to encourage clustering between dwelling units • 10' for front yards • 5' for side and rear yards that abut properties that are not part of the proposed development
Minimum Parking Pad Dimensions[1]	• width - 8.5 feet per required stall • depth - 18.5 feet per required stall
Tandem Parking	• allowed where stalls are shared by the same dwelling unit

Notes:

1. Any garage or other structure shall be set back a minimum of 18.5 feet from the property line to allow on-site parking on the driveway without blocking a sidewalk.

90.180 Reasonable Use Exception

1. Purpose. The purpose of the reasonable use exception is to:

   a. Provide the City with a mechanism to approve limited use and disturbance of a critical area and critical area buffer when strict application of this chapter would deny all economically viable use of the subject property;
   b. Establish guidelines and standards for the exercise of this authority adjusted to the specific conditions of each subject property; and

c. Protect public health, welfare and safety of the citizens of Kirkland.

2. Reasonable Use. Reasonable use is a legal concept that has been articulated by federal and state courts in regulatory takings cases. In a takings case, the decision-maker must balance the public benefit against the owner's interests by considering the nature of the harm the regulation is intended to prevent, the availability and effectiveness of alternative measures, and the economic loss borne by the owner. Public benefit factors include the seriousness of the harm to be prevented, the extent to which the land involved contributes to the harm, the degree to which the regulation solves the problem, and the feasibility of less oppressive solutions.

3. Reasonable Use Process. If the strict application of this chapter would preclude all reasonable use of the subject property, an owner of the subject property may apply for a reasonable use exception. The application shall be considered under Process I of Chapter 145 KZC.

4. Submittal Requirements: As part of the reasonable use exception request application the applicant shall submit a critical area report pursuant to KZC 90.110, prepared by a qualified critical area professional approved by the City, and also fund peer review of this report by the City's consultant. The report shall include the following:

a. For a wetland, the additional report information requirements specified in KZC 90.110.5. For a stream, the additional report information requirements specified in KZC 90.110.6;

b. An analysis of whether any other reasonable use with less impact on the critical area and critical area buffer is possible;

c. Site design and construction staging of the proposal shall have the least impact to the critical area and critical area buffer;

d. A site plan showing:
   1) The critical area, critical area buffer and structure setback required by this chapter;
   2) The proposed area of disturbance both on and off the subject property pursuant to the disturbance area limitations of subsection 5.c below;
   3) The footprint of all proposed structures and improvements meeting the conditions of subsection 5 below, including;
      a) buildings
      b) garages and parking areas
      c) driveways
      d) paved surfaces, such as walking paths
      e) patios, decks and similar structures
      f) utility and storm water improvements
      g) yard landscaping
      h) retaining walls and rockeries

e. A description of protective measures that will be undertaken, such as siltation curtains, compost berms and other siltation prevention measures, and scheduling the construction activity, to avoid interference with wildlife and fisheries rearing, nesting or spawning activities;

f. An analysis of the impact that the proposed development would have on the critical area and the critical area buffer;

g. How the proposal mitigates for impacts to the critical areas and buffers;

h. How the proposal minimizes to the greatest extent possible net loss of critical area functions;

i. Whether the improvement is located away from the critical area and the critical area buffer to the greatest extent possible; and

j. Such other information or studies as the Planning Official may reasonably require.

5. Decisional Criteria: For purposes of this section, "site" means the area of disturbance on the subject property, on abutting lots, and/or within the right of way. The City shall approve applications for reasonable use exceptions only if all of the following criteria are met:

a. The following land uses may be proposed with a reasonable use exception:
   1) Residential zones - one (1) single family dwelling
   2) Commercial or Office zones:
      a) An office use, except veterinary offices with outdoor facilities, and
      b) A limited retail establishment, excluding restaurants and taverns, gas stations, vehicle or boat sales, service or repair, car washes, drive-thru, outdoor seating area and storage. In order to limit disturbance and impacts to the critical area and buffer these uses shall:
         (1) Locate parking on the opposite side of the building from the critical area and
         (2) Limit hours of operation to between 8:00 a.m. and 11:00 p.m.

b. There is no feasible alternative to the proposed activities and uses on the subject property, including reduction in size, density or intensity, phasing of project implementation, change in timing of activities, revision of road and lot layout, and/or related site planning considerations that would allow a reasonable economic use with less adverse impacts to the critical area and buffer;

c. Unless the applicant can demonstrate unique circumstances related to the subject property, the amount of site area that will be disturbed by structure placement and all land alteration associated with the proposed development activity, including but not limited to land surface modification, utility installation, decks, driveways, paved areas, and landscaping, shall not exceed the following limits:

   1) If the subject property contains 6,000 square feet of area or less, no more than 50 percent of the site may be disturbed.
   2) If the subject property contains more than 6,000 square feet but less than 30,000 square feet, no more than 3,000 square feet may be disturbed.
   3) For the subject property containing 30,000 square feet or more, the maximum allowable site disturbance shall be between 3,000 square feet and 10 percent of the lot area, to be determined by the City on a case-by-case basis.
   4) The amount of allowable disturbance shall be that which will have the least impact on the critical area and the critical area buffer given the characteristics and context of the subject property, critical area, and buffer.
   5) Public improvements within the right-of-way required by Chapter 110 KZC, (for example required curb, gutter and sidewalk improvements), are not counted in the maximum allowable area of site disturbance. The City shall allow or require modifications to the public improvement standards that minimize the impact to the critical area and buffer and any impacts associated with required public improvements shall be mitigated by the applicant.

6) The portion of a driveway located within an improved right-of-way is not counted in the maximum allowable area of site disturbance. However, a driveway or any other private improvement located in an unimproved right-of-way shall be counted in the maximum allowable area of site disturbance. See subsection 6.a.2 below for modification to calculating on-site driveways.

The applicant shall pay for a qualified critical area professional, approved by the City, to assist with the City's determination of the appropriate limit for disturbance.

d. The proposal is compatible in design, scale and use with other legally established development in the immediate vicinity of the subject property in the same zone and with similar critical area site constraints.

e. The proposal utilizes to the maximum extent possible innovative construction, design, and development techniques that minimize to the greatest extent possible net loss of critical area functions and values, including pin construction, vegetated roofs, and pervious surfaces;

f. The proposed development does not pose an unacceptable threat to the public health, safety, or welfare on or off the subject property.

g. The proposal meets the mitigation, maintenance, and monitoring requirements of this chapter.

h. The proposed development is on a lot meeting the criteria of KZC 115.80 Legal Building Site.

i. The inability to derive reasonable use is not the result of the applicant's actions or that of previous property owners, such as by altering lot lines pursuant to Chapter 22 KMC that results in an undevelopable condition; and

j. The granting of the exception will not confer on the applicant any special privilege that is denied by this chapter to other lands, buildings, or structures under similar circumstances.

6. Modifications and Conditions: The City shall include any conditions and restrictions in the written decision that the City determines are necessary to eliminate or minimize any undesirable effects of approving the proposal. To provide reasonable use of the subject property and reduce the impact on the critical area and critical area buffer, the Planning Director pursuant to a Process I under Chapter 145 KZC is authorized to approve the following modifications:

a. Residential.

1) Where the applicant demonstrates that the residential development cannot meet the City's code requirements without encroaching into the critical area or critical area buffer:

a) The required front yard may be reduced by up to 50 percent provided that a minimum of 18.5-foot-long parking pad between the structure and the lot line is provided; and
b) The required side and rear yards may be reduced to 5 feet in width.

2) The portion of a driveway exceeding 30 feet in length may be exempt from the calculation of the permitted disturbance area, provided that the driveway length is the minimum necessary to provide access to the building.

3) The structure setback from a critical area buffer pursuant to KZC 90.140 may be reduced to 5 feet in width, provided that those improvements allowed in this area are limited to:

a) Chimneys, bay windows, greenhouse windows, eaves, cornices, awnings and canopies, and decks above the ground floor extending no more than 18 inches into the structure setback;
b) Benches, walkways, paths and pedestrian bridges extending no more than 4 feet into the structure setback;
c) Garden sculpture, light fixtures, trellises and similar decorative structures extending no more than 4 feet in width into structure setback; and
d) Non-native and native landscaping.

4) The garage width requirements of KZC 115.43 for detached dwelling units in low-density zones may be waived.

5) The maximum height of structures may be increased up to 5 feet if needed to reduce the slope a driveway to a structure based on existing grade. The applicant must demonstrate that the additional height is needed to reduce the steepness of the slope and no other option is available.

b. Commercial.

Where the applicant demonstrates that the commercial development cannot meet the City's code requirements without encroaching into the critical area or critical area buffer:

1) The required front yard may be reduced by up to 50%.

2) The structure setback from a critical area buffer may be reduced by 5 feet in width, provided that those improvements allowed in this area are limited to:
   a) Chimneys, bay windows, eaves, cornices, awnings and canopies;
   b) Benches, walkways, paths and pedestrian bridges extending no more than 4 feet into the structure setback;
   c) Light fixtures, trellises and similar decorative structures extending no more than 4 feet into the structure setback; and
   d) Non-native and native landscaping.

3) The maximum height of structures may be increased up to 5 feet if needed to reduce the slope of a driveway to a structure based on existing grade. The applicant must demonstrate that the additional height is needed to reduce the steepness of the slope and no other option is available.

4) The portion of a driveway exceeding 30 feet in length may be exempt from the calculation of the permitted site disturbance area, provided that the driveway length is the minimum necessary to provide access to the building.

7. Lapse of Approval.

a. The reasonable use exception approval expires and is void if the applicant fails to file a complete building permit application within five (5) years of the final decision granting or approving the exception. However, in the event judicial review is initiated per KZC 145.110, the running of the five (5) years is tolled for any period of time during which a court order in said judicial review proceeding prohibits the required development activity, use of land, or other actions. "Final decision" means the final decision of the Planning Director; and

b. The applicant must substantially complete construction for the development activity, use of land, or other actions approved under this chapter and complete the applicable conditions listed on the notice of decision within seven (7) years after the final approval on the matter, or the decision becomes void.

8. Complete Compliance Required.

a. General. Except as specified in subsection 8.b below of this section, the applicant must comply with all aspects, including conditions and restrictions, of an approval granted under this chapter in order to construct the improvements authorized by the approval.

b. Exception: Subsequent Modification. The Planning Official may approve a subsequent modification to a specific use and site plan that has been approved through the reasonable use exception, provided the change meets the standards of this chapter. Otherwise, the applicant is required to apply for and obtain approval through a Process I pursuant to Chapter 145 KZC for a new reasonable use exception.

90.185 Nonconformances

1. General Provisions for Nonconforming Structures and Improvements in Critical Areas or Buffer.
The following general provisions apply to properties that contain nonconformances due to the existence of buffers and/or critical areas, until such times as redevelopment of the property is proposed that meets the threshold in KZC 90.130:

a. Legally established structures and improvements may remain and be repaired and maintained. See KZC 90.35 and KZC 90.185.3;
b. New structure or improvements may not be added or expanded in the buffer and/or critical area, including those listed in KZC 90.140;
c. Legally established lawns may be mowed and maintained, but not expanded in the buffer and/critical area; and
d. Non-native vegetation may be maintained, but not expanded in the buffer and/or critical area.

2. Specified Requirements.
The following requirements for KZC 90.185.3 through KZC 90.185.6 must be met:

a. Any structures or improvements that are nonconforming because of the regulations in this chapter shall be regulated pursuant to the following provisions rather than the provisions of Chapter 162 KZC. However, nonconforming multifamily structures for density pursuant to KZC 162.35.12 and continued uses pursuant to KZC 162.55 shall be regulated under Chapter 162 KZC and shall not be eligible to use the provision in this section;
b. No disturbance to the critical area is permitted. Any disturbance to the critical area buffer as a result of development activity shall be the minimum necessary and all disturbed areas shall be restored to pre-existing condition;
c. Any existing native vegetation removed in the buffer as part of the disturbance shall be replaced with native vegetation at a 1:1 ratio;
d. The limits of disturbance and a replanting plan for disturbed areas, if applicable, shall be submitted as part of the building permit application;
e. Temporary construction fencing is required pursuant to KZC 90.190. The Planning Official shall determine the appropriate location of the fencing depending on the location of existing improvements in relationship to the critical area buffer;

f. Lawn and non-native landscaped areas shall not be expanded in the buffer area; and
g. All costs for review by a qualified critical area professional and the City's review, mitigation and restoration shall be at the expense of the applicant.

3. Maintenance and Repair of Nonconforming Structure.

a. A legal nonconforming structure may be maintained and repaired as an Exemption pursuant to KZC 90.35 of this chapter provided that the work does not increase the previously approved structure footprint or impervious area.
b. Multifamily structures in multifamily zones that are nonconforming for density may not increase the density as part of the work on the structure. See KZC 162.35.12.

4. Reconstruction of Existing Nonconforming Structures.

a. General Standards:
   1) If there is no increase in the structure footprint or impervious area, then the requirements of KZC 90.105 and KZC 90.110 for a critical area determination and report, KZC 90.130 for vegetative buffer, KZC 90.190 for critical area fencing and signage and KZC 90.210 for dedication of critical area and buffer are not required.
   2) Existing buffer fencing, native buffer vegetation and dedication of the critical area must be retained.

b. Detached Dwelling Units.
   1) An existing legally nonconforming building or detached garage may be reconstructed as repair, replacement or due to casualty damage such as a fire, provided that there is no expansion of the existing footprint, including decks or patios or other improvements, no increase of impervious surface, no expansion of exterior walls, including adding exterior walls below a cantilevered structure, and no increase in the nonconformity in any way, and reconstruction is built on the existing foundation;
   2) With the exception of a casualty damage, if a new foundation is to be built, the new foundation must be relocated outside of the critical area, its buffer and the structure setback to the greatest extent possible given other required yards, configuration of the subject property and existing improvements;
   3) For casualty damage, a structure may be reconstructed on the existing foundation, or a new foundation may be built in the same location or away from the critical area, but not closer to the critical area; and
   4) Additional upper floors may be added above the ground floor if they do not encroach into the critical area, its buffer or the structure setback any further than the exterior walls of the existing nonconforming structure.

c. All Other Uses:
   1) An existing legally nonconforming structure may be reconstructed as repair, reconstruction or due to a casualty damage such as a fire, provided that there is no expansion of the existing footprint or increase of impervious area, including decks, patios or other improvements, no expansion of exterior walls, including adding exterior walls below a cantilevered structure, no increase in the nonconformity in any way, and reconstruction is built on the existing foundation;
   2) Additional upper floors may be added above the ground floor if they do not encroach into the critical area, its buffer or the structure setback any further than the exterior walls of the existing nonconforming structure, and

3) If the cost of the reconstruction as a repair, replacement or due to a casualty damage, or for any upper floor additions exceeds 50 percent of the assessed or appraised value of that improvement, whichever is greater, the structure and improvements shall be brought into conformance.

d. In case of casualty damage, the following is required:
   1) A complete building permit application to rebuild a nonconforming structure must be submitted within two (2) years of the date of the damage or the nonconformance shall be considered to be terminated and shall not be replaced in its prior nonconforming location; and
   2) Rebuilding of the nonconforming structure shall be substantially complete within four (4) years of the date of the damage or the nonconformance shall be considered to be terminated and shall not be replaced in its prior nonconforming location; and
   3) Documentation showing the date of the damage, the location and dimensions of the damaged structure and cause of the damage shall be submitted to the Planning Official for review and confirmation.

5. <u>Expansion of Nonconforming Structure that does not Increase the Degree of Nonconformance</u>.

An existing, legally established nonconforming building may be expanded outside of a critical area, buffer or the building setback under the following standards and limitations:

a. Except as disallowed under KZC 90.185.3.b above for multifamily structures that are nonconforming for density, an expansion of a nonconforming structure that increases the footprint, impervious area or size of the structure, including new upper floors, is permitted if the expansion or any other change to the structure is outside of the critical area, critical area buffer, and structure setback;

b. If the existing structure footprint or impervious area is increased, the requirements of KZC 90.105 and KZC 90.110 for a critical area determination and report, KZC 90.130 for vegetative buffer, KZC 90.160 and KZC 90.165 for monitoring and maintenance and financial security, and KZC 90.210 for dedication of critical area and buffer shall be met.

c. If the existing structure footprint or impervious area is increased, the fencing and signage requirements of KZC 90.185.6.a.11 shall be met.

6. <u>Expansion of Nonconforming Building that Increases the Nonconformance.</u>

An existing, legally established nonconforming building may be expanded into a critical area buffer or the building setback under the following standards and limitations:

a. <u>General Standards for Any Expansion.</u>
   1) Expansion is only permitted for those buildings, that have not received City approval for a critical area or buffer modification allowed under this or a previous code or not received approval for a Reasonable Use Exception pursuant to KZC 90.180;
   2) A one (1)-time expansion of each option found in KZC 90.185.6.b. through 5.e. below is permitted on a subject property. No more than one expansion is permitted for each option. See Vegetative Buffer Standards in KZC 90.130.
   3) No expansion is permitted in a critical area buffer that is a fish and wildlife conservation area without an approved management plan pursuant to KZC 90.95;

4) A critical area determination, report and a survey pursuant to KZC 90.105 and KZC 90.110 are required if the wetland has not been rated and delineated pursuant to KZC 90.55 within the past five (5) years or the stream has not been classified or delineated pursuant to KZC 90.65;
5) The following non-conforming improvements are allowed without going through review under KZC 90.185.6. b. through e. below if a new or replacement foundation is not required:
   a) Upper floor additions are allowed above the ground floor of an existing nonconforming building if they do not encroach closer to the critical area buffer or structure setback from the buffer beyond the existing exterior walls;
   b) Existing carports and decks with roofs may be enclosed if the new exterior walls do not extend beyond the existing foundation or corner supports of the structure; and
   c) An interior open courtyard of an existing building may be enclosed if the courtyard is covered entirely with impervious material. See KZC 90.185.6.d. if the material is not entirely impervious.
6) Covering an existing deck with a roof or an existing pathway with a breezeway or similar improvements may be proposed using subsections b. through e. below;
7) Any commercial parking required for additions shall not be located in the critical area buffer;
8) Compensatory mitigation through buffer restoration shall be provided as follows:
   a) A native vegetative buffer at a minimum ratio of 1:1 (new footprint area is equal to or less than vegetative buffer area) shall be provided;
   b) If the new or expanded building footprint results in removal of a significant tree in a buffer, the tree shall be replaced with two (2) native trees in the buffer. The replacement tree shall be six (6) foot tall for a conifer and 2-inch caliper for deciduous or broadleaf. For a removed significant tree in a buffer that is 24" in diameter, the tree shall be replaced with three (3) native trees;
   c) The vegetative buffer shall be located along the edge of the critical area or as close to the critical area as possible if the critical area is located off-site;
   d) The vegetative buffer shall be 10 feet in depth and located across from the building expansion area;
   e) The buffer vegetative standards pursuant to KZC 90.130 shall be used as a guideline for the mitigation area; and
   f) The mitigation is in addition to revegetation of any disturbed area.
9) A mitigation planting plan, prepared by a qualified critical area professional approved by the City, shall be submitted for approval as part of the building permit. Prior to final inspection, replanting of any disturbed area and the mitigation planting shall be installed by the applicant and inspected by the City.
10) A performance and three-year maintenance and monitoring security shall be submitted with the building permit pursuant to KZC 90.165 for the mitigation plan;
11) Permanent critical area fencing and signage is required. Prior to issuance of a building permit, the Planning Official shall determine the location of the required critical area fencing and signage to be installed pursuant to KZC 90.190.
   a) The fencing shall be located at the edge of the buffer. However, if all or portions of the buffer is covered by legally established lawn, non-native vegetation and/or improvements, then the fencing shall be located at the boundary of that maintained area;
   b) If the critical area is off site and that maintained area extends to the property line, then the fencing shall be located at the property line; and
   c) Existing buffer fencing may need to be relocated to meet this provision.
12) A critical area covenant on a form approved by the City shall be recorded along with an as-built site plan showing the location of the approved expansion and mitigation vegetation in

the buffer to protect the vegetated portion of the buffer in perpetuity. A critical area dedication pursuant to KZC 90.210 is not required for the vegetated portion of the buffer; and

13) See Specific Requirements in KZC 90.185.2 above.

b. Expansion into Critical Area Buffer on Side of the Building Opposite of Critical Area.

1) The footprint of an existing building may be expanded into the critical area buffer on the side of the dwelling unit opposite of the critical area buffer up to a maximum of 1,000 square feet. The existing building must be between the addition and the critical area (see Chapter 180 KZC, Plate 26);
2) Only a one-time expansion of this option is permitted for the subject property. See KZC 90.185.6.a.2) above; and
3) See General Standards in KZC 90.185.6.a above for an expansion.

c. Expansion into Structure Setback from the Buffer.

1) The footprint of an existing building may be expanded into the structure setback up to a maximum of 500 square feet;
2) If an addition is located at the edge of the buffer, the portion of the buffer next to the side of the addition abutting the buffer is considered a structure setback from the buffer. Only necessary maintenance and repair of the addition are permitted in this portion of the structure setback. No improvements pursuant to KZC 90.140 are permitted in this portion of the structure setback;
3) Only a one-time expansion of this option is permitted for the subject property. See KZC 90.185.6.a.2) above; and
4) See General Standards in KZC 90.185.6.a above for a building expansion.

d. Expansion into Critical Area Buffer but No Closer than the Existing Building.

1) The footprint of an existing building may be expanded into the critical area buffer, but no closer than the edge of the existing building nearest to the critical area, up to maximum of 500 square feet (see Chapter 180 KZC, Plate 26);
2) An interior open courtyard of an existing building may be enclosed up to 500 square feet if the courtyard is covered partially or entirely with pervious material. This improvement can be done in conjunction with KZC 90.185.6.d.1) above if the total new imperious area of the expanded building does not exceed 500 square feet;
3) The minimum buffer width for the addition shall be 60% of the required buffer width standard pursuant to KZC 90.55 for wetlands and KZC 90.65 for streams;
4) Only a one-time expansion of this option is permitted for the subject property. See KZC 90.185.6.a.2) above; and
5) See General Standards in KZC 90.185.6.a above for a building expansion.

e. Expansion into Critical Area Buffer between the Building and the Critical Area.

1) The footprint of a building may be expanded into the critical area buffer between the building and the critical area up to maximum of 250 square feet (see Chapter 180 KZC, Plate 26);
2) The new footprint must be attached to the original building and not to any subsequent footprint addition under KZC 90.185.5.e;
3) The minimum buffer width for the addition shall be 60% of the required buffer width standard pursuant to KZC 90.55 for wetlands and KZC 90.65 for streams;
4) Only a one-time expansion of this option is permitted for the subject property. See KZC 90.185.6.a.2) above; and
5) See General Standards in KZC 90.185.6.a above for a building expansion.

90.190 Critical Area Markers, Fencing and Signage

1. Survey Stakes. Permanent survey stakes delineating the boundary of the critical area buffer shall be set, using iron or concrete markers as established by current survey standards. For public projects, alternative survey stakes may be approved by the Planning Official, such as flexible delineator posts.

2. Construction Fencing.
   a. Prior to commencement of any grading or other development activities on the subject property, a 6-foot-high construction chain link fence with silt fencing must be installed along the entire edge of the buffer;
   b. The fence may not be located in the critical area buffer, except see Non-conformance section pursuant to KZC 90.185.2;
   c. The Planning Official shall inspect the fence prior to commencement of any work;
   d. The fence must remain in place until completion of the project and not be removed at any time other than as authorized by the Planning Official;
   e. The location of construction fencing for Nonconformances shall be on a case by case basis as determined by the Planning Official; and
   f. The location of construction fencing for public agency and utilities activities, improvements or uses shall be determined on a case-by-case basis by the Planning Official.

3. Permanent Fencing.
   a. Except as specified in subsections 3.b through 3.d of this section, upon completion of the project:
      1) A permanent split rail, open slatted with at least 18 inches between each slat, wrought iron, chain link, or similar non-solid fence between three (3) and six (6) feet in height must be installed along the entire edge of the buffer;
      2) Solid fencing is not permitted;
      3) Except for split rail, a gate is required for pedestrian access to the buffer;
      4) The fence may not be located in the critical area buffer, except for properties containing nonconformances pursuant to KZC 90.185.6.a.11;
      5) The Planning Official shall inspect the fence prior to final inspection; and
      6) The fence must be maintained and remain in perpetuity.

   b. Except for utility substations, permanent fencing is not required for public or private utility activities or uses occurring in utility corridors, public rights-of-way, the Cross Kirkland Corridor or the Eastside Rail Corridor.

   c. The location of permanent fencing for public agency activities, improvements or uses shall be determined on a case-by-case basis by the Planning Official.

   d. The location of fencing for Nonconformances shall be determined on a case by case by the Planning Official. See KZC 90.185.

4. Permanent Signage.

   a. Upon completion of the project, permanent signage shall be attached to the fence stating that the protected critical area and buffer must not be disturbed other than necessary for maintenance of vegetation;
   b. The signs must be maintained and remain in perpetuity;
   c. Signage shall meet the administrative standards of the Planning and Building Department for design, number and location;
   d. The location of signage for public agency activities or uses shall be determined by the Planning

Official on a case-by-case basis;

e. Signage for Nonconformances shall be determined on a case-by-case basis by the Planning Official. See KZC 90.185; and
f. The Planning Official shall inspect the signage prior to final inspection.

90.195 Pesticide and Herbicide Use

Application of pesticides, herbicides, or fertilizers and irrigation practices for residential, commercial and institutional uses shall follow the Best Management Practices (BMP) for landscaping activities and vegetation management in the King County Stormwater Pollution Prevention Manual, as amended. These practices include:

1. Never apply pesticides and fertilizers if it is raining or about to rain;
2. Do not apply pesticides within 100 feet of surface waters, such as lakes, ponds, wetlands, streams and stormwater conveyance ditches unless approved and permitted by the Washington State Department of Ecology;
3. Determine the proper fertilizer application for the types of soil and vegetation involved. Follow manufacturers' recommendations and label directions;
4. Clean up after spills immediately;
5. Use mulch or other erosion control measures when soils are exposed for more than one week during the dry season or two days during the rainy season;
6. Ensure sprinkler systems do not spray beyond vegetated areas resulting in the excess water discharging into the storm drain system; and
7. Use of hazardous substances, pesticides and fertilizers in a critical area containing a fish and wildlife habitat conservation area must follow state and City standards.

90.200 Critical Area Buffer and Structure Setback from Buffer Under Prior Approvals

1. If, subsequent to October 2, 1982 (the adoption date of first Chapter 90 KZC), the City approved a zoning permit through a Planning Official decision, Processes I, II, IIA, or IIB, and/or a subdivision or short subdivision for the subject property, and that zoning permit or subdivision or short subdivision approval established critical area buffers and/or structure setbacks on the subject property from a stream or wetland that were allowed under the KZC at the time of approval, then those setbacks and/or buffers shall apply so long as the zoning permit or subdivision or short subdivision approval is valid and the permit or subdivision or short subdivision has not lapsed pursuant to the applicable lapse of approval standards. All further development activity and construction on the subject property shall comply with the provisions of this chapter.

2. All provisions of this chapter that do not conflict with the structure setback and/or buffer requirements set forth in Section 1 of this provision shall fully apply to the subject property.

90.205 Code Enforcement

Violations shall be subject to the City's code enforcement procedures and penalties under Chapter 1.12 KMC. In addition to any enforcement action or determinations pursuant to KMC 1.12, enforcement for critical area violations shall meet the following requirements:

1. Unauthorized development activity, use, land surface modification or other disturbances to a critical area or buffer shall cease immediately. All disturbances shall be rectified and restored consistent with an approved correction plan;
2. A correction plan, prepared by a qualified critical area professional approved by the City, must be

submitted to the City within 30 calendar days of the enforcement notice from the City in conformance with this chapter unless otherwise approved by the City;

3. The correction plan shall include:
   a. Site plan drawn to scale;
   b. Location of the sensitive area and buffer;
   c. Affected area;
   d. A restoration plan that includes a planting plan that meets the requirements for a vegetative buffer in KZC 90.130 if the disturbance occurred in the buffer. If the disturbance occurred in a stream or wetland, the restoration plan must propose appropriate restoration based on the type of wetland or stream;
   e. The Planning Official may require a critical area report pursuant to KZC 90.110, funded by the property owner, or at a minimum a wetland delineation of the disturbed wetland, classification of a stream if it cannot be determined by the City, boundary of the critical area buffer and a survey depending on the extent and nature of the disturbance; and
   f. The critical area report shall make recommendations on a correction plan. The City may require the applicant to fund City peer review of the correction plan depending on the nature and extent of disturbance.
4. The Planning Official shall review and approve the correction plan based on the regulations in this chapter and inspect the restoration after installation. The City may require the applicant to fund City peer review to inspect the restoration plan depending on the nature and extent of disturbance;
5. The applicant shall pay the City's cost for the enforcement, including review of the plan and do the inspection;
6. The City may require a monitoring and maintenance plan for approval by the Planning Official pursuant to KZC 90.160 depending on the nature and extent of the disturbance;
7. The City may require a performance and maintenance/monitoring financial security for restoration depending on the nature and scope of the disturbance. If a security is required, the security shall be on a form and in an amount determined by the Planning Official. See KZC 90.165;
8. The correction work shall be completed within 60 calendar days from the date of the enforcement notice, unless otherwise specifically approved by the Planning Official;
9. The requirements for a critical area dedication must be met pursuant to KZC 90.210; and
10. For repeat violators, the City is authorized to require monitoring and maintenance to extend beyond requirements of KZC 90.160 and funded by the violator.

