

**Debbie Beadle**

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**From:** Linda Eastlick <lmeastlick@yahoo.com>  
**Sent:** Wednesday, December 05, 2012 4:52 PM  
**To:** Debbie Beadle  
**Subject:** Public Hearing comments - ECA Update  
**Attachments:** PC Deliberation draft regs 11-30-12 C4S ver5.docx

**EXHIBIT NO.**

**268**

Please find below a summary of the Public Hearing comments from the Citizens for Sammamish Environmental Subcommittee incorporated in the attached PC Deliberation Draft edits.

Regards,

Linda Eastlick

### Citizens for Sammamish

#### Draft ECA Code Review – Major concerns

The Citizens for Sammamish Environmental subcommittee has reviewed the PC Deliberation Draft ECA Code, to the extent time has allowed. The subcommittee members have been involved throughout the Planning Commission ECA update process. We have reviewed all materials and the comments made related to this update. Attached are our comments and suggested language changes in areas of particular concern, subject to the limitations placed on public input by the “known topics” constraints. For your benefit, we have summarized our most significant concerns to the following points:

1. The term “At Director’s discretion” is used throughout the code in one manner or another. It is too subjective and does not encourage predictability or transparency. The Director should only be able to relax requirements, where applicable. In no way should he be able to make the code stricter.
2. Acceptance of professional expert reports should be deemed conclusive unless challenged based upon fraud or expert’s credentials and/or licensed status.
3. The EHNSWB overlay map should be advisory only and properties should be evaluated on a site-by-site basis, subject to geotechnical evaluation for suitability of development, current storm water manual regulations and City of Sammamish Development Standards. It is too proscriptive, taking away property rights without an evaluation of the individual property. No other city has anything similar, as evidenced by substantial testimony.
4. Wetland Standard Buffers High Impact of Land Use and High Habitat score should be today’s buffer standards and the width requirements for moderate and low impact should be lowered. Today’s standards are adequate buffers for the

protection of wetlands near high intensity land use and habitat. No best available science has been presented to justify an increase in wetland buffer width.

5. Buffer delineation should be adopted as an option. It would eliminate the burden of arbitrary one size fits all buffers that can restrict land use where there is no environmental benefit. It allows buffers to be established based upon the actual range of influence taking into account barriers such as roads and structures, topography, and quality of the actual habitat present.
6. Wildlife Corridors and Fish and Wildlife Conservation Areas should be applied only to undeveloped land in which other environmental buffers exist. They should not exceed the environmental buffers already required or create any new buffer areas.
7. Provisions should be added to the code for Fish and Wildlife Habitat Conservation Areas and Habitat Corridors to limit the burden imposed on developed neighborhoods, similar to what is being proposed for wetland and stream buffers.
8. Isolated Wetlands - The Corps of Engineers does not regulate isolated wetlands below 1/10<sup>th</sup> of an acre. The City of Sammamish should exempt category III and IV isolated wetlands below that size from avoidance sequencing. Nearby jurisdictions, such as Renton, have recently adopted regulations exempting isolated wetlands of 4,000 sq. ft. with Department of Ecology approval.

In addition to edits suggested by the subcommittee, this document includes updated edits and comments from Mr. Brockway.

Thank you for your consideration.

Citizens for Sammamish Environmental Subcommittee.

PRELIMINARY DRAFT

Chapter 21A.50  
ENVIRONMENTALLY CRITICAL AREAS

Sections:

- [21A.50.010](#) Purpose.
- [21A.50.020](#) Applicability.
- [21A.50.030](#) Appeals.
- [21A.50.040](#) Critical areas rules.
- [21A.50.045](#) Fees.
- [21A.50.050](#) Complete exemptions.
- [21A.50.060](#) ~~Partial exemptions – Critical areas. Allowances for Existing Urban Development and Other~~  
Uses
- [21A.50.070](#) Exceptions.
- [21A.50.080](#) *Repealed.*
- [21A.50.090](#) Critical area maps and inventories.
- [21A.50.100](#) Disclosure by applicant.
- [21A.50.110](#) Critical area review.
- [21A.50.120](#) Critical areas study requirement.
- [21A.50.130](#) Contents of critical areas study.
- [21A.50.135](#) Avoiding impacts to critical areas.
- [21A.50.140](#) Mitigation, maintenance, monitoring and contingency.
- [21A.50.145](#) Mitigation plan requirements.
- [21A.50.150](#) Financial guarantees.
- [21A.50.160](#) Vegetation management plan.
- [21A.50.170](#) Critical area markers, signs and fencing.
- [21A.50.180](#) Notice on title.
- [21A.50.190](#) Critical area tracts and designations on site plans.
- [21A.50.200](#) *Recodified.*
- [21A.50.210](#) Building setbacks.
- [21A.50.220](#) Erosion hazard areas – Development standards and permitted alterations.
- [21A.50.225](#) Erosion hazards near sensitive water bodies – Special district overlay.
- [21A.50.230](#) Frequently flooded areas.
- [21A.50.240](#) *Repealed.*
- [21A.50.250](#) *Repealed.*
- [21A.50.260](#) Landslide hazard areas – Development standards and permitted alterations.
- [21A.50.270](#) Seismic hazard areas – Development standards and permitted alterations.
- [21A.50.280](#) Critical aquifer recharge areas – Development standards.
- [21A.50.290](#) Wetlands – Development standards.
- [21A.50.300](#) Wetlands – Permitted alterations.
- [21A.50.310](#) Wetlands – Mitigation requirements.

1 | ...

2 | [21A.50.315](#) Wetlands – Mitigation banking.

3 | [21A.50.320](#) Wetlands – Limited exemption.

4 | [21A.50.322](#) Wetland management area – Special district overlay.

5 | [21A.50.325](#) Fish and wildlife habitat conservation areas – Development standards.

6 | [21A.50.327](#) Wildlife habitat corridors.

7 | [21A.50.330](#) Streams – Development standards.

8 | [21A.50.340](#) Streams – Permitted alterations.

9 | [21A.50.350](#) Streams – Mitigation requirements.

10 | [21A.50.351](#) Ponds – Development standards.

11 | [21A.50.352](#) *Repealed.*

12 | [21A.50.355](#) Lake management areas – Special district overlay.

13 | [21A.50.360](#) Critical areas mitigation fee – Creation of fund.

14 | [21A.50.370](#) Critical areas mitigation fee – Source of funds.

15 | [21A.50.380](#) Critical areas mitigation fee – Use of funds.

16 | [21A.50.390](#) Critical areas mitigation fee – Investment of funds.

17 | [21A.50.400](#) Sunset provisions.

18 | **21A.50.010 Purpose.**

19 | The purpose of this chapter is to implement the goals and policies of the Washington State Growth  
20 | Management Act, Chapter 36.70A and 36.70B RCW, the State Environmental Policy Act, Chapter 43.21C  
21 | RCW, and the City of Sammamish comprehensive plan *as amended*, that call for protection of the functions  
22 | and values of the natural environment and the public health and safety by:

23 | (1) Establishing development standards to protect defined critical areas;

24 | (2) Protecting members of the public and public resources and facilities from injury, loss of life, property  
25 | damage or financial loss due to flooding, erosion, landslides, seismic events, soil subsidence or steep slope  
26 | failures;

27 | (3) Protecting unique, fragile, and valuable elements of the environment including, but not limited to, wildlife  
28 | and its habitat;

29 | (4) Requiring mitigation of unavoidable impacts on environmentally critical areas by regulating alterations in  
30 | or near critical areas;

31 | (5) Preventing cumulative adverse environmental impacts on water availability, water quality, groundwater,  
32 | wetlands, and streams;

33 | (6) Measuring the quantity and quality of wetland and stream resources and preventing overall net loss of  
34 | wetland and stream functions and values;

35 | (7) Protecting the public trust as to navigable waters and aquatic resources;

36 | (8) Meeting the requirements of the National Flood Insurance Program and maintaining the City as an eligible  
37 | community for federal flood insurance benefits;

...

- 1 (9) Alerting members of the public including, but not limited to, appraisers, owners, potential buyers or  
2 lessees to the development limitations of critical areas;
- 3 (10) Establishing special district overlays with alternative development standards for increasing minimum  
4 requirements to address unique site characteristics in areas of increased sensitivity;
- 5 (11) Providing City officials with sufficient information to protect critical areas; and
- 6 (12) Providing the public with a clear review and approval process for the development of sites constrained  
7 by critical areas. (Ord. O2005-193 § 1; Ord. O2005-172 § 4; Ord. O99-29 § 1)

8 **21A.50.020 Applicability.**

- 9 (1) The provisions of this chapter shall apply to all land uses in the City of Sammamish, and all persons within  
10 the City shall comply with the requirements of this chapter.
- 11 (2) The City shall not approve any permit-development proposal or otherwise issue any authorization to alter  
12 the condition of any land, water or vegetation or to construct or alter any structure or improvement without  
13 first assuring compliance with the requirements of this chapter.
- 14 (3) Approval of a development proposal pursuant to the provisions of this chapter does not discharge the  
15 obligation of the applicant to comply with the provisions of this chapter.
- 16 (4) When any provision of any other chapter of the Sammamish Municipal Code conflicts with this chapter or  
17 when the provisions of this chapter are in conflict, that provision that provides more protection to  
18 environmentally critical areas shall apply unless specifically provided otherwise in this chapter or unless such  
19 provision conflicts with federal or state laws or regulations.
- 20 (5) The provisions of this chapter shall apply to all forest practices over which the City has jurisdiction  
21 pursuant to Chapter 76.09 RCW and WAC Title 222. (Ord. O2005-193 § 1; Ord. O99-29 § 1)

22 **21A.50.030 Appeals.**

23 Any decision to approve, condition or deny a development proposal based on the requirements of this  
24 chapter may be appealed according to and as part of the appeal procedure for the permit or approval  
25 involved. (Ord. O2005-193 § 1; Ord. O99-29 § 1)

26 **21A.50.040 Critical areas rules.**

27 Applicable departments within the City are authorized to adopt, pursuant to Chapter 2.55 SMC, such  
28 administrative rules and regulations as are necessary and appropriate to implement this chapter and to  
29 prepare and require the use of such forms as are necessary to its administration. (Ord. O2005-193 § 1; Ord.  
30 O99-29 § 1)

31 **21A.50.045 Fees.**

32 (1) Consistent with the City's adopted fee schedule, the City shall establish fees for the application filing,  
33 review and other services provided by the City for critical areas review. Basis for these fees shall include, but  
34 not be limited to, the cost of engineering and planning review time, cost of inspection time, costs for

...

1 administration, costs for third-party peer review, and any other special costs attributable to the critical areas  
2 review process.

3 (2) Unless otherwise indicated in this title, the applicant shall be responsible for the initiation, preparation,  
4 submission, and expense of all required reports, assessments, studies, plans, reconnaissances, or other work  
5 prepared in support of or necessary to review the application. (Ord. O2005-193 § 1)

6 **21A.50.050 Complete exemptions.**

7 The following are exempt from the provisions of this chapter and any administrative rules promulgated  
8 thereunder:

9 (1) Alterations in response to emergencies that threaten the public health, safety, and welfare or that pose  
10 an imminent risk of damage to private property as long as any alteration undertaken pursuant to this  
11 subsection is reported to the department immediately. The ~~director~~ Director shall confirm that an emergency  
12 exists and determine what, if any, mitigation shall be required to protect the health, safety, welfare and  
13 environment and to repair any resource damage;

14 (2) Public water, electric, and natural gas distribution, public sewer collection, cable communications,  
15 telephone utility, and related activities undertaken pursuant to City-approved best management practices, as  
16 follows:

17 (a) Normal and routine maintenance or repair of existing utility structures or rights-of-way;

18 (b) Relocation of electric facilities, lines, equipment or appurtenances, not including substations,  
19 with an associated voltage of 55,000 volts or less, only when required by a local governmental  
20 agency that approves the new location of the facilities;

21 (c) Replacement, operation, repair, modification, installation, or construction in existing developed  
22 utility corridors, an improved City street right-of-way or City-authorized private street of all electric  
23 facilities, lines, equipment, or appurtenances, not including substations;

24 (d) Relocation of public sewer local collection, public water local distribution, natural gas, cable  
25 communication or telephone facilities, lines, pipes, mains, equipment, or appurtenances, only when  
26 required by a local governmental agency that approves the new location of the facilities; and

27 (e) Replacement, operation, repair, modification, installation, or construction of public sewer local  
28 collection, public water local distribution, natural gas, cable communication or telephone facilities,  
29 lines, pipes, mains, equipment, or appurtenances when such facilities are located within an  
30 improved public right-of-way or authorized private street;

31 (3) Maintenance, operation, repair, modification, or replacement of publicly improved streets as long as any  
32 such alteration does not involve the expansion of streets or related improvements into previously  
33 unimproved rights-of-way or portions of rights-of-way;

34 (4) Maintenance, operation, or repair of parks, trails and publicly improved recreation areas as long as any  
35 such alteration does not involve the expansion of improvements into previously unimproved areas or new  
36 clearing of native vegetation beyond routine pruning and related activities; and

...

(5) All clearing and grading activities that are exempt from the requirement for a clearing and grading permit as specified in SMC [16.15.050](#), unless these activities require other permits or authorizations as specified in SMC [21A.50.020](#). (Ord. O2005-193 § 1; Ord. O2005-172 § 4; Ord. O99-29 § 1)

**21A.50.060 Allowances for Existing Urban Development and Other Uses, Partial Exemptions—Critical areas.**

The following developments, activities, and uses are allowed in critical areas and associated buffers and building setbacks as specified in the following subsections, provided such activities are otherwise consistent with this program and other applicable regulations. The Director may apply conditions to an underlying permit or approval to insure that the activities are consistent with the provisions of this chapter.

(1) Existing single-family homes detached dwelling unit, other structures, landscaping, and other existing uses that do not meet the requirements of this chapter and that, which were legally established according to the regulations in place at their time of establishment may be maintained and no development proposal or critical areas study or review is required.

(2) Addition, expansion, reconstruction or revision of existing single-family homes detached dwelling unit or other structures is subject to the following:

a) Structural modification or replacement of legally established structures that do not meet the building setback or buffer requirements for wetlands, streams, or landslide hazard areas is allowed if the modification, replacement or related activity does not increase the existing footprint of the structure lying within the critical area, buffer or building setback area, and there is no increased risk to life or property.

b) Structural modification of, addition to, or replacement of legally created single detached residences dwelling unit and associated impervious surfaces that do not meet the building setback or buffer requirements for wetlands, streams, or landslide hazard areas are allowed a one-time up to 1,000 square foot increase in the existing total footprint of the single detached residence dwelling unit and associated impervious surface areas lying within the buffer or building setback subject to the following:

1. If the existing legally created single detached residence dwelling unit and associated impervious surfaces are located within the building setback or buffer required for a landslide hazard area, a critical areas study must be supplied and approved by the City that demonstrates that there will be no increased risk to life or property by the proposed footprint expansion;

2. If the existing legally created single detached residence dwelling unit and associated impervious surfaces are located over or within a wetland, stream or landslide hazard area, no further expansion within the wetland, stream or landslide hazard area is allowed; and

3. If the existing legally created single detached residence dwelling unit and associated impervious surfaces are located within the building setback or buffer for a stream or wetland:

**Comment [EM1]:** 2-14c & 5-20

**Comment [C4S2]:** Relief for existing neighborhoods needs to be added to this section with regard to fish and wildlife corridors and conservation areas. See Fish and wildlife habitat conservation areas and corridors at the end of this document.

**Comment [reb-3]:** "Dwelling unit, single detached" is now defined. But the issue remains that these should not be the only structures that receive this relief. For example, why shouldn't a duplex be expandable, or a single-car garage be expandable to a double-car garage, if these have no effect on the ECA in question? Replace "single detached dwelling unit" with simply "structures".

**Comment [reb-4]:** This is still an arbitrary constraint. If a structure is beyond the range of influence on the ECA in question, due to intervening structures, topography, or whatever, there should be no restrictions beyond those (like impervious surface limit) that apply to all residential construction.

**Comment [C4S5]:** A lot of information thrown into one sentence. Would bring clarity if this was broken into two or more sentences or re-ordered.

1 a. No portion of the modification, addition or replacement may be located  
2 closer to the critical area than the nearest extent of the existing ~~single family~~  
3 ~~residential structure~~ detached dwelling unit; or

**Comment [reb-6]:** As above, recommend "single detached dwelling unit" be replaced with "structure".

4 b. When there is an intervening ~~single detached residential structure~~ dwelling  
5 unit(s) on a perpendicular line in between the subject critical area(s) and the single  
6 detached ~~residence~~ that is proposed to be modified, added to, or replaced, the  
7 modification, addition or replacement may be located closer to the critical area,  
8 provided no portion of the modification, addition or replacement is located closer  
9 than 50-feet to the critical area, and the following criteria are met:

**Comment [reb-7]:** Single detached residential structures are not the only man-made features that can constitute de facto barriers to influence on an ECA, so can garages, driveways, solid walls, etc. Buffer delineation is the solution to this problem. Regardless, replace this phrase with "structure or other barrier to influence on the stream or wetland".

10 i. A critical areas study approved by the City demonstrates a net  
11 improvement in hydrologic and habitat values to the subject critical area(s)  
12 through restoration of degraded critical areas and/or buffer or through  
13 provision of additional vegetated buffer; and

**Comment [C4S8]:** Replace with "dwelling unit"?

14 ii. Mitigation of impacts to disturbed critical areas or buffers is  
15 provided in accordance with this chapter

**Comment [reb-9]:** 50-feet is another arbitrary "magic number". If the intervening feature is such that the modification will have no effect on the critical area, there should be no minimum distance specified. Delete this clause.

16 (3) Revisions to existing legally-established landscaping are allowed subject to the following:

17 a) The landscaped area shall not be increased within the critical area or buffer; and,

**Comment [reb-10]:** If the modification has no effect on the critical area due to an intervening feature, no "net improvement" should be required. (Nor may it be feasible if the critical area is on someone else's property.) This is using arbitrary declarative buffers as a lever to impose an agenda of habitat restoration, and is a policy the Commission should reject.

18 b) Landscaping features may be revised or replaced with similar features or features with less  
19 impact to the critical area or buffer, such that the remaining functions of the critical area and/or  
20 buffer are maintained or improved (e.g. plant material replaced with alternate plant material,  
21 hardscape replaced with alternate hardscape, hardscape replaced with plant material, etc.). For  
22 such actions no development proposal or critical areas study is required.

**Comment [reb-11]:** Here again, any constraint on landscaping located beyond the range of influence on the critical area due to intervening structures or topography constitute unjustified restrictions on the homeowner. Provisions similar to (2) b) 3. b. above should be added. (Buffer delineation will solve this problem.)

23 (4) Conservation, Preservation, Restoration and/or Enhancement is allowed within critical areas or  
24 buffers subject to the following:

**Comment [reb-12]:** Same problem as with a) (see previous comment).

25 a) Conservation and preservation of soil, water, vegetation, and other fish and other wildlife habitat  
26 is allowed where it does not include alteration of the location, size, dimensions or functions of an  
27 existing critical area or buffer.

**Comment [reb-13]:** Hardscape is not defined, nor is it a commonly used term. Add definition to 21A.15. (E.g., is a rockery "hardscape"?)

28 b) Restoration and enhancement of critical areas or buffers is allowed provided that actions do not  
29 alter the location, dimensions or size of the critical area or buffer; that actions improve and do  
30 not reduce the existing quality or functions of the critical areas or buffers; and that actions are  
31 implemented according to a restoration or enhancement plan that has been approved by the  
32 City of Sammamish.

**Comment [reb-14]:** It is unclear how "revisions" differ from "maintenance", which is the subject of (1) above. Replacing a shrub, for example, should not require a critical areas study. But there is no relief from the requirement for that here as there now is in (1). There should be. This text provides that.

33 (5) Select Vegetation Removal Activities.

1 a) Removal of non-native, or invasive Washington State and/or King County listed noxious weeds  
2 from up to 2,500 square feet of area within a critical area or buffer is allowed with no permit  
3 requirement if the following provisions are met:

4 i. The non-native plants are removed using hand labor and/or light equipment;

5 ii. Soil disturbance is minimized and no filling or modification of soil contours occurs;

6 iii. Water quality is protected and no modification of hydrology patterns within the critical area  
7 or buffer is permitted results;

8 iv. Native plants are protected from removal or damage;

9 v. Appropriate erosion-control measures are used; and

10 vi. The area is replanted with a like kind and density of native vegetation following non-native  
11 plant removal. For example, if dense non-native blackberry is removed, at a minimum, dense  
12 native shrubs must be replanted following blackberry removal, though native trees and  
13 groundcover could also be included and are encouraged if desired.

14 b) For removal of non-native vegetation in an area greater than 2,500 square feet, a clearing and  
15 grading permit is required and must be accompanied by a native plant restoration plan in accordance  
16 with any applicable provisions of this chapter.

17  
18 (6) An existing development that has been discontinued or an existing structure or site improvement  
19 that has been damaged or destroyed may be re-established or reconstructed if:

20 (a) The existing use, structure, or site improvement that previously existed is not expanded except as  
21 allowed for in (2) above;

22 (b) A new nonconformance is not created; and

23 (c) The existing use has not been discontinued for more than 12 months prior to its re-establishment,  
24 or the existing structure or site improvement is reconstructed pursuant to a complete permit  
25 application submitted to the department within 12 months of the occurrence of damage or  
26 destruction.

27  
28 (1) The following developments, activities and uses are exempt from the review process of this chapter,  
29 except for the notice on title provisions, SMC 21A.50.180 and 21A.50.190, and the frequently flooded areas  
30 provisions, SMC 21A.50.230, and provided such exempt activities are otherwise consistent with the purpose  
31 of this chapter and other applicable regulations. The director may apply conditions to an underlying permit  
32 or approval to ensure that the activities are consistent with the provisions of this chapter.

**Comment [reb-15]:** Another instance of an unjustified constraint on the homeowner if the vegetation removal is beyond the range of influence on the critical area. Buffer delineation will solve this problem.

**Comment [C4S16]:** What is the rationale for requiring dense native shrubs over trees? Some native plants take time to establish themselves and do not transplant well. This provision eliminates the option for allowing natural fill of understory shrubbery over time.

1 (a) Structural modification of, addition to or replacement of existing legally created structures, except  
2 single detached residences in existence before November 27, 1990, which do not meet the building  
3 setback or buffer requirements for wetlands, streams, ponds or landslide hazard areas if the  
4 modification, addition, replacement or related activity does not increase the existing footprint of the  
5 structure lying within the above-described building setback area, critical area or buffer.

6 (b) Structural modification of, addition to or replacement of legally created single detached residences  
7 and improvements constructed on existing associated legally created impervious surfaces in existence  
8 before November 27, 1990, which do not meet the building setback or buffer requirements for  
9 wetlands, streams, lakes, ponds or landslide hazard areas if the modification, addition, replacement or  
10 related activity does not increase the existing total footprint of the residence and associated  
11 impervious surface lying within the above-described buffer or building setback area by more than  
12 1,000 square feet over that existing before November 27, 1990, and no portion of the modification,  
13 addition or replacement is located closer to the critical area or, if the existing residence is in the critical  
14 area, extends farther into the critical area.

15 (c) Maintenance or repair of structures that do not meet the development standards of this chapter for  
16 landslide or seismic hazard areas if the maintenance or repair does not increase the footprint of the  
17 structure and there is no increased risk to life or property as a result of the proposed maintenance or  
18 repair.

19 (d) Select Vegetation Removal Activities. The removal of the following invasive vegetation is allowed  
20 with hand labor and/or light equipment; provided, that the appropriate erosion control measures are  
21 used and the area is replanted with native vegetation according to a restoration or enhancement plan  
22 that has been approved by the City of Sammamish:

23 (i) Noxious weeds as identified by Washington State or King County noxious weed lists;

24 (ii) Himalayan blackberry (*Rubus discolor*, *R. procerus*);

25 (iii) Evergreen blackberry (*R. laciniatus*);

26 (iv) Ivy (*Hedera* spp.); and

27 (v) Holly (*Ilex* spp.), laurel, Japanese knotweed (*Polygonum cuspidatum*), or any other species on  
28 the King County noxious weed list.

29 Removal of any native vegetation or woody debris from a critical area is prohibited unless the action is  
30 part of an approved alteration.

31 (e) Conservation, Preservation, Restoration and/or Enhancement.

32 (i) Conservation and preservation of soil, water, vegetation, fish and other wildlife that does not  
33 entail alteration of the location, size, dimensions or functions of an existing critical area or buffer;  
34 and

...  
1 (ii) Restoration and enhancement of critical areas or buffers; provided, that actions do not alter  
2 the location, dimensions or size of the critical area or buffer; that actions improve and do not  
3 reduce the existing quality or functions of the critical areas or buffers; and that actions are  
4 implemented according to a restoration or enhancement plan that has been approved by the City  
5 of Sammamish.