90.210 Dedication and Maintenance of Critical Area and Buffer

1. <u>Dedication</u>.

   a. Consistent with law, the applicant shall dedicate development rights, air space, or grant a greenbelt protection or open space easement to the City to protect sensitive areas and their buffers;
   b. Land survey information shall be provided by the applicant for this purpose in a format approved by the Planning Official;
   c. The applicant shall record the dedication with the King County Recorder's Office as part of a subdivision recording or prior to issuance of a final inspection for all other developments; and
   d. The applicant shall provide proof of title ownership for the wetlands and buffers, including any compensatory mitigation areas; and
   e. If the applicant does not hold title ownership to the mitigation site, proof of perpetual right to locate the mitigation on the subject property shall be provided.

2. Critical Area Boundaries Subject to Change. Critical area categories, ratings, classifications and boundaries are subject to change due to amendments to this chapter and/or physical changes to the subject property or vicinity. Subsequent development on a subject property may require a change in the boundary of critical area tract or easement.

3. Removal or Modification of Dedication.

   a. The Planning Director may authorize removal or modification to a recorded critical area dedication, provided that removal or modification does not conflict with any requirement of this chapter or prior approval;
   b. The applicant shall submit a request in writing along with documentation as to why the dedication should be removed or modified and how the change is consistent with this chapter, along with any required review fee; and
   c. If the removal or modification is approved, the applicant shall record a document with King County Recorder's Office revising the dedication.

4. Maintenance of Critical Area and Buffer.

   In critical areas and their buffers, native vegetation shall not to be removed without prior City approval. It is the responsibility of the property owner to maintain critical areas and their buffers by removing nonnative, invasive, and noxious plants in a manner that will not harm critical areas or their buffers.

90.215 LIABILITY

Prior to issuance of a land surface modification permit or a building permit, whichever is issued first, the applicant shall enter into an agreement with the City that runs with the property, in a form acceptable to the City Attorney, indemnifying the City from any claims, actions, liability and damages to critical areas arising out of development activity on the subject property. The applicant shall record the agreement with the King County Recorder's Office.

90.220 APPEALS

Any decision made by the Planning Official or Planning Director pursuant to this chapter may be appealed using, except as stated below, the applicable appeal provisions of Chapter 145 KZC. If a proposed development activity requires approval through Process IIA or IIB (as described in Chapters 150 and 152 KZC, respectively), any appeal of a classification, determination, or decision shall be heard as part of that other process.

90.225 LAPSE OF APPROVAL

Any decision made by the Planning Official and Planning Director authorized by this chapter shall be subject to the lapse of approval provisions of KZC 145.115.

MINOR CODE AMENDMENTS IMPLEMENTATING CHAPTER 90 KZC

A. Kirkland Zoning Code

Chapter 1 – User Guide

Section 1.05. How to Use this Code

No change to 1-21.

22. Streams, Lakes, Wetlands – Does the subject property contain or is this property close to a stream; either above ground or in a culvert flowing surface water; lake other than Lake Washington; or a wetland? If so, see Chapter 90 KZC, Critical Areas – Wetlands, Streams, Minor Lakes, Fish and Wildlife Habitat Conservation Areas and Frequently Flooded Areas ~~Drainage Basins~~.

Chapter 5 – DEFINITIONS

Sections:

5.05 User Guide

5.10 Definitions

5.05 User Guide

The definitions in this chapter apply for this code. Also see definitions contained in Chapter 83 KZC for shoreline management, Chapter 90 KZC for critical areas – wetlands, streams, minor lakes, fish and wildlife habitat conservation areas and frequently flooded areas~~drainage basins~~, Chapter 95 KZC for tree management and required landscaping, and Chapter 113 KZC for cottage, carriage and two/three-unit homes that are applicable to those chapters. 5.05.326

5.10 Definitions

Delete the following existing definitions:

~~5.10.282 **Environmentally Sensitive Areas Maps (ESA) -** As defined in Chapter 90 KZC~~

~~5.10.283 **Environmentally Sensitive Area Buffer -** As defined in Chapter 90 KZC~~

~~5.10.530 **Minor Lake-** As defined in Chapter 90KZC~~

~~5.10.535 **Minor Stream-** Any stream that does not meet the definition of major stream.~~

~~5.10.854 **Significant Habitat Area** - As defined in Chapter 90 KZC~~

~~5.10.932 **Type I Wetlands** - As defined in Chapter 90 KZC~~

~~5.10.933 **Type II Wetlands** As defined in Chapter 90 KZC~~

Revise the following existing definition:

5.10.326 -Frequently Flooded Areas – For properties within the jurisdiction of the Shoreline Management Act, see Chapter 83 KZC. Otherwise; ~~as defined in Chapter 90 KZC~~ all areas shown on the Kirkland ~~sensitive~~ critical area~~s~~ maps and as noted on effective FEMA maps as being within a 100-year floodplain, as well as all areas of special flood hazard regulated by Chapter 21.56 KMC.

5.10.529-**Minor Improvements –** ~~As defined in Chapter 90KZC~~ Private ~~W~~walkways, pedestrian bridges, benches, and similar features, as determined by the Planning Official~~, pursuant to KZC 90.45(5) and 90.90(5)~~.

5.10.823 **Salmonid** – ~~As defined in Chapter 90KZC~~ A member of the fish family salmonidae, which include chinook, coho, chum, sockeye, and pink salmon; rainbow, steelhead, and cutthroat trout; brown trout; brook and dolly varden char, kokenee, and white fish.

5.10.895 **Stream**- For properties within the jurisdiction of the Shoreline Management Act, see Chapter 83 KZC. Otherwise; ~~as defined in Chapter 90KZC~~ ~~A~~areas where surface waters produce a defined channel or bed that demonstrates clear evidence of the passage of water, including but not limited to bedrock channels, gravel beds, sand and silt beds, and defined-channel swales. The channel or bed need not contain water year- round, provided there is evidence of a least intermittent flow during years of normal rainfall. Streams do not include irrigation ditches, canals, storm or surface water runoff devices, or other entirely artificial watercourses, unless they are used by salmonids or convey a naturally occurring stream that has been diverted into the artificial channel, or are created for the purposes of stream mitigation.

5.10.950 Urban Separator

Areas planned for permanent low density residential within the Urban Growth Area that protect adjacent resource land, ~~environmentally sensitive~~ critical areas, or rural areas, and create open space corridors within and between the urban areas which provide environmental, visual, recreational and wildlife benefits. The King County Countywide Planning Policies have designated the RSA 1 zone as an urban separator.

5.10.985 **Wetland** For properties within jurisdiction of the Shoreline Management Act, see Chapter 83 KZC. Otherwise~~, as defined in Chapter 90 KZC~~ **Wetland**" or "wetlands" means areas that are inundated or saturated by surface water 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, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. Wetlands may include those artificial wetlands intentionally created from non-wetland areas created to mitigate conversion of wetlands. (RCW 36.70A.030)

Add the following new definitions:

Area of Permanent Disturbance: Portion of a critical area or its buffer where the ground surface or vegetation has been legally altered as part of a development action other than a mitigation area.

Best Available Science – Current scientific information used in the process to designate, protect, or restore critical areas; that is, derived from a valid scientific process as defined by WAC 365-195-900 through 925, as amended.

Best Management Practices (BMPs) - Conservation practices or systems of practices and management measures that:

(a) Control soil loss and reduce water quality degradation caused by high concentrations of nutrients, animal waste, toxins, or sediment;

(b) Minimize adverse impacts to surface water and ground water flow and circulation patterns and to the chemical, physical and biological characteristics of critical areas;

(c) Protect trees, vegetation, and soils designated to be retained during and following site construction and native plant species appropriate to the site for re-vegetation of disturbed areas; and

(d) Provide standards for proper use of chemical herbicides within critical areas.

Bog – A low-nutrient, acidic peat wetland with organic soils and characteristic bog plants.

Critical Areas – Critical areas include the following areas: (a) wetlands; (b) critical aquifer recharge areas; (c) fish and wildlife habitat conservation areas; (d) frequently flooded areas; and (e) geologically hazardous areas, as defined in RCW 36.70A and this Chapter.

Critical Area Buffer – The area contiguous to a critical area that maintains the functions and/or structural stability of the critical area.

Critical Area Maps – Maps contained in the Kirkland Comprehensive Plan; specifically Geologically Hazardous Areas Map for Chapter 85 KZC, and Wetlands, Streams and Lakes Map for Chapter 90 KZC

Critical Area Restoration – Measures taken to restore an altered or damaged natural feature, including:

(a) Active steps taken to restore damaged wetlands, streams, protected habitat, or their buffers to the functioning condition that existed prior to an unauthorized alteration; and

(b) Actions performed to re-establish structural and functional characteristics of a critical area that have been lost by alteration, past management activities, catastrophic events, or introduction of invasive species.

Compensatory Wetland Mitigation – Means restoration (re-establishment or rehabilitation), creation (establishment), enhancement, and in certain circumstances, preservation for the purposes of offsetting unavoidable adverse impacts after all appropriate and practical avoidance and minimization of wetland impacts has been achieved.

Emergent Wetland – A wetland with at least 30 percent of the surface area covered by erect, rooted, herbaceous vegetation as the uppermost vegetative strata.

Fish and Wildlife Habitat Conservation Area – Areas necessary for maintaining species in suitable habitats within their natural geographic distribution so that isolated subpopulations are not created. These areas include:
(a). Areas with which state or federally designated endangered, threatened, and sensitive species have a primary association;
(b). Areas with which species of local importance have a primary association;

(c). Naturally occurring ponds under 20 acres and their submerged aquatic beds that provide fish or wildlife habitat, including those artificial ponds intentionally created from dry areas in order to mitigate impacts to ponds;
(d). Waters of the state, including lakes, rivers, ponds, streams, inland waters, underground waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington.

Footprint – The area on a project site that is used by the building or structure and is defined by the perimeter of the building or structure.

Forested Wetland – A wetland defined by the Cowardin System with at least 30 percent of the surface area covered by woody vegetation greater than 20 feet in height that is a least partially rooted in the wetland.

Functions and Values – The services provided by critical areas to society, including, but not limited to, improving and maintaining water quality, providing fish and wildlife habitat, supporting terrestrial and aquatic food chains, reducing flooding and erosive flows, wave attenuation, historical or archaeological importance, educational opportunities, and recreation.

Growing Season –Growing season, for the purposes of these regulations, may be considered the period from March 1st through October 31st of any calendar year.

Impervious Surface – For properties within the jurisdiction of the Shoreline Management Act, see Chapter 83 KZC. Otherwise; impervious surface is a placed, created, constructed or compacted hard surface area which either prevents or retards the entry of water into the soil mantle as under natural conditions prior to development. A non-vegetated surface area which causes water to run off the surface in greater quantities or at an increased rate of flow from the flow present under pre-development conditions. Common impervious surfaces include, but are not limited to, roof tops, walkways, patios, driveways, parking lots or storage areas, concrete or asphalt paving, gravel roads, packed earthen materials, and oiled, macadam materials or other surfaces which similarly impede the natural infiltration of surface water or stormwater. Impervious Surfaces do not include pervious surfaces as defined in this Code.

In-Kind Compensation or Mitigation – To replace critical areas with substitute areas whose characteristics and functions closely approximate those destroyed or degraded by a regulated activity.

Isolated Wetland – A wetland that is hydrologically isolated from other aquatic resources, or as determined by the United States Army Corps of Engineers (USACE).

Minor Lake – Forbes Lake and Totem Lake

Mitigation – A sequence of measures to avoid, minimize and mitigate for impacts, as follows:

a. Avoid the impact altogether by not taking a certain action or parts of actions;
b. Minimize impacts by limiting the degree or magnitude of the action and its implementation;
c. Rectify the impact by repairing, rehabilitating, or restoring the affected environment;
d. Reduce or eliminating the impact over time by preservation and maintenance operations during the life of the action;
e. Compensate for the impact by replacing or providing substitute resources or environments; and/or
f. Monitor the impacts and compensation projects and taking appropriate corrective measures.

Mitigation Service Area – The geographic area within which impacts can be mitigated at a specific mitigation bank or an in-lieu-fee program, as designated in its instrument.

Monitoring – Evaluating the impacts of development proposals on the biological, hydrological, and geological elements of such systems, and assessing the performance of required mitigation measures through the collection and analysis of data by various methods for the purpose of understanding and documenting changes in natural ecosystems and features. Monitoring includes gathering baseline data.

Native Vegetation – Vegetation comprised of plant species, other than noxious weeds, that are indigenous to the coastal region of the Pacific Northwest and which reasonably could have been expected to naturally occur on the site.

Off-Site Compensation – To replace critical areas away from the site on which a critical area has been impacted.

On-Site Compensation – To replace critical areas at or adjacent to the site on which a critical area has been impacted.

Ordinary High Water Mark – For properties within the jurisdiction of the Shoreline Management Act, see Chapter 83 KZC. Otherwise; the mark that will be found on all lakes and streams by examining the bed and banks and ascertaining where the presence and action of waters are so common and usual, and so long continued in all ordinary years, as to mark upon the soil a character distinct from that of the abutting upland, in respect to vegetation, as that condition exists on June 1, 1971, as it may naturally change thereafter, or as it may change thereafter in accordance with permits issued by a local government or the Department of Ecology; provided, that in any area where the OHWM cannot be found, the OHWM adjoining fresh water shall be the line of mean high water, or as amended by the state. For Lake Washington, the OHWM corresponds with a lake elevation of 18.5 feet, based on the NAVD 88 datum.

Out-of-Kind Wetland Compensation or Mitigation – To replace wetland or habitat with substitute wetlands or habitat whose characteristics do not closely approximate those adversely affected, destroyed, or degraded by a regulated activity.

Pervious Surface – For properties within the jurisdiction of the Shoreline Management Act, see Chapter 83 KZC. Otherwise, as opposed to impervious surfaces, these are surfaces that allow water to infiltrate into the ground. Pervious surfaces include, pervious paving, lawn, landscaping, bare ground, wood chips, pasture and native vegetation areas. For the purposes of compliance with stormwater development regulations, impervious and pervious surfaces are defined pursuant to KMC 15.52.

Public Agency - Any agency, political subdivision or unit of government including, but not limited to, municipal corporations, special purpose districts and local service districts, any agency of the State of Washington, the United States or any state thereof or any Indian tribe recognized as such by the federal government.

Qualified Critical Area Professional – A qualified professional for critical areas shall have a minimum of 5 years of experience in the pertinent scientific discipline and experience in preparing critical area reports. A qualified critical area professional must have obtained a Bachelor's degree in biology, engineering, geology, environmental studies, fisheries, geomorphology, or a related field. The planning official may require professionals to demonstrate the basis for qualifications and shall make the final determination as to qualifications. A qualified professional must meet the following specific professional requirements, dependent upon the type of critical area on the subject property:

A. Wetlands and streams qualified professional:
   1. Shall be certified as a Professional Wetland Scientist; and

2. Have at least five years of full-time work experience delineating wetlands using the state or federal manuals, preparing wetland reports, conducting function assessments, and developing and implementing mitigation plans; and

B. Fish and Wildlife Habitat Conservation Areas qualified professional: A professional biologist, with a degree in biology or a related degree, with experience preparing reports for the relevant type of species.

C. Geologically Hazardous Area qualified professional: A professional engineer, geologist or hydrogeologist, licensed in the state of Washington, with experience analyzing geologic, hydrologic, and groundwater flow systems, and who has experience preparing reports for the relevant type of hazard.

Repair and Maintenance –An activity that restores the character, scope, size, and design of a structure to its previously authorized and undamaged condition. Activities that drain, dredge, fill, flood, or otherwise alter critical areas are not included in this definition. Examples of repair and maintenance include painting; replacement of siding, windows, or roofing; changing doors to windows and windows to doors, but not including reconstruction or replacement of the entire structure, including exterior bearing walls.

Scrub-shrub wetland – A wetland with at least 30 percent of its surface area covered by woody vegetation less than 20 feet in height as the uppermost strata.

Species – Any group of animals or plants classified as a species as commonly accepted by the scientific community.

Species of Local Importance – Those species of local concern designated by the City in Chapter 90.95.8 due to their population status or their sensitivity to habitat manipulation.

Species, Listed -- Any species listed under the federal Endangered Species Act or state endangered, threatened, and sensitive, or priority lists (see WAC 232-12-297 or "Priority Habitat and Species List," Washington Department of Fish and Wildlife, as revised).

Storm Water Dispersion Device –devices that disperse storm water, such as flow spreaders and rock pads

Storm Water Dispersion Flow Path – The route that storm water runoff follows after release from a storm water dispersion device. The route is designed to disperse water over a vegetated substrate.

Stream Channel Stabilization - Actions to stabilize a steam bank to prevent or limit erosion or risk of slope failure.

Stream Types –

1. Type F: means segments of natural waters, which are within the bankfull widths of defined channels and periodically inundated areas of their associated wetlands, or within lakes, ponds, or impoundments having a surface area of 0.5 acre or greater at seasonal low water and which contain fish habitat pursuant to WAC 222-16-030, as amended.
2. Type Np: means all segments of natural waters within the bankfull width of defined channels that are perennial nonfish habitat streams. Perennial streams are flowing waters that do not go dry any time of a year of normal rainfall and include the intermittent dry portions of the perennial channel below the uppermost point of perennial flow pursuant to WAC 222-16-030, as amended.
3. Type Ns: means all segments of natural waters within the bankfull width of the defined channels that are not Type F, or Np Waters. These are seasonal, nonfish habitat streams in which surface

flow is not present for at least some portion of a year of normal rainfall and are not located downstream from any stream reach that is a Type Np Water. Ns Waters must be physically connected by an above-ground channel system to Type F, or Np Waters pursuant to WAC 222-16-030, as amended.

Street Shoulder - The portion of the street outside the edge of the asphalt or concrete traveled way that was installed to provide lateral support for the street. The material typically found in a shoulder consists of gravel, pit run, gravel borrow, and other material that can be installed and compacted to support a road or sidewalk.

Structure Setback – A minimum required distance from a designated or modified critical area buffer within which no above ground structures may be constructed, except as provided in Chapter 90.

Upland - For properties within the jurisdiction of the Shoreline Management Act, see Chapter 83 KZC. Otherwise; generally described as the dry land area above and landward of the OHWM, but not including wetlands.

Watershed – For properties within the jurisdiction of the Shoreline Management Act, see Chapter 83 KZC. Otherwise, a region or area bounded on the periphery by a parting of water and draining to a particular watercourse or body of water.

Wetland Category or **Wetland Rating–** For properties within the jurisdiction of the Shoreline Management Act, see Chapter 83 KZC. Otherwise; the classification of wetlands according to the Washington State Wetland Rating System for Western Washington (Department of Ecology 2014, or as revised). This document contains the definitions, methods and a rating form for determining the categorization of wetlands below:

A. Category I. Category I wetlands are: (1) relatively undisturbed estuarine wetlands larger than 1 acre; (2) wetlands of high conservation value that are identified by scientists of the Washington Natural Heritage Program/DNR; (3) bogs; (4) mature and old-growth forested wetlands larger than 1 acre; (5) wetlands in coastal lagoons; (6) interdunal wetlands that score 8 or 9 habitat points and are larger than 1 acre; and (7) wetlands that perform many functions well (scoring 23 points or more). These wetlands: (1) represent unique or rare wetland types; (2) are more sensitive to disturbance than most wetlands; (3) are relatively undisturbed and contain ecological attributes that are impossible to replace within a human lifetime; or (4) provide a high level of functions.

B. Category II. Category II wetlands are: (1) estuarine wetlands smaller than 1 acre, or disturbed estuarine wetlands larger than 1 acre; (2) interdunal wetlands larger than 1 acre or those found in a mosaic of wetlands; or (3) wetlands with a moderately high level of functions (scoring between 20-22 points).

C. Category III. Category III wetlands are: (1) wetlands with a moderate level of functions (scoring between 16 and 19 points); (2) can often be adequately replaced with a well-planned mitigation project; and (3) interdunal wetlands between 0.1 and 1 acre. Wetlands scoring between 16 and 19 points generally have been disturbed in some ways and are often less diverse or more isolated from other natural resources in the landscape than Category II wetlands.

D. Category IV. Category IV wetlands have the lowest levels of functions (scoring fewer than 16 points) and are often heavily disturbed. These are wetlands that we should be able to replace, or in some cases to improve. However, experience has shown that replacement cannot be guaranteed in any specific case. These wetlands may provide some important functions, and should be protected to some degree.

Wetland Creation – The manipulation of the physical, chemical, or biological characteristics to develop a wetland on an upland or deepwater site where a wetland did not previously exist.

Wetland Enhancement – The manipulation of the physical, chemical, or biological characteristics of a wetland to heighten, intensify, or improve specific function(s) or to change the growth stage or composition of the vegetation present.

Wetland Field Data Form – The Wetland Rating form which is used to classify wetlands according to the Washington State Wetland Rating System for Western Washington.

Wetland In-Lieu-Fee Program – An agreement between a regulatory agency (state, federal, or local) and a single sponsor, generally a public natural resource agency or non-profit organization. Under an in-lieu-fee agreement, the mitigation sponsor collects funds from an individual or a number of individuals who are required to conduct compensatory mitigation required under a wetland regulatory program. The sponsor pools from multiple permittees to create one or a number of sites under the authority of the agreement to satisfy the permittees' required mitigation.

Wetland Mitigation Bank – A site where wetlands are restored, created, enhanced, or in exceptional circumstances, preserved, expressly for the purpose of providing compensatory mitigation in advance of unavoidable impacts to wetlands or other aquatic resources that typically are unknown at the time of certification to compensate for future, permitted impacts to similar resources.

Wetland Mosaic – An area with a concentration of multiple small wetlands, in which each patch of wetland is less than one acre; on average, patches are less than 100 feet from each other; and areas delineated as vegetated wetland are more than 50% of the total area of the entire mosaic, including uplands and open water.

Wetland Preservation – The removal of a threat to, or preventing the decline of, wetland conditions by an action in or near a wetland. This term includes the purchase of land or conservation easements, repairing water control structures or fences, or structural protection. Preservation does not result in a gain of wetland acres but may result in a gain in functions over the long term.

Wetland Re-establishment – The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning (restoring) natural or historic functions to a former wetland. Re-establishment results in rebuilding a former wetland and results in a gain in wetland acres and functions. Activities could include removing fill, plugging ditches, or breaking drain tiles.

Wetland Rehabilitation – The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural or historic functions and processes of a degraded wetland. Rehabilitation results in a gain in wetland function but does not result in a gain in wetland acres. Activities could involve breaching a dike to reconnect wetlands to a floodplain or returning tidal influence to a wetland.

Wildlife Species of Local Importance – The species include Coho Salmon, Sockeye/Kokanee Salmon, and Cutthroat Trout, Bald Eagle, Pileated Woodpecker and Great Blue Heron based on the Department of Fish and Wildlife's list of State Priority Species list and maps. Not included in the list are species within the shoreline jurisdiction regulated under Chapter 83 KZC.

Water Resource Inventory Area (WRIA) 8 – One of Washington States 62 major watersheds. WRIA 8 is located in the Cedar River/Sammamish basin, which drains into Lake Washington. WRIA 8 encompasses the City of Kirkland, along with 26 other member jurisdictions, including portions of

unincorporated King and Snohomish Counties. WRIAs support an integrated approach to managing water resources in Washington.

Chapter 20 – Medium Density Residential Zones

Section 20.05.020 Common Code Reference

1 through 3: No Change.

4. Development may be limited by Chapter 83 or 90 KZC, regarding development near streams, lakes, ~~and~~ wetlands, fish and wildlife habitat conservation areas and frequently flooded areas. ~~In addition, t~~The site must be designed to concentrate development away from~~,~~ and to minimize impact on~~,~~ these critical areas ~~the wetlands.~~

5. No change

6. Refer to KZC ~~90.75~~ 90.90 for regulations regarding Forbes Lake.

7. through 10: no change

Section 20.10.050 Planned Area 9

1.4: No change

5. Structures must be clustered to the maximum extent possible with open space provided adjacent to any abutting public park, low density zone, or ~~environmentally sensitive~~ critical area (does not apply to Detached Dwelling Unit, Mini-School or Mini-Day-Care, Public Utility, Government Facility, Community Facility and Park Use uses).

Chapter 30 – Offices Zones

Section 30.20, Permitted Uses

PU-11.The common recreational open space requirements may be waived if the City determines that preservation of ~~environmentally sensitive~~ critical areas provides a superior open space function

Chapter 53 – Rose Hill Business District (RHBD) Zones

Section 53.12 Zone RH 1B

Subsection 53.12.010 Vehicle Service Station
Special Regulations:
1 through 4: No change

5. The following improvements must be installed:
   a. No change

   b. Crosswalk markings at the intersection of NE 90th Street and 122nd Avenue NE.
   Minor deviations may be approved by the Public Works Director. If improvements will result in impacts to adjacent wetlands, they must comply with Chapter 90 KZC, Critical Areas – Wetlands, Streams, Minor Lakes, Fish and Wildlife Habitat Conservation Areas and Frequently Flooded Areas ~~Drainage Basins~~, requirement

   c. and d: No change

Chapter 70 – Holmes Point Overlay Zone

Section 70.15 Standards

Within the parcels shown on the Kirkland Zoning Map with an (HP) suffix, the maximum impervious surface standards set forth in Chapter 18 KZC are superseded by this (HP) suffix, and the following development standards shall be applied to all residential development:

1. When review under Chapter 85 KZC (Critical Areas - Geologically Hazardous Areas) or Chapter 90 KZC (Critical Areas – Wetlands, Streams, Minor Lakes, Fish and Wildlife Habitat Conservation Areas and Frequently Flooded Areas ~~Drainage Basins~~) or the City of Kirkland's Surface Water Design Manual is required, the review shall assume the maximum development permitted by this (HP) suffix condition will occur on the subject property, and the threshold of approval shall require a demonstration of no significant adverse impact on properties located downhill or downstream from the proposed development.

2-8: No changes

9. Pervious areas which are not geologically hazardous areas or ~~environmentally sensitive~~ or do not contain wetlands, streams, minor lakes, fish and wildlife habitat conservation areas and frequently flooded areas critical areas governed by Chapter 85 or 90 KZC shall be maintained as open space in an undisturbed state, except for the following activities:

   a. through e: No change

Chapter 75 – Historic Landmark Overlay Zone and Historic Residence Designation

Section 75.47 Historic Landmark Overlay Zone Effect – Modification of Code Provisions

1. General – The provisions of this section establish the circumstances under which the City may modify any of the provisions of this code for an historic landmark, except:

a. The City may not modify any of the provisions of this chapter; and

b. The City may not modify any provision of this code that specifically states that its requirements are not subject to modifications under this chapter; and

c. The City may not modify any of the procedural provisions of this code; and

d. The City may not modify any provision that specifically applies to development ~~on~~ in a critical area or its buffer ~~a wetland, flood plain,~~ or on a regulated slope; and

e. The City may not allow any use in a low density zone that is not specifically allowed in that zone unless the subject property contains at least 35,000 square feet.

Chapter 85 – Critical Areas: Geologically Hazardous Areas

Section 85.12 Critical Area ~~Environmentally Sensitive Areas (ESA)~~ Maps

As part of the City's Comprehensive Plan, ~~SEPA Ordinance~~, City Council ~~adopts, and~~ from time to time amends the critical area maps~~, a map folio entitled "Kirkland Sensitive Areas."~~ Included in the critical area maps is a map ~~This folio contains maps~~ entitled "Geologically Hazardous Areas" ~~Seismic Hazards" and "Landslide and Erosion Hazards."~~ ~~These~~ The maps are ~~will be~~ used as a guide only to determine the presence of seismic hazards, erosion hazards, and landslide hazards, and the determination regarding whether these hazards exist on or near the subject property will be based on the actual characteristics of these areas and the definitions of this code.

Section 85.13 Definitions

The following definitions apply throughout this code, unless, from the context, another meaning is clearly intended:

~~1. Environmentally Sensitive Areas Maps – As referred to defined in Chapter 90 KZC.~~

2 through 5 renumbered.

Section 85.15 Required Information – Landslide Hazard Areas and Seismic Hazard Areas

The City may require the applicant to submit some or all of the following information, consistent with the nature and extent of the proposed development activity, for any proposed development activity in a landscape hazard area or seismic hazard area or on property which may contain one (1) of these areas based on the ~~environmentally sensitive~~ Geologically Hazardous Areas ~~areas~~ maps or preliminary field investigation by the Planning Official:

1. A topographic survey of the subject property, or the portion of the subject property specified by the Planning Official, with contour intervals specified by the Planning Official. This mapping shall contain the following information:

a. Delineation of areas containing slopes 15 percent or greater.

b. The proximity of the subject property to wetlands, streams and lakes ~~streams~~.

c. The location of structured storm drainage systems on the subject property.

d. Existing vegetation, including size and type of significant trees.

Chapter 95 - Tree Management and Required Landscaping

Section 95.10 Definition

1.-12. No change

13. Retention Value – The Planning Official's designation of a tree based on information provided by a qualified professional that is one (1) of the following:

a. High, a viable tree, located within required yards and/or required landscape areas. Tree retention efforts shall be directed to the following trees if they are determined to be healthy and windfirm by a qualified professional, and provided the trees can be safely retained when pursuing alternatives to development standards pursuant to KZC 95.32:

1) Specimen trees;

2) Tree groves and associated vegetation that are to be set aside as preserved groves pursuant to KZC 95.51 (3);

3) Trees on slopes of at least 10 percent; or

4) Trees that are a part of a grove that extends into adjacent property, such as in a public park, open space, ~~sensitive~~ critical area buffer or otherwise preserved group of trees on adjacent private property. If significant trees must be removed in these situations, an adequate buffer of trees may be required to be retained or planted on the edge of the remaining grove to help stabilize;

Section 95.23 Tree Removal – Non Associated with Development Activity

5. Tree Removal Allowances.

a, b and c: no changes

d. Removal of Hazard or Nuisance Trees. Any private property owner seeking to remove any number of significant trees which are a hazard or nuisance from developed or undeveloped property or the public right of way shall first obtain approval of a tree removal permit and meet the requirements of this subsection.

1) Tree Risk Assessment. If the nuisance or hazard condition is not obvious, a tree risk assessment prepared by a qualified professional explaining how the tree(s) meet the definition of a nuisance or hazard tree is required. Removal of nuisance or hazard trees does not count toward the tree removal limit if the nuisance or hazard is supported by a report prepared by a qualified professional and approved by the City.

2) Trees in Critical Areas or Critical Areas Buffers. See Chapter 90 KZC. ~~For hazard or nuisance trees in (a) easements dedicated to ensure the protection of vegetation; (b) critical areas; or (c) critical area buffers, a planting plan is required to mitigate the removal of the hazard or nuisance tree. The priority action is to create a "snag" or wildlife tree with the subject tree. If creation of a snag is not feasible, then the felled tree shall be left in place unless the Planning Official permits its removal in writing.~~

~~The intent of preserving vegetation in and near streams and wetlands and in geologically hazardous areas is to support the functions of healthy sensitive areas and sensitive area buffers (see Chapter 90 KZC) and/or avoid disturbance of geologically hazardous areas (see Chapter 85 KZC).~~

~~The removal of any tree in a critical area or native growth protective easement will require the planting of a native tree of a minimum of six (6) feet in height in close proximity to where the removed tree was located. Selection of native species and timing of installation shall be coordinated with the Planning Official.~~

Section 95.40 Required Landscaping

1. User Guide. Chapters 15 through 56 KZC containing the use zone ~~charts~~ or development standards tables assign a landscaping category to each use in each zone. This category is either "A," "B," "C," "D," or "E." If you do not know which landscaping category applies to the subject property, you should consult the appropriate use zone ~~chart~~ or development standards tables.

Requirements pertaining to each landscaping category are located throughout this chapter, except that Landscaping Category E is not subject to this section.

Landscape Categories A, B, C, D, and E may be subject to additional related requirements in the following other chapters:

a. and b: No change

c. Chapter 90 KZC, ~~Drainage Basins~~ Critical Areas, addresses vegetation within ~~sensitive~~ critical areas and ~~sensitive~~ critical area buffers.

d., e and f: No change

Section 95.50 Installation Standards for Required Plantings

1 through 10: No changes

~~11. Mitigation and Restoration Plantings in Critical Areas and Critical Area Buffers. Plants intended to mitigate for the loss of natural resource values are subject to the following requirements in addition to the other landscaping requirements found in KZC 95.40 through 95.45. Where these requirements conflict with other requirements of this chapter, these requirements take precedence. Refer to Chapters 85 and 90 KZC for additional requirements for these areas.~~

~~a. Plant Source. Plant materials must be native and selected from the Kirkland Plant List. Seed source must be as local as possible, and plants must be nursery propagated unless transplanted from on-site areas approved for disturbance. These requirements must be included in the Mitigation Plan specifications.~~

~~b. Installation. Plant materials must be supported only when necessary due to extreme winds at the planting site. Where support is necessary, stakes, guy wires, or other measures must be removed as soon as the plant can support itself, usually after the first growing season. All fertilizer applications to turf or trees and shrubs shall follow Washington State University, National Arborist Association or other accepted agronomic or horticultural standards.~~

~~c. Fertilizer Applications. Fertilizers shall be applied in such a manner as to prevent its entry into waterways and wetlands and minimize its entry into storm drains. No applications shall be made within 50 feet of a waterway or wetland, or a required buffer as established by the City codes (such as Chapter 90 KZC) or Kirkland Shoreline Master Program (SMP, KMC Title 24), whichever is greater, unless specifically authorized in an approved mitigation plan or otherwise authorized in writing by the Planning Official.~~

95.51 Tree and Landscaping Maintenance Requirements

1.4: No change

~~5. Maintenance of Critical Area and Critical Area Buffers. In critical areas and their buffers, native vegetation is not to be removed without City approval pursuant to KZC 95.23(5)(d). However, it is the responsibility of the property owner to maintain critical areas and their buffers by removing nonnative, invasive, and noxious plants in a manner that will not harm critical areas or their buffers. See also subsection (7) of this section and Chapters 85 and 90 KZC for additional requirements for trees and other vegetation within critical areas and critical area buffers.~~

~~7. Pesticides, Herbicides, and Fertilizer. The use of plant material requiring excessive pesticide or herbicide applications to be kept healthy and attractive is discouraged. Pesticide, herbicide, and fertilizer applications shall be made in a manner that will prevent their unintended entry into waterways, wetlands and storm drains. No application shall be made within 50 feet of a waterway or wetland or a required buffer as established by City codes, whichever is greater, unless done so by a State certified applicator with approval of the Planning Official., and is specifically authorized in an approved mitigation plan or otherwise authorized in writing by the Planning Official.~~

Chapter 113 – Cottage, Carriages and Two/Three-Unit Homes

Section 113.25 Parameters for Cottages, Carriages and Two/Three-Unit Homes

Footnote 7 See ~~KZC 90.135~~ KZC 90.170 for density calculation on a site which contains a wetland, stream minor lake, or their buffers.

Footnote 9 FAR regulations

a. FAR regulations are calculated using the "buildable area" of the site, as defined in ~~KZC 90.135~~ KZC 90.170. Where no ~~sensitive~~ critical areas regulated under Chapter 90 KZC exist on the site, FAR regulations shall be calculated using the entire subject property, except as provided in subsection b of this footnote.

b. through c: No changes

Section 113.45 Review Process

3. Approval Process – Requests for Modifications to Standards

a. Minor Modifications

Applicants may request minor modifications to the general parameters and design standards set forth in this chapter. The Planning Director or Hearing Examiner may modify the requirements if all of the following criteria are met:

1) The site is constrained due to unusual shape, topography, easement or ~~sensitive~~ critical areas.
2) The modification is consistent with the objectives of this chapter.
3) The modification will not result in a development that is less compatible with neighboring land uses.

Chapter 114 – Low Impact Development

Section 114.20 Design Standards and Guidelines

1. No change

2. Required Common Open Space – Required common open space shall support and enhance the project's LID stormwater facilities; secondarily to provide a sense of openness, visual relief, and community for low impact development projects.

a. The minimum percentage for required common open space is 40 percent and is calculated using the size of the LID portion of the project site. Wetlands and streams shall not be included in the calculation. The required common open space must be located outside of wetlands and streams. Passive trails for the residents of the development may be

located in the outer twenty five percent of the critical area buffer if approved under Permitted Activities, Improvements or Uses pursuant to KZC 90.40. ~~and may be developed and maintained to provide for passive recreational activities for the residents of the development as allowed in Chapter 90 KZC.~~

2. b No change

Section 114. 25 Review Process

1 and 2: No change

3. Approval Process – Requests for Modifications to Standards

a. Minor Modifications – Applicants may request minor modifications to the general parameters and design standards set forth in this chapter. The Planning Director under a Process I, Chapter 145 KZC or Hearing Examiner under Process IIA, Chapter 150 KZC may modify the requirements if all of the following criteria are met:

1) The site is constrained due to unusual shape, topography, easement or ~~sensitive~~ critical areas; and

2) The modification is consistent with the objectives of this chapter; and

3) The modification will not result in a development that is less compatible with neighboring land uses

Section 114.35 Required Application Documentation

1. Site assessment documents to be submitted with application include:

a. Survey prepared by a registered land surveyor or civil engineer.

b. Location of all existing and proposed lot lines and easements.

c. Location of all ~~sensitive~~ critical areas, including lakes, stream, wetlands, flood hazard areas, fish and wildlife habitat conservation areas and steep slope/erosion hazard areas.

d. Landscape plan showing existing and proposed trees and other vegetation.

2 and 3: No changes

Chapter 115 Miscellaneous

Section 115.20 Animals in Residential Zones

5. Horses

a through .d: No change

e. Paddock Size and Setbacks

a) and b): No change

c) Additional Paddock Requirements

i) The area used or reserved for paddock area must be pervious and exclusive of any structures or improvements (except barns) such as storage sheds, residential units, carports, decks, patios, swimming pools, ponds, sports courts, rockeries, or paving, but may contain easily removed features such as children's play equipment, landscaping, trellises, and flagpoles, as long as such features are not embedded in concrete or otherwise permanently mounted. The area shall not be located over a septic tank, drain field, or reserve drain field. Paddock areas shall not be located on steep slopes (over 15 percent grade) or in areas regulated under Chapter 90 KZC, Critical Areas: Wetlands, Streams, Minor Lakes, Fish and Wildlife Conservation Areas and Frequently Flooded Areas ~~Drainage Basins~~

Section 115.33 Electric Vehicle Infrastructure

1. Purpose and Intent – It is the intent of these development regulations to encourage the use and viability of electric vehicles as they have been identified as a solution to energy independence, cleaner air and significantly lower greenhouse gas emissions.

Electric vehicles need access to electric vehicle infrastructure (EVI) in appropriate locations. In 2009 the Washington State Legislature passed House Bill 1481 relating to electric vehicle. The bill addressed EVI which includes the structures, machinery, and equipment necessary and integral to support an electric vehicle, including battery charging stations, rapid charging stations, and battery exchange stations.

The purpose of the development regulations in this section is to meet the State of Washington requirements and to also allow battery charging stations and exchange stations in appropriate use zones throughout the City.

2. General – This section establishes where the components of electric vehicle infrastructure are allowed within the City.

Exceptions – Electric vehicle infrastructure may not be located in ~~any sensitive~~ critical areas, their buffer or buffer setbacks.

Chapter 120 – Variances

Section 120.12 Expansion or Modification of an Existing Structure

If the expansion or modification of an existing structure requires a variance under this chapter, the Planning Director may approve such expansion or modification without requiring the variance process if all of the following criteria are met:

1. The request complies with the criteria in KZC 120.20; and

2. The expansion is not located in a critical area or critical area buffer pursuant to Chapter 90 KZC.

~~2.~~ 3. The gross floor area of the structure is expanded by less than five (5) percent; and

~~3.~~ 4. The Planning Director determines that the change or alteration will not have significantly more or different impact on the surrounding area than does the present development.

An approval granted pursuant to this subsection shall be valid for a period of four (4) years following the date of approval, during which time a complete building permit application for the expansion or modification shall be submitted to the City. Within six years following the date of approval granted pursuant to this subsection, the applicant shall substantially complete construction of the expansion or modification and any permit conditions applicable thereto, or the approval becomes null and void.

Section 120.25 What May Not Be Varied

The City may grant a variance to any of the provisions of this code except:

1. The City may not grant a variance to any provision establishing the uses that are permitted to locate or that may continue to operate in any zone; and

2. The City may not grant a variance to any of the procedural provisions of this code; and

3. The City may not grant a variance to any provision in this code that specifically states that its requirements are not subject to variance, including all provisions in Chapter 90 KZC.

Chapter 125 – Planned Unit Development

Section 125.20 Decision on the PUD – What Provisions May Be Modified

The City may modify any of the provisions of the code for a PUD except:

1. The City may not modify any of the provisions of this chapter; and

2. The City may not modify any provision of this code that specifically states that its requirements are not subject to modifications under a PUD, including all provisions in Chapter 90 KZC; and

3. The City may not modify any of the procedural provisions of this code; and

4. The City may not modify any provision that specifically applies to development on a regulated slope; and

5. The City may not modify any provision pertaining to the installation and maintenance of storm water retention/detention facilities; and

6. The City may not modify any provision pertaining to the installation of public improvements; and

7. The City may not modify any provision regulating signs; and

8. The City may not modify any provision regulating the construction of one (1) detached dwelling unit

Chapter 162 – Nonconformance

162.05 User Guide

This chapter establishes when and under what circumstances nonconforming aspects of a use or development must be brought into conformance with this code. You need to consult the provisions of this chapter only if there is some aspect of the use or development on the subject property that is not permitted under this code.

For properties within jurisdiction of the Shoreline Management Act, see Chapter 83 KZC.

For properties containing wetlands, streams, minor lakes, frequently flooded areas and fish and wildlife habitat conservation areas, see Chapter 90. KZC.

Chapter 180 – Plates

The following plates will be deleted:

- Plate 16 Determining Stream Buffers
- Plate 16a Stream Buffers
- Plate 25 Piped Streams within Stream Buffers
- Plate 26 Wetland Field Data Form

The following plate will be revised:

Plate 32 – Affordable Housing Incentive – Multifamily

112.20.2 Defined Affordable Housing Incentives – Multifamily

In use zones where the number of dwelling units allowed on the subject property is determined by dividing the lot size by the required minimum lot area per unit, two bonus units may be constructed for each affordable housing unit provided (see Example 1). In areas where the density allowed on the subject property is expressed as a floor area ratio (F.A.R.), bonuses will

be calculated as an equivalent FAR bonus (see Example 2). These examples are for properties that do not contain a wetland, stream, minor lake or their buffers. For properties that contain a wetland, stream, minor lake or their buffers, the base density allowed shall be established using the maximum development potential calculation in ~~KZC 90.135~~ KZC 90.170.

The following plates will be new (see attachments at end of document)

- Plate 16 Measurement of Stream Buffer from Ordinary High Water Mark
- Plate 16A Stream Buffer for Stream Culvert
- Plate 25 Interrupted Critical Area Buffer
- Plate 26 Expansion of Nonconforming Building located in Critical Are Buffer

B. KIRKLAND MUNICIPAL CODE

Business Licenses and Regulations:

7.61.160 Tree trimming.

No change to first paragraph.

A franchisee shall make its best effort to notify all property owners directly adjacent to any scheduled trimming. Removal of any tree within the franchise area, city owned land (including parks), natural growth protection easements, ~~sensitive~~ critical areas (as generally identified on ~~defined by~~ the city planning and building department's critical areas maps ~~sensitive area map~~), or private property shall only occur after written permission is granted by the respective city department or private property owner; a copy of any written permission given by a private property owner must be provided to the city planning and building department at least two weeks prior to the removal of the tree.

No change to last paragraph.

Subdivision Ordinance Chapter 22.08 KMC

22.08.054 Class A streams.

For "Class A streams," see definition in Chapter 83 KZC for properties within jurisdiction of the Shoreline Management Act~~, otherwise see Chapter 90 KZC~~.

22.08.055 Class B streams.

For "Class B streams," see definition in Chapter 83 KZC for properties within jurisdiction of the Shoreline Management Act~~, otherwise see Chapter 90 KZC~~.

22.08.056 Class C streams.

For "Class C streams," see definition in Chapter 83 KZC for properties within jurisdiction of the Shoreline Management Act~~, otherwise see Chapter 90 KZC~~.

22.08.190 Primary basins.

"Primary basins" means the watersheds associated with the following seven creeks: (1) Juanita Creek, (2) Forbes Creek, (3) Cochran Springs Creek, (4) Yarrow Creek, (5) Carillon Creek, (6) Denny Creek, and (7) Champagne Creek for properties within jurisdiction of the Shoreline Management Act. See Chapter 83 KZC. ~~as shown in the Kirkland sensitive areas maps.~~

~~**22.08.203 Secondary basins.**~~

~~"Secondary basins" means the Moss Bay Basin, Houghton Basin, Kirkland Slope Basin, Holmes Point Basin, and Kingsgate Slope Basin which are also depicted as the urban drainage basins on the Kirkland sensitive areas maps.~~

22.08.220 Short subdivision.

"Short subdivision" means the division or redivision of land into nine or fewer lots, tracts, parcels, sites or divisions for the purpose of sale, lease, or transfer of ownership; provided, however, unbuildable areas outside of such lots, tracts, parcels, sites or divisions for other purposes, such as access, drainage, and the protection of ~~environmentally sensitive~~ critical areas, shall not be considered a lot, tract, parcel, site or division.

22.08.250 Subdivision.

"Subdivision" means the division or redivision of land into ten or more lots, tracts, parcels, sites or divisions for the purpose of sale, lease, or transfer of ownership; provided, however, unbuildable areas outside of such lots, tracts, parcels, sites or divisions for other purposes, such as access, drainage, and the protection of ~~environmentally sensitive~~ critical areas, shall not be considered a lot, tract, parcel, site or division.

22.28.025 Maximum Development Potential.

For lots containing critical areas or associated buffers, see Chapter 90 KZC for Subdivisions and Maximum Development Potential.

22.28.180 Preservation of natural features—Compliance with Zoning Code.

The applicant has the responsibility in proposing a plat to be sensitive with respect to the natural features, including topography, streams, lakes, wetlands, fish and wildlife habitat conservation areas, frequently flooded areas, geologic features and vegetation, of the property.

The plat must be designed to preserve and enhance as many of these valuable features as possible. In addition to the specific provisions of this chapter, the applicant shall comply with all applicable provisions of the Zoning Code regarding property containing or adjacent to Lake Washington, Totem Lake, Forbes Lake, ~~sensitive~~ wetlands and streams , geologically hazardous areas, trees and other specific requirements regarding site development restrictions due to natural features.

22.28.200 Preservation of natural features—Land adjacent to streams, lakes or wetlands.

The city may require that any area adjacent to a Type F, NP or Ns stream under Chapter 90 KZC or Class A, B and C stream for properties within jurisdiction of the Shoreline Management Act under Chapter 83 KZC, a lake, or a wetland be kept in its natural or preexisting state if this is reasonably necessary to prevent hazards to persons or property. In addition, the city may also require that areas around Type F, NP and Ns streams under Chapter 90 KZC or Class A, B, and C streams for properties within jurisdiction of the Shoreline Management Act under Chapter 83 KZC, lakes, ~~or~~ wetlands, frequently flooded areas or fish and wildlife habitat conservation areas be kept in their natural or preexisting state if this is reasonably necessary to protect unique and valuable environments.

22.28.210 Preservation of natural features — Significant vegetation.

The applicant shall design the plat so as to comply with the tree management requirements set forth in Chapter 90 KZC and Chapter 95 KZC~~,~~ to maximize the chances of survival of trees and associated vegetation designated for retention, and minimize potential hazards to life or property.

22.28.220 Preservation of natural features — Easements.

The city shall require open space or ~~drainage~~ critical area easements or other similar mechanisms to ensure compliance with Sections 22.28.130 through 22.28.210 of this chapter.