6 ~~(2) Existing and ongoing agriculture and grazing of livestock is exempt from the provisions of this chapter and~~  
7 ~~any administrative rules promulgated thereunder, except for the livestock restriction provisions, SMC~~  
8 ~~21A.50.290 and 21A.50.330, and any animal density limitations established by law, if the agriculture or~~  
9 ~~grazing activity was in existence before November 27, 1990.~~

10 ~~(3) A permit or approval sought as part of a development proposal where previous critical areas review has~~  
11 ~~been completed is exempt from the provisions of this chapter and any administrative rules promulgated~~  
12 ~~thereunder, except for the notice on title provisions, SMC 21A.50.180 and 21A.50.190, if:~~

13 (a) The City previously reviewed all critical areas on the site;

14 (b) There is no material change in the development proposal since the prior review that would affect a  
15 critical area;

16 (c) There is no new information available that is important to any critical area review of the site or  
17 particular critical area;

18 (d) No more than five years have lapsed since the issuance of the permit or approval under which the  
19 prior review was conducted; provided, that the director may allow a longer time period if new review  
20 would be unlikely to provide new information about the critical area; and

21 (e) The prior permit or approval, including any conditions, has been complied with. (Ord. O2009-264 §  
22 1 (Att. A); Ord. O2005-193 § 1; Ord. O99-29 § 1)

### 23 **21A.50.070 Exceptions.**

24 (1) Public Agency and Utility Exception. If the application of this chapter would prohibit an activity or a  
25 development proposal by a public agency or utility, the agency or utility may apply for an exception pursuant  
26 to this section:

27 (a) The public agency or utility shall apply to the department and shall make available to the  
28 department other related project documents such as permit applications to other agencies, special  
29 studies and SEPA documents.

30 (b) The ~~director~~Director may approve alterations to critical areas, buffers and critical area setbacks  
31 by an agency or utility not otherwise allowed by this chapter when the following criteria are met:

32 (i) There is no other reasonable alternative to the activity or proposed development with less  
33 impact on the critical area; and

1 ...  
2 (ii) The activity or development proposal is designed to avoid, minimize, and mitigate the  
3 impact on environmentally critical areas consistent with the avoidance and mitigation  
4 sequencing requirements in this chapter; and, if applicable:

5 (iii) The proposed development or activity is of a linear nature and is on an existing corridor or  
6 connects to public lands, trails, utility corridors, rights-of-way or other public infrastructure, or  
7 is required for functional reasons such as gravity flow.

8 (c) The department shall process exceptions, provide public notice, provide opportunity for the  
9 public to request a public hearing, and provide an appeal process consistent with the provisions of  
10 Chapter [20.05](#) SMC.

11 (2) Reasonable Use Exception. If the application of this chapter would deny all reasonable use of the  
12 property, the applicant may apply for an exception pursuant to this subsection:

13 (a) The ~~director~~Director may shall approve alterations to critical areas, critical area buffers and  
14 setbacks to allow a reasonable use not otherwise allowed by this chapter when the following criteria  
15 are met:

16 (i) The application of this chapter would deny all reasonable use of the property;

17 (ii) There is no other reasonable use with less impact on the critical area;

18 (iii) The proposed development does not pose an unreasonable threat to the public health,  
19 safety, or welfare on or off the development proposal site and is consistent with the general  
20 purposes of this chapter and the public interest; and

21 (iv) Any alterations permitted to the critical area or buffer shall be the minimum necessary to  
22 allow for reasonable use of the property; and any authorized alteration of a critical area under  
23 this subsection shall be subject to conditions established by the department including, but not  
24 limited to, mitigation under an approved mitigation plan. (Ord. O2005-193 § 1; Ord. O2005-172  
25 § 4; Ord. O99-29 § 1)

26 **21A.50.080 Modification or waiver of sensitive area requirements – Urban lots.**

27 *Repealed by Ord. O2005-193.(Ord. O99-29 § 1)*

28 **21A.50.090 Critical area maps and inventories.**

29 Not all of the critical areas in the City of Sammamish are mapped and therefore, for many development  
30 proposals and on a site by site basis, critical areas will need to be evaluated and mapped by a qualified  
31 professional. The distribution of many environmentally critical areas in the City of Sammamish is displayed in  
32 the City's critical areas map folio, as amended. Additionally, the following maps are referenced and/or  
33 maintained by the City:

34 (a) Additionally, many of the wetlands located within the City's boundaries are inventoried in the  
King County wetlands inventory notebooks.

**Comment [C4S17]:** Limit the discretionary influence of the Director in the interest of predictability.

1 ...  
2 (b) Many flood hazard areas are mapped by the Federal Insurance Administration in a scientific and  
3 engineering report entitled "The Flood Insurance Study for King County."

4  
5 (c) The wetland management, erosion hazard near sensitive water bodies, and lake management  
6 special overlay districts are designated on maps maintained by the City of Sammamish  
7 Department of Community Development.

8 All maps are deemed advisory with the exception of the Critical Aquifer Recharge Area, Flood Insurance  
9 Study for King County, and Wetland Management Area and Erosion Hazard Near Sensitive Water Bodies  
10 overlay maps. If there is a conflict among the advisory maps, inventory and/or site-specific features, the  
11 Department of Community Development shall verify the actual presence or absence of the features  
12 defined in this title as critical areas. The determination may be challenged by the property owner. (Ord.  
13 O2005-193 § 1; Ord. O99-29 § 1)

Comment [CdS18]: Item 5-4

14 **21A.50.100 Disclosure by applicant.**

15 (1) The applicant shall disclose to the City the presence of critical areas on the development proposal site and  
16 any mapped or identifiable critical areas within the distance equal to the largest potential required buffer  
17 applicable to the development proposal area on the applicant's property.

18 (2) If the development proposal site contains or is within a critical area or buffer, the applicant shall submit  
19 an affidavit that declares whether the applicant has knowledge of any illegal alteration to any or all critical  
20 areas or their buffers on the development proposal site and whether the applicant previously has been found  
21 in violation of this chapter, pursuant to SMC Title 23. If the applicant previously has been found in violation,  
22 the applicant shall declare whether such violation has been corrected to the satisfaction of the City. (Ord.  
23 O2005-193 § 1; Ord. O99-29 § 1)

24 **21A.50.110 Critical area review.**

25 (1) The City shall perform a critical area review prior to issuing any approval for a development proposal  
26 permit application or other request for permission to proceed with an alteration on a site that includes a  
27 critical area or is within an identified critical area buffer or building setback area.

28 (2) As part of the critical area review, the City shall:

29 (a) Confirm whether critical areas or buffers have been mapped or identified within the distance  
30 equal to the largest potential required buffer applicable to the development proposal area;

31 (b) Confirm the nature and type of the critical area;

32 (c) Determine whether a critical areas study is required;

33 (d) Evaluate the critical areas study. ~~As and independent third-party peer review may be, if required,~~  
34 ~~and;~~

Comment [C4S19]: Item 4-10 specifically referred to geotechnical reports, this provision has been expanded to include all reports. Was this expansion at the direction of the PC? If not, limit peer review to geotechnical reports.

35 (e) Determine whether the development proposal is consistent with this chapter;

Comment [CdS20]: Item 4-10

(f) Determine whether any proposed alteration to the critical area is necessary; and

**Comment [C4S21]:** Necessary to what, the development? Clarify.

(g) Determine if the mitigation and monitoring plans and bonding measures proposed by the applicant are sufficient to protect the public health, safety, and welfare, consistent with the goals, purposes, objectives, and requirements of this chapter. (Ord. O2005-193 § 1; Ord. O99-29 § 1)

**21A.50.120 Critical areas study requirement.**

(1) An applicant for a development proposal where alteration of an environmentally critical area-landslide hazard area, wetland, stream, or fish and wildlife habitat conservation area or modification or reduction of a buffer associated with an environmentally critical area is proposed shall submit a critical areas study at a level determined by the director to adequately in accordance with SMC 21A.50.130 to evaluate the proposal and probable impacts. A critical areas study shall also be required for a development proposal located in erosion and seismic hazard areas, critical aquifer recharge areas, and frequently flooded areas, consistent with the requirements of this chapter, as determined by the director.

**Comment [C4S22]:** A threshold needs to be defined below which a development proposal is not required. What constitutes "modification... of a buffer" is not defined. If the intent is truly that any modification whatsoever requires a development proposal, that is excessive and unwarranted. If it is not the intent, then this section should contain or reference a threshold that triggers this requirement. See comment on 21A.15.310.

(2) The director/Director may shall waive or modify the requirement for a critical areas study if the applicant shows, to the director's satisfaction, that:

**Comment [C4S23]:** Limit the discretionary influence of the Director in the interest of predictability.

(a) There will be no alteration of the critical area or buffer;

**Comment [C4S24]:** Limit the discretionary influence of the Director in the interest of predictability.

(b) The development proposal will not have an impact on the critical area in a manner contrary to the goals, purposes, objectives, and requirements of this chapter; and

(c) The minimum standards required by this chapter are met; or

(d) Critical areas are located off-site and access to applicable off-site property is restricted.

(3) If the development proposal will affect only a part of the development proposal site, the department may limit the scope of the required critical areas study to include only that area that is affected by the development proposal.

(4) If necessary to ensure compliance with this chapter, the director may require additional information from the applicant, separate from the critical areas study.

**Comment [C4S25]:** Limit the discretionary influence of the Director in the interest of predictability.

(5) A development proposal may be allowed to utilize past studies from neighboring properties, if confirmed that the study findings remain accurate and applicable to proposed development. (Ord. O2005-193 § 1; Ord. O99-29 § 1)

**21A.50.130 Contents of critical areas study.**

(1) The critical areas study shall be in the form of a written report prepared by a qualified professional using guidance based on best available science per RCW 36.70A and shall contain the following, as determined to be applicable by the director/Director:

**Comment [reb-26]:** Requiring a critical areas study prepared by a qualified professional to replace a shrub anywhere within 150 ft of a Type F watercourse is not reasonable. So is requiring it within 50 ft of any Type Ns trickle. See above comment about the need for a trigger threshold.

(a) Identification and characterization of all critical areas and buffers within the distance equal to the largest potential required buffer that can be reasonably ascertained from the subject property;

**Comment [CdS27]:** Item 5-6 (1 of 4)

1 (b) Assessment of the impacts or risks of any alteration proposed for a critical area or buffer,  
2 assessment of the impacts of any alteration on the development proposal, other properties and the  
3 environment, and/or assessment of the impacts to the development proposal resulting from  
4 development near the critical area or buffer;

5 (c) A description of efforts made to apply mitigation sequencing pursuant to SMC [21A.50.135](#) to  
6 avoid, minimize and mitigate impacts to critical areas;

7 (d) Studies that propose adequate mitigation, maintenance, monitoring, and contingency plans and  
8 bonding measures as necessary to offset impacts to the critical area from the development  
9 proposal;

10 (e) A scale map of the development proposal site;

11 ~~(f) Photographic records of the site both before and after any alteration;~~

**Comment [CdS28]:** Item 5-6 (2 of 4)

12 ~~(fg) Detailed studies, as required by this chapter, for individual critical areas areas or as otherwise~~  
13 ~~deemed necessary for critical areas protection by the director;~~

**Comment [C4S29]:** Limit the discretionary influence of the Director in the interest of predictability

14 (gh) Assessment of potential impacts that may occur downstream or downhill from the  
15 development site, such as sedimentation or erosion;

16 (hi) Assessment of potential impacts to wetland management areas, lake management areas, and  
17 other areas designated for special protection, where applicable; and

18 (ij) Consideration of the protection recommendations of the East Lake Sammamish Basin and  
19 Nonpoint Action Plan (1994), the Lake Washington/Cedar/Sammamish Watershed Chinook Salmon  
20 Conservation Plan – WRIA 8 Steering Committee, and adopted sub-basin plans.

21 (2) A critical areas study may be combined with any studies required by other laws and regulations.

22 ~~(3) If the development proposal will affect only a part of the development proposal site, the director may~~  
23 ~~limit the scope of the required critical areas study to include only that part of the site that may be affected by~~  
24 ~~the development. (Ord. O2005-193 § 1; Ord. O99-29 § 1)~~

**Comment [CofS30]:** Duplicates a section in SMC 21A.50.120

25 ~~(3) Acceptance of professional expert reports will be deemed conclusive unless challenged based upon fraud~~  
26 ~~or questionable credentials and/or license status.~~

**Comment [C4S31]:** A professional who is licensed by a WA State licensing board meets the highest standards set by the state. A qualified professional meets the standards set by their profession.

27 **21A.50.135 Avoiding impacts to critical areas.**

28 (1) An applicant for a development proposal, activity, or alteration shall document the consideration and  
29 subsequently shall implement the following sequential measures, which appear in order of preference, to  
30 avoid, minimize, and mitigate impacts to environmentally critical areas and associated buffers:

31 (a) Avoiding the impact or hazard by not taking a certain action, or redesigning the proposal to  
32 eliminate the impact. The applicant shall consider reasonable, affirmative steps and make best  
33 efforts to avoid critical area impacts. However, avoidance shall not be construed to mean

...  
1 mandatory withdrawal or denial of the development proposal or activity if the proposal or activity is  
2 an allowed, permitted, conditional, or special use in the SMC. In determining the extent to which the  
3 proposal should be redesigned to avoid the impact, the department may consider the purpose,  
4 effectiveness, engineering feasibility, commercial availability of technology, best management  
5 practices, safety and cost of the proposal and identified modifications to the proposal.

6 The department may also consider the extent to which the avoidance of one type or location of an  
7 environmentally critical area could require or lead to impacts to other types or locations of nearby  
8 or adjacent environmentally critical areas. The department should seek to avoid, minimize and  
9 mitigate overall impacts based on the functions and values of all of the relevant environmentally  
10 critical areas and based on the recommendations of a critical areas study. If impacts cannot be  
11 avoided through redesign, or because of site conditions or project requirements, the applicant shall  
12 then proceed with the sequence of steps in subsection (1)(b) through (g) of this section.

13 (b) Minimizing the impact or hazard by limiting the degree or magnitude of the action or impact with  
14 appropriate technology or by changing the timing of the action.

15 (c) Restoring the impacted critical areas by repairing, rehabilitating or restoring the affected critical  
16 area or its buffer.

17 (d) Minimizing or eliminating the hazard by restoring or stabilizing the hazard area through  
18 plantings, engineering or other methods.

19 (e) Reducing or eliminating the impact or hazard over time by preservation or maintenance  
20 operations during the life of the development proposal, activity or alteration.

21 (f) Compensating for the adverse impact by enhancing critical areas and their buffers or creating  
22 substitute critical areas and their buffers as required in the SMC.

23 (g) Monitoring the impact, hazard or success of required mitigation and taking remedial action  
24 based upon findings over time.

25 (2) In addition to the above steps, the specific development standards, permitted alteration requirements,  
26 and mitigation requirements of this chapter and elsewhere in the SMC apply.

27 (3) The department shall document the decision-making process used under this section as a part of the  
28 critical areas review conducted pursuant to SMC [21A.50.110](#). (Ord. O2005-193 § 1)

29 **21A.50.140 Mitigation, maintenance, monitoring and contingency.**

30 (1) When mitigation is required by this chapter to compensate for adverse impacts, unless otherwise  
31 provided, mitigation, maintenance, monitoring measures and contingency plans shall be in place to protect  
32 critical areas and buffers from alterations occurring on the development proposal site.

...

1 (2) Where monitoring reveals a significant deviation from predicted impacts or a failure of mitigation or  
 2 maintenance measures, the applicant shall be responsible for appropriate corrective action which, when  
 3 approved, shall be subject to further monitoring.

4 (3) Mitigation shall be in-kind and on-site when feasible and sufficient to maintain critical area and buffer  
 5 functions, and where applicable to prevent risk from a hazard posed by a critical area.

6 (4) The cityCity may approve off-site mitigation if an applicant demonstrates that:  
 7  
 8 (a) It is not feasible to mitigate on the development proposal site; and  
 9 (b) The off-site mitigation will achieve equivalent or greater hydrological, water quality and wetland  
 10 or aquatic area habitat functions.

11 (5) When off-site mitigation is authorized, the cityCity shall give priority to locations in the following order of  
 12 preference:  
 13 (a) Within the same drainage subbasin and  
 14 (b) Within the cityCity limits  
 15 (c) Within the boundaries of an approved fee-in-lieu mitigation program.

16 (64) Mitigation shall not be implemented until after the City of Sammamish approves the applicable critical  
 17 areas study, mitigation plan and any required permits. Following City approval, mitigation shall be  
 18 implemented in accordance with the provisions of the approved critical areas study and mitigation plan.  
 19 (Ord. O2005-193 § 1; Ord. O99-29 § 1)

20 **21A.50.145 Mitigation plan requirements.**  
 21 When mitigation is required, the applicant shall submit, for approval by the City of Sammamish, a mitigation  
 22 plan as part of, or in addition to, the critical areas study. The mitigation plan shall include, or be accompanied  
 23 by, a report with, the following information, as ~~determined to be~~ applicable by the director:

24 (1) Existing Conditions and Proposed Impacts. A description of existing critical area(s) and/or buffer(s)  
 25 conditions, functions, and values and a description of the anticipated impacts;

26 (2) Proposed Mitigation. A description of proposed mitigating actions and mitigation site selection criteria;

27 (3) Environmental Goals and Objectives. A description of the goals and objectives of proposed mitigation. The  
 28 goals and objectives shall be related to the functions and values of the impacted critical area(s) and/or  
 29 buffer(s);

30 (4) Best Available Science. A review of the best available science supporting proposed mitigation, a  
 31 description of the plan/report author's experience to date in restoring or creating the type of critical area  
 32 proposed, and an analysis of the likelihood of success of the mitigation project;

**Comment [CdS32]:** Item 2-8 & 3-3 (part 2 of 6)

**Comment [C4S33]:** Limit the discretionary influence of Director, in the interest of predictability.

...

(5) Performance Standards. A description of specific measurable criteria for evaluating whether or not the goals and objectives of the mitigation plan have been successfully attained and whether or not the requirements of this chapter have been met;

(6) Detailed Construction Plans. Detailed site diagrams, cross-sectional drawings, topographic elevations at one- or two-foot contours, slope percentage, final grade elevations, and any other drawings appropriate to show construction techniques or anticipated final outcome. In addition, plans should include specifications and descriptions of:

(a) Proposed construction sequence, timing, and duration;

(b) Grading and excavation details;

(c) Erosion and sediment control features;

(d) A planting plan specifying plant species, quantities, locations, size, spacing, and density; and

(e) Measures to protect and maintain plants until established;

(7) Monitoring Program. Mitigation plans shall include a program for monitoring construction of the compensation project, and for assessing a completed project. A protocol shall be included that outlines the schedule for site monitoring and how the monitoring data will be evaluated to determine if the performance standards are being met. A monitoring report shall be submitted as needed to document milestones, successes, problems, and contingency actions of the compensation project. The compensation project shall be monitored for a period necessary to establish that performance standards have been met. The monitoring period shall be five years; provided, that the ~~director~~Director may approve a greater period when needed to ensure mitigation success or a lesser period for minor mitigation; ~~and~~

(8) Contingency Plan. The mitigation plan shall include identification of potential courses of action, and any corrective measures to be taken if monitoring or evaluation indicates project performance standards are not being met. (Ord. O2005-193 § 1; Ord. O2005-172 § 4); and

(9) Fee in lieu program. If fee-in lieu mitigation is proposed, a critical areas study shall be supplied that demonstrates how proposed impacts and mitigation meet the requirements of SMC 21A.50.140 and 21A.50.310 or 21A.50.350, whichever is applicable, and also the requirements of the fee-in-lieu mitigation program to be utilized.

**21A.50.150 Financial guarantees.**

Financial guarantees shall be required consistent with the provisions of SMC Title 27A. (Ord. O2005-193 § 1; Ord. O99-29 § 1)

**21A.50.160 Vegetation management plan.**

(1) For all development proposals where preservation of existing vegetation is required by this chapter, a vegetation management plan shall be submitted and approved prior to issuance of the permit or other request for permission to proceed with an alteration.

Comment [CdS34]: Item 2-8 & 3-3 (part 3 of 6)

- ...
- 1 (2) The vegetation management plan shall identify the proposed clearing limits for the project and any areas  
2 where vegetation in a critical area or its buffer is proposed to be disturbed.
- 3 (3) Where clearing includes cutting any merchantable stand of timber, as defined in WAC 222-16-010(28), the  
4 vegetation management plan shall include a description of proposed logging practices that demonstrates  
5 how all critical areas will be protected in accordance with the provisions of this chapter.
- 6 (4) Clearing limits as shown on the plan shall be marked in the field in a prominent and durable manner.  
7 Proposed methods of field marking shall be reviewed and approved by the City prior to any site alteration.  
8 Field marking shall remain in place until the certificate of occupancy or final project approval is granted.
- 9 (5) The vegetation management plan may be incorporated into a temporary erosion and sediment control  
10 plan or landscaping plan where either of these plans is required by other laws or regulations.
- 11 (6) Submittal requirements for vegetation management plans shall be set forth by the department. (Ord.  
12 O2005-193 § 1; Ord. O99-29 § 1)

13 **21A.50.170 Critical area markers, signs and fencing.**

14 (1) Markers. Permanent survey stakes delineating the boundary between adjoining property and critical area  
15 tracts shall be set, using markers capable of being magnetically located and as established by current survey  
16 standards.

17 (2) Signs. Development proposals approved by the city City shall require that ~~The the~~ boundary between a  
18 critical area buffer tract and contiguous land shall be identified with permanent signs. Permanent signs shall  
19 be a City-approved type designed for high durability. Signs must be posted at an interval of one per lot or  
20 every 50 feet, whichever is less, and must be maintained by the property owner or homeowners' association  
21 in perpetuity. The wording, number and placement of the signs ~~shall may be as at specified by~~ modified by  
22 the director Director based on specific site conditions.

Comment [CdS35]: Item 5-7 (1 of 3)

Comment [CdS36]: Item 5-7 (2 of 3)

23 (3) Fencing. The director may require fencing to protect the functions of a critical area. If found to be  
24 necessary, permanent Permanent fencing shall be required at the outer edge of the critical area ~~or~~ buffer  
25 under the following circumstances:

- 26 (a) Development proposals for:
- 27 (i) Plats;
- 28 (ii) Short plats;
- 29 (iii) Parks;
- 30 (iv) Other development proposals, including but not limited to multifamily, mixed use, and  
31 commercial development where such fencing is necessary to protect the functions of the  
32 critical area.
- 33 (b) Buffer reduction is employed as part of a development proposal;

1 (ec) Buffer averaging is employed as part of a development proposal; and

2 (fd) At the ~~director~~Director's discretion to protect the values and functions of a critical area.

Comment [CdS37]: Item 5-7 (3 of 3)

3 --Fencing installed in accordance with this section shall be designed to ~~not interfere~~avoid interference with  
4 fish and wildlife migration and shall be constructed in a manner that minimizes critical areas impacts. (Ord.  
5 O2005-193 § 1; Ord. O99-29 § 1)

6 **21A.50.180 Notice on title.**

7 (1) The owner of any property containing critical areas or buffers on which a development proposal is  
8 submitted or any property on which mitigation is established as a result of development, except a public  
9 right-of-way or the site of a permanent public facility, shall file a notice approved by the City with the records  
10 and elections division of King County. The required contents and form of the notice shall be determined by  
11 the ~~director~~Director. The notice shall inform the public of the presence of critical areas, buffers or mitigation  
12 sites on the property, of the application of this chapter to the property and that limitations on actions in or  
13 affecting such critical areas or buffers may exist. The notice shall run with the land.

Comment [reb-38]: This is an example of a problem with the current ambiguity regarding what does and does not constitute "development". The new definition of development in 21A.15 includes landscaping, and 16.15.050 seems to require a development proposal for anything beyond mowing, pruning, and applying groundcover (ref. discussion of reb-1 below). Does this mean merely changing some plantings will trigger a notice on title? That is not reasonable. Limitations need to be specified for what triggers the requirement to file a notice on title.

14 (2) The applicant shall submit proof that the notice has been filed for public record before the City shall  
15 approve any development proposal for the property or, in the case of subdivisions, short subdivisions and  
16 binding site plans, at or before recording. (Ord. O2005-193 § 1; Ord. O99-29 § 1)

17 **21A.50.190 Critical area tracts and designations on site plans.**

18 (1) Critical area tracts shall be used to delineate and protect those critical areas and buffers listed below in  
19 development proposals for subdivisions, short subdivisions, or binding site plans and shall be recorded on all  
20 documents of title of record for all affected lots:

21 (a) All landslide hazard areas and related buffers that are one acre or greater in size;

22 (b) All wetlands and related buffers;

23 (c) All streams and related buffers; and

24 (d) All fish and wildlife habitat conservation areas and related buffers.