Draft

Plate 16
Measurement of Stream Buffer from Ordinary High Water Mark

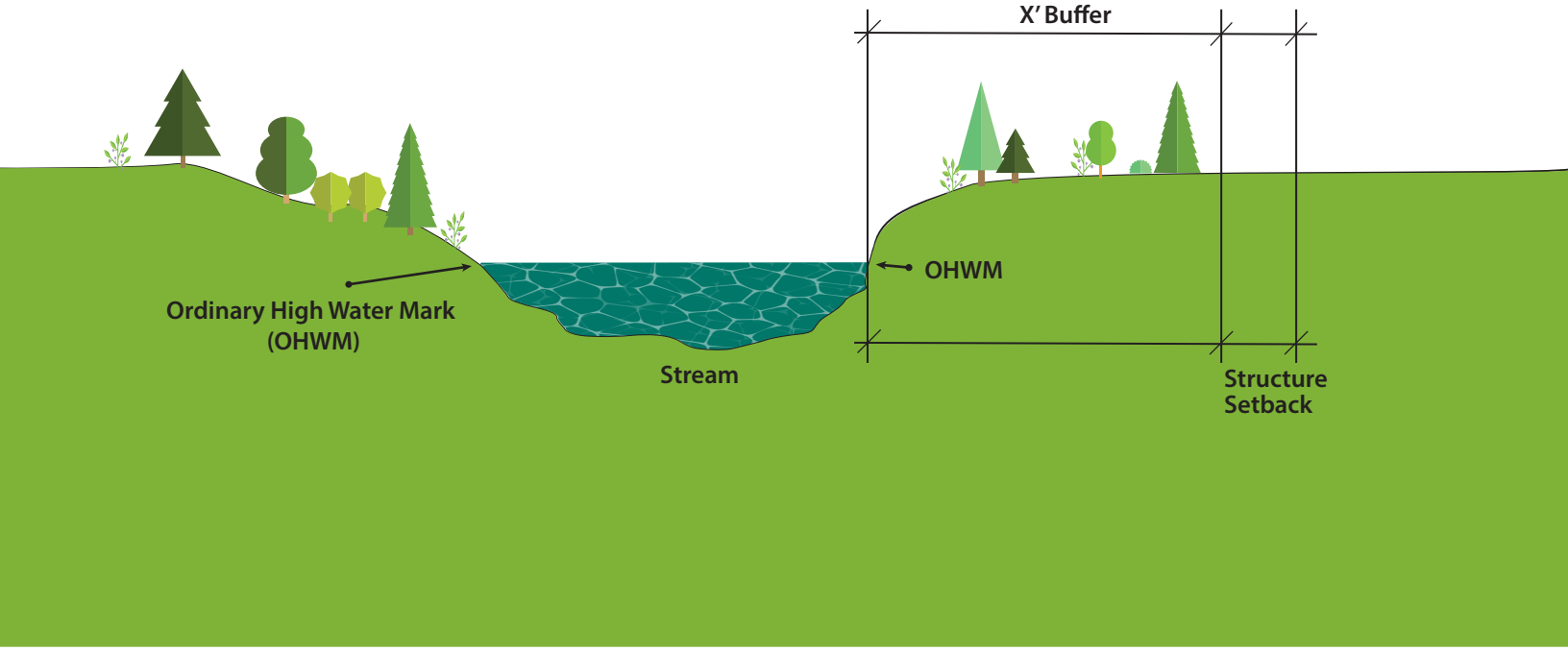


Plate 16A
Stream Buffer for Stream Culvert

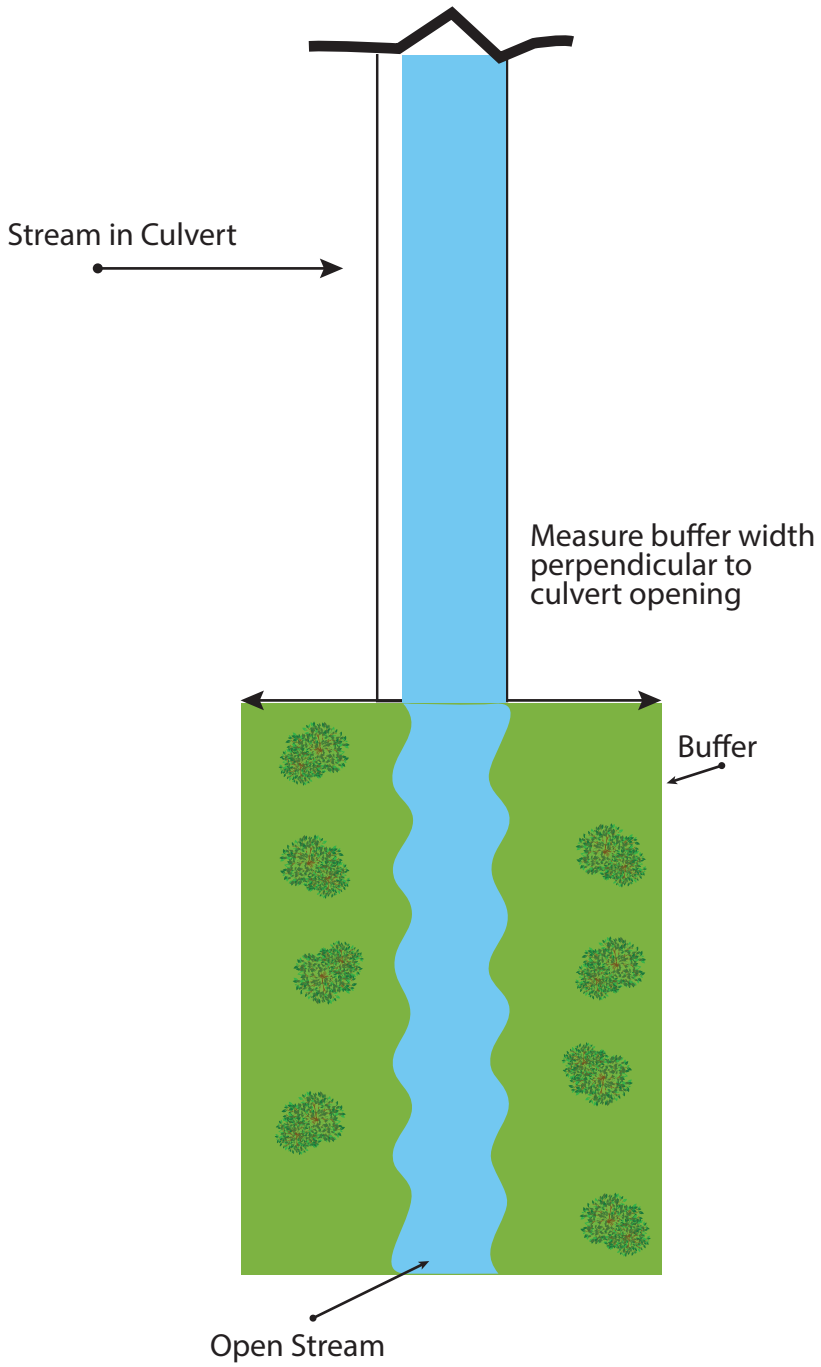


Plate 25
Interrupted Critical Area Buffer

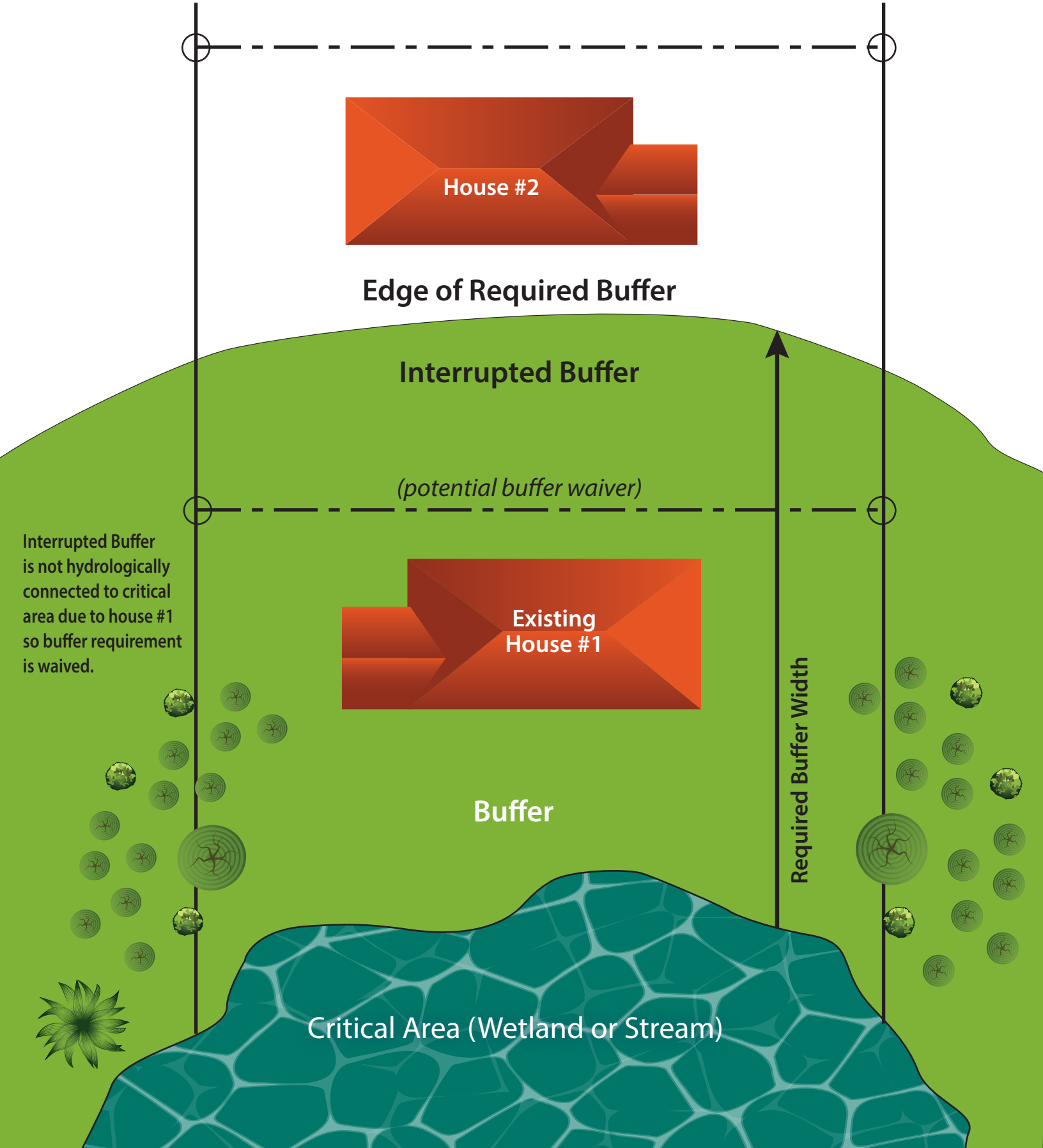
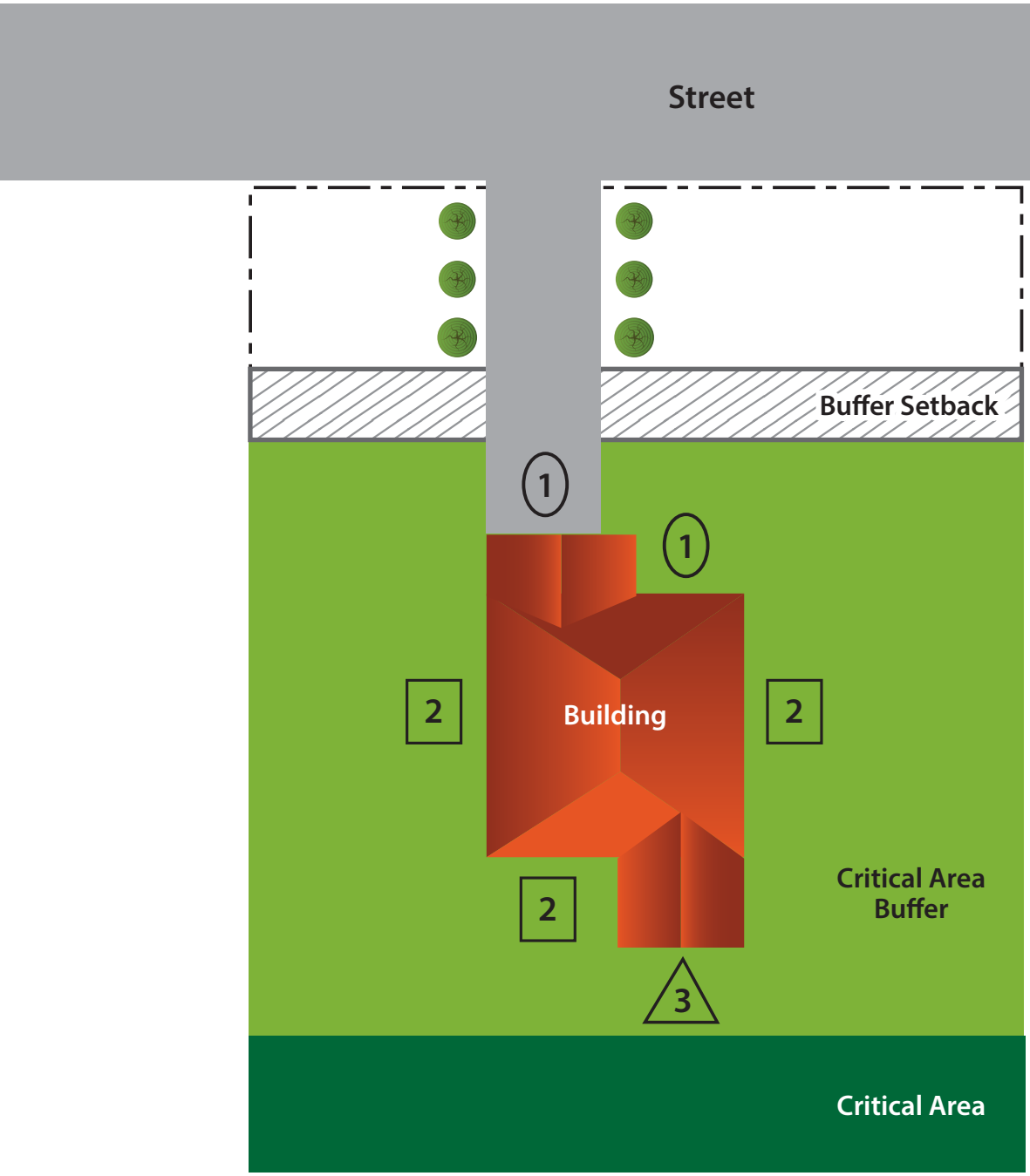


Plate 26

Expansion of Nonconforming Building Located in Critical Area Buffer



1.) Building footprint expanded into buffer on side opposite of critical area and not to exceed 1,000 square feet

2.) Building footprint expanded into buffer on sides but not closer to critical area than existing building and not to exceed 500 feet

3.) Building footprint expanded into the buffer between building and critical area and not to exceed 250 feet

Plate 32 Affordable Housing Incentives – Multifamily

112.20.2 Defined Affordable Housing Incentives – Density Bonus:

In use zones where the number of dwelling units allowed on the subject property is determined by dividing the lot size by the required minimum lot area per unit, two bonus units may be constructed for each affordable housing unit provided (see Example 1). In areas where the density allowed on the subject property is expressed as a floor area ratio (F.A.R.), bonuses will be calculated as an equivalent FAR bonus (see Example 2). These examples are for properties that do not contain a wetland, stream, minor lake or their buffers. For properties that contain a wetland, stream, minor lake or their buffers, the base density allowed shall be established using the maximum development potential calculation in KZC ~~90.135~~. KZC 90.170.

Example 1 – Density Bonus

Property Size (Net Acres)	3 Acres
Zoned Density	2,400 square feet of land area required per unit
Base Density Allowed	(3 Acres x 43,560 sq. ft. per acre)/2,400 sq. ft. per unit = 54.45 units (Rounds to 54 units)
Proposed Number of Affordable Housing Units	5 Units
Proposed Bonus Units	5 Units x 2 = 10 Units
Total Units Allowed	54 Base Units + 10 Bonus Units = 64 Units (including 5 Affordable Housing Units)
Maximum Bonus Units (25% of Base Density)	54 Units x 0.25 = 13.5 Units (Rounds to 13)*

*Note: If seven affordable housing units were provided, only 13 bonus units (instead of 14 bonus units) could be achieved through the defined affordable housing incentives process due to the maximum bonus provision (KZC 112.20(2)(c)) An applicant may apply through the additional affordable housing incentives (non-defined) process (KZC 112.25) for a larger number of bonus units.

Example 2 – FAR Bonus

Property Size (Net Acres)	1 Acre

REVISED PLATE 32

Zoned Density	2.5 maximum Floor Area Ratio (F.A.R.)
Base Density Allowed	(1 Acre x 43,560 sq. ft. per acre) x 2.5 F.A.R. = 108,900 square feet
Proposed Number and Size of Affordable Housing Units	6 Units each containing 1,200 square feet of gross floor area
Affordable Housing Floor Area	6 Units x 1,200 square feet per unit = 7,200 square feet
Proposed Bonus Floor Area	7,200 square feet x 2 = 14,400 square feet*
Total Square Footage Allowed	108,900 Base Square Feet + 14,400 Bonus Square Feet = 123,300 square feet (including 6 Affordable Housing Units)
Maximum Bonus Floor Area (25% of Base FAR)	108,900 square feet x 0.25 = 27,225 square feet

*Note: The 14,400 square feet of bonus floor area can be used on the subject property as the applicant feels best meets project needs.

Teresa Swan

From: Fisher, Larry D (DFW) <Larry.Fisher@dfw.wa.gov>
Sent: Tuesday, September 06, 2016 4:15 PM
To: Teresa Swan
Subject: RE: Kirkland Chapter 90 - CAO

Hi Teresa:

I have looked this over, and I am impressed with the organization and content of the document. It should be easy to understand and apply these codes.

I have only one substantive comment, which is I would like to see wider structure setbacks, perhaps 15 feet minimum, on page 37, Table 90.140.1.

I also noticed on page 28 6.c.3) and page 34 1.b. the federal agency name should be U.S. Fish and Wildlife Service.

Thank you for the opportunity to comment on the draft Kirkland CAO.

Larry Fisher
WDFW Area Habitat Biologist
1775 12th Ave NW Suite 201
Issaquah, WA 98027
425-313-5683
FAX 425-427-0570
Cell: 425-449-6790
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From: Teresa Swan [mailto:TSwan@kirklandwa.gov]
Sent: Thursday, August 25, 2016 6:49 PM
To: Fisher, Larry D (DFW)
Subject: Kirkland Chapter 90 - CAO

Good afternoon Larry:

Attached is a cover letter and Kirkland's draft Chapter 90 – CAO. In the cover letter is a summary of the key regulations for your quick review. We would like your comments by **Thursday September 15th** if possible so that we can review and respond to them in our draft before the public hearing at the end of September.

Best Regards, Teresa

Teresa Swan
Senior Planner
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tswan@kirklandwa.gov
City of Kirkland
Planning and Building Department
123-5th Ave
Kirkland, WA 98033

Draft 8-25-2016

Chapter 90 – CRITICAL AREAS: WETLANDS, STREAMS, MINOR LAKES, FISH AND WILDLIFE HABITAT CONSERVATION AREAS, AND FREQUENTLY FLOODED AREAS

Sections:

Introduction

90.05 User Guide
90.10 Purpose
90.15 Applicability
90.20 Critical Area Maps and Other Resources
90.25 Regulated Activities

Review Process

90.30 City Review Process
90.35 Exemptions
90.40 Permitted Activities, Improvements and Uses Subject to Development Standards
90.45 Exception - Public Agency and Public Utility
90.50 Programmatic Permits - Public Agency and Public Utility

Critical Area Regulations

90.55 Wetlands and Associated Buffer Standards
90.60 Wetland Modification

90.65 Streams and Associated Buffer Standards
90.70 Stream Modification
90.75 Daylighting of Streams
90.80 Buffer Reduction for Meandering or Daylighting of Stream
90.85 Stream Channel Stabilization

90.90 Minor Lakes – Totem Lake and Forbes Lake
90.95 Fish and Wildlife Habitat Conservation Areas
90.100 Frequently Flooded Areas

General Standards

90.105 Critical Area Determination
90.110 Critical Area Report
90.115 Buffer Averaging
90.120 Limited Buffer Modifications and Waivers
90.125 Increase in Buffer Width Standard
90.130 Vegetative Buffer Standards
90.135 Trees in Critical Areas and Critical Area Buffers
90.140 Structure Setback from Critical Area Buffer
90.145 Mitigation – General
90.150 Wetland Compensatory Mitigation
90.155 Measures to Minimize Impacts to Wetlands
90.160 Monitoring and Maintenance
90.165 Financial Security for Performance, Maintenance and Monitoring

DRAFT

The public agency or public utility shall submit a stream daylighting plan pursuant to KZC 90.75. 3 and an assessment of the decisional criteria in subsection 2 above.

d. Stream Channel Stabilization.
The public agency or public utility shall submit a streambank assessment and stream channel stabilization plan pursuant to KZC 90.85.5 and 6 and an assessment of the decisional criteria in subsection 2 above.

e. Wildlife Habitat Conservation Area Modifications.
1) The public agency or public utility shall submit an assessment of a habitat conservation area pursuant to KZC 90.95.3, a habitat management plan pursuant to KZC 90.95.6, and an assessment of the decisional criteria in subsection 2 above; and
2) The public agency or public utility shall meet the requirements in KZC 90.95.7.

f. Waiver. Planning Official may waive a submittal requirement if it is determined not to be applicable or necessary.

90.50 Programmatic Permit– Public Agency and Public Utility

Commented [GD(1]: What is the purpose of this section and how is it distinguished from 90.50.40 Permitted Activities and 90.50.45 Exceptions? Are these regular maintenance actions by a public utility that you want to treat differently than the exceptions in 90.50.45?

1. General. A public programmatic permit may be issued for either a permitted activity subject to the submittal requirements and development standards of Permitted Activities, Improvements and Uses with Standards in KZC.90.40 or Public Agency or Public Utility Exception in KZC 90.45, if it meets the requirements of this section, as determined by the Planning Official. Exempted activities pursuant to KZC 90.35 do not require a programmatic permit.

2. Criteria for a Programmatic Permit. The activity shall:
   a. Be repetitive and part of a maintenance program or other similar program;
   b. Have the same or similar identifiable impacts, as determined by the City, each time the activity is repeated at all sites covered by the programmatic permit; and
   c. Be suitable to having standard conditions that will apply to any and all sites.

3. Process.
   a. For an activity that would otherwise be approved as a permitted activity subject to development standards, the Planning Official shall make the decision on the programmatic permit.
   b. For an activity that would otherwise be approved as a public agency or public utility exception, the programmatic permit shall be reviewed and decided upon pursuant to a Process I described in Chapter 145 KZC.

4. Required Conditions. The City shall uniformly apply conditions to each activity authorized under the programmatic permit at all locations covered by the permit. The City may require that the applicant develop and have uniformly applicable conditions as part of the programmatic permit application, subject to City approval. The City shall not issue a programmatic permit until applicable conditions are developed and approved by the City.

5. Inspections. Activities authorized under a programmatic permit shall be subject to inspection by the Planning Official and pre-arranged in advance. The Planning Official may require that the applicant submit periodic status reports. The frequency, method and contents of the inspection notifications and reports shall be specified as conditions in the programmatic permit.

6. Revisions and Modifications to Permit. The Planning Official may subsequently require revisions,

impose new conditions or otherwise modify the programmatic permit or withdraw the permit and require that the applicant undergo review for a new permitted activity approval or new exception for a public agency and public utility, if the Planning Official determines that:

a. The programmatic permit or activities authorized under the permit no longer comply with this chapter;
b. The programmatic permit does not provide adequate regulation of the activity;
c. The programmatic permit conditions or the manner in which the conditions are implemented are not adequate to protect against the impacts resulting from the activity; or
d. A site requires site-specific regulation.

7. Other Agency Requirements. If an activity covered by a programmatic permit also requires other county, state and/or federal approvals, to the extent feasible, the City shall reference those conditions of other approvals in the programmatic permit.

WETLANDS

90.55 Wetlands and Associated Buffer Standards

Wetlands and associated buffer standards are provided in this section. The table below is a summary of the wetland regulations. More details are provided for some of the regulations elsewhere in this chapter.

Table 90.55.1 Wetlands and Associated Buffer Standards

Wetland Classification and Rating	In accordance with the 2014 Department of Ecology Washington State Wetland Rating System for Western Washington, as revised. Wetland category and rating shall be determined through a survey and field investigation by a qualified critical area professional approved by the City as part of a critical area report in KZC 90.110. Wetland rating categories shall not change due to illegal modification.
Wetland Delineation	In accordance with the approved federal delineation manual and applicable regional supplements described in WAC 173-22-035 and based on field investigation and a survey. See KZC 90.110.
Wetland Determination	Planning Official makes determination if a wetland and/or a buffer exist on the subject property, and if so, its category, rating, boundaries and buffer width based on a required critical area report pursuant to KZC 90.110. In addition, the Planning Official makes determination if the standard buffer meets the buffer vegetative standards in KZC 90.130.
Wetland Buffer Width Standard	**Wetland Buffer Widths**

Wetland Category	Buffer width based on habitat points			
	3-4 habitat pts.	5 habitat pts.	6-7 habitat pts.	8-9 habitat pts.
Category I: Bogs and High Conservation Areas	190 feet	190 feet	190 feet	225 feet
Category I: Others	75 feet	105 feet	165 feet	225 feet
Category II	75 feet	105 feet	165 feet	225 feet
Category III	60 feet	105 feet	165 feet	225 feet
Category IV	40 feet			

Alternative Buffer Standard	Applicant can choose to not meet the vegetative buffer standards above and the mitigating measures by increasing the required buffer width by 33%. All existing structures and improvement in buffer must be removed.

Commented [GD(2]: The recommended buffer widths for wetlands with habitat scores ≥5 listed in Table XX.1 in our guidance (*Wetlands Guidance for CAO Updates: Western Washington Version*) assumes a vegetated corridor between the wetland and a priority habitat area. This condition may not be applicable within much of Kirkland.

a. Isolated Category IV wetlands less than 4,000 square feet that:
   1) Are not associated with streams or their buffers;
   2) Are not part of a wetland mosaic;
   3) Do not score 5 or more points for habitat function; and
   4) Do not contain designated state or federal designated endangered, threatened or sensitive species or their habitats or state priority habitats, including species of local importance identified in KZC 90.95.

   The Planning Official may approve an application under this exception only if the applicant provides compensatory mitigation for both wetland and buffer loss pursuant to KZC 90.150. Impacts shall be mitigated through an in-lieu fee or mitigation bank program if a program is available pursuant to KZC 90.145.

   It is the applicant's responsibility to insure compliance with the U.S. Army Corps of Engineers' criteria for an isolated Category IV wetland.

Commented [GD(3]: The Corps of Engineers does not regulate isolated wetlands but Ecology does. It would be more accurate to state "it is the applicant's responsibility to arrange a jurisdictional determination by the U.S. Army Corps of Engineers on whether a wetland is isolated but regulated by the Department of Ecology.

b. Isolated Category IV wetlands less than 1,000 square feet that meet subsection 2a above are exempt from buffer requirements. The Planning Official may approve an application under this exception only if the applicant provides compensatory mitigation pursuant to KZC 90.150 for the wetland loss. No compensatory mitigation is required for the buffer loss.

3. Buffer Modification. A wetland buffer may not be modified or otherwise reduced, except as part of an approved wetland modification in this section, or under a Reasonable Use Exception pursuant to KZC 90.35, Permitted Activities, Improvements and Uses Subject to Development Standards pursuant to KZC 90.40, Exception - Public Agency and Public Utility pursuant to KZC 90.45 and Programmatic Permits - Public Agencies pursuant to KZC 90.50 or as specified below:

   a. Buffer averaging permitted pursuant to KZC 90.115; or
   b. Interrupted buffer waiver permitted pursuant to KZC 90.120.

4. Process. A modification to a wetland and its buffer may be proposed pursuant to Process I, described in Chapter 145 KZC.

5. Decision Criteria. In addition to the criteria of a Process I, the Planning Director shall only approve a modification to a wetland and buffer if:
   a. Mitigation sequencing requirements have been met. See KZC 90.145;
   b. Compensatory mitigation and mitigation plan requirements are approved. See KZC 90.150;
   c. It will not adversely affect fish, wildlife, or their habitat, including habitat for endangered, threatened or sensitive species, or species of local significance. See KZC 90.95;
   d. It will not adversely affect water quality;
   e. It will not have an adverse effect on drainage and/or storm water detention capabilities either on-site or to the adjacent area;
   f. It will not lead to unstable geologic and soil conditions or create an erosion hazard;
   g. It will not have fill material that contains organic or inorganic material that would be detrimental to water quality or fish and wildlife habitat; and
   h. All exposed areas will be stabilized with native vegetation normally associated with wetlands and/or buffers, as appropriate.

   The wetland compensatory mitigation plan, additional requirements in subsection 10 below and any conditions of approval for the modification shall be conditions for any land surface modification and/or building permit approval.

a. A wetland is present on any portion of the subject property or surrounding area within 250 feet of the subject property. If a site inspection does not indicate the presence of a wetland on the subject property or within 250 feet of the subject property, no additional wetland assessment will be required.

Commented [GD(4]: Shouldn't this be 300 feet? If the alternative buffer standard is used then a 33% increase of the largest buffer (225') adds up to 300'.

b. A stream is present on any portion of the subject property or surrounding area within 125 feet of the subject property. If a site inspection does not indicate a stream on or within 125 feet of the subject property, no additional stream assessment will be required.

c. If the initial determination indicates that a wetland exists or may exist on the subject property or within 250 feet of the subject property and/or a stream exists on the subject property or within 125 feet of the subject property, then the applicant shall have a critical area report prepared pursuant to KZC 90.110.

d. If the Planning Official is not able to determine the classification of a stream or is uncertain if a watercourse is classified as a stream, a critical area report shall include a recommendation on a stream determination as to whether the site does contain a stream and if so, its classification. The Planning Official shall make the final determination based on the critical area report. If the critical area report determines that no stream exists in the subject property, no further assessment is need.

2. Final Determination. The Planning Official shall make a final determination based on a critical area report and any supplemental critical area assessment. The determination shall be for any development permit application or other request for permission to proceed that would modify a site that includes a critical area or associated buffer, other than those exempted pursuant to KZC 90.35. As part of the critical area determination, the Planning Official shall:
   a. Determine whether a critical area exists or likely exists on the property, and if so, require a critical area report.
   b. If a critical area exists on the property, then determine:
      1) The critical area boundaries, wetland category and rating and/or stream classification;
      2) The location of the buffer and buffer width standards for the critical area;
      3) Whether the required buffer meets the vegetative standards found in KZC 90.130. If not, what changes need to be made to the buffer to meet the standard;
      4) Whether the subject property contains or is within the vicinity of a known habitat for species that are federally or state listed pursuant KZC 90.95. If so, require and review a habitat management plan to determine necessary implementation actions;
      5) Whether the standard buffer width must be increased due to a severe erosion area, fish and wildlife habitat conservation area or frequently flooded area on or adjacent to the subject property pursuant to KZC 90.125;
      6) Whether the development proposal is consistent with this chapter; and
      7) Whether any proposed modification to the critical area is necessary.

3. Development Review. The Planning Official's final determination under this chapter shall be used for review of any development permit or activity proposed on the subject property.

4. Validity of Determination. The critical area determination is valid for five (5) years from the date of the decision. However, the Planning Official may modify the final critical area determination whenever physical circumstances have markedly and demonstrably changed on the subject property or within 250 feet of the subject property for wetlands and 125 feet for streams as a result of natural processes or human activity.

Commented [GD(5]: Shouldn't this be 300 feet? If the alternative buffer standard is used then a 33% increase of the largest buffer (225') adds up to 300'.

Draft 8-25-2016

90.110 Critical Area Report

1. General. An application for a development permit that includes a critical area and/or its buffer, except those exempted pursuant to KZC 90.35, shall provide a critical area report that uses the best available science to evaluate the proposal and all probable impacts and include the required supplemental wetland or stream assessment pursuant to KZC 90.60 and KZC 90.70.

2. Preparation of Report.
   a. The critical area report shall be prepared by a qualified critical area professional.
   b. The applicant shall either:
      1) Fund a report prepared by the City or the City's consultant; or
      2) Submit a report prepared by a qualified critical area professional approved by the City. In addition, fund a peer review by City or the City's consultant of the critical area report.

3. Report Format. The critical area report shall be in the form of a written document provided in electronic form. The City may establish specific administrative requirements for the format of the report.

4. Report Content – General. A critical area report shall evaluate the subject property and critical areas within 250 feet of the subject property for wetlands and 125 feet for known streams. A critical area report shall include the following information:

   a. The name and contact information of the applicant; the name, qualifications, and contact information from the primary author(s) of the report;
   b. Documentation of any fieldwork performed on the site, including field data sheets for wetland delineation and rating system forms, stream classification, baseline hydrologic data;
   c. A description of the methodologies used to conduct the wetland delineations and rating system forms, stream classification if done as part of the critical area report, and impact analyses including references;
   d. Identification, characterization and boundaries of all critical area, and buffers on or adjacent to the subject property. For areas off site of the subject property, estimated conditions within 250 feet of the subject property boundaries for a wetland and 125 feet of a stream using the best available information;
   e. A vicinity map and A site plan of the project area, drawn to scale, with existing improvements and site features, including significant trees;
   f. Project narrative describing the proposal; anticipated temporary and permanent impacts to critical area or its buffer, construction activities and sequencing of construction, and other relevant information;
   g. A description of existing native, ornamental or invasive vegetation, fauna, and hydrologic characteristics found in the critical area and its buffer both on-site and on adjacent properties;
   h. Assessment of existing vegetation in the required buffer and whether it meets the vegetative buffer standards found in KZC 90.115. If the vegetation in the buffer does not meet the vegetative standards, submit a detailed re-vegetation plan meeting KZC 90.115;
   i. Assessment of any habitat for species that are federally or state listed or priority species, including species of local importance pursuant to KZC 90.95 on the subject property or in the vicinity. Include a management plan for any habitat that meets KZC 90.95.2 to address methods to protect and enhance on-site habitat and critical area functions;
   j. When impacts are proposed to the critical area, the requirements of mitigation sequencing pursuant to KZC 90.145 must be met;

Commented [GD(6]: Shouldn't this be 300 feet? If the alternative buffer standard is used then a 33% increase of the largest buffer (225') adds up to 300'.

k. When impacts are proposed to the critical area, an assessment of the mitigation plan meeting KZC 90.145 and/or KZC 90.150. Mitigation shall be designed to achieve no net loss of ecological function consistent with mitigation sequencing in KZC 90.145 for all critical areas. In addition, wetland mitigation shall meet the requirements for compensatory mitigation in KZC 90.150;
l. A professional survey as specified in subsection 7 below;
m. A monitoring and maintenance plan meeting KZC 90.160.2
n. All the local, state, and /or federal critical area related permit(s) required for the project;
o. A statement specifying the accuracy of the report and all assumptions made and relied upon; and
p. Any other information deemed necessary by the Planning Official.

5. Additional Report Content – Wetlands. In addition to the requirements for the General Report Content pursuant to subsection 4 above, the critical area report shall include:

   a. Identification of wetlands and delineation of their boundaries shall be in accordance with the current approved federal delineation manual and applicable regional supplements described in WAC 173-22-035, as amended. All determinations and delineations of wetlands shall be based on the entire extent of the wetland, irrespective of property lines, ownership patterns, existing improvements or features;
   b. Wetland rating and category including the rationale for the proposed rating and the required buffer based on the regulations in this code;
   c. A completed Department of Ecology Wetland Field Data Form;
   d. Existing wetland acreage which may be approximated if the wetland extends onto adjacent properties;
   e. Soil and substrate conditions;
   f. A description of historical hydrologic, vegetative, habitat, topographic, and soil modifications, if any; and
   g. Description of the water sources entering and leaving the wetland and documentation of hydrologic regime (locations of inlet and outlet features, water depths throughout the wetland, evidence of recharge or discharge, evidence of water depths throughout the year – drift lines, algal layers, water marks, and sediment deposits).

Commented [GD(7]: This should be Corps of Engineers data forms.

6. Additional Report Content – Streams. In addition to the requirements for the General Report Content pursuant to subsection 4 above, the critical area report shall include the stream classification and rationale, based on WAC 222-16-030, as amended; if the Planning Official is unable to make an initial determination.

7. Professional Survey and Measuring Buffer Boundary.

   a. The survey shall be based on the King County Datum (NAVD 88 vertical, NAD 83/91 horizontal) and shall indicate the temporary or permanent benchmark used in the survey depicting:

      1) The wetland and/or buffer boundary on the subject property surveyed and an estimate of the location of off-site wetlands and buffers within 250 feet of the subject property, based on the determined wetland category and rating, and the buffer standards in this chapter; and/or
      2) The ordinary high water mark (OHWM) of any stream or the opening of a pipe where any stream enters or exits a pipe and/or any buffer surveyed on the subject property and an

Commented [GD(8]: Shouldn't this be 300 feet? If the alternative buffer standard is used then a 33% increase of the largest buffer (225') adds up to 300'.

estimate of the location of any off-site stream and buffer within 125 feet of the subject property based on the stream classification determination and the buffer standards in this chapter.

b. For wetlands, buffer widths shall be measured along the outer edge of the entire wetland.

c. For streams, buffer widths shall be measured outward in each direction on the horizontal plane from the OHWM or from the top of the bank if the OHWM cannot be identified (see Chapter 180 KZC, Plate __). Where a stream enters or exits a pipe, the buffer shall be measured perpendicular at the pipe opening (see Chapter 180 KZC, Plate __).

8. Site and Construction Plans. For a site proposed to be developed, plans showing the following:

   a. Site plan-view cross-sectional drawings;
   b. Slope gradients, and existing and final grade elevations at two-foot intervals;
   c. The type and extent of all critical areas and buffers on the subject property and an estimate of any offsite critical areas and buffer within 250 feet of any wetland and 125 feet of any stream measured from the subject property;
   d. An approximate location of springs, steeps, surface water runoff features, or other surface expressions of groundwater on or within 250 feet of a wetland and 125 feet of a stream from the subject property;
   e. Proposed development, including the location of existing and proposed structures, fill, grading clearing limits with dimensions indicating distances to the critical area, areas of proposed impacts to the critical areas and/or buffers (include square footage estimates), and storage of construction materials and equipment if available;
   f. A depiction of the proposed stormwater management facility and outlets for the project, including estimated areas of permanent and temporary intrusion into the critical area buffer;
   g. Other drawings to demonstrate construction techniques; and
   h. Any other information deemed necessary by the Planning Official.