25 (2) Any required critical area tract shall be held in an undivided interest by each owner of a building lot within  
26 the development with this ownership interest passing with the ownership of the lot or shall be held by an  
27 incorporated homeowners' association or other legal entity which assures the ownership, maintenance, and  
28 protection of the tract, or dedicated to the City of Sammamish, at the City's discretion.

29 (3) Site plans submitted as part of development proposals for building permits, master plan developments,  
30 and clearing and grading permits shall include and delineate all flood hazard areas (if they have been mapped  
31 by FEMA or King County or if a critical areas study is required), landslide hazard areas, streams and wetlands,  
32 buffers, and building setbacks. If only a part of the development site has been mapped pursuant to SMC  
33 21A.50.130(3), the part of the site that has not been mapped shall be clearly identified and labeled on the

1 ...  
2 site plans. The site plans shall be attached to the notice on title required by SMC [21A.50.180](#). (Ord. O2005-193 § 1; Ord. O99-29 § 1)

3 **21A.50.200 Alteration.**

4 *Recodified to SMC [21A.15.056](#) by Ord. O2005-172.* (Ord. O99-29 § 1)

5 **21A.50.210 Building setbacks.**

6 Unless otherwise provided, buildings and other structures shall be set back a distance of 15 feet from the  
7 edges of a critical area buffer. The following may be allowed in the building setback area:

- 8 (1) Landscaping;
- 9 (2) Uncovered decks;
- 10 (3) Building overhangs if such overhangs do not extend more than 18 inches into the setback area;
- 11 (4) Impervious ground surfaces, such as driveways and patios; provided, that such improvements may be  
12 subject to special drainage provisions adopted for the various critical areas; and
- 13 (5) Trails. (Ord. O2009-264 § 1 (Att. A); Ord. O2005-193 § 1; Ord. O2005-172 § 4; Ord. O99-29 § 1)

14 **21A.50.220 Erosion hazard areas – Development standards and permitted alterations.**

15 (1) The City shall approve, condition or deny proposals in an erosion hazard area as appropriate based upon  
16 the effective mitigation of risks posed to property, health and safety. The objective of mitigation measures  
17 shall be to render an erosion hazardous site as safe as one not containing such hazard. Conditions may  
18 include limitations of proposed uses, modification of density, alteration of site layout and other appropriate  
19 changes to the proposal. Where potential impacts cannot be effectively mitigated, or where the risk to public  
20 health, safety and welfare, public or private property, or important natural resources is significant  
21 notwithstanding mitigation, the proposal shall be denied.

22 (2) Alteration of an erosion hazard area may only occur for activities for which a geotechnical analysis is  
23 submitted and certified that:

- 24 (a) The development will not increase surface water discharge or sedimentation to adjacent  
25 properties beyond pre-development conditions;
- 26 (b) The development will not decrease slope stability on the subject and adjacent properties; and
- 27 (c) Such alterations will not adversely impact other critical areas.

28 (43) Land clearing, grading, filling, and foundation work in an erosion hazard area is allowed only from May  
29 1st to September 30th, except that:

- 30 (a) Construction outside of this seasonal development limitation may be authorized if the  
31 ~~director~~[Director](#) determines that the hazard area will not be adversely impacted by the proposed

**Comment [reb-39]:** This regulation, if taken literally, says that a resident cannot so much as place a small storage shed within 165 feet of a watercourse that meets the broad definition of a Type F stream. That is regardless of how many houses, driveways, etc. are between that location and the stream. This is an arbitrary and unjustified restriction of the rights of the property owner. Allowance should be made for intervening features and topography, (ref. comments on 21A.50.060 (2) b.). Note that providing the option of buffer delineation would solve this problem.

**Comment [C4S40]:** 1 & 2 from City of Kirkland 20D.140.60-040

1 construction work or the applicant demonstrates that erosion hazards will be fully mitigated. through  
2 an erosion management plan that includes:

3 (i) Pre-design site inspection by a licensed engineer or geologist to identify erosion hazard areas, no-  
4 disturbance areas, and resources downstream of the site that are to be protected;

5 (ii) Development and implementation of a temporary erosion and sediment control plan, which must  
6 include:

7 (A) — The minimum requirements from the adopted Surface Water Design Manual most recently  
8 adopted by the City;

9 (B) — Provisions to store site construction runoff and treat runoff sufficiently to meet water quality  
10 standards prior to discharge;

11 (C) — Daily and post-storm inspections of temporary erosion and sediment control best  
12 management practices;

13 (D) — Establishment of a manager, who is a Certified Erosion and Sediment Control Lead (CESCL) in  
14 the State of Washington, and will be available on-call and to respond to temporary erosion and  
15 sediment control non-compliance;

16 (E) — A water quality monitoring plan for site discharges, where the applicant is responsible for  
17 measuring turbidity of stormwater released from the site and maintaining records of monitoring  
18 data that shall be available upon request by the City or Ecology. Monitoring protocols should  
19 conform to the monitoring requirements of the construction stormwater general permit;

20 (F) — A Contingency Plan incorporated into the temporary erosion and sediment control plan that  
21 identifies corrective actions and BMPs that will be implemented if monitoring shows discharge water  
22 quality exceeds water quality standards, and that specifies materials to be stockpiled on site for use  
23 in an erosion and sediment control ESC response;

24 (G) — A Seasonal Suspension Plan for suspending work until the end of the rainy season if  
25 temporary erosion and sediment control measures are found to be inadequate;

26 (iii) Construction stormwater systems and temporary erosion and sediment control best  
27 management practices are to be sized for a minimum of a 10-year storm interval.

28 (iv) The owner must provide a financial guarantee in accordance with SMC 27A.15 specifically to cover  
29 all costs of implementing the approved temporary erosion and sediment control plan, monitoring  
30 site discharges, permanently stabilizing the site, and restoring any off-site impacts, including  
31 materials, labor, and City costs, to be used if the development is stalled or not completed;

32 (v) Preparation and implementation of site grading, stabilization, and restoration plans by a licensed  
33 engineer, with certification by a geotechnical engineer that these plans are sufficient to prevent  
34 erosion and sedimentation of susceptible soils; and

1 ~~(vi) Preparation of a vegetation mManagement Pplan by a qualified professional forestablishment of~~  
2 ~~permanent vegetation on the site following completion of clearing and grading work.~~

3 (b) ~~In addition to the requirements of 21A.50.220(1)(a), TtheThe directorDirector~~ may require a  
4 ~~critical areasadditional studiesy a critical areas study~~ of the site, grading, structural improvements,  
5 hydrology, soils and storm water retention studies, erosion control measures, restoration plans,  
6 and/or an indemnification/release agreement.

Comment [CdS41]: Item 4-1 (part 2 of 3)

7 (c) Timber harvest may be allowed pursuant to an approved forest practice permit issued by the  
8 Washington Department of Natural Resources.

9 ~~(d) The director may halt wet season construction as necessary to protect the hazard area and/or to~~  
10 ~~prevent downstream impacts.~~

Comment [CdS42]: Item 4-1 (part 3 of 3)

11 (24) All development proposals on sites containing erosion hazard areas shall include a temporary erosion  
12 ~~and sediment~~ control plan ~~as specified in section (1)(a) above~~ consistent with this section and other laws and  
13 regulations prior to receiving approval. Specific requirements for such plans shall be set forth in the adopted  
14 surface water design manual or as otherwise specified by the ~~departmentDepartment~~.

15 (35) All subdivisions, short subdivisions, or binding site plans on sites with erosion hazard areas shall comply  
16 with the following additional requirements:

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

19 (b) If any vegetation on the lots is damaged or removed during construction of the subdivision  
20 infrastructure, the applicant shall be required to submit a restoration plan to the department for  
21 review and approval. Following approval, the applicant shall be required to implement the plan;

22 (c) Clearing of vegetation on lots will not be allowed unless the City determines that:

23 (i) Such clearing is a necessary part of a large-scale grading plan;

24 (ii) It is not a reasonable alternative to perform such grading on an individual lot basis; and

25 (iii) Drainage from the graded area will meet water quality standards to be established by the  
26 adopted surface water design manual.

27 (4) Where the City determines that erosion from a development site poses a significant risk of damage to  
28 downstream receiving waters, based either on the size of the project, the proximity to the receiving water or  
29 the sensitivity of the receiving water, the applicant shall be required to provide regular monitoring of surface  
30 water discharge from the site ~~as required by the adopted Surface Water Design Manual and City of~~  
31 ~~Sammamish Addendum (2009)~~. If the project does not meet ~~the applicable provisions of the~~ adopted water  
32 quality standards ~~as~~ established by law, the City may suspend further development work on the site until  
33 such standards are met.

Comment [CdS43]: Item 4-2

...

(5) The use of hazardous substances including, but not limited to, pesticides, and fertilizers in erosion hazard areas may be prohibited by the City. (Ord. O2005-193 § 1; Ord. O99-29 § 1)

**21A.50.225 Erosion hazards near sensitive water bodies –~~Special district overlay.~~**

~~(1) The purpose of the erosion hazards near sensitive water bodies special overlay district is to provide a means to designate sloped areas potentially posing erosion hazards that drain directly to lakes or streams of high resource value that are particularly sensitive to the impacts of increased erosion and the resulting sediment loads from development.~~

(2) The Department of Community Development shall maintain a map of the boundaries of the erosion hazard near sensitive water bodies overlay district.

(3) These maps will be used as a guide only to determine the presence of erosion 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.

(4) Properties located within the erosion hazards near sensitive water bodies special overlay district may be subject to increased scrutiny and conditioning because of the potential presence of an erosion hazard area on or near the property that may have higher risks of increased erosion and the resulting sediment loads from development.

~~(2) General development standards. The following development standards shall be applied to all properties within the erosion hazard near sensitive water body overlay:~~

~~(a) The one (1) acre exemption in the Storm Water Design Manual Addendum shall not apply within the erosion hazards near sensitive water body overlay.~~

~~(b) If the application of this section would deny all reasonable use of property, the applicant may apply for a reasonable use exception pursuant to SMC 21A.50.070(2).~~

~~(c) The director may modify the property specific development standards required by this section when a critical areas study is conducted by the applicant and approved by the director which demonstrates that the proposed development substantially increases water quality by showing the following:~~

~~(i) Water quality on site is improved through site enhancements and/or other innovative management techniques;~~

~~(ii) The development project will not subject downstream channels to increased risk of landslide or erosion; and~~

~~(iii) The development project will not subject the nearest sensitive water body to additional erosion hazards.~~

The department of community development shall maintain a map of the boundaries of the erosion hazard near sensitive water bodies overlay district.

11/30/2012 Planning Commission Deliberation Version--

**Comment [C4S44]:** From City of Kirkland 85.12 Environmentally Sensitive Areas (ESA) Maps

**Comment [C4S45]:** From City of Kirkland 85.14 Erosion Hazard Areas

**Comment [C4S46]:** No other jurisdiction has such a section and it should only be applied as a guide, not as an absolute. The main Erosion Hazard section should cover the actions available. Properties not fitting the definition of Erosion Hazard should not be automatically included.

**Comment [EM47]:** Re-organization for clarity

**Comment [EM48]:** Item 4-15d

**Comment [C4S49]:** What is the justification for applying this standard to this group of property owners? Others are not required to meet this standard of "substantially increases water quality".

**Comment [EM50]:** Re-organization for clarity

...

1 (2) No disturbance area development standards. The following development standards shall be applied, in  
2 addition to all applicable requirements of this chapter, to development proposals located within the no-  
3 disturbance area erosion hazards near a sensitive water bodies special district overlay:

4 (a) A no disturbance area shall be established on the sloped portion of the special district overlay to  
5 prevent damage from erosion. The upslope boundary of the no disturbance area lies at the first  
6 obvious break in slope from the upland plateau over onto the steep valley walls. The downslope  
7 boundary of the no disturbance area is the extent of those areas designated as erosion or landslide  
8 hazard areas. The department shall maintain maps of the approximate location of the no  
9 disturbance areas, which shall be subject to field verification for new development proposals.

10 (ab) Land clearing or dDevelopment shall not occur in the no disturbance area, except for the  
11 clearing development activities listed in subsection (3)(ba)(i) of this section. Clearing Development  
12 activities listed in subsection (3)(ba)(i) of this section shall only be permitted if they meet the  
13 requirements of subsection (3)(ab)(ii) of this section.

14 (i) Clearing Development activities may be permitted as follows:

15 (A) For single family residences, associated landscaping and any appurtenances on pre-  
16 existing separate lots;

17 (B) For utility corridors to service existing development along existing rights of way  
18 including any vacated portions of otherwise contiguous rights of way, or for the  
19 construction of utility corridors identified within an adopted water, storm water, or sewer  
20 comprehensive plan;

21 (C) For streets providing sole access to buildable property and associated utility facilities  
22 within those streets; or

23 (D) For public park facilities including parking lots, restrooms or recreational structures  
24 and pedestrian trail/sidewalks; or

25 (E) Work authorized pursuant to the pilot program.

26 (ii) The clearing development activities listed in subsection (3)(ba)(i) of this section may be  
27 permitted only if the following requirements are met:

28 (A) A Where applicable under SMC 21A.50.120, a report that meets the requirements of  
29 SMC 21A.50.130 shall show that the clearing development activities will not subject the  
30 area to risk of landslide or erosion and that the purpose of the no disturbance area is not  
31 compromised in any way;

32 (B) The clearing development activities shall be mitigated, monitored and bonded  
33 consistent with the mitigation requirements applicable to critical areas;

1 (C) The clearing development activities are limited to the minimal area and duration  
2 necessary for construction; and

3 (D) The clearing development activities are consistent with this chapter.

4 (b) New single family home construction or modifications or additions to existing single family homes  
5 on existing legal lots that will result in a total site impervious surface of more than 2,000 square feet  
6 shall provide a drainage design, using the following sequential measures, which appear in order of  
7 preference:

Comment [EM51]: Re-organization for clarity

8 (i) Infiltration of all site runoff shall be required to the maximum extent technically feasible in  
9 soil conditions, consistent with the infiltration system design requirements of the KCSWDM;

10 (ii) Development proposals that meets the goals of Low Impact Development, by providing:

11 — Sixty five (65) percent of the site shall remain as open space.

12 — Ten (10) percent of the gross site area may be covered with impervious surface.

13 — Effective impervious surface on the site shall be minimized to the maximum extent  
14 practically feasible by limiting stormwater discharge volumes to match average annual  
15 volume discharged from the pre-developed forested site conditions as determined  
16 using a calibrated continuous simulation hydrologic model based on the EPA's HSPF  
17 program or an approved equivalent model. The city may modify these requirements  
18 based upon site specific analysis of the feasibility of required improvements, standards  
19 and specifications. Such analysis shall include evaluation of site and vicinity soils,  
20 hydrology, and other factors, as determined by the City, affecting the successful design  
21 of the stormwater or low impact development improvements. The city shall consider  
22 purpose, effectiveness, engineering feasibility, commercial availability of technology,  
23 best management practices, safety and cost of the proposal when evaluating a waiver  
24 or modification request. The applicant shall bear the burden of proof that a waiver or  
25 modification is warranted.

Comment [EM52]: Item 4-15e

26 (iii) For development proposals that cannot infiltrate all site runoff, the applicant shall design a  
27 drainage system that provides a drainage outlet designed using the best available science  
28 techniques to limit the risk of landslide or erosion to the no disturbance area; and

29 (iv) Structural modification of, addition to or replacement of legally created single detached  
30 residences and improvements that were legally established according to the regulations in  
31 place at the time of establishment, shall be exempt from the provisions of this section.

32 (4) Development standards for properties draining to the no disturbance area. The following development  
33 standards shall be applied, in addition to all applicable requirements of this chapter, to development  
34 proposals located within the erosion hazards near sensitive water body overlay that drain to no disturbance  
35 area:

Comment [EM53]: Re-organization for clarity

1 (ac) New proposed subdivisions, short subdivisions, public institutions, commercial site  
2 development permits, and binding site plans for sites that drained predeveloped runoff to the no-  
3 disturbance zone shall evaluate the suitability of on-site soils for infiltration. All runoff from newly  
4 constructed impervious surfaces shall be retained on site unless this requirement precludes a  
5 proposed subdivision or short subdivision from achieving 75 percent of the maximum net density as  
6 identified in Chapter 21A.25 SMC. When 75 percent of the maximum net density cannot be met, the  
7 applicant shall retain runoff on site and a perforated tightline (Figure C.2.1, Appendix C, of the 1998  
8 KCSWDM, as amended per the adopted stormwater design manual) shall be used to connect each lot  
9 to the central drainage system. The following drainage systems shall be evaluated, using the  
10 following sequential measures, which appear in order of preference:

Comment [CdS54]: Item 4-5

11 (i) Infiltration of all site runoff shall be required in granular soils as defined in the King County  
12 Surface Water Design Manual (KCSWDM);

13 (ii) Infiltration of downspouts shall be required in granular soils and in soil conditions defined  
14 as allowable in the KCSWDM when feasible to fit the required trench lengths on site. All flows  
15 not going to an individual infiltration system shall be detained on site using the most restrictive  
16 flow control standard; and

17 (iii) When infiltration of downspouts is not feasible, the applicant shall design a drainage  
18 system that will detain flows on site using the applicable flow control standard and shall install  
19 an outlet from the drainage system designed using the best available science techniques to  
20 limit the risk of landslide or erosion to the no-disturbance area; provided, that in no case shall  
21 development proposals generating more than 2,000 square feet of impervious surface create  
22 point discharges in or upstream of the no-disturbance or landslide hazard areas.

23 (d) New single-family home construction or modifications or additions to existing single-family  
24 homes on existing legal lots that will result in a total site impervious surface of more than 2,000  
25 square feet shall provide a drainage design, using the following sequential measures, which appear  
26 in order of preference:

27 (i) Infiltration of all site runoff shall be required to the maximum extent technically feasible in  
28 soil conditions, consistent with the infiltration system design requirements of the KCSWDM;

29 (ii) For development proposals that cannot infiltrate all site runoff, impervious surfaces shall be  
30 infiltrated to the maximum extent technically feasible in soil conditions, consistent with the  
31 infiltration system design requirements of the KCSWDM;

32 (iii) For development proposals that cannot infiltrate all site runoff, the applicant shall design a  
33 drainage system that provides a drainage outlet designed using the best available science  
34 techniques to limit the risk of landslide or erosion to the no-disturbance area; and

35 (iv) Structural modification of, addition to or replacement of legally created single detached  
36 residences and improvements in existence before January 1, 2006, that do not increase the  
37 existing total footprint of the residence and associated impervious surface by more than 200

1 square feet over that existing before January 1, 2006, shall be exempt from the provisions of  
2 this section.

3 (eb) For the portions of proposed subdivisions, short subdivisions and binding site plans that cannot  
4 infiltrate runoff up to the 100-year peak flow, at least 25 percent shall remain undisturbed and set  
5 aside in an open space tract consistent with SMC 21A.50.160 through 21A.50.190. The open space  
6 tract shall be located adjacent to any required critical area tracts and shall be designed to maximize  
7 the amount of separation between the critical area and the proposed development. If no critical  
8 areas tracts are required, the open space tract shall be located to provide additional protection to  
9 the no-disturbance area.

10 (fc) For the portions of all subdivisions and short subdivisions that cannot infiltrate runoff up to the  
11 100-year peak flow, no more than 35 percent of the gross site area shall be covered by impervious  
12 surfaces. For new subdivisions and short subdivisions, maximum lot coverage should be specified for  
13 subsequent residential building permits on individual lots.

14 (5) Pilot Program.

Comment [EM55]: Item 4-15d

15 (a) Establishment of Pilot Program. A Pilot Program is hereby established to allow clearing and  
16 development projects within the no-disturbance area as set forth herein on land that has slopes of  
17 less than 40 percent grade and that is located outside of critical area buffers.

18 (b) Purpose. The purpose of this Pilot Program is to allow for limited development within the no  
19 disturbance area under strict limitations in order to evaluate the ability to allow increased  
20 development within the no-disturbance area without adversely affecting the water quality of Lake  
21 Sammamish. Projects qualifying for this Pilot Program would not be subject to the preceding  
22 sections of 21A.50.225.

23 (c) Eligible Projects. Projects eligible for inclusion in this Pilot Program include, without  
24 limitation, three (3) subdivisions with direct discharges to the lake using a tightline system, three (3)  
25 subdivisions without direct discharge via a tightline, and three (3) short subdivisions that are  
26 designed subject to one of the following:

27 (i) Where direct access to Lake Sammamish is available, the applicant shall install permanent  
28 water quality treatment per adopted manual and a tightline storm drain system discharging  
29 directly into Lake Sammamish designed by a professional engineer using the most current  
30 drainage manual and technologies. The applicant shall also install temporary erosion  
31 sediment control improvements, in particular active water quality treatment. The tightline  
32 system shall extend through the property and be available by extension or easement  
33 upstream to properties that naturally drain to the subject property; or,

34 (ii) Where direct access to Lake Sammamish is not available, the applicant shall design a  
35 project consistent with the development standards of Low Impact Development, in particular  
36 the project shall:

Comment [EM56]: Item 4-15d

- 1                   ~~Sixty five (65) percent of the site shall remain as forested open space. Re-~~  
2                   ~~vegetation shall be required to convert no forested open space to forested as~~  
3                   ~~part of the project approval.~~  
4                   ~~Ten (10) percent of the gross site area may be covered with impervious surface.~~  
5                   ~~Effective impervious surface on the site shall be minimized to the maximum~~  
6                   ~~extent practically feasible by limiting stormwater discharge volumes to match~~  
7                   ~~average annual volume discharged from the pre-developed forested site~~  
8                   ~~conditions as determined using a calibrated continuous simulation hydrologic~~  
9                   ~~model based on the EPA's HSPF program or an approved equivalent model. The~~  
10                  ~~city may modify these requirements based upon site specific analysis of the~~  
11                  ~~feasibility of required improvements, standards and specifications. Such analysis~~  
12                  ~~shall include evaluation of site and vicinity soils, hydrology, and other factors, as~~  
13                  ~~determined by the City, affecting the successful design of the stormwater or low~~  
14                  ~~impact development improvements. The city shall consider purpose,~~  
15                  ~~effectiveness, engineering feasibility, commercial availability of technology, best~~  
16                  ~~management practices, safety and cost of the proposal when evaluating a waiver~~  
17                  ~~or modification request. The applicant shall bear the burden of proof that a~~  
18                  ~~waiver or modification is warranted.~~

19                  ~~(d) — Application Process. Applications for eligible projects meeting the provisions of 5(c) above~~  
20                  ~~must be submitted within three calendar years from the effective date of the adoption by ordinance~~  
21                  ~~of the Pilot Program on forms provided by the Department. The Pilot Program shall expire and no~~  
22                  ~~further applications may be accepted after such three year period. Projects for which applications~~  
23                  ~~are accepted into the Pilot Program may be reviewed, approved and constructed, under the terms~~  
24                  ~~of the Pilot Program, even if such review, approval, or construction occurs after the Pilot Program~~  
25                  ~~has expired. The City shall maintain a register of applications submitted after the maximum number~~  
26                  ~~of application have been received. In the event that an application for a project accepted into the~~  
27                  ~~Pilot Program is withdrawn by the applicant or cancelled by the City prior to the expiration of the~~  
28                  ~~Pilot Program, the next submitted application on the register for the same development type shall~~  
29                  ~~be accepted into the Pilot Program.~~

30                  ~~(e) — Development Restrictions. Projects accepted under this Pilot Program may conduct clearing~~  
31                  ~~and development in the no-disturbance area, and shall not be subject to subsection 21A.50.225(2)~~  
32                  ~~so long as such clearing and development meets all of the following requirements:~~

33                         ~~(i) The development shall comply with the adopted Surface Water Design Manual~~  
34                         ~~(KCSWDM).~~

35                         ~~(ii) Clearing of the site shall be limited based on the treatment capacity designed into the~~  
36                         ~~permanent and temporary water quality treatment systems installed.~~

37                         ~~(iii) Construction Season Work Limits—Land clearing and grading may only occur between~~  
38                         ~~May 1st to September 30th with the phases of construction limited as follows:~~

- 1 ~~— On or after May 1st, site clearing and grading necessary for the installation of~~
- 2 ~~permanent and temporary water quality treatment and conveyance may occur.~~
- 3 ~~Clearing and grading shall be limited to those portions of a site where such work~~
- 4 ~~is necessary to install tight line stormwater conveyance, permanent and~~
- 5 ~~temporary stormwater detention, and/or water quality facilities. For the~~
- 6 ~~purposes of temporary erosion control, the required tightline system may be~~
- 7 ~~either a portion of the permanent stormwater conveyance system if feasible, or~~
- 8 ~~a temporary tightline system to be replaced by the permanent system as~~
- 9 ~~construction progresses;~~
- 10 ~~— On or after June 1st, development of the site may occur.~~
- 11 ~~— No later than September 30th, all site clearing and grading activity must be~~
- 12 ~~completed and the site fully prepared for winter rains, through techniques such~~
- 13 ~~as hydroseeding or stabilization as set forth in an approved Construction Season~~
- 14 ~~Work Limit Plan.~~
- 15 ~~— Seasonal construction limitations may be extended with permission of the~~
- 16 ~~director if appropriate erosion control measures and practices are in place and~~
- 17 ~~weather patterns permit.~~