Commented [GD(9]: Shouldn't this be 300 feet? If the alternative buffer standard is used then a 33% increase of the largest buffer (225') adds up to 300'.

Commented [GD(10]: Shouldn't this be 300 feet? If the alternative buffer standard is used then a 33% increase of the largest buffer (225') adds up to 300'.

9. Waiver. The Planning Official may waive the requirement of certain information for the report if it is determined that:
   a. The information is not needed to evaluate a critical area or requirement of this chapter; or
   b. If the development proposal will affect only a part of the subject property, the Planning Official may limit the scope of the required report to include only that part of the site that would be affected by the development.

90.115 Buffer Averaging

1. Applicability. Buffer averaging may be applied to wetland and stream buffers. Both the standard buffer and the alternative buffer may use buffer averaging pursuant to this section.

2. Standards. Averaging of buffer widths for either the standard buffer or alternative buffer may only be allowed if all of the following criteria are met as demonstrated in a critical areas report:
   a. The buffer width is not reduced below 75% of the required width in any location;
   b. The total area contained in the buffer area after averaging is no less than that which would be contained within the standard buffer and must be contiguous;
   c. Buffer averaging will provide additional protection to the critical area and result in a net improvement of the critical area habitat, functions, and values; and
   d. The critical area contains variations in sensitivity due to existing physical characteristics or the

Draft 8-25-2016

1. Timing.
   a. Once the vegetation or other mitigation requirements are installed or completed and inspected by the Planning Official, the applicant shall submit a copy of the approved landscape plan, or an as-built plan if installation has resulted in a change to the approved plan.
   b. After installation of mitigation, monitoring and maintenance program shall commence.
   c. A monitoring report shall be submitted to the Planning Official after each site visit, pursuant to subsection 3.b below.

2. Monitoring and Maintenance Plan. Requirements for a monitoring and maintenance plan for revegetation shall include the following, unless an alternative program is approved by the City. For all other mitigation measures (e.g. hydrology), a monitoring and maintenance schedule shall be determined on a case by case basis.
   a. The goals and objectives of the monitoring and maintenance plan;
   b. The performance standards by which the mitigation will be assessed. At a minimum, vegetation mitigation shall include the following performance standards:
      1) Year-1: 100 percent survival of installed vegetation through a combination of survival and replacement;
      2) Year-2: 80 percent survival of installed vegetation;
      3) Year-3: At least 50 percent native vegetation coverage within entire buffer for installed vegetation;
      4) Year-5:
         a) At least 80 percent native vegetation coverage on average throughout the mitigation area with two out of three of the following strata of native plant species comprising at least 20% areal cover;
            (1) Trees;
            (2) Shrubs; and
            (3) Woody groundcover (such as kinnikinnick, salal and sword fern);
         b) At least three native species each making up a minimum of 10 percent coverage;
      5) All years:
         a) Less than 10 percent noxious weeds cover using King County weed list, except less than 20 percent cover of reed canarygrass where a pre-existing or proximate monoculture occurred; and
         b) No infestation of knotweed at any time during the duration of the program period.
   c. Contingency plan identifying a course of action, corrective measures and a timetable to be taken if monitoring indicates that the performance measures have not been met.

3. Duration and Schedule of Monitoring and Maintenance Program. Unless otherwise required by the Planning Official, the minimum duration of the program shall be as follows:

   a. The duration of monitoring and maintenance program shall be as follows:
      1) Two (2) growing seasons when only a portion of the buffer is required to be vegetated. This applies to new structures of less than 1,000 square feet of footprint pursuant to KZC 90.130 and for additions to non-conformances pursuant to KZC 90.185.
      2) Five (5) growing seasons for mitigation projects and revegetating a buffer to meet the buffer standards in KZC 90.130 when buffer averaging is proposed, except for forested and. scrub wetlands; and
      3) Ten (10) growing seasons for forested or shrub wetland creation.

   b. A schedule for site visits for monitoring and maintenance is as follows:

Commented [GD(12]: Do you want to be this specific on performance standards each monitoring year? We usually just state that performance standards for survival, percent cover of native and invasive species, and species richness should be monitored to determine mitigation success.

Commented [GD(13]: Do you want to be this specific on buffer mitigation? Will this apply to created buffers as well as buffer enhancement of existing areas? It would be better to define the installed buffer plant area instead of the entire buffer.

DRAFT

compliance by not approving final inspection, by administrative enforcement action, or by any other legal means.

c. The security shall be conditioned on the work being completed or maintained in accordance with requirements, approvals, or permits; on the site being left or maintained in a safe condition; and on the site and adjacent or surrounding areas being restored in the event of damages or other environmental degradation from development or maintenance activities conducted pursuant to the permit or approval.

2. Submitted Documents.
   a. The security shall be in the form of a:
      1) Surety bond obtained from companies registered as surety in the state or certified as acceptable sureties on federal bonds;
      2) Assignment of funds or account,
      3) Escrow agreement;
      4) Irrevocable letter of credit; or
      5) Other financial security device
   b. A completed security information form, security agreement and License to Enter Property document along with the required recording fee for that document shall be submitted. All forms shall be acceptable to and approved by the City.

3. When Submitted. A financial security for performance, monitoring and maintenance shall be submitted prior to issuance of a land surface modification or building permit for plantings, improvements and other mitigation measures required in this chapter. One security shall be submitted to cover performance, monitoring and maintenance unless otherwise approved by the City.

4. Determination of the Security Amount.

   a. Determination of the security amount shall be done using the City's security value worksheet based on the approved plans, specifications, permit or approval requirements, and applicable regulations. Construction, maintenance and monitoring costs shall be based on the King County Critical Areas Mitigation Bond Quantity Worksheet;
   b. The financial security shall be equal to or greater than 150 percent of the estimated cost of conformance to plans, specifications and permit or approval requirements of this chapter, including corrective work, compensation, enhancement, mitigation, monitoring, maintenance and restoration of critical areas; and
   c. Actual security costs shall include all labor, materials, erosion control and other general items, and sales tax associated with the required work. The security shall be sufficient to guarantee that all required improvements and measures will be completed in a timely manner and with sufficient funds in accordance with this chapter. The security shall cover all work or actions not satisfactorily completed or maintained that need to be corrected to comply with the approved plans.

5. Cash Deposit. A cash deposit for the cost of City administration of the security shall be submitted with the financial security as required in KZC 175.25.

6. Duration of Performance, Monitoring and Maintenance Security.
   a. Duration of monitoring and maintenance security shall be consistent with the approved program pursuant to KZC 90.160;
   b. The performance or maintenance security may be released upon written notification by the Planning Official, following final site inspection or when the Planning Official is satisfied that the work or activity complies with permits or approved requirement;

Commented [GD(14]: This might conflict with other agencies who have not approved release of the mitigation site from maintenance and monitoring requirements. We prefer having the leverage of a security bond to force compliance of the mitigation requirements.

Teresa Swan

From: Karen Walter <KWalter@muckleshoot.nsn.us>
Sent: Thursday, September 15, 2016 3:25 PM
To: Teresa Swan
Subject: RE: Kirkland's Draft 90 - Critical Areas Ordinance Update

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Teresa,

Thank you for sending us Kirkland's Draft for Title 90, the City's Critical Areas Ordinance. From a quick review, we have some comments:

First, we recommend that the proposed stream classification changes using WAC 222-16-030 should be revisited. WAC 222-16-030 only applies after the WA Forest Practice Board adopts permanent water typing maps. This has not happened and readers are direct to us WAC 222-16-031 until the maps are adopted. The entire topic is being discussed with the TFW Policy and technical process with a recommendation to eventually go to the WA Forest Practices Board some time in the future. More information, please go to

http://www.dnr.wa.gov/about/boards-and-councils/forest-practices-board/tfw-policy-committee.

This link will take you to various policy meetings where you will see discussion/next steps regarding water typing. Also, if you are not familiar with this process, it includes the relevant state agencies (WDOE, WDNR, WDFW); a federal caucus (EPA; NMFS; USFWS); timber industry representatives; federally-recognized tribes; and counties/cities via their associations.

Second, with respect to the Critical Areas Report/BAS study that the Watershed Company did for this project, we request a copy of their culvert assessment report that was used to create the culvert map in this report.

Third, it is not clear what the recommended approach is to determine potential fish habitat in places where there is limited fish data (or no data); how streams will be assessed for potential fish habitat above partial and full human caused barriers; and how fish data that may be collected from projects where fish exclusion is needed will be used to ensure that existing and potential fish habitat is sufficiently protected. WAC 222-16-031 and its associated WA Forest Practices Board Manual 13 get at some of these issues; hence, our first recommendation above.

Fourth, the functions section on streams regarding temperatures in the Critical Areas Report/BAS is not really based on the current science. For example, in the Bear-Evans Creek watershed, there are several stream segments listed on WDOE's waterbody impairment list (i.e "303(d)" list) for not meeting state water quality standards. A water pollution assessment and implementation plan was developed (Total Maximum Daily Load or TMDL) which assessed sources causing the temperature and D.O. problems. One of the assessed problems was the lack of shade along the waterbodies and a predictive model was created to determine the "effective shade" needed to meet the water quality standards and how far from this measurement each area of the watershed is currently. The effective shade distance evaluated for Bear Creek was generally 50 meters or 165 feet (see https://fortress.wa.gov/ecy/publications/documents/0810058.pdf). Based on this information, Kirkland should be planning for similar approaches to apply to city-streams where water temperature is not meeting state standards.

Please let me know if you have any questions.

Best regards,
Karen Walter
Watersheds and Land Use Team Leader

Muckleshoot Indian Tribe Fisheries Division Habitat Program
39015 172nd Ave SE
Auburn, WA 98092
253-876-3116

From: Teresa Swan [TSwan@kirklandwa.gov]
Sent: Thursday, August 25, 2016 6:51 PM
To: Karen Walter
Subject: Kirkland's Draft 90 - CAO

Good afternoon Karen:

Attached is a cover letter and Kirkland's draft Chapter 90 – CAO. In the cover letter is a summary of the key regulations for your quick review. We would like your comments by Thursday September 15th if possible so that we can review and respond to them in our draft before our public hearing at the end of September.

Best Regards, Teresa
Teresa Swan
Senior Planner
(425) 587-3258 Fax (425) 587-3232
tswan@kirklandwa.gov<mailto:tswan@ci.kirkland.wa.us>
City of Kirkland
Planning and Building Department
123-5th Ave
Kirkland, WA 98033
Work Schedule: Tuesdays, Wednesdays and Thursdays

Teresa Swan

From: Wayne Seminoff <wayne@isomedia.com>
Sent: Friday, January 08, 2016 11:49 AM
To: Teresa Swan
Cc: Eric Shields
Subject: how can I help zone change?

Hi Theresa,

Eric Shields said that I might be able to help in some way to influence the proposed zoning change on the property I just purchased across from Costco, the Nienaber wetland and property and house on 120th Ave NE.

The change proposed is to allow a reasonable use exception to allow for retail use on that site. It currently only allows for office use even though the parcel is zoned full commercial like the Rose Hill shopping center.

Please put me on any notice list so I can keep up with the process.

Thanks,

Wayne

ATTACHMENT 8

Wayne Seminoff
P.O. Box 956
Kirkland, WA 98083

Teresa Swan
City of Kirkland
123 5th Avenue
Kirkland, WA 98033

RE: Code Change Request

February 12, 2016

Dear Teresa,

I am writing to you to request a code change to the City of Kirkland's Drainage Basin Chapter (KZC 90) that affects parcel number 1238500100 located at the address 8734 1120th Avenue Northeast in the City of Kirkland, Washington. There is a glitch in the current code that prohibits any kind of retail use to be located within a retail zone under the Reasonable Use Exception pertaining to wetlands properties.

The information published by the City of Kirkland about this property on the King County Department of Assessment's website is shown in the Drainage Basin Chapter. The site describes the current land zoning code to be RH 1B and the current property zoning code to be "C", both of which indicate this parcel being a retail zoned property. Some corrections are needed on the department website that state that no delineation study has been completed to date although a study took place in 2014. Also, the percentage deemed "unusable" is zero percent.

I recently purchased this property with the understanding that I could conduct a retail business on property that was zoned accordingly. If the minor change in the Reasonable Use Exception is not corrected, this will be a tremendous hardship for me and my family.

It appears that the retail-use was inadvertently left off when someone wrote this exception for the reasonable use for wetland properties only.

Please consider changing the reasonable use portion of the code affecting parcel number 12385001000 so that I may run a retail business on this property as the property is zoned for retail use by the City of Kirkland.

Thank you in advance for your consideration.

Sincerely,

Wayne Seminoff

ATTACHMENT 9

Date: February 16, 2016

SaveOurTrail.org

For Distribution to: City of Kirkland Council Members

With Copies to: City Manager, Kurt Triplett
Public Works Director, Kathy Brown
Planning & Building Director, Eric Shields
Parks & Community Service Director, Jennifer Schroder

We are presenting you with a letter this evening to document environmental issues associated with your proposed transit development on the Cross Kirkland Corridor Trail (the Trail).

In response to recent wetland notices and environmentally sensitive area signage along the Trail, we were prompted to look into these issues further.

What we found was eye opening and disturbing.

Based on the City GIS maps, a July 2013 study by Widener & Associates and a January 2016 report by the Watershed Company, both commissioned by the City, it was found that many wetlands, salmon-bearing streams and other wildlife habitats exist within, near, or under the Trail. The last report even identified fish species that are considered 'threatened' and 'species of concern' under the Federal Status.

On January 20, 2016, a letter was sent to the Planning Commission and Houghton Community Council from members of the City's Planning and Building Department saying that per Chapter 90 KZC Amendments, which are regulations for Critical Area Ordinance/Wetlands, Streams and Frequently Flooded Areas, the City must comply with new WA Department of Ecology guidance. The new guidance resulted in wider required critical area buffers and more restrictive buffer reduction allowances. The City now has until this June to update its wetland regulations and rating system to comply with DOE's current guidance.

The current KZC 90 clearly preserves environmentally sensitive areas like we have along the Trail and restricts incompatible land uses. It further states that construction of public, non-motorized trails is exempt from preservation of the trail whereas construction of a motorized trail is not exempt and CANNOT be built in a wetland or its buffer zone. Based on the updated guidance, large areas of the Trail could not even be touched.

Modifications are allowed ONLY if there is no feasible alternative. However, in this case a clear alternative does exist and that is E-02, BRT on I-405. This not only parallels the Trail, but also crosses it at 116th Street and includes a stop in Totem Lake. Based on the current and updated regulations, the building of motorized transit on the Trail would clearly be outside the spirit and intent of the law.

Save our Trail has always been about preserving the precious natural environment that exists along the Cross Kirkland Corridor Trail. It's now clear that the City's own existing and updated regulations enforce this preservation. We look forward to hearing the City's approach to the updated guidance rules later this evening.

In light of this information presented by the City's own staff, we urge you, the City Council, to reconsider your support for mass transit on the Trail.

Thank you, *Save Our Trail Organization*

(Note: This letter will be distributed to over forty jurisdictions, organizations and individuals that we believe should be made aware of our concerns.)

Documented Wetlands, Streams and Wildlife in the Cross Kirkland Corridor

February 16, 2016
Save our Trail, Kirkland WA

This letter was prepared by the Save Our Trail citizen group in Kirkland to ensure all parties are aware of environmental obstacles that may hinder the construction of the proposed E-03a (Light Rail) and E-06 (Bus Rapid Transit) Sound Transit 3 projects as designed on the Cross Kirkland Corridor (CKC) Trail. It is not intended to be a comprehensive examination of the full gamut of environmental challenges, but rather a compendium of concerns identified to date.

Summary

- 3rd party wetland, stream and wildlife inventory studies commissioned by the City of Kirkland, and published as recently as January 2016, have documented many wetlands, jurisdictional drainage, salmon-bearing streams and other wildlife habitats within the CKC.
- Current and planned updates (due by June 30, 2016) to Kirkland's wetland and stream protection regulations indicate that substantial portions of the CKC are incompatible with any type of motorized transit development. In fact, there are multiple locations where wetlands surround both sides of the trail, creating buffers that are in excess of the 100-foot wide corridor.
- Mandatory mitigation sequencing regulations specifically state that avoidance of modifications of wetlands and streams is the primary guiding principle, and not allowed if a "practicable or feasible alternative" is available, such as Sound Transit's E-02 Bus Rapid Transit on I-405 proposal.

Introduction

Along the CKC, many signs are posted that indicate Environmentally Sensitive Areas. As residents of Kirkland and regular users of the CKC, we wanted to understand the implication of these signs.

We observed bodies of water, including wetlands and streams, surrounding the trail and crossing under it. We also heard from people living near the trail, where many properties have recorded documents identifying wetlands and streams with property title restrictions to perpetually protect and preserve these sensitive areas. Those restrictive covenants were imposed on past, current, and future owners in perpetuity with no provisions for termination.

We then reviewed the City of Kirkland GIS maps (Attachment A). This map clearly shows that the stretch of the CKC slated for development as a bus or rail route is encumbered by several wetlands and streams. Some of the streams are identified in red, signifying their importance as fish bearing streams.

We were then made aware of a wetland and stream inventory developed in July 2013 for the City of Kirkland Public Works Department by Widener & Associates ("Wetland Investigation and Delineation Report Cross Kirkland Corridor Project" - Attachment B). The report was part of the trail building project when the BNSF rails were removed and a soft surface trail was constructed. It lists most of the wetlands and streams shown on the City GIS map (Attachment A), plus additional wetlands and streams not documented on the map. This report concluded that the majority of the wetlands and streams were determined to be "jurisdictional," and therefore subject to the Clean Water Act. It also documented multiple palustrine forested wetlands. While they were not rated, these would likely rate as Category II wetlands and would require a 50' or 75' buffer.

In 2015, as part of the City of Kirkland's process to adopt amendments to its Critical Areas Ordinance by the state deadline of June 30, 2016 (Wetlands, Streams and Frequently Flooded

Areas, known as KZC 90 - Kirkland Zoning Code Chapter 90), the City employed the services of the Watershed Company, a wetlands consulting company. The January 2016 report ("City of Kirkland Critical Areas Regulations Technical Report"), along with the City memorandum explaining the need to update the regulations, is included as Attachment C.

This report further identifies multiple wetlands and streams within, near, or under the CKC, as well as fish species in streams that cross the CKC that are considered "Threatened" and "Species of Concern" under Federal Status.

How Do the Current and Future Kirkland Zoning Codes Apply to the CKC?

Given all the 3rd party information, we looked into how the KZC 90 applied to the CKC.

The current KZC 90 clearly forbids development in wetlands, streams, lakes, and their buffers and in frequently flooded areas. These regulations were adopted by the City of Kirkland in compliance with the Clean Water Act, the Department Of Ecology, the Growth Management Act, and other local, state, and federal laws.

It is important to note that these regulations are 14 years old and must be updated by the City of Kirkland by June 30, 2016. As the Watershed Report states about the original regulations, "*Since then Ecology adopted a new wetland rating system in 2004 and then updated it again in 2014. Wetland buffers under the new Ecology guidance are greater than the City's current buffer widths and the rating system is more detailed and uses different criteria. The City must now bring its wetland regulations and rating system in line with Ecology's guidance to be consistent with GMA.*" It is important to note that, as the Watershed Company report states, "*Most if not all jurisdictions in King County have revised their regulations to comply with these requirements.*" The new regulations, as described on the City of Kirkland web page, will:

- Increase buffer widths required next to wetlands and streams where new development cannot occur;
- Use mitigation sequencing: first avoid, then minimize before buffer reduction can be proposed;
- Impose smaller percent of buffer reduction; and
- Require greater ratio of required mitigation to area disturbed.

Even the current regulations clearly state the need for protecting wetlands, streams, lakes and frequently flooded areas:

> **90.10 PURPOSE**
>
> **THESE REGULATIONS WERE PREPARED TO COMPLY WITH THE GROWTH MANAGEMENT ACT, CHAPTER 36.70A RCW. THE PURPOSE OF THESE REGULATIONS IS TO PROTECT THE ENVIRONMENT, HUMAN LIFE, AND PROPERTY. THIS PURPOSE WILL BE ACHIEVED BY PRESERVING THE IMPORTANT ECOLOGICAL FUNCTIONS OF WETLANDS, STREAMS, LAKES, AND FREQUENTLY FLOODED AREAS. THE DESIGNATION AND CLASSIFICATION OF THESE SENSITIVE AREAS IS INTENDED TO ASSURE THEIR PRESERVATION AND PROTECTION FROM LOSS OR DEGRADATION, AND TO RESTRICT INCOMPATIBLE LAND USES.**
>
> **SENSITIVE AREAS PERFORM A VARIETY OF VALUABLE BIOLOGICAL, CHEMICAL, AND PHYSICAL FUNCTIONS THAT BENEFIT THE CITY AND ITS RESIDENTS.**

There are certain activities that are exempt from this chapter. However, a motorized trail is <u>not</u> one of those activities:

> **90.20 GENERAL EXCEPTIONS**

THE FOLLOWING ACTIVITIES OR CONDITIONS SHALL BE EXEMPT FROM THIS CHAPTER:

5. CONSTRUCTION OF PUBLIC NON-MOTORIZED TRAILS WITHIN THE CROSS KIRKLAND CORRIDOR AND EASTSIDE RAIL CORRIDOR; PROVIDED, THAT (1) THE TRAIL IS LOCATED IN A MANNER THAT, TO THE EXTENT FEASIBLE, AVOIDS AND MINIMIZES IMPACTS TO SENSITIVE AREAS AND BUFFERS SUCH AS PLACEMENT ON PREVIOUSLY DISTURBED AREAS, (2) THE TRAIL PROJECT INCLUDES ON-SITE OR OFF-SITE MITIGATION OF NEW IMPACTS TO AFFECTED SENSITIVE AREAS AND BUFFERS, AND (3) PERVIOUS OR OTHER LOW-IMPACT MATERIALS ARE USED WHERE PRACTICAL.

The zoning regulation clearly states that wetlands and streams are to be preserved and protected with significant buffers. It is fair to assume that these buffers will increase based on the updated regulations from surrounding King County cities.

90.45 WETLAND BUFFERS AND SETBACKS

1. NO LAND SURFACE MODIFICATION OR TREE REMOVAL SHALL OCCUR AND NO IMPROVEMENT MAY BE LOCATED IN A WETLAND OR ITS BUFFER, EXCEPT AS PROVIDED IN THIS SECTION THROUGH KZC 90.70. SEE ALSO KZC 95.23(5)(D)(2), TREES IN CRITICAL AREAS OR CRITICAL AREA BUFFERS; AND KZC 95.50(11), INSTALLATION STANDARDS FOR REQUIRED PLANTINGS – MITIGATION AND RESTORATION PLANTINGS IN CRITICAL AREAS AND CRITICAL AREA BUFFERS. REQUIRED, OR STANDARD, BUFFERS FOR WETLANDS ARE AS FOLLOWS:

WETLAND TYPE	PRIMARY BASIN	SECONDARY BASIN
1	100 FEET	75 FEET
2	75 FEET	50 FEET
3	50 FEET	25 FEET

The current regulations state that modification of a wetland (stream) is allowed <u>only</u> if no feasible alternative is available (Similar language is used for stream protection, buffer size, modification of streams and modification of stream buffers. Please see KZC 90.90, 90.95, 90.100):

90.55 WETLAND MODIFICATION

J. THERE IS NO PRACTICABLE OR FEASIBLE ALTERNATIVE DEVELOPMENT PROPOSAL THAT RESULTS IN LESS IMPACT TO THE TYPE 1 WETLAND AND ITS BUFFER.

90.60 WETLAND BUFFER MODIFICATION

9) THERE IS NO PRACTICABLE OR FEASIBLE ALTERNATIVE DEVELOPMENT PROPOSAL THAT RESULTS IN LESS IMPACT TO THE BUFFER.

In this case, there is a documented Sound Transit alternative with E-02 (Bus Rapid Transit on I-405), which not only parallels the CKC, but also crosses it at 116th Street and includes a stop in the same location (Totem Lake). This alternative was identified by the City of Kirkland in the letter of January 20, 2016 to Sound Transit.

In Attachment D ("Wetland and Stream Buffers on the CKC Map") we tested the application of the following parameters on the trail:

1) The CKC right of way is at its optimal width of 100 feet;

2) There is only one stream on one side of the trail;

3) The stream is assumed to have the lowest classification, and thus the lowest buffer width of 25 feet.

Using these parameters, Attachment D clearly demonstrates that the CKC's useable width would be reduced from 100 feet to less than 25 feet. By applying the same parameters to other segments of the CKC where wetlands and streams exist on both sides, and where the classifications of both bodies of water are higher, it becomes clear that, in many cases *the entire width of the CKC is encumbered by buffers*.

Furthermore, If one applies the new regulations' increased buffer width requirements, then even more of the CKC becomes incompatible with the ST3 E-03a and E-06 proposals.

Conclusion:

Save Our Trail believes that, based on 3rd party evaluations (City GIS, City codes, and studies commissioned by the City of Kirkland) of the wetlands, streams, and wildlife habitats on the CKC, it would clearly be outside the spirit and intent of the law to build motorized transit on the CKC as described in E-03a and E-06. Furthermore, given the clearly documented alternative of E-02 (BRT on 405), mitigation is not an alternative.

SIGNED BY SAVE OUR TRAIL COMMITTEE on February 16, 2016

Signature	Printed Name
Santos Contreras	Santos Contreras
[illegible]	Shawn Etchevers
[illegible]	Lucas R. Toudet
[illegible]	DAVID GRESCHLER
Jan Young	Jan Young
Rose M. Dennis	Rose M. Dennis
Frank Dennis	F.L. Dennis
Rich Jones	Rich Jones
Sue Contreras	Sue Contreras
Neil Ichiki	Neil Ichiki
Sharon Riddle	Sharon Riddle

Raedeke Associates, Inc.

Wetland & Aquatic Sciences
Wildlife Ecology
Landscape Architecture

TECHNICAL MEMORANDUM

March 24, 2016

To:	City of Kirkland Planning Commission
From:	William J. Taylor M.S., Aquatic Scientist Christopher Wright, Soil and Wetland Scientist Raedeke Associates, Inc.
RE:	Kirkland Stream Buffer Code Update Recommendations Current Science on Stream Buffer Policy

The following technical assessment of stream buffer best available science is intended to support a code modification that would recognize more appropriate stream buffer designations in highly urbanized environments to better attain the environmental goals of such environmental protection policies.

Buffer Widths for Urban Stream Buffers: The challenges and policy alternatives for urban environments

The Challenge in the Use of Fixed Width Buffers within Highly Urbanized Basins

Riparian buffer have been used as an environmental policy measure to protect stream shorelines, their receiving waters, and associated aquatic organisms for many decades. Stream buffers provide ecologically beneficial functions to mitigate land use impacts through filtering of land surface runoff to improve water quality, providing infiltration to support local ground water levels, providing shade for temperature control, and contributing organic inputs to the food web (Polyakov et al. 2005). However these benefits have been documented principally for large scale areas where the extended continuity of buffers both laterally and longitudinally provide continuous buffers that will have a landscape-scale cumulative and even synergistic effect on stream benefits, such as in large agricultural or silvicultural settings.

However, in highly developed urban settings the degree of impact to streams becomes acute and extensive through conversion of permeable soil surface to impervious surfaces (asphalt, concrete, and roofs). These land surface conversions not only collect

contaminated storm drainage and deliver it directly to stream channels resulting in channel erosion and incision and exposure to pollutants, but vegetative buffers are either eliminated where the stream is fully piped or greatly reduced where channels do remain. The combined effects of hydrologic change, runoff of toxic substances, and the loss of riparian cover among other urban environment impacts all become a compounded and even synergistic set of impacts to urban streams resulting in what is now called the "urban stream syndrome" (Walsh et al. 2005).

In an attempt to reverse these impacts, stream buffers can be applied as one element of a stream recovery or protection measure in a multifaceted prescription across the basin (along with other commonly used measures such as green stormwater management practices, channel bed control, culvert daylighting, and eliminating sources of toxic substance). However, the overall success of these combined prescriptions must also be on a scale "that match the scale of the problem" to be successful (Hughes et al. 2014a). Even with potential extensive application on a basin-wide scale, the implementation of such broad scale measures can become economically untenable (Polyakov et al. 2005).

Within heavily urbanized stream basins, then, application of standardized uniform stream buffer widths become a fragmented attempt to apply the known benefits of buffers to small localized conditions where the added benefits pale in comparison to the cumulative combination of multiple impacts continuing from upstream. Wahl et al. (2013) conclude from their findings in Western Washington that patchy riparian forests did not improve stream conditions in heavily degraded streams, and:

> "These patterns are consistent with results from other studies where stream community composition was best predicted by land use at larger spatial scales and add to the growing literature suggesting that small-scale riparian restoration can be inadequate to improve biotic conditions in heavily impacted streams."

Effectiveness of Fixed Buffer Widths versus Variable Buffer Widths

The intended beneficial feature of riparian buffers is to allow upland surface water runoff to pass through a vegetated and permeable soil surface before reaching the stream channel, thereby using the processes of filtration and infiltration to better control instream flow regimes, and reduce contaminated runoff entering the channel. The use of buffers to mitigate water quantity and quality impacts of runoff to stream habitats is highly variable due to the common concentration of flow that short circuits and bypasses the filtering and infiltrating processes of riparian soils (Polyakov et al. 2005).

The process of bypassing riparian buffers can predictably be more acute in urban environments where various small scale impervious areas (e.g. lawns, driveways, and roof downspouts) are isolated from each other yet discharge more or less directly to a stream, resulting in such localized concentrated flows. Much of these localized impervious flows are directed to storm drainage systems in the first place, which are in fact designed to bypass intervening ground surfaces and deliver the flows directly to the stream. The result can easily be very little of local runoff effectively being treated by riparian buffers.

As an alternative to the use of increased buffer widths that may not function effectively as a result of localized concentrated flows, green stormwater treatment designs for urban development purposefully directs localized stormwater runoff from residential and commercial development to dispersed infiltration features to facilitate infiltration and reduced runoff volumes. Municipalities in the Puget Sound Basin are now required to implement such stormwater management techniques for new and redevelopment, resulting in a more direct mitigation of this primary source of impact to urban streams. Essentially, direct reduction of the source of flows through infiltration, retention and detention is more effective than depending on flows to be uniformly passed through buffers.

As yet another riparian buffer policy approach, "precision conservation" takes into account "spatial and temporal variability across landscapes" when prescribing conservation measures such as buffers, and take into account local landscape and hydrologic conditions that would be served by wider or narrower buffer widths (Berry et al. 2003). This approach would prescribe variable buffer widths that are targeted to protect areas where the buffers would have greater effect on the resulting local and downsteam environments of biological significance, bringing to bear information using remote sensing and GIS tools.

The Watershed Company (2016) report on best available science to the City of Kirkland recognize much of the best available science comes from non-urbanized environments, and consequently, the importance of local municipal conditions when applying best available science:

> "The review of science acknowledges several limitations of applying the results of primary scientific literature to policy decisions. In particular, it is important to recognize the setting of scientific investigations, as management recommendations differ between undeveloped forested environments and highly developed urban areas. For example, in urban areas, it is important to account for the presence of engineering and public works projects, such as surface water detention facilities that may alter hydraulic conditions and sediment transport, or stormwater routing,

> which may cause runoff to bypass riparian areas altogether. Another consideration when evaluating primary literature is that scientific references commonly evaluate the effects of a single set of conditions, or in some cases several specific conditions. Depending on the specific conditions and function tested, outcomes may vary. Thus, although stream and riparian conservation measures should be based in BAS, some level of policy interpretation must be made by each local jurisdiction based on local conditions."

Washington State Department of Ecology (2013) has also recognized the need for variable buffer widths as related to wetland guidance rather than stream buffers, but the principals behind the need for variable buffers remain the same:

> "Fixed-width buffers may not adequately address the issues of habitat fragmentation and population dynamics. Several researchers have recommended a more flexible approach that allows buffer widths to be varied depending on site-specific conditions.
>
> Update: A request for a more flexible approach is a common theme among recent articles (42, 62, 67, 95). The research reinforces the fact that buffers and fragmentation are only two of many variables that affect the dynamics of wildlife populations. Other factors that have been found to affect the survival of wetland-dependent species are surrounding land use, the structure of the plant community, and the intensity of human disturbance. If buffers are to be used to protect the water quality in wetlands, the factors that need to be considered are slope, soil chemistry, soil structure and the plant community."

Booth (2005) notes "changes in flow regimes, in particular, are an important pathway by which urbanization influences biotic conditions. Precision (variable) riparian buffers would especially prioritize targeting hydrologic source areas that are not otherwise controlled (Qui 2009). It would also be consistent with the priority actions for urban rehabilitation recommended in Hughes et al. (2014a) to:

> "(1) protect upstream high-quality catchments and habitats and (2) reestablish ecosystems processes and connectivity in the altered places (especially water quality and hydrological regime), before attempting to rehabilitate specific sites lower in the watershed."

This is in contrast to cases where:

> "well-meaning mitigation projects are implemented at the site or reach scale in streams, lakes, and rivers when many of the limiting factors are occurring at the watershed scale." (Hughes et al. 2014a)

This latter comment would apply equally to implementation of ineffective or poorly targeted uniform buffer widths.

Variable buffer widths would also help target longitudinal buffer continuity in higher priority basins where existing buffers may have greater existing continuity. The Watershed Company (2014) recognized:

> "Longitudinal continuity of buffers along streams is also an important factor determining the effectiveness of buffers at improving channel conditions. Riparian continuity is correlated with abundance and diversity of sensitive invertebrates (Wooster and DeBano 2006) and metrics of physical stream conditions (McBride and Booth 2005). On the other hand, fragmented riparian zones may not be sufficient to improve degraded instream habitat conditions." McBride and Booth (2005) likewise note "physical conditions can improve downstream from degraded stream reaches if the riparian zone is substantially forested and devoid of road crossings."

Variable buffer widths are also in line with concentrating development as a means of reducing impervious area at the catchment scale as recommended by Hughes et al. (2014b). This results in reducing development pressure in prioritized basins where the existing degree of impact is currently more manageable. Allowing reduced buffer widths where existing basins are highly impacted by existing development infrastructures would, to that degree of concentrated development, reduce sprawl in underdeveloped basins.

The use of variable buffer widths indicates there are locations in a stream length where the local landscape conditions and receiving water will benefit from a wider buffer width, and other areas where increased buffer widths will have a highly diminishing benefit and the receiving waters will equally not benefit substantially from increased buffer widths. As noted by McBride and Booth (2005):

> "policies and management strategies for protecting stream integrity in developing areas can be improved. With more robust knowledge the landscapes can be modified to preserve those streams or stream segments

that still function while targeting rehabilitation efforts to those degraded portions of streams that have realistic chances for improvement."

The application of fixed, one size fits all, buffers to streams within an urban environment fails to meet the goal of environmental protection, circumvents the objectives of sustainable growth management, and increases financial burdens on citizens without providing the improvement to streams that they are intended to provide.

The application of precise, site specific buffers as well as appropriately designed and implemented stormwater controls would provide greater environmental protection and habitat improvement than the proposed code changes will.

Raedeke Associates, Inc. would welcome the opportunity to meet with the City of Kirkland staff and their consultants to discuss ways to implement a variable buffer width policy.

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Teresa Swan

From: Paul Stewart
Sent: Friday, April 22, 2016 1:19 PM
To: Oskar Rey; Kevin Raymond
Cc: Teresa Swan; Eric Shields; Joan Lieberman-Brill
Subject: FW: Proposed Changes to Chapter 90 - Critical Area Ordinance

FYI

From: Brent Carson [mailto:brc@vnf.com]
Sent: Friday, April 22, 2016 12:15 PM
To: Planning Commissioners <PlanningCommissioners@kirklandwa.gov>
Cc: Eric Shields <EShields@kirklandwa.gov>; Jeremy McMahan <JMcMahan@kirklandwa.gov>
Subject: Proposed Changes to Chapter 90 - Critical Area Ordinance

Planning Commission Members,

Most of you know that I am a land use attorney with several development clients in Kirkland. I am writing to suggest the inclusion of two important provisions in the City's proposed revisions to Chapter 90 – Critical Areas Ordinance (CAO).

The CAO update is likely to include a significant expansion of wetland buffers and other provisions that could dramatically increase regulatory burdens under the new CAO. Many projects have been built in Kirkland or are in the planning or application stages that were or are being designed based on the buffers and other requirements in the existing CAO. In the interest of fairness, I would encourage you to consider inclusion of the following two provisions in the new CAO.

First, I would ask you to include a grandfathering provision within Chapter 90 that would allow applicants that have submitted, prior to adoption of the new CAO, a complete application for a planned unit development, subdivision, short subdivision, Binding Site Plan, or a zoning permit, to be subject to the provisions of Chapter 90 in effect upon submittal of the complete application. As you may know, common law vesting has been the subject of significant litigation recently and is in a state of flux. This uncertainty regarding vesting creates a real and significant impact on the development community. Some jurisdictions, such as Snohomish County, have adopted broad new vesting rules, which we certainly would encourage in Kirkland. Many local governments have also included specific grandfathering provisions in new land use ordinances when the new ordinance imposes significant regulatory changes that would cause hardship to those applicants who are not legally vested but who have already submitted detailed land use applications in reliance on existing codes. I encourage the Planning Commission to include in your proposed CAO changes a provision that would assure that the new CAO not be imposed on anyone who has filed a complete land use application prior to the date of adoption for the new CAO.

Second, I would ask you to include an express provision in the new CAO that addresses legally authorized or established breaks in a stream and wetland buffer. The Shoreline Master Program was adopted with the following language in KMC 83.500.4:

> *Modification to Buffer for Divided Wetland Buffer – Where a legally established, improved public right-of-way, improved easement road or existing structure divides a wetland buffer, the Planning Official may approve a modification of the required buffer in that portion of the buffer isolated from the wetland by the road or structure, provided the isolated portion of the buffer:*
>
> *1) Does not provide additional protection of the wetland from the proposed development; and*

2) Provides insignificant biological, geological or hydrological buffer functions relating to the portion of the buffer adjacent to the wetland.

This or similar language should be included in the new CAO. This is different from the nonconformity discussion you have had at your previous meeting. This provision is needed to address the situation where an existing wetland or stream buffer is crossed by a legally established road or structure, effectively cutting off the functions and values of that stream or wetland buffer beyond the road or structure. A new development proposed beyond the road or structure, which would otherwise be within the buffer area, should be able to demonstrate that the buffer in the location of the new development no longer serves any value.

I will be unable to attend your meeting on Thursday but would appreciate your discussion of these issues.

Brent Carson | Partner

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Teresa Swan

From: Jeremy McMahan
Sent: Monday, April 25, 2016 7:52 AM
To: Teresa Swan
Subject: FW: Comments regarding the Proposed Wetlands & Streams Code Amendments

From: Stephen Haugen [mailto:haugensd@outlook.com]
Sent: Sunday, April 24, 2016 2:55 PM
To: Jeremy McMahan <JMcMahan@kirklandwa.gov>
Subject: Comments regarding the Proposed Wetlands & Streams Code Amendments

My wife and I spoke to you before the last commission meeting. I sent my comments to the commissioners in an email. I am sharing this with you also. Thanks for taking the time to talk with us and read my comments.
Steve Haugen

As a home owner with property that is adjacent to a stream, I will be affected by your proposed wetlands and streams code changes. I have attended two previous public meetings regarding this issue. At these meetings I have heard a wide range of ideas for the final buffer and buffer requirements and how this would affect the future development of an existing home owners property. The current staff proposal that will be reviewed on April 28th has made changes from previous versions, but as an affected home owner I still have concerns.

First, in an urban developed residential area, to now increase a buffer zone along a stream will have little impact to improving the health of the stream while having potential major impact to the existing or future home owner. A wider buffer zone for streams should have been considered before development occurred. Once a home owner has bought the property at a comparative price to a home not in an affected area, the home owner should have the right to develop their property in the same consistent way that any other home owner in the same neighborhood can. To change the development rights of an existing home owner that is in the proposed buffer zone will ultimately decrease the resale value of the home and minimize what improvements the current or future home owner can make to the property that they own. This is the equivalent of a land grab without giving compensation for the diminished use or valuation.

Second, the proposed code change is completely non enforceable unless a home owner comes to the city for a construction permit. Home owners will continue to do improvements or alterations with potential negative actions to the stream quality, either out of disregard of the code or lack of understanding. There is no way that the city has staff potential to enforce actions taken by home owners along every stream in Kirkland. The home owner's action may be as simple as using fertilizer or pesticides that would be undetectable and unenforceable.

Third, commissioner Mike Miller spoke at a prior meeting about how does having the buffer 100 feet instead of 50 feet in a developed residential area improve the quality of the stream. His point, if I am correct is that most of the impact from these developed properties is already done and to add an increased buffer, unnecessarily places a burden an potential financial impact to the home owner with minimal improvement to the health of the stream. As an affected home owner a 50 foot buffer, even for a fish bearing stream would effect way less home owners than the proposed 100 feet for a fish bearing stream.

Fourth, being personally concerned about the stream and it's health, over the last 30 plus years I have made significant improvements to the greenbelt buffer and stream area behind my property. These changes would all comply with your current vegetation requirements and all have improved the buffer zone and stream protection

for the area behind my household. As new code is being proposed and written now, should there be a provision for buffer improvements that a home owner has already made and should this not help to minimize the proposed buffer zone. My efforts to protect the health of the stream should be acknowledged and provide less limited use impact to the property that I own.

Lastly, thank you for reading and considering my comments. I would hope that you would consider fairness for the home owners that will be affected by this proposed code change as you finalize the policy regarding streams. The majority of the home owners that will be affected by these changes, I believe have no knowledge that this process is under way by the city. Many of these home owners will have potential consequences to their property without providing their input. Again, commissioner Mike Miller spoke to this issue at a previous meeting. There should be some additional consideration given to how the city could reach out to the affected home owners.

Steve Haugen

The Calvin Group

June 14, 2016

Chairman and Planning Commissioners
City of Kirkland
123 5th Avenue
Kirkland, WA 98033

Re: Proposed Chapter 90 Update

Dear Chairman and Planning Commissioners:

On behalf of my client Aliza, Inc. we are writing concerning the proposed Chapter 90 Kirkland Zoning Code – Critical Areas update. Based on our review of the proposed update, we are concerned that the proposed revisions may negatively impact my client's use of their commercial property located at 12700 116th Ave NE, Kirkland, WA (Tax Parcel Numbers 2826059098 and 2826059103) as follows:

- Increase buffer width requirements from the existing wetland (previously classified as a Type III Wetland by the Watershed Group);
- Increase minimum buffer width requirements under the proposed Buffer Modification and Enhancement standards;
- Relocation of previously installed utility connections and conduits installed as part of the City of Kirkland 116th Ave NE Roadway Improvement project to avoid wetland buffer impacts.

Background
In 2008 the City of Kirkland approved a Wetland Buffer Modification and Enhancement Plan proposed by the applicant for the modification and enhancement to a Type III Wetland located on the southern portion of the subject property. This approval was necessary to allow vehicular access to the property in adherence to the City's policies regarding driveway spacing and access restrictions imposed by the Washington State Department of Transportation from NE 128th Street. Development of the subject property is restricted due to the previous widening of 116th Ave NE by the City of Kirkland, the construction of the NE 128th Street overpass improvements by Sound Transit and the Washington State Department of Transportation, the previously mentioned wetland on the southern portion of the property, the existing driveway improvements for Aegis Assisted Living Facility located to the west, and the previously installed storm drainage, sanitary sewer, water, and dry utility extensions installed in conjunction with the City of Kirkland Roadway Improvement project in 2006.

P.O. Box 12391 / Mill Creek, WA 98082 / P (206) 715-6932 / F (425) 379-5881

Request
The owners support the City of Kirkland's proposal to allow Buffer Modification and Enhancement proposals for degraded wetland buffers in a manner and fashion that allow reasonable use of undeveloped properties. In addition, the owners request that the City of Kirkland allow for the Administrative (Planning Director) Review and Approval of deviations for driveway and utility access within wetland buffers when no reasonable alternatives are available.

Thank you for your consideration of our comments and concerns. If you have any questions or comments, please feel call me at (206) 715-6932.

Regards,

Larry Calvin
The Calvin Group

ECOLOGICAL SOLUTIONS, INC.
T 206-285-3015 | F 206-283-0323 | C 206-841-3801
4013 32nd Avenue West
Seattle, WA 98199

June 20, 2016

Mr. Bill Anspach
934 6th St. South #200
Kirkland, WA 98033

Re: Application of Best Available Science and Stream Buffers

Dear Bill

At your request, Ecological Solutions has assessed the application of the Best Available Science (BAS) and stream buffers to your properties located at 934 and 930 6th Street South in Kirkland, Washington. This letter provides a summary of BAS as it applies to protecting stream functions with buffers, existing buffer conditions and functions, and potential implications of application of proposed update to the City of Kirkland's (City) existing zoning code. Both the City's current application of stream buffers with respect to use of a radial buffer for measuring the location of the stream buffer relative to the inlet and outlet to existing culverts and your situation are unique.

I have been involved in assessment of BAS updates to existing critical areas ordinances for a couple of municipalities (City of Bothell and City of Mukilteo) and am accustomed to reviewing and applying buffer requirements for protection of critical areas throughout Washington based upon critical areas ordinance requirements for 25 years. Though I have not conducted a systematic examination of all of the critical areas codes of municipalities throughout the state, as an environmental professional working in Washington since 1991, I know of no other jurisdictions that use a radial buffer for determining buffers at the inlets and outlets of culverts. There does not seem to be any clear BAS to support this approach and none of the other municipalities in the surrounding area (City of Bothell, City of Renton, City of Redmond, Pierce County, King County and Thurston County among others) use this approach. This letter assesses the specific situation of your proposed development at 6th Street South in Kirkland and whether the BAS appears to supports use of a radial buffer at the inlet of the piped segment of Houghton Creek to protect stream functions and values.

SUMMARY OF BAS REQUIREMENTS

The state's Growth Management Act (GMA) codified in the Revised Code of Washington (RCW) at Chapter 36.70A requires that municipalities develop regulations to protect environmentally critical areas, such as streams and wetlands. RCW 36.70A.172 stipulates that municipalities shall include BAS in developing policies and regulations to protect the functions and values of critical areas. The state's rules for identifying and including BAS into policies and regulations are found in the Washington Administrative Code (WAC) 365-195-900 to 365-195-925. These rules provide guidance to assist cities

and counties in identifying and including BAS to comply with statutory obligations under the GMA. Most municipalities, including Kirkland, have done this through development and adoption of critical areas ordinances. Once adopted, these ordinances are typically codified in each jurisdictions municipal code. Kirkland has codified their critical areas regulations for protection of streams and wetlands in the Unified Development Code (UDC). Kirkland's UDC for protection of streams is found in Chapter 90 of the zoning code. Cities are required by the GMA to periodically update regulations to incorporate BAS into the protection of environmentally critical areas. The City is in the process of updating their code now.

Stream and Stream Buffer BAS

The Washington State Department of Ecology (Ecology) and Washington Department of Fish and Wildlife (WDFW) are two state agencies with jurisdiction over streams and wetland resources and have developed some of the BAS for protection of these critical areas. A few of the many scientific documents generally accepted as included in the BAS that identify functions and values of streams and the role of riparian and wetland buffers in protection of those functions and values are:

- Ecology's synthesis of the science on buffers (Sheldon et al 2005);
- Ecology's update of the state of the science on wetland buffers (Hruby 2013);
- WDFW's Aquatic Habitat Guidelines (Nelson and Bates 2000);
- WDFW's Management Recommendations for Washington's Priority Habitats: Riparian (Knutson and Naef 1997);
- National Research Council's (2002) book on riparian area functions and management; and
- The book by Robert Naiman and others (2005) on the ecology, conservation, and management of riparian areas.

Both streams and associated riparian buffers provide functions and values to society. Among the more important functions and values streams provide include habitat for aquatic biota, migration corridors for fish and wildlife, support populations of economically and culturally important fish and shellfish, and water to sustain life. Streams in urbanized areas provide these and other functions and values to a greater or lesser extent, depending on the extent of development and the associated direct and indirect impacts on the hydrology, water quality, and water quantity. High levels of development, like those in Kirkland in the watershed of the stream piped under your property, have resulted in direct loss of habitat from conversion of undeveloped lands covered by native plant communities to developed land uses. In addition, developed land uses have led to the degradation of aquatic habitat also through direct and indirect impacts to water quality and water quantity. Development in the watershed degrades the quality of instream and adjacent riparian habitat by altering timing, duration, and magnitudes of peak and base flows; reducing shallow ground water recharge and discharge; fragmenting habitat; reducing the quantity and quality of remaining habitat; reducing water quality through the introduction of particulate and dissolved pollutants from stormwater runoff from impervious surfaces; and increasing erosion and sedimentation.

Riparian buffers are not critical areas but also provide habitat functions and help to protect the habitat, hydrologic support, and water quality functions of streams. Buffers of native vegetation adjacent to aquatic resources can reduce impacts from adjacent land uses through various physical,

chemical, and/or biological processes (Sheldon et al. 2005). Functions commonly attributed to riparian buffers based on the sources cited above include:

- Filtering and/or removing pollutants (e.g., sediment, nutrients, and toxic substances);
- Moderating temperature;
- Contributing fine and coarse particulate organic matter, which is a source of energy to aquatic food webs (e.g., leaves, bark, and branches);
- Contributing habitat forming features (e.g., large woody debris [LWD]);
- Providing habitat for riparian dependent wildlife;
- Maintaining habitat connectivity; and
- Reducing light and noise from adjacent developed areas.

The physical and biological structure of buffers, including slope, soils, and width influence the degree to which they may provide these various functions. Not all riparian buffer areas provide all of these functions. Some functions may not be provided at all. And, depending on the structure and characteristics of the buffer, some or all functions may be provided at relatively low levels.

EXISTING CONDITIONS

Your properties on 6th Street S are rather unique in regards to the position in the watershed in relation to the nearby stream and riparian buffer. As shown by Figure 1, which is excerpted from the City's Surface Water Management Plan, there is a degraded, urban stream (Houghton Creek) just upstream of your property (red dot). This stream (Houghton Creek) originates as an open channel near Interstate 405 (red arrow) in the Moss Bay basin. It then enters a pipe for several hundred feet before daylighting upstream of your property for a short distance. Near the east edge of your property and the north boundary of the Houghton Slope A basin, the stream enters a culvert all the way to Lake Washington. Though Figure 1 suggests there are open segments of this stream west of your property, an email from Jenny Gaus, Kirkland Public Works Department dated May 19, 2016 confirmed that the stream is piped all the way to the lake and there are no daylighted sections west of your property.

Figure 1. Unnamed stream near the Anspach properties at 934 6th Street S (red dot) in Kirkland, Washington.

Houghton Creek enters a pipe approximately 16 feet from the eastern boundary of your property . According to the boundary and topographic survey (Attachment A), the highest point is at this east edge of your property and has an elevation of approximately 210 feet. The remainder of the property slopes gradually downward generally towards the west boundary. Elevations at the west boundary are variable ranging from about 200 to 201 feet.

Buffer Function

Photograph 1 - Looking west at the inlet to the piped section of the stream near the east edge of your property on February 6, 2015.

As the stream is enclosed within a pipe, the buffer on your property has negligible or no impact on stream functions and values. Surface topography slopes to the west, such that any precipitation that lands on pervious buffers could infiltrate and recharge shallow ground water but would not support base flows in the stream as it is completely enclosed in pipes downgradient of your properties. Similarly, buffer vegetation would not have the opportunity to filter or remove pollutants from stormwater runoff as buffer vegetation is at the highest point of the property and there are no pollutant generating surfaces east of it. Vegetation in the buffer likely has no effect on stream temperature as it does not directly shade the stream and the surrounding properties are largely developed. Buffer vegetation does not interact with the stream at all and there is little opportunity for organic matter to be conveyed to it except perhaps from strong westerly winds, which might blow finer particulate organic matter into the stream. As shown in the photographs 1 and 2 and Attachment A, landscaping on the northern of the two parcels may provide a low level of habitat for riparian dependent wildlife and help reduce light pollution slightly from sources to the northwest of the stream. The structure and density of the landscaped buffer is unlikely to provide any noise reduction. Buffer functions are nominal at best because of existing topography, perpendicular orientation relative to the open segment of the stream to the east (see Attachment A), and the fact that the stream is within a pipe downstream of your properties all the way to Lake Washington, according to Ms. Gaus.

PROPOSED STREAM CLASSIFICATION AND BUFFER MODIFICATIONS,

According to a 2007 study done by Wetland Resources for the adjoining property to the east owned by Mr. Sabegh, Houghton Creek is perennial and non-fish bearing. According Table 3.1 of the Critical Areas Regulations Technical Report (The Watershed Company 2016), there is 46% existing impervious surfaces in the Houghton Slope A basin (i.e., this stream basin). The Watershed Company confirmed there are no fish in Houghton Creek based on past studies. If the City adopts the Washington State Department of Natural Resources stream classification system (WAC 222-16-030) as proposed, the stream would appear to be Type Np (non-fish bearing and perennial). Based upon information on the City's website (accessed 5/14/16) for the April 28, 2016 Planning Commission Study Session, it appears that the degraded stream buffer standard in Table 1 of 65 feet would be recommended by staff. As of the

date of this letter, that would appear to apply radially from the inlet to the pipe near the east edge or your property as there does not appear to be any proposal to change how buffers are determined in such circumstances. The practical effect would be that any proposed future development would be constrained by the imposition of a radial stream buffer on a portion of your property unless a code revision is made to allow for administrative review or similar provision to waive or eliminate the buffer under unique circumstances (e.g., this situation).

Suggest Code Modification for Narrow Exception

The landscaped area on the southeast corner of your property near the inlet to the piped section of the stream does not protect stream functions nor does there appear to be much, if any, value. There also does not appear to be significant functional benefit or value to daylighting the segment of stream now inside a pipe between the east edge of your property and 6th Street S because the stream is enclosed in a pipe all the way to Lake Washington downstream or your property. It appears both highly unlikely and cost prohibitive to daylight piped segments south of 6th Street S, which would be necessary to significantly improve stream functions and values. Thus, Ecological Solutions would advocate that the City modify the zoning code to end the buffer of Houghton Creek at the edge of the effective buffer. In your case that would be at the east property boundary for the following reasons:

Photograph 2 – Looking west across the Sabegh property at the channelized stream and cut stems of invasive knotweed and blackberry and culvert inlet (arrow) on February 6, 2015.

Photograph 3 – Looking east upslope. Note the height of the berm above the inlet to the pipe (arrow) compared to Photographs 1 and 2.

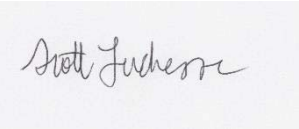
- Ending the buffer at the inlet to the pipe would not result in a significant change in water temperature;
- Ending the buffer at the inlet to the pipe would not result in a significant change of physical or chemical characteristics or sources of water to the stream;
- Ending the buffer at the inlet to the pipe would not significantly change the quantity, timing or duration of the water entering the stream;
- Ending the buffer at the inlet to the pipe would not result in the significant introduction of pollutants to the stream;

Other municipalities have similar provisions in their critical areas ordinances and adopting this or some other similarly narrow exception would be consistent with BAS and GMA. This could take the form of adopting an administrative review process that allows the authorized official to eliminate or reduce buffers under unusual circumstances such as yours where the buffer is not functioning to protect stream functions. Such modification or elimination of standard buffers through an administrative review process would be contingent on a report such as this one prepared by a qualified professional that demonstrate functions are not provided. Houghton Creek is a highly degraded, urban stream that functions predominantly as a conduit for conveying urban runoff to Lake Washington. Ending the buffer at the inlet to the pipe at the east edge of your property would not alter this fact or adversely affect any functions typically attributed to urban streams.

If I may provide any additional information or clarification on this report, please call me at (206) 841-3801.

Sincerely,

ECOLOGICAL SOLUTIONS, INC.



SCOTT LUCHESSA
Certified Ecologist

Attachments:
Attachment A – Topographic and Boundary Survey

REFERENCES

Bolton, S. and J. Shellberg, 2001. Ecological issues in floodplains and riparian corridors. University of Washington, Center for Streamside Studies, Seattle, WA.

Hruby, T. 2013. Update on Wetland Buffers: The State of the Science, Final Report, October 2013. Washington State Department of Ecology Publication #13-06-11. Olympia, WA.

Knutson, K.L., and V.L. Naef. 1997. Management recommendations for Washington's priority habitats: riparian. Washington Department of Fish and Wildlife, Olympia, WA.

Naiman, R.J., H. Decamps, and M.E. McClain. 2005. Riparia: ecology, conservation and management of streamside communities. Elsevier Academic Press, Burlington, MA.