18 ~~(iiiv) — Construction Season Work Limit Implementation. City approval of a temporary~~

19 ~~erosion and sediment control plan consistent with this section, SMC 21A.50.220, and~~

20 ~~other laws and regulations is required prior to any site work. The erosion control~~

21 ~~plan must demonstrate compliance with the grading limit area must include a~~

22 ~~Construction Season Work Limit confirming compliance with the construction season~~

23 ~~limitations and a Close Out Plan identifying the actions that will be taken to ready the~~

24 ~~site for winter weather. The Close Out Plan shall be updated as follows:~~

- 25 ~~— By August 15th City approval of any proposed changes to the Close Out Plan to~~
- 26 ~~assure that the site will be prepared for winter weather by September 30<sup>th</sup> is~~
- 27 ~~required.~~
- 28 ~~— By September 1st review and approval of any revisions to the close out plan is~~
- 29 ~~required.~~
- 30 ~~— By September 15<sup>th</sup>, city inspection is required of the site to confirm that all~~
- 31 ~~mandatory elements of the Close Out Plan are being implemented is required.~~
- 32 ~~Following inspections, the applicant of additional actions that are necessary and~~
- 33 ~~may order all construction work to be stopped other than work to prepare the~~
- 34 ~~site foer winter weather.~~
- 35 ~~— By September 30th the all site work to prepare the site for winter weather shall~~
- 36 ~~be completed.~~
- 37 ~~— Seasonal construction limitations may be extended with permission of the~~
- 38 ~~director if appropriate erosion control measures and practices are in place and~~
- 39 ~~weather patterns permit.~~

40 ~~(iv) — Early Installation of Permanent Stormwater Management System. In addition to~~

41 ~~installation of all required Temporary Sediment and Erosion Control measures, and~~

1 prior to any grading, other than grading necessary for installation of the stormwater  
2 management system, the applicant shall construct the Project's stormwater  
3 management systems in accordance with plans approved by the City. Stormwater  
4 systems shall include permanent and temporary water quality treatment and  
5 detention facilities specified in the latest approved version of the Surface Water  
6 Design Manual and the pipes and outlet facilities necessary to convey stormwater to  
7 the approved discharge location.

8 Temporary water quality treatment facilities shall be sized to treat runoff generated  
9 by cleared areas during the 10 year storm during May through September and  
10 the a 25 year storm event and release treated runoff with a measured turbidity  
11 of no more than 25 NTU.

12 Temporary water quality treatment facilities shall include active sediment controls,  
13 such as chemical treatment, enhanced filtration or a combination of both per  
14 DOE guidelines (Section C250 & C251, Volume II, Department of Ecology  
15 Stormwater Management Manual).

16 (v) — No more than one (1) subdivision and one (1) short subdivision may start  
17 construction per dry season.

18 (vi) — Ongoing monitoring data shall be collected by the applicant in accordance with the  
19 NPDES permit at the natural discharge location. Monitoring data shall be collected  
20 prior to the start of construction, through the construction period and until the last  
21 house has been built on the site. Data shall be summarized in annual reports to the  
22 city. Developer reports shall evaluate the effect on King County water quality data  
23 from Lake Sammamish.

24 (f) — Post Development Phosphorous Control. Post development water quality treatment shall be  
25 designed to remove 60% or more, if technically feasible, of all new total phosphorus loading  
26 on an annual basis due to new development (and associated storm water discharges).

27 (g) — Pilot Program Evaluation. The city shall monitor the pilot program through the annual  
28 reports and shall summarize the report findings in a report evaluating how well the each  
29 project achieved its purpose and goals and present the report to the City Council.

30 (g) If the application of this section would deny all reasonable use of property, the applicant may  
31 apply for a reasonable use exception pursuant to SMC 21A.50.070(2).

32 (h) The director may modify the property specific development standards required by this section  
33 when a critical areas study is conducted by the applicant and approved by the director which  
34 demonstrates that the proposed development substantially increases water quality by showing the  
35 following:

36 (i) Water quality on site is improved through site enhancements and/or other innovative  
37 management techniques;

...  
1 ~~(ii) The development project will not subject downstream channels to increased risk of~~  
2 ~~landslide or erosion; and~~

3 ~~(iii) The development project will not subject the nearest sensitive water body to additional~~  
4 ~~erosion hazards. (Ord. O2009-250 § 1; Ord. O2005-193 § 1)~~

5 **21A.50.230 Frequently flooded areas.**

6 (1) Frequently flooded areas include all areas of special flood hazards within the jurisdiction of the City of  
7 Sammamish.

8 ~~(a)~~ The areas of special flood hazard are identified by the Federal Insurance Administration in a scientific and  
9 engineering report entitled “the Flood Insurance Study for King County,” as amended, as stated in SMC  
10 [15.10.060](#). The flood insurance study is on file at Sammamish City Hall. The best available information for  
11 flood hazard area identification as outlined in SMC [15.10.130](#)(2) shall be the basis for regulation until a new  
12 FIRM is issued that incorporates the data utilized under SMC [15.10.130](#)(2).

Comment [C4S57]: Not defined?

13 ~~(b) The director may use additional flood information that is more restrictive or detailed than that~~  
14 ~~provided in the Flood Insurance Study conducted by the Federal Emergency Management Agency~~  
15 ~~(FEMA) to designate frequently flooded areas, including data on channel migration, historical data,~~  
16 ~~high water marks, photographs of past flooding, location of restrictive floodways, maps showing~~  
17 ~~future build-out conditions, maps that show riparian habitat areas, or similar information.~~

Comment [EM58]: Clarification

18 (2) Development in frequently flooded areas shall be subject to the provisions in Chapter [15.10](#) SMC. (Ord.  
19 O2005-193 § 1; Ord. O99-29 § 1)

20 **21A.50.240 Flood hazard areas – Certification by engineer or surveyor.**

21 *Repealed by Ord. O2005-193. (Ord. O99-29 § 1)*

22 **21A.50.250 Channel relocation and stream meander areas.**

23 *Repealed by Ord. O2005-193. (Ord. O99-29 § 1)*

24 **21A.50.260 Landslide hazard areas – Development standards and permitted alterations.**

25 A development proposal containing, or within 50 feet of, a landslide hazard area shall meet the following  
26 requirements:

27 (1) A minimum buffer of 50 feet shall be established from all edges the top and toe of the landslide hazard  
28 area. The buffer shall be extended as required to mitigate a landslide or erosion hazard or as otherwise  
29 necessary to protect the public health, safety, and welfare.

Comment [CdS59]: Item 4-7

30 (2) The buffer may be reduced to a minimum of 15 feet if, based on a critical areas study, the City determines  
31 that the reduction will adequately protect the proposed development and other properties, the critical area  
32 and other critical areas off-site.

1 (a) For single-family residential building permits only, the City may ~~waive the~~ reduce the scope of the  
2 critical areas study requirement if other development in the area has already provided sufficient  
3 information or if such information is otherwise readily available.

Comment [CdS60]: Item 5-8

4 (b) In addition to the general requirements for critical areas studies that may be required consistent  
5 with SMC [21A.50.130](#), the critical areas study for a landslide hazard area shall be:

6 ~~(i) A geotechnical report prepared by a qualified professional consistent with SMC 21A.15.545,~~  
7 ~~unless otherwise approved by the cityCity; and~~

Comment [CdS61]: Item 5-6 (3 of 4)

8 ~~(ii) Inclusive of the following elements; shall specifically include:~~

Comment [CdS62]: Item 5-6 (4 of 4)

9 ~~(A) A description of the extent and type of vegetative cover;~~

10 ~~(B) A description of subsurface conditions based on data from site-specific explorations;~~

11 ~~(C) Descriptions of surface and groundwater conditions, public and private sewage  
12 disposal systems, fills and excavations, and all structural improvements;~~

13 ~~(D) An estimate of slope stability and the effect construction and placement of  
14 structures will have on the slope over the estimated life of the structure;~~

Comment [CdS63]: 4-11 (1 of 3)

15 ~~(E) An estimate of the bluff retreat rate that recognizes and reflects potential  
16 catastrophic events such as seismic activity or a 100-year storm event;~~

17 ~~(F) Consideration of the run-out hazard of landslide debris and/or the impacts of  
18 landslide run-out on downslope properties;~~

19 ~~(G) A study of slope stability including an analysis of proposed cuts, fills, and other site  
20 grading;~~

Comment [CdS64]: 4-11 (2 of 3)

21 ~~(H) Recommendations for building siting limitations; and~~

22 ~~(I) An analysis of proposed surface and subsurface drainage, and the vulnerability of  
23 the site to erosion; and~~

24 ~~(J) A comprehensive study of slope stability including an analysis of proposed cuts, fills,  
25 and other site grading and construction effects where the overall minimum factor of  
26 safety for slope stability is 1.5 for static conditions and 1.1 for seismic conditions as  
27 based on current building code seismic design conditions.~~

Comment [CdS65]: Item 4-11 (3 of 3)

28 (3) Unless otherwise provided herein or as part of an approved alteration, removal of any vegetation from a  
29 landslide hazard area or buffer shall be prohibited, except for limited removal of vegetation necessary for  
30 surveying purposes and for the removal of hazard trees determined to be unsafe by the City. The City may  
31 require the applicant to submit a report prepared by a certified arborist to confirm hazard tree conditions.  
32 Notice to the City shall be provided prior to any vegetation removal permitted by this subsection.

...

(4) Vegetation on slopes within a landslide hazard area or buffer that has been damaged by human activity or infested by noxious weeds may be replaced with native vegetation pursuant to an enhancement plan approved by the City pursuant to SMC 21A.50.060. The use of hazardous substances, pesticides, and fertilizers in landslide hazard areas and their buffers may be prohibited by the City.

(5) Alterations to landslide hazard areas and buffers may be allowed only as follows:

(a) A landslide hazard area located on a slope 40 percent or steeper may be altered only if the alteration meets the following standards and limitations:

(i) Approved surface water conveyances, as specified in the applicable City-adopted storm water requirements, may be allowed in a landslide hazard area if they are installed in a manner to minimize disturbance to the slope and vegetation;

(ii) Public and private trails may be allowed in a landslide hazard area subject to the standards and mitigations contained in this chapter, development standards in Chapter 21A.30 SMC, and requirements elsewhere in the SMC, when locating outside of the hazard area is not feasible;

(iii) Utility corridors may be allowed in a landslide hazard area if a critical areas study shows that such alteration will not subject the area to the risk of landslide or erosion;

(iv) Limited trimming and pruning of vegetation may be allowed in a landslide hazard area pursuant to an approved vegetation management plan for the creation and maintenance of views if the soils are not disturbed;

(v) Stabilization of sites where erosion or landsliding threatens public or private structures, utilities, roads, driveways or trails, or where erosion and landsliding threaten any lake, stream, wetland, or shoreline. Stabilization work shall be performed in a manner that causes the least possible disturbance to the slope and its vegetative cover; and

(vi) Reconstruction, remodeling, or replacement of an existing structure upon another portion of an existing impervious surface that was established pursuant to City ordinances and regulations may be allowed; provided:

(A) If, within the buffer, the structure is located no closer to the landslide hazard area than the existing structure; and

(B) The existing impervious surface within the buffer or landslide hazard area is not expanded as a result of the reconstruction or replacement.

(b) A landslide hazard area located on a slope less than 40 percent may be altered only if the alteration meets the following requirements:

(i) The development proposal will not decrease slope stability on contiguous properties; and

**Comment [C4S66]:** Terminology is inconsistent with that used elsewhere in these draft regulations

...  
1 (ii) Mitigation based on the best available engineering and geological practices is implemented  
2 that either eliminates or minimizes the risk of damage, death, or injury resulting from  
3 landslides; and

4 (c) Neither buffers nor a critical area tract shall be required if the alteration meets the standards of  
5 subsection (5)(b) of this section.