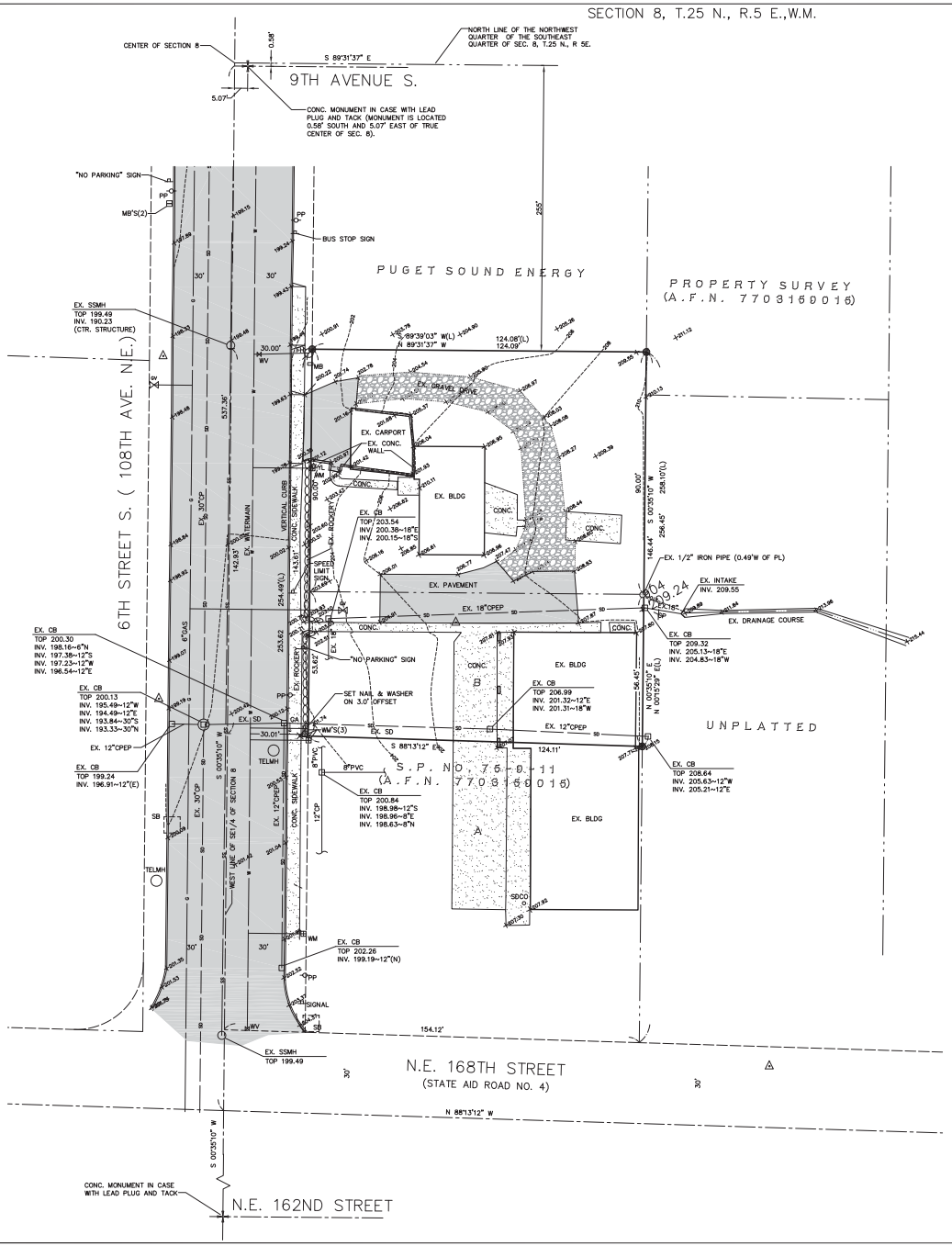
National Research Council. 2002. Riparian areas: functions and strategies for management. The National Academies Press,Washington, DC

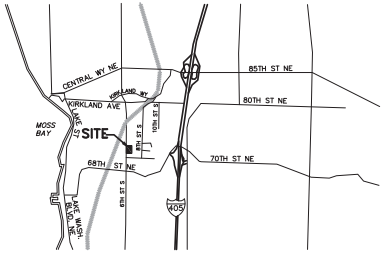
Sheldon, D., T. Hruby, P. Johnson, K. Harper, A. McMillan, T. Granger, S. Stanley, and E. Stockdale. 2005. Chapter 5.5 Buffers. In: Wetlands in Washington State - Volume 1: A Synthesis of the Science. Washington State Department of Ecology. Publication #05-06-006. Olympia, WA.

The Watershed Company. 2016. Critical areas regulations technical report. Prepared for the City of Kirkland Planning and Building Development Department.

ATTACHMENT A

TOPOGRAPHIC AND BOUNDARY SURVEY





VICINITY MAP
SCALE: 1"=2,400'

LEGEND

- = EXISTING ASPHALT
- = EXISTING CONCRETE SIDEWALK
- = EXISTING 2' CONTOURS
- = EXISTING 10' CONTOURS
- WM = WATER METER
- FH = FIRE HYDRANT
- WV = WATER VALVE
- PP = POWER POLE
- GA = GUY ANCHOR
- YL = YARD LIGHT
- = FENCE
- CBMH = CATCH BASIN MANHOLE
- CB = CATCH BASIN
- W = WATER LINE
- SD = STORM DRAINAGE LINE
- SS = SANITARY SEWER LINE
- SSMH = SANITARY SEWER MANHOLE
- EB = ELECTRIC BOX
- MB = MAILBOX
- SIGN = STREET SIGN
- ROCKERY = ROCK RETAINING WALL

LEGEND–MOMUMENTS

- = SET IRON PIN WITH PLASTIC CAP NO' D 22969
- = FOUND IRON PIN AND CAP AS NOTED.
- = EXISTING CASED CONTROL MONUMENT AS NOTED.
- = SET NAIL AND WASHER NO'D 22969
- (L) = REFERS TO LEGAL DESCRIPTION

LEGAL DESCRIPTION

PARCEL A:

LOT B, CITY OF KIRKLAND SHORT PLAT NO. 75-9-11, RECORDED NO. 7510290579;

SITUATE IN THE CITY OF KIRKLAND, COUNTY OF KING, STATE OF WASHINGTON.

PARCEL B:

THE NORTH 90 FEET OF THAT PORTION OF THE NORTHWEST ¼ OF THE SOUTHEAST ¼ OF SECTION 8, TOWNSHIP 25 NORTH, RANGE 5 EAST, W.M., IN KING COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

BEGINNING ON THE NORTHERLY LINE OF STATE AID ROAD NO. 4, AT A POINT 154.12 FEET EASTERLY OF THE INTERSECTION OF SAID NORTHERLY LINE WITH THE WESTERLY LINE OF SAID SUBDIVISION;

THENCE NORTH 00°15'29" WEST PARALLEL WITH THE WEST LINE OF SAID SUBDIVISION, A DISTANCE OF 258.10 FEET MORE OR LESS TO THE SOUTHERLY LINE OF THE NORTHERLY 255.00 FEET OF SAID SUBDIVISION;

THENCE SOUTH 89°39'03" WEST PARALLEL WITH THE NORTH LINE OF SAID SUBDIVISION 124.08 FEET MORE OR LESS TO THE EAST LINE OF THE WEST 30 FEET OF SAID SUBDIVISION;

THENCE, SOUTH 00°35'10" EAST ALONG SAID EAST LINE 254.49 FEET MORE OR LESS TO THE NORTHERLY LINE OF STATE AID ROAD NO. 4;

THENCE SOUTH 88°52'36" EAST ALONG SAID NORTHERLY LINE 124.12 FEET MORE OR LESS TO THE POINT OF BEGINNING;

SITUATE IN THE CITY OF KIRKLAND, COUNTY OF KIND, STATE OF WASHINGTON.

TITLE ENCUMBRANCES

1. THE PROPERTY IS SUBJECT TO ALL COVENANTS, CONDITIONS, RESTRICTIONS, RESERVATIONS, EASEMENTS OR OTHER SERVITUDES, IF ANY, DISCLOSED BY SHORT PLAT RECORDED UNDER RECORDING NO. 7510290579.

RIGHTS OR BENEFITS, IF ANY, WHICH MAY BE DISCLOSED BY THE RECORDED DOCUMENT(S) ABOVE AFFECTING LAND OUTSIDE THE BOUNDARY DESCRIBED IN SCHEDULE A. (AFFECTS PARCEL A)

5. THE PROPERTY IS SUBJECT TO COVENANTS, CONDITIONS AND RESTRICTIONS IMPOSED BY INSTRUMENT RECORDED ON FEBRUARY 7, 1986, UNDER RECORDING NO. 8602070863, INCLUDING BUT NOT LIMITED TO RIGHTS OR BENEFITS WHICH MAY BE DISCLOSED AFFECTING LAND OUTSIDE THE BOUNDARY DESCRIBED IN SCHEDULE A. (AFFECTS PARCEL A)

6. THE PROPERTY IS SUBJECT TO A LICENCE TO ENTER PROPERTY IMPOSED BY INSTRUMENT RECORDED ON FEBRUARY 20, 1986, UNDER RECORDING NO. 8602200488. (AFFECTS PARCEL A)

BENCH MARK

ORIGINATING BENCHMARK:
CONCRETE MONUMENT WITH ½" BRASS PLUG WITH PUNCH LOCATED AT INTERSECTION OF 6TH AVENUE S. AND KIRKLAND AVENUE.

ELEV. = 140.32

SITE BENCHMARK:
TOP OF CATCH BASIN IN CURB LINE LOCATED 9FT WEST AND 5FT NORTH OF THE SOUTHWEST PROPERTY CORNER.

ELEV. 200.30

DATUM

DATUM : NAVD 1988

NOTES

THE LOCATION OF UNDERGROUND UTILITIES SHOWN HEREON IS APPROXIMATE ONLY. THE OWNER SHOULD CONTACT THE PURVEYORS OF ALL UTILITIES IN THE AREA TO DETERMINE THE LOCATION AND DEPTH OF ALL UTILITIES ON AND ADJACENT TO THE PROPERTY.

BOUNDARY AND TOPOGRAPHY SURVEY
FOR
WILLIAM ANSPACH
IN NW1/4, SE1/4, SECTION 8, T.25 N., R.5 E., W.M.
CITY OF KIRKLAND
KING COUNTY, WASHINGTON

JEFFREY T. TREITDER
STATE OF WASHINGTON
22969
REGISTERED
PROFESSIONAL LAND SURVEYOR
EXPIRES 10-13-07

Lovell–Sauerland & Associates, Inc.
Engineers/Surveyors/Planners/Development Consultants
19400 33rd Avenue W., Suite 200 • Lynnwood, WA 98036 • (425)775-1591 • (425)672-7998 fax

DRAWN	CHECKED	DATE	F.B.	SCALE	FILE NO.
MM	J.T.T.	8-18-06	500	1" = 20'	4884-0-06

ATTACHMENT 14

June 21, 2016

Jeremy McMahan
Development Review Manager
City of Kirkland
Kirkland, Wa 98033

Re: Amendment Change Request for Chapter 90 Code

Dear Jeremy:

The purpose of this letter is to request that the City of Kirkland amend and adopt a code change to allow for an "administrative review" and "exemption" of radial stream buffers based on BAS and unique situations such as those found on my property located at 930 6th Street South (Anspach Property).

Currently the existing RCW Code does not provide the Planning Dept. authority to administratively review and exempt or modify the 50 ft. radial stream buffer required from the Houghton Creek stream inlet located on the Sabegh Property.

Since the Anspach Property is Down Slope from the Houghton Creek stream inlet and is contained in a culvert to Lake Washington, I hired the professional services of Scott Luchessa (Certified Ecologist) of Ecological Solutions to conduct a BAS study of our unique topography to determine if a radial buffer is needed to protect the functions and values of the Houghton Creek stream. BAS study results conclude that the Anspach Property radial buffer area has no impact on stream functions and values. Report is attached.

The objective of this study to is present the results of Ecological Solutions study to the Planning Commission to include the adoption of a Narrow Exception to the Unified Development Code, Chapter 90, to allow for "Administrative Review and Exemption" of Radial Buffers to the City of Kirkland Planning Department.

Please advise if there are questions or further clarification of this request and study are required.

Kindest regards,
HOUGHTON PROPERTIES LLC

William E. Anspach
Managing Member

Attachment: Ecological Solutions BAS Study, June 21, 1916

From: Bill Anspach [mailto:bill@seattlewatch.com]
Sent: Wednesday, July 27, 2016 4:06 PM
To: Jeremy McMahan <JMcMahan@kirklandwa.gov>
Subject: Staff Report Comments: Radial Buffer

Jeremy,

Last email before vacation.

1. Radial Buffer

Yesterday, you confirmed that the staff recommendation to the Planning Commission is for the buffer to be lateral (North and South to stream) and not radial as shown on pages 12 and 13 of your report.

The attached survey of my property is annotated with the location of the buffer ending at the inlet to the culvert. I am assuming this will be accurate once the staff recommendation is accepted as submitted and Chapter 90 Code amended. Please confirm.

2. Stream Function and Maintenance

I know the Chapter 90 session does not include this topic. However, I wanted to bring this to your attention now and perhaps the staff could discuss this issue with the Planning Commission to determine how to best address this issue.

The challenge for the city is the stream goes through private property and flooding issues are left to be handled between property owners. However, I believe there should be performance criteria that governs the conveyance of water through the stream so that hydraulic capacity is not reduced due to the presence of obstructions, sedimentation build up, etc and the treat of flooding is controlled and minimized. Periodic inspections by the City or an independent authorized contractor should be considered in the future.

Attached is a photo from 2006 in which I experienced two floods of our commercial building. The reason for the flooding was the stream had obstructions (plastic pots, logs and debris) to impede flow and the culvert had a build up of moss which significantly reduced the inside diameter of the pipe.

The May 2012 photos shows the stream condition in May of 2012. I personally had the debris removed in order for the stream to function and protect my property from being flooded again.

The threat of sedimentation buildup and loss of hydraulic capacity continues and is an ongoing threat. Periodic maintenance should be required by either the property owner or the government authority responsible for the safe performance of the stream function.

Please advise if I can be of help and thank you!

Best regards,

Bill

PUGET SOUND ENERGY

Puget Sound Energy
P.O. Box 97034
Bellevue, WA 98009-9734
PSE.com

July 25, 2016

Joan Lieberman-Brill
Senior Planner
Planning and Building Department
City of Kirkland
123 5th Avenue
Kirkland, WA 98033

Re: PSE Comments on Draft Critical Areas Ordinance – June 15, 2016

Dear Joan:

Thank you for the opportunity to comment on the draft of the new Critical Areas Ordinance provided in the Planning Commission packet dated June 15, 2016. This letter primarily addresses proposed section 90.20 Exemptions, including information about substation development requested by the City.

Page 25 of Planning Commission Packet:

90.20 Exemptions

3. *Public Utilities: Repair and maintenance, replacement or new public utility structures and utility systems and their associated facilities, lines, pipes, mains, equipment and appurtenances – both above and below ground, within existing improved rights or way or existing improved utility corridor. This provision does not include new electric facilities that exceed 55 KV and substation and replacement of hazardous liquid pipelines that increase pipeline circumference.*

Notes:

3. *Public utility activities shall not expand the area of existing permanent disturbance or increase the impervious area in the right-of-way or utility corridor (except utility poles), or reduce flood storage capacity in the critical area or critical area buffer. New or replaced overhead electric utilities and their associated facilities that will result in additional disturbance of the critical area or its buffer as a result of ongoing required maintenance shall not be exempt.*

5. *The construction drawings shall show the edge of the existing improved right-of-way or utility corridor, and the permanently disturbed area. The drawings shall also specify that all affected critical areas and buffers will*

be restored to their pre-project condition or better, including soil stabilization and revegetation, during or within 60 days of site disturbance.

6. *All activities shall be undertaken using best management practices as determined by the Planning Official and adhere to the fish and wildlife seasonal restrictions on construction activities as determined by the Washington State Department of Fish and Wildlife pursuant to KZC 90.___.*

PSE Comments: PSE would like to provide some points of clarification to assist in making the exemption language appropriate for the way utility projects are repaired and maintained.

- **Line Voltage**: The voltage of an electrical line does not correlate to the level of impact caused by repair and maintenance. The general method of repair of utility poles is replacement, regardless of voltage. Poles are generally replaced with the same size or slightly larger pole adjacent to the existing pole. Lines and equipment are transferred from the old pole to the new pole and the new pole is removed and the hole backfilled, resulting in little to no net disturbance. Pole size can vary slightly by voltage, but there is little difference between 55 kV poles and 115 kV poles. Exhibit A demonstrates a typical 55 kV distribution poles verses a 115 kV transmission pole. Often times, distribution lines and transmission lines are installed on the same poles (as shown in Photo 1).

  The repair and maintenance of these facilities will not result in more impact than resulted from their initial construction, unless the size of the poles significantly changes. PSE suggests that the City provide a threshold of impact (for example a percentage of pole size increase or square footage of impact) to determine whether a project can be deemed exempt rather than base the determination on the line voltage. It is not environmentally beneficial or practical to regulate de minimis impacts.

- **Substations**: Substation size and layout can vary; however the components of most substations are very similar. The construction of a new substation can cause impacts to critical areas, as substations are generally constructed on a "pad" of yard rock. The substation equipment and control house building are located within the fenced limits of the substation for safety and security purposes. The yard rock extends 5 feet outside the substation fence and includes a grounding grid to ensure arching does not occur outside the fenced area. Access driveways and required stormwater management facilities are located outside the fenced area. Additionally, transmission and distribution lines drop in and out of the substation, with poles (and/or underground distribution lines) outside the substation fence. An example substation scenario is provided in Exhibit B.

PSE requests that repair and maintenance within the existing substation pad area be included as an exemption under 90.20 because that area will remain in a permanently disturbed state once the substation is constructed. Substation expansion could occur within the limits of the fence line or include expansion of the fence. Expansion within the limits of the fence line should also be exempt, as the expansion will occur within the permanently disturbed area. Poles within the substation property, but not within the fenced area are considered part of the overhead power line corridor and should also fall under 90.20 Exemptions.

The attached table contains comments pertaining to other proposed sections of the critical areas code covered in the June 15, 2016 Planning Commission packet. Sections commented on in:

- 90.22 Permitted Activities or Uses Subject to Development Standards
- 90.__ Wetland Modification
- 90.__ Compensatory Wetland Mitigation
- 90.__ Stream Modifications
- 90.XX Fish and Wildlife Habitat Conservation Areas
- 90.XX Increase in Buffer Width Standard
- 90.XX Structure Setback from Critical Area Buffer
- 90.XX Vegetative Buffer Standards
- 90.XX Trees in Critical Areas or Critical Area Buffer
- 90.XX Critical Area Markers, Fencing and Signage

The comments generally relate to the application of the critical areas standards on active utility corridors and facilities. Thank you again for the opportunity to participate in the code review process. Should you have questions regarding these comments, feel free to contact me at 425-462-3821 or kerry.kriner@pse.com.

Sincerely,

Kerry Kriner, AICP
Senior Land Planner

PC Packet Page	Code Section	Proposed Language	PSE Comments
28	**90.22 Permitted Activities or Uses Subject to Development Standards** 6. List of Permitted Activities and Uses c. Public Agency and Public Utility Activities	3) Public Utilities b) New public utilities other than those addressed separately in this section in critical area buffers, such as gas and power, except substation buildings, provided: (1) The facility shall be only located in the outer 25% of the buffer area; and (2) The facility is not a hazardous liquid pipeline.	PSE would like to provide clarification regarding the exception for substation buildings. Generally a substation "building" consists of a control house structure within the substation fence. The control house is a component of the overall substation facility, which is constructed on a yard rock "pad" and completely fenced for safety and security purposes (see Exhibit B). The intent of singling out substation buildings is not clear the way the code is currently proposed.
29		c)Drilling for utilities/utility corridor under a critical area, provided: (1) Not permitted in a Category I wetland; (2) Entrance/exit portals must be located completely outside of the critical area buffer; (3) Drilling does not interrupt the ground water connection to the wetland or percolation of surface water down through the soil column; and (4) Specific studies by a hydrologist area required to determine whether the ground water connection to the critical area or percolation of surface water down through the soil column will be disturbed.	PSE would like clarification on whether PSE natural gas lines and underground electrical distribution lines fall under the 90.20 Exemptions or these regulations? If these regulations apply, requirement (4) would be excessive for such a project, particularly service lines.
30	d. Improvements associated with the Cross Kirkland Corridor and Eastside Rail Corridor:	3)Replacement or modification of existing facilities by a public utility in either corridor, provided the activity shall not increase the impervious area (except utility poles), expanded into previously undisturbed area, or remove flood storage capacity.	Can the City provide clarification as to whether 90.20 Exemptions applies within the Cross Kirkland Corridor and Eastside Rail Corridor or does this section of the code override the exemptions?
35	**90.___ Wetland Modification** 7. Additional Requirements for Approved Wetland Modification.	d. The mitigated wetland and buffer area shall be located in a recorded critical area tract or easement meeting the standards in KZC 90.___; and	PSE projects are generally located within public right-of-way via franchise or on private property within an easement. Our easement rights do not allow us to record additional easements on private property. The area of impact on a critical area from a PSE overhead or underground linear project is often small. Additionally, we need the ability to manage vegetation within the easement area, which is not often consistent with critical area easement preservation language. Ideally, the code could include exemption language for linear projects. An example of such language can be found in the Snohomish County Code: SCC 30.62A. 160 ***Permanent identification, protection and recording.*** *The following measures for permanent identification and protection of wetlands, fish and wildlife habitat conservation areas and buffers are required for any development activity or action requiring a project permit, except those occurring in public and private road, trail or utility easements and rights-of-way, or for those projects conducted for the primary purpose of habitat enhancement or restoration.*
37	**90.___ Compensatory Wetland Mitigation**	6. Compensatory Mitigation Plan. A compensatory mitigation plan shall be prepared by a qualified professional approved by the City consistent with state guidelines and submitted with the wetland modification assessment of KZC 90.___ for approval as part of the critical area permit using a Process I. The plan shall contain: h. Proof of title ownership for the wetlands and buffers, including the compensatory mitigation areas, when mitigation is done by the applicant,	PSE projects are generally located within public right-of-way via franchise or on private property within an easement. We often do not install mitigation in the same easement area as our project is constructed due to the need to maintain our system. The requirement to provide proof of title ownership cannot practically be applied to linear projects.

		and	
38	**90.___ Stream Modifications**	1. Stream Modification. The following stream modifications may be considered: a. Stream crossings not permitted in KZC 90.___	It is not clear which stream crossings are not permitted.
41		8. Additional Requirements for Stream Modification. d. For stream crossings and culverts: 1) Demonstrate that there is no other feasible alternative route for the crossing with less impact on the environment; 2) Designed to meet Department of Fish and Wildlife standards; 3) Crossing over Type 1 streams, only bridge structures, bottomless culverts or other appropriate methods shall be used that provide fishes protection and fish passage; 4) Crossing for all other streams, bridges or bottomless culvert is preferred over traditional pipe-style culvert; 5) Roads and associated crossings shall be perpendicular to the stream to the maximum extent feasible; 6) Crossing and culverts shall be free of debris and sediment to interfere with free passage of water, wood and fish; and 7) Record a perpetual maintenance agreement on a form approved by the City for continued maintenance of the stream crossing and culvert.	It is not clear if/how this code section applies to utilities and whether is overrides 90.20 Exemptions. Stream crossings by PSE linear utilities often consist of small distribution or service lines that either consist of an aerial crossing of a stream or a cross under the bed or stream or associated culvert.
		f. Streams and buffers areas shall be located in a recorded critical area tract or easement meeting the standards in KZC 90. __ .	PSE projects are generally located within public right-of-way via franchise or on private property within an easement. Our easement rights do not allow us to record additional easements on private property. The area of impact on a critical area from a PSE overhead or underground linear project is often small. Additionally, we need the ability to manage vegetation within the easement area, which is not often consistent with critical area easement preservation language. Ideally, the code could include exemption language for linear projects. An example of such language can be found in the Snohomish County Code: SCC 30.62A. 160 ***Permanent identification, protection and recording.*** *The following measures for permanent identification and protection of wetlands, fish and wildlife habitat conservation areas and buffers are required for any development activity or action requiring a project permit, except those occurring in public and private road, trail or utility easements and rights-of-way, or for those projects conducted for the primary purpose of habitat enhancement or restoration.*
47	**90.XX FISH AND WILDLIFE HABITAT CONSERVATION AREAS**	7. Buffer Standards for Habitat Conservation Areas. The City shall require the establishment of buffer areas for activities and uses adjacent to habitat conservation areas to protect the habitat based on a critical area report. c. Buffers shall consist of an undisturbed area of native vegetation or areas identified in a management plan for restoration to protect the integrity, functions, and values of the affected habitat.	The construction of linear projects, including PSE transmission and distribution corridors, result in unavoidable impacts to critical areas and critical area buffers. Our interpretation of this code section is that we would have the ability to perform vegetation management activities within habitat conservation areas with a management plan in lieu of retaining native vegetation undisturbed.
50	**90.XX Increase in Buffer Width Standard**	1. Criteria to Require Increase in Buffer Width. c. Frequently Flooded Areas. If a site contains a frequently flooded area and the frequently flooded area is wider than the buffer standard required for a wetland or stream the buffer shall be increased to incorporate the entire frequently flooded area.	Can this language be modified to only include undisturbed or undeveloped areas within the extended buffer? It is likely the intent is not to include buildings and paved areas, but it is not clear the way the language is currently written.
	90.XX Structure Setback from Critical Area Buffer	Buildings and other structures shall be set back at least ten (10) feet from the edge of the wetland or stream buffer to ensure adequate width for	Are utilities allowed within the wetland or stream buffer setback?

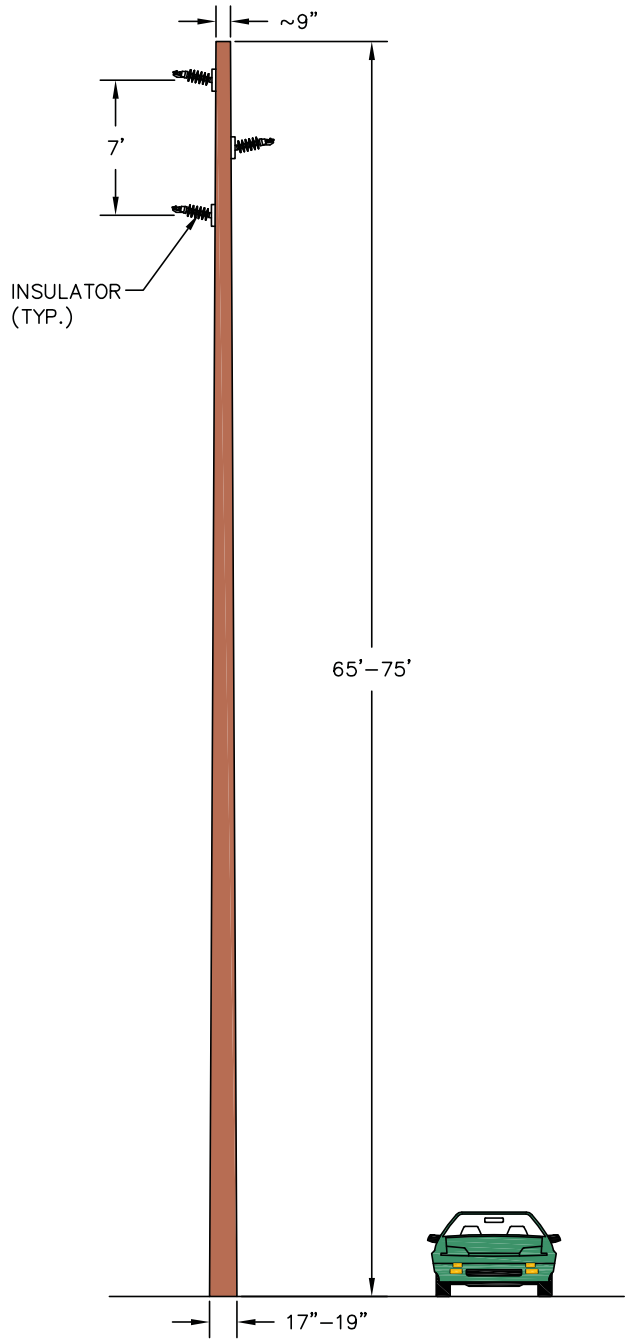
construction staging, and maintenance and repair of primary structures without disturbing the critical area buffer or critical area. For wetlands that are less than 1,000 square feet and have not buffer requirement, improvement are not permitted in the building setback.

The following improvements may extend into the structure setback, provided that they do not necessitate encroachment into the critical rea buffer to maintain.

Structure Setback	Improvement:	Location within setback:
Ten (10) feet	Chimneys, bay windows, greenhouse windows, eaves, cornices, awnings and canopies, and decks above the ground floor;	May extend no more than 18" into structure setback
	Uncovered improvements less than 18" above finished grade and railings less than four feet above finished grade;	May extend no more than five (5) feet into structure setback
	Uncovered play structures;	
	Rockeries and retaining walls that are not more than four feet above finished grade;	
	Uncovered improvements less than 4" above finished grade benches, walkways, paths and pedestrian bridges;	May extend nor more than (9) feet into structure setback
	Garden sculpture, light fixtures, trellises and similar decorative structures;	
	Driveways and parking areas;	
	Stormwater conveyance that results in sheet flow such as rain gardens, and similar techniques;	

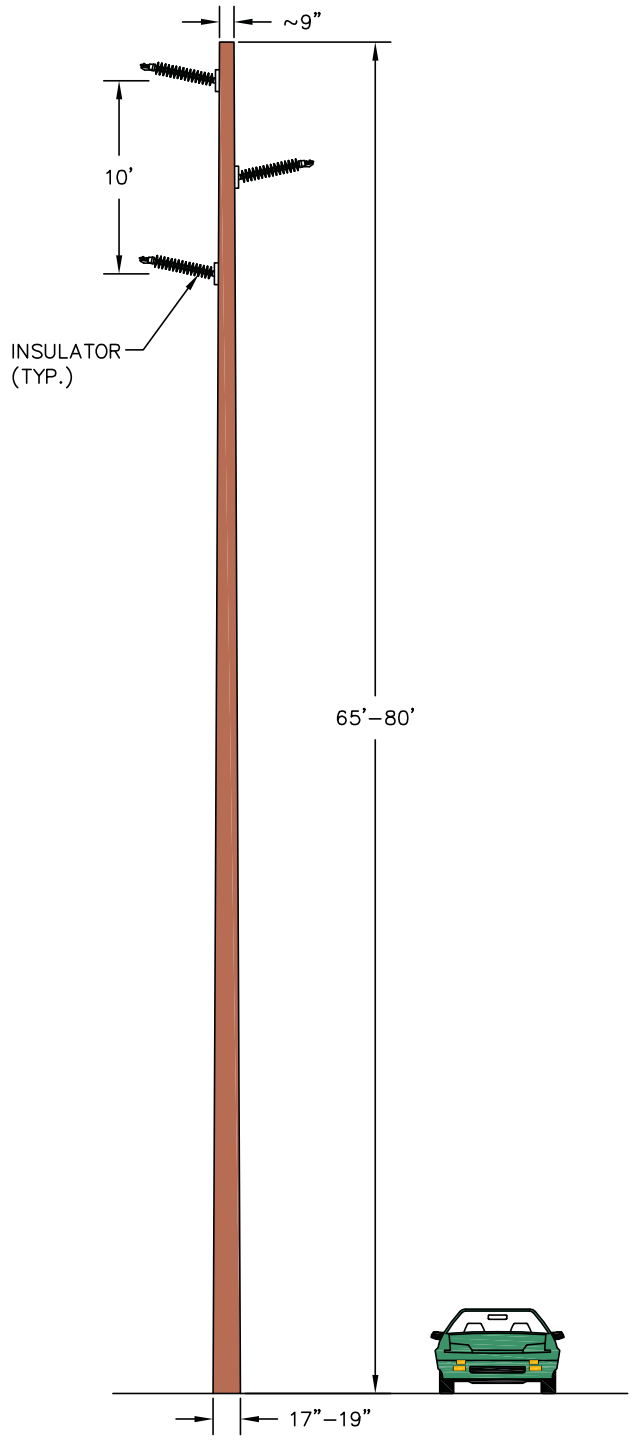
			Non-native landscaping Solid or split rail fence perpendicular to the building setback at up to 6 feet in height above grade.	May extend to the critical area buffer	
51	**90.XX Vegetative Buffer Standards**	1. Vegetative Buffer Standard. A wetland or stream shall have a buffer that meets the standards in this subsection. The entire buffer shall meet the standard. a. Native cover of at least 80% on average throughout the buffer area with two out of three of the following strata of native plant species composing of at least 20% areal cover: 1) Multi-age forest canopy (combination of existing and new vegetation); 2) Shrubs; and 3) Woody groundcover (such as kinickinick, salal, and sword fern) or unmoved herbaceous groundcover; b. At least three native species each making up a minimum of 10% coverage (for diversity); c. Less than 10% noxious weeds cover using King County weed list (but require removal of knotweed which is very invasive); d. Removal of lawn (source of fertilizers, fecal coliform from pets and herbicides detrimental to wetlands and streams) and any illegal fill; e. Augmented soil as needed to provide a well-functioning buffer; f. Mulch added meeting the Planning and Building Department standards; and g. Available water source for irrigating the vegetation. Existing healthy native vegetation may count towards meeting the requirements if the overall standard is met.	These requirements cannot be met based on vegetation management requirements for linear utility corridors. Are these standards specific to buffer restoration or do they apply to all buffers?
52		6. Maintenance of Buffer. Buffers shall be placed in recorded easements or tracts pursuant to KZC 90.___ and shall be maintained in perpetuity.	PSE projects are generally located within public right-of-way via franchise or on private property within an easement. Our easement rights do not allow us to record additional easements on private property. Ideally, the code could include exemption language for linear projects. An example of such language can be found in the Snohomish County Code: SCC 30.62A. 160 ***Permanent identification, protection and recording.*** *The following measures for permanent identification and protection of wetlands, fish and wildlife habitat conservation areas and buffers are required for any development activity or action requiring a project permit, except those occurring in public and private road, trail or utility easements and rights-of-way, or for those projects conducted for the primary purpose of habitat enhancement or restoration.*
53	**90.XX Trees in Critical Areas or Critical Area Buffer**	2. Pruning of Trees. Pruning or topping of trees in critical areas or buffers is prohibited.	Standard vegetation management practices for linear utility corridors require tree pruning. Does 90.20 Exemptions override this code provision?

	90.XX Critical Area Markers, Fencing and Signage	1. Survey Stakes. Permanent survey stakes delineating the boundary of the critical area buffer shall be set, using iron or concrete markers as established by current survey standards. 2. Construction Fencing. Prior to commencement of any grading or other development activities on the subject property, a 6-foot-high construction chain link fence must be installed along the entire edge of the buffer. The fence may not be located in the critical area buffer. The Planning Official shall inspect the fence prior to commencement of any work. The fence must remain in place until completion of the project and not removed at any time other than as authorized by the Planning Official. 3. Permanent Fencing. Upon completion of the project, a permanent 3-to-4-foot-tall wood rail fence must be installed along the entire edge of the buffer. The fence may not be located in the critical area buffer. The Planning Official shall inspect the fence prior to final inspection or occupancy. The fence must be maintained and remain in perpetuity. 4. Permanent Signage. Upon completion of the project, permanent signage shall be with the fence stating that the protected critical area and buffer must not be disturbed other than necessary for maintenance of vegetation. The signs must be maintained and remain in perpetuity. Signage shall meet the administrative standards of the Planning and Building Department for the design, number and location. The Planning Official shall inspect the signage prior to final inspection or occupancy.	PSE projects are generally located within public right-of-way via franchise or on private property within an easement. The area of impact on a critical area from a PSE overhead or underground linear project is often small compared to the size of a lot or the entire critical area. It is not practical for linear projects to install construction fencing along the length of a wetland or stream when the construction area is limited to a small area around a pole. Additionally, it is not reasonable to permanently fence or survey an entire critical area based on the impacts of a pole. PSE does not have the right to survey or install fencing on private property within or outside of our easements. We also cannot install fencing that will impede maintenance access to our facilities. Ideally, the code could include exemption language for linear projects. An example of such language can be found in the Snohomish County Code: SCC 30.62A. 160 ***Permanent identification, protection and recording.*** *The following measures for permanent identification and protection of wetlands, fish and wildlife habitat conservation areas and buffers are required for any development activity or action requiring a project permit, except those occurring in public and private road, trail or utility easements and rights-of-way, or for those projects conducted for the primary purpose of habitat enhancement or restoration.*



55 KV

- INSULATOR LENGTH: 22 ⅜" MIN.
- INSULATOR SPACING: 3'–6"



115 KV

- INSULATOR LENGTH: 42"–48"
- INSULATOR SPACING: 5'

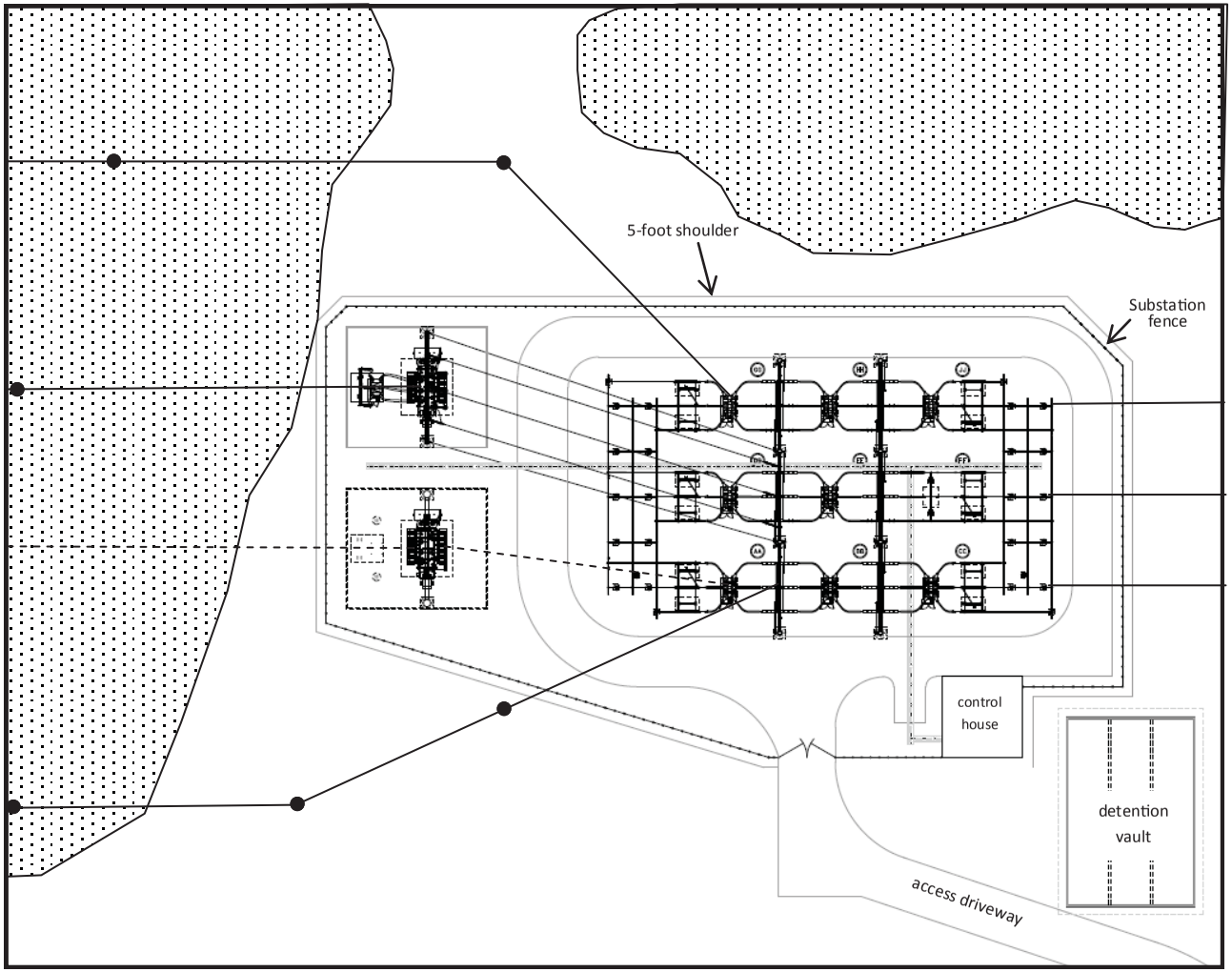
NOTE: DIMENSIONS SHOWN ARE APPROXIMATE.
ACTUAL DIMENSIONS WILL BE DETERMINED DURING FINAL DESIGN

Typical Pole Comparison – 115kV and 55kV

PSE PUGET SOUND ENERGY

Photo 1: Pole with Transmission and Distribution Lines

Exhibit B: PSE XYZ Substation



Main Street

LEGEND

Wetland

Power line and pole

Future power line

Teresa Swan

From: Bruce and/or Pat <patbruce2@earthlink.net>
Sent: Saturday, September 17, 2016 5:58 PM
To: Teresa Swan
Subject: Comments for City Council hearing on Chpt 90 KZC amendments
Attachments: Fairly new house on 108th Ave. NE.PNG; Other houses on 108th Ave NE.PNG

Comments for City Council on Chapter 90 KZC amendments

We live along Northwest College Creek, at least 80 percent of which is piped, including the property immediately uphill from us. The creek drains water all the way from I-405, and was causing severe erosion, deeply undercutting the bank along our property and our neighbors' property downstream. About 10 years ago, the city worked with us and the college to restore the creek by reducing the erosion, installing native plants along the creek and a storm-water retention pond at the college.

We have been pleased with the results, but are frustrated by the amount of pavement and impervious surface allowed at new homes that have gone in upstream, not just from us but all over Kirkland. (See attachments from Google Earth.) In addition, we see more and more single-family homes torn down to make way for two homes. Our chief concern about the Chapter 90 amendments is the seeming lack of attention to upland drainage control. This puts all the responsibility on folks living near a creek or wetland, and seems inconsistent with the city's goal of preserving water quality in the creeks and Lake Washington.

Patricia Moir and Bruce Burke
10610 NE 57th Street
Kirkland

Teresa Swan

From: Bruce Burke <patbruce2@earthlink.net>
Sent: Tuesday, September 27, 2016 9:21 AM
To: Teresa Swan
Subject: chpt 90

One more comment:
Even though, we're grandfathered in, we believe all the restrictions could significantly devalue our house and property. Example: No tree trimming, no grass, special fencing, etc. If the house were more than 50% damaged by fire or earthquake, there wouldn't be room to move it closer to street on our pie shapped lot. We were counting on value of the house for retiremet and health issues.

Pat Moir
Bruce Burke
10610 NE 57th St.

Submitted @ pm 9/30/16

ATTACHMENT 20

Van Ness Feldman LLP

719 Second Avenue, Suite 1150
Seattle, WA 98104-1728
206-623-9372
vnf.com

September 29, 2016

Kirkland Planning Commission
Houghton Community Council
123 Fifth Avenue
Kirkland, WA 98033

Re: Proposed Chapter 90 KZC Amendments – Critical Area Ordinance

Honorable Commission and Community Council Members:

I am writing to present my comments and suggested revisions to the proposed amendments to Chapter 90 KZC.

For the past 30 years, my environmental law practice has focused on representing private and public clients addressing various development issues including compliance with regulations protecting wetlands, streams and other critical areas. I have worked on hundreds of new and redevelopment projects in or near critical areas. While I currently represent a number of Kirkland property and business owners, my comments are not focused on any one client, but rather, are based on my overall assessment of the draft regulations and the ways it could be improved.

Having worked on critical area regulations and having been involved in past challenges to critical area rules, I understand that your regulations must be based on Best Available Science. However, I also understand the flexibility that municipalities are afforded to meet the needs of its citizens, property and business owners affected by these far-reaching regulations. The protection of critical areas can be achieved while providing flexibility and a path that allows reasonable economic development.

Please consider and address the following comments before you propose a final regulation to be considered by the City Council.

Provide Private Citizens the Same Flexibility as Public Agencies.

The regulations, as drafted, provide significant flexibility to Kirkland's Public Works Department and other public agencies. The provisions specific to public agencies, no doubt, recognize that critical area regulations can be a significant burden on these public agencies and can impair their ability to maintain, improve, expand and construct roads, utilities and other

One way to address this issue is to authorize a buffer fill under the same provisions as a wetland modification. KZC 90.60.4-9 establishes a mechanism through which a property owner can be authorized to fill a wetland if several specific requirements are met, including mitigation sequencing pursuant to KZC 90.145. This process offers flexibility to a private landowner or business to demonstrate why filling a wetland cannot be avoided and how the impacts will be mitigated. Amazingly, however, the same flexibility for wetland fill is not explicitly offered when a project must intrude into a wetland buffer but no wetland fill is needed.

Many cities, including Bothell, Auburn, Kent, Redmond, Issaquah, and Mill Creek, as well as Snohomish County, have implicitly recognized and approved what is sometimes referred to as a "paper fill" of a wetland. A "paper fill" is a buffer fill only but is treated as a "hypothetical" wetland fill. It allows a development to intrude into a wetland buffer beyond that authorized by buffer averaging, when there is no other reasonably available alternative development plan, making the buffer intrusion necessary. Through this concept, a portion of the wetland is treated as if it had been filled so that the "remaining" portion of the wetland retains the standard required buffer width. The intrusion into the buffer must be fully mitigated. This approach is fair to owners and protective of the environment.

Kirkland should explicitly recognize the ability to intrude into a buffer by adding a new subsection to KZC 90.60 that authorizes buffer impacts so long as the general requirements of KZC 90.60.4-9 are met.

Expand the Interrupted Buffer Waiver.

KZC 90.120.1 authorizes some flexibility to address legally established roads and buildings that will suddenly be located within a wetland buffer when the greatly expanded buffer widths are established by the new rules. There is a process included in KZC 90.120.c to obtain an Interrupted Buffer Waiver, which includes demonstrating that the existing improvement creates a substantial barrier to the buffer function and that, given this condition, the buffer does not provide significant biological or hydrological function.

The Interrupted Buffer Waiver provisions, as drafted, do not go far enough. The regulation, as proposed, excludes retaining walls, detached garages, accessory dwelling units, impervious surfaces and other accessory structures. These exceptions from the Interrupted Buffer Waiver should be removed. Any individual should be able to seek Planning Official approval of the Interrupted Buffer Waiver by demonstrating that the site meets the three criteria in KZC 90.120.1.c. The City should not foreclose the ability of a property owner to prove to the Planning Director that previously authorized improvements create a significant barrier to the function of the newly expanded wetland buffer.

The Requirement to Remove Existing Structures from Buffers is Punitive and Inconsistent with the Nonconformity Provisions.

KZC 90.130.3.a. requires all existing improvements and structures to be removed from a buffer during site redevelopment. The only option available to such an owner is to accept an "alternative" buffer that is 33% larger. This requirement is punitive, will impose a great burden on existing property owners and runs counter to the City's general approach to legal

mitigation requirements with those of EPA and USACE to avoid imposing unnecessary requirements and duplicate mitigation obligations.

Thank you for the opportunity to provide these comments.

Very truly yours,

Brent Carson

BC:jeh

September 30, 2016

Kirkland Planning Commission
123 Fifth Avenue
Kirkland WA 98033

Re: Proposed Amendments to KZC Chapter 90

Dear Commission Members:

As a longtime taxpayer, property owner, and businessman in the City of Kirkland, I am writing to express my deep concerns and strong reservations about the changes proposed in KZC Chapter 90.

I support reasonable land use and environmental regulation, but the proposed amendments to Chapter 90 go too far and impose too great a burden on businesses and owners such as myself.

In order for business in the City of Kirkland to thrive, the City's land use and environmental regulations must be easy to understand and reasonable to implement. Neither is the case with these proposed amendments. The 62 pages of new critical area regulations impose numerous requirements that are nearly impossible to understand and follow. There appear to be several internal inconsistencies. These complex rules will make it difficult, if not impossible, for business owners to locate or expand in the City.

Of most concern is the huge increase in the width of regulated wetland buffers, some of which will increase from 50 feet to 225 feet. This dramatic increase in buffer widths will cause numerous existing legally approved developments to be instantaneously considered nonconforming intrusions into newly regulated wetland buffers. These rules could immediately affect how these properties can be used and managed. Any proposed expansion of these lawful businesses may be prohibited given these new buffer requirements. Even routing maintenance and repair of existing improvements and utilities will become far more onerous under these rules.

While the City of Kirkland is known for being a good environmental steward, it is also known for providing a business environment where economic development is encouraged to thrive. The City has enjoyed the fruits of economic development. The proposed amendments to KZC Chapter 90 threaten that development. There is limited land available in the City for new development. These proposed regulations will impose great constrains on new and existing businesses, who may need to locate elsewhere.

The City should revise its proposed regulations to strike a better balance of protecting both the environment and economic opportunities. The City should also provide a fair and reasonable transition period before the new rules come into effect, in order to allow property owners to be

fully educated on how the final adopted rules affect the use, maintenance, expansion, or redevelopment of their properties.

Sincerely,

Greg Rairdon
RC 124th LLC
Rairdon's
Dodge, Chrysler, Dodge, Ram of Kirkland
Rairdon's
Maserati, Alfa Romeo, FIAT of Kirkland

cc: Kirkland City Council

From: Brent Carson [mailto:brc@vnf.com]
Sent: Friday, September 30, 2016 11:58 AM
To: John Kappler
Subject: Kirkland Critical Areas Code - Additional Thoughts

Nice seeing you last night. I liked your thorough review comments.

In addition to the comments in my letter, here are a few other concerns.

1. As you noted, there appears to be inconsistency between Table 90.55.1 on page 16/34 as compared with Section 90.130 Vegetative Buffer Standards on page 35/53. Per 90.130.2.a. standard buffers must be vegetated with native cover over at least 80%. Per 90.130.3.a all existing improvements and structures must be removed. And per 90.130.j no mowing is allowed. Per Table 90.55.1, Alternative buffers (33% larger) also require all existing structures and improvements to be removed and all mowing must cease. So, what is the benefit of the alternative buffer? I guess instead of native cover with a standard buffer, you get a larger permanent area of invasive plants. What's the point?

2. I continue to be perplexed and confused at the requirement to remove existing improvements in a buffer and to stop mowing compared with the nonconformity provisions. It would nice to get clarified. For example, once the Ordinance is in effect and assume the new buffer expands and includes an entire home lot:
   A. Immediately, what can the owner do in this buffer? Can he mow? Can he keep existing structures?
   B. If answered yes, what triggers the need to stop mowing? Remove structures?
   C. How does the exemption in 90.35.1. to repair and maintain legally established structures, square with the requirement in Table 90.55.1 and 90.130 to remove structures in the buffer?
   D. The provision in 90.60.3 says that "a wetland buffer may not modified without an approved wetland modification ? What is a modification? Is mowing or planting non-native trees? What about a swing set?

3. On the Federal Mitigation issue – I have had several projects approved by cities requiring on-site mitigation, yet the Corps rejected on-site mitigation under the 2008 Rule and required payment of the In-Lieu Fee. We then had to go back and convince the city to substitute this to avoid double mitigation. I'm concerned that the provisions in 90.145.3 (page 38-39/56-57) could force someone to build on site mitigation. Remember the list on 90.145.3.b. for on-site vs. off site is inclusive (see the "and" at the end of 90.145.3.b.1).c)) – you have to meet ALL of these to go off site. What if a site provides an opportunity to do on-site mitigation (ie. the City Preference). How do you really prove "no high likelihood of success? Most mitigation plans contain contingencies for failure. The 2008 Rule recognized that, in general, on-site in kind mitigation had a high likelihood of failure, so moved that down the list of preferences.

4. Finally, take a closer look at 90.185.3 on reconstruction of nonconforming structures. I liked your foundation comment. But, in addition, consider a SF lot fully engulfed in a new wetland buffer. Then says there is a loss over 50% of value. That requires "conformance". As written, a house fully in the buffer CANNOT conform, since there is no way to build in a wetland buffer (beyond using buffer averaging in the 1st 25% of the buffer). The "paper fill" proposal in my letter could solve this, but better, for the homeowner unfortunate enough to have a total loss, they should be able to rebuild, period.

Brent Carson | Partner

VanNess

Feldman LLP

719 Second Avenue, Suite 1150

Seattle, Washington 98104-1728

(206) 623-9372 | brc@vnf.com | vnf.com

From: Kristal Wallstrom [mailto:kristalwallstrom@hotmail.com]
Sent: Wednesday, October 19, 2016 11:52 AM
To: Jeremy McMahan <JMcMahan@kirklandwa.gov>
Subject: Re: Chapter 90 Code Updates: Kristal Comments/Feedback

Hi Jeremy,

Thank you for your response - I am so appreciative that you guys are reviewing and meeting about my feedback. At this point it would be excellent if you could forward my feedback directly to the planning commission if you don't mind. I would have liked to have put a formal letter document together, but I want to get things passed along in a timely matter so this will be fastest.

One comment/question to add to my original feedback (I've added it in this email to the original feedback section as well):

- **Home Remodeling Without Expanding Footprint**: For homes that are remodeled within the existing footprint with no footprint expansion - does the current draft clearly say that a permanent buffer fence **is not required**? I remember reading this in one of the drafts, but when scanning through it this last time I didn't see that. Whether expanding the footprint or not, I don't think a fence should be required. Many homes will now entirely or *almost* entirely be in the buffer, and the required mitigation closest to the actual wetland (per the code) should be enough to offset a homeowner remodeling their home.

Thank you very much Jeremy! If you don't mind sending me a quick note back so I know this got sent along that would be great, otherwise I can absolutely just forward this email thread to the commission email.

Take care,
Kristal

October 24, 2016

Kirkland Planning Commission
123 Fifth Avenue
Kirkland, Washington 98033

RE: Critical areas code updates for Washington State Growth Management Act compliance as it relates to Juanita Creek

Dear Planning Commission,

My wife and I bought a house on an 11,000 square foot lot in the Juanita neighborhood approximately 3 years ago. Our house, located at 14104 102nd AVE NE, along with all neighboring houses around us, are older and suffer from deferred maintenance, rendering many of them to be functionally obsolete, due to the lack of care, small size or floorplans. On the north side of our lot is Juanita Creek which feeds into Lake Washington. We enjoy having the creek as an amenity to our yard and we take very good care of the creek bank and landscaping.

Due to the age and obsolescence of our home, my wife and I are pursuing a new home on our property, which will provide a better environment for us and our two kids. My wife is a nurse for UW Medicine and I'm a real estate developer, which allows me to know a little about critical areas and consultants prior to our home project pursuit.

I've visited with planning at the city and learned the city contracts with Watershed as a critical areas consultant. After asking my critical areas colleagues about Watershed, I've received feedback that they're analysis of state code along with regulations place onerous and unnecessary burdens on landowners. From my visit with the city planner, I discovered the new code update will require a 100-foot buffer from the top of the creek bank, along with an additional 10-foot building setback from the buffer. Furthermore, my property has a right of way give along the south frontage for curb, gutter and sidewalk, along with a 10-foot rear and side yard setback and a 20-foot front yard setback. As you may see from the attached exhibit, these buffers and setbacks render my property useless for redevelopment.

From what I learned in my meeting with the planner at city hall, I would be the first resident along Juanita Creek to approach the city about razing my house and reconstructing a new home with modern attributes, such as LED lighting, better insulation, energy star appliances and a more efficient furnace. All these items are better for the environment and provide healthier living spaces for people.

Many neighborhoods throughout Kirkland are seeing a re-gentrification of housing, such as the Kirkland Highlands, Rose Hill and now Totem Lake. The trend will certainly bleed into Finn Hill and Juanita as well, where I won't be the only resident along Juanita Creek crying foul at the proposed regulations affecting my property.

From what I've learned from the city planners, there are very few options (inexpensive and reasonable) to reduce the buffer, build in the buffer or otherwise construct a new house in my property using a reasonable buffer that won't contaminate salmon's ability to spawn or negative affect other wildlife. My existing home sits off the creek and since we're hooked up to city sewer, we don't discharge any contaminated water to or around the stream. All of my storm water discharge drains to my lawn, whereby it's naturally filtered before entering the groundwater supply or the creek. There's truly no reason the buffers and setbacks should be so incredibly onerous as to "take" a citizen's right to their property, after the citizen has spent hundreds of thousands of hard earned dollars purchasing, maintaining and paying taxes for it.

I realize and understand the need for the city to update city code in order to be in compliance with the Washington State Growth Management Act. I also realize other cities have 100-foot buffers for Class A streams, however many of the cities I develop in have reasonable opportunities for buffer reductions, setback eliminations, sharing between the two or ways to negotiate through certain situations much like my home. With the proposed code amendment for Kirkland, there is not a reasonable solution for a new home to be constructed on my lot since the buffers and setbacks are so incredibly onerous.

As a little background, I grew up in Rose Hill, attended Trinity Christian Pre-School on NE 80th, Rose Hill Elementary and Lake Washington High School. My kids will attend Hellen Keller Elementary and Juanita High School. We enjoy everything Kirkland has to offer, inclusive of the city parks, marina, boating opportunities and the downtown walkability. Juanita and Totem Lake will eventually improve, which will put the finishing touches on the city.

From what I've learned about Watershed; their interpretation of State law and "best available science" is unnecessarily conservative, causing private property owners to lose rights to their own property. One thing I know from years of development is that critical areas are more subjective than objective, in which case a few different biologists can provide a few different solutions to the same challenge. There's no right or wrong answer, and Watershed's proposed code updates will eliminate my ability to construct a reasonable size and shaped house on my property that my wife and I have worked hard to earn.

It's more than fair to allow the north edge of my current footprint to be the north edge of the new structure, which would extend easterly to the 10' setback off the eastern property line, then southward (see attached). This "grandfathered structure" solution would leave a safe of distance between my improvements and Juanita Creek.

I propose to meet with the Director of Planning, Watershed and my critical areas consultant to discuss the city's code update. Please let me know a good day and time in which we can meet, hopefully in the next week or two from the date of this letter.

Thank you for reviewing my letter and I appreciate your help in finding a way to loosen restrictions advised by the city's consultants. I understand that I'm only one homeowner in a city of 100,000 residents. I also know I'm the first homeowner that desires to reconstruct a new home on their property which fronts on Juanita Creek. That being said, I'm confident this issue will continue to come up in the coming years with other homeowners.

All the best,

Tyler Litzenberger
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[redacted]

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ATTACHMENT 24