6 ~~(6) New development proposals that will result in a total site impervious surface of more than 2,000 square~~  
7 ~~feet shall submit a drainage plan which complies with all applicable and project-specific provisions of the~~  
8 ~~King CountySDM and City of Sammamish Addendum. provide a drainage design, using the following~~  
9 ~~sequential measures, which appear in order of preference:~~

Comment [CdS67]: Item 4-9

10 (a) Infiltration of all site runoff shall be required to the maximum extent technically feasible in soil  
11 conditions, consistent with the infiltration system design requirements of the KCSWDM;

12 (b) For development proposals that cannot infiltrate all site runoff, impervious surfaces shall be  
13 infiltrated to the maximum extent technically feasible in soil conditions, consistent with the  
14 infiltration system design requirements of the KCSWDM;

15 (c) For development proposals that cannot infiltrate all site runoff, the applicant shall design a  
16 drainage system that provides a drainage outlet designed using the best available science  
17 techniques to limit the risk of landslide or erosion to the no-disturbance area; and

18 (d) Structural modification of, addition to or replacement of legally created single detached  
19 residences and improvements in existence before January 1, 2006, that do not increase the existing  
20 total footprint of the residence and associated impervious surface by more than 200 square feet  
21 over that existing before January 1, 2006, shall be exempt from the provisions of this section.

22 ~~(7)~~ The following are exempt from the provisions of this section:

23 (a) Slopes that are 40 percent or steeper with a vertical elevation change of up to 20 feet if no  
24 adverse impact will result from the exemption based on the City's review of and concurrence with a  
25 soils report prepared by a licensed geologist or geotechnical engineer; and

26 (b) The approved regrading of any slope that was created through previous legal grading activities.  
27 (Ord. O2009-250 § 1; Ord. O2005-193 § 1; Ord. O99-29 § 1)

28  
29 **21A.50.270 Seismic hazard areas – Development standards and permitted alterations.**

30 A development proposal containing a seismic hazard area shall meet the following requirements:

31 (1) All applicable building code requirements; and

32 (2) Alterations to seismic hazard areas may be allowed only as follows:

1 (a) The evaluation of site-specific subsurface conditions shows that the proposed development site  
2 is not located in a seismic hazard area; or

3 (b) Mitigation based on the best available engineering and geological practices is implemented that  
4 either eliminates or minimizes the risk of damage, death, or injury resulting from seismically induced  
5 settlement or soil liquefaction. (Ord. O2005-193 § 1; Ord. O99-29 § 1)

6 **21A.50.280 Critical aquifer recharge areas – Development standards.**

7 (1) Groundwater Quantity Protection Standards. For developments in all CARA classes, the applicant shall  
8 provide surface water infiltration as follows:

9 (a) Seventy-five percent of on-site storm water volume generated from the proposed development  
10 shall be infiltrated; provided, that a lesser standard may apply or on-site infiltration may be waived  
11 when:

12 (i) The applicant demonstrates that infiltration is not a reasonable alternative due to site-  
13 specific soil and/or geologic conditions;

14 (ii) It is determined that increased saturation of soils would result in an increased risk to  
15 existing facilities and/or adjacent properties;

16 (iii) Infiltration would result in significant unavoidable impacts to other critical areas or result in  
17 an excessive loss of native vegetation; or

18 (iv) The applicant proposes an addition of no more than 700 square feet of total new  
19 impervious surface compared cumulatively to 2005 levels.

20 (b) If infiltration is not feasible or required, then storm water facilities shall be constructed in  
21 accordance with City standards.

22 (c) The design and implementation of infiltration facilities shall follow the ecology infiltration  
23 guidelines specified in the Western Washington Stormwater Manual (2005), or other technical  
24 guidance as approved by the City.

25 (d) To prevent groundwater contamination, storm water infiltration may be prohibited for all or a  
26 portion of a site that includes use of hazardous substances.

27 (2) Groundwater Quality Protection Standards. The following provisions shall apply to development in all  
28 CARA classes:

29 (a) Activities may only be permitted in a critical aquifer recharge area if the proposed activity will  
30 not result in a significant increased risk of contamination of drinking water supplies;

31 (b) The City shall impose development conditions when necessary to prevent degradation of  
32 groundwater. Conditions to permits shall be based on known, available and reasonable methods of  
33 prevention, control and treatment; and

...  
1 (c) The proposed activity must comply with the water source protection requirements and  
2 recommendations of the Federal Environmental Protection Agency, State Department of Ecology,  
3 State Department of Health, and the Seattle-King County health district.

4 (3) Regulation of Facilities Handling and Storing Hazardous Materials.

5 (a) New and existing commercial and industrial land uses and activities located in Class 1 and Class 2  
6 CARAs shall submit a hazardous materials inventory statement with a land use or building permit  
7 application.

8 (b) Report Requirement. Commercial and industrial land uses and activities that involve the use,  
9 storage, transport or disposal of hazardous materials, as defined in this chapter, in quantities equal  
10 to or greater than 20 gallons or the equivalent of 200 pounds, located in Class 1 and Class 2 CARAs,  
11 shall submit a critical areas study in accordance with SMC [21A.50.130](#) including, as necessary, a  
12 hydrogeologic critical area assessment report, spill containment and response plan and/or  
13 groundwater monitoring plan, except for the following uses/activities:

14 (i) Retail sale of containers five gallons or less in size, where there is less than 500 total gallons;  
15 and

16 (ii) Hazardous materials of no risk to the aquifer.

17 (c) A hydrogeologic critical area assessment report, when required by subsection (3)(b) of this  
18 section, shall be prepared by a qualified professional to determine potential impacts of  
19 contaminants on the aquifer. The report shall include the following site- and proposal-related  
20 information, at a minimum:

21 (i) Information regarding geologic and hydrogeologic characteristics of the site including the  
22 surface location of all CARA classes located on site or immediately adjacent to the site and  
23 permeability of the unsaturated/vadose zone;

24 (ii) Groundwater depth, flow direction and gradient;

25 (iii) Data on wells and springs within 1,300 feet of the project area;

26 (iv) Location of other critical areas, including surface waters, within 1,300 feet of the project  
27 area;

28 (v) Historic hydrogeologic data for the area to be affected by the proposed activity;

29 (vi) Best management practices (BMPs) and integrated pest management (IPM) proposed to be  
30 used; and

31 (vii) Discussion of the effects of the proposed project on the groundwater quality and quantity,  
32 including:

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(A) Predictive evaluation of groundwater withdrawal and recharge effects on nearby wells and surface water features;

(B) Predictive evaluation of contaminant transport based on potential releases to groundwater; and

(C) Predictive evaluation of changes in the infiltration/recharge rate.

(d) A spill containment and response plan, when required by subsection (3)(b) of this section, is required to identify equipment and/or structures that could fail and shall include provisions for inspection as required by the applicable state regulations, repair and replacement of structures and equipment that could fail.

(e) A groundwater monitoring plan, when required by subsection (3)(b) of this section, may be required to monitor quality and quantity of groundwater, surface water runoff, and/or site soils. The City may require the owner of a facility to install one or more groundwater monitoring wells to accommodate the required groundwater monitoring.

(i) Criteria used to determine the need for site monitoring shall include, but not be limited to, the proximity of the facility to production or monitoring wells, the type and quantity of hazardous materials on-site, and whether or not the hazardous materials are stored in underground vessels.

(ii) The City may employ an outside consultant at the applicant's expense to review the monitoring plan and analysis, to ensure that the monitoring plan is followed, and that corrective actions are completed.

(4) Prohibited Uses. Where land uses or materials prohibited in this section are allowed in the Table of Permitted Land Uses (Chapter [21A.20 SMC](#)), this section shall control and the use shall be prohibited.

(a) Table 21A.50.280a identifies land uses and materials prohibited in Class 1, 2 and 3 CARAs for new uses; and

(b) Table 21A.50.280b identifies land uses and materials that should be discontinued, removed and decommissioned where existing in Class 1, 2 and 3 CARAs. The City shall require discontinuation, removal and decommissioning of these uses from Class 1, 2 and 3 CARAs at the time of development and redevelopment, in proportion to the degree and nature of the proposal.

**Table 21A.50.280a**

Prohibited Land Uses and Materials (New Uses/Activities)	Class 1 (1- and 5- year WHPA)	Class 2 (10-year WHPA)	Class 3 (High Recharge Areas)
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Table 21A.50.280a

Prohibited Land Uses and Materials (New Uses/Activities)	Class 1 (1- and 5-year WHPA)	Class 2 (10-year WHPA)	Class 3 (High Recharge Areas)
Hazardous liquid transmission pipelines	prohibited	allowed subject to compliance with federal and state standards	
Mining, processing and reclamation of any type	prohibited	prohibited	reviewed under development permit
Processing, storage, and disposal of radioactive substances (except certain medical uses)	prohibited	prohibited	prohibited
Underground storage tanks (UST)	prohibited	prohibited	prohibited
UST with double walls, vault and monitor	prohibited	allowed subject to compliance with federal and state standards	
Above ground storage tanks for hazardous substances or hazardous waste with primary and secondary containment area and spill protection plan	allowed subject to compliance with federal and state standards		
Wells for class B and private water systems, when located in a water service area	prohibited	prohibited	allowed subject to compliance with federal and state standards
Golf courses	prohibited	**	**
Land use activities that require the use of nitrates, phosphorus, pesticides, and other chemicals that have a potential to degrade groundwater and surface water quality when used inappropriately or in excess.	Prohibited	**	**
Closed loop geothermal / heat exchange wells	Prohibited	Prohibited	**
Closed loop geothermal/heat exchange systems (surface)	Prohibited	**	**
Open loop geothermal / heat exchange wells	Prohibited	Prohibited	Prohibited
Injection Wells (storm water or reclaimed water)	Prohibited	Prohibited	**
Cemeteries	prohibited	**	**
Wrecking yards	prohibited	prohibited	prohibited
Landfills with hazardous waste, municipal solid waste, or	prohibited	prohibited	prohibited

Comment [EM68]: Item 1-1

Comment [EM69]: Item 1-2 (1 of 3)

Comment [EM70]: Item 1-2 (2 of 3)

Comment [EM71]: Item 1-3 (1 of 2)

Table 21A.50.280a

Prohibited Land Uses and Materials (New Uses/Activities)	Class 1 (1- and 5-year WHPA)	Class 2 (10-year WHPA)	Class 3 (High Recharge Areas)
special waste			
Dry cleaning using chlorinated solvents	prohibited	prohibited	prohibited
**Best management practices (BMPS) and integrated pest management (IPM) are required for these uses.			

Table 21A.50.280b

Restricted Land Uses and Materials – (Existing Uses/Activities)	Class 1 (1- and 5-year WHPA)	Class 2 (10-year WHPA)	Class 3 (High Recharge Areas)
UST (underground storage tank)	Remove, decommission or upgrade to comply with federal and state standards		
Abandoned wells	Decommission to comply with federal and state standards		
Existing uses that have a long-term potential to degrade water quality in the WHPA	Discontinue, remove or mitigate potential impacts		

2 (5) Requirements for Specific Uses and Activities.

3 (a) Commercial Vehicle Repair and Servicing.

4 (i) In all CARA classes, vehicle repair and servicing must be conducted over impermeable pads,  
 5 with containment curbs, and within a covered structure capable of withstanding normally  
 6 expected weather conditions. Chemicals used in the process of vehicle repair and servicing  
 7 must be stored in a manner that protects them from weather and provides containment  
 8 should leaks occur.

9 (ii) In all CARA classes, no dry wells shall be allowed on sites used for vehicle repair and  
 10 servicing. Dry wells existing on the site prior to facility establishment must be abandoned using  
 11 techniques approved by the State Department of Ecology prior to commencement of the  
 12 proposed activity.

13 (b) Use of Pesticides, Herbicides, and Fertilizers.

1 (i) Residential Use. In all CARA classes, application of household pesticides, herbicides, and  
2 fertilizers shall not exceed times, rates, concentrations and locations specified on the  
3 packaging.

4 (ii) Other Uses. In Class 1 and 2 CARA areas, proposed developments with maintained  
5 landscape areas greater than 10,000 square feet in area shall prepare an operations and  
6 maintenance manual using best management practices (BMPs) and integrated pest  
7 management (IPM) for fertilizer and pesticide/herbicide applications. The BMPs shall include  
8 recommendations on the quantity, timing and type of fertilizers applied to lawns and gardens  
9 to protect groundwater quality.

10 (c) Spreading or Injection of Storm Water or Reclaimed Water. Water reuse projects for reclaimed  
11 water and storm water are regulated in accordance with the adopted water, sewer or storm water  
12 comprehensive plans that have been approved by the Departments of Ecology and Health. Injection  
13 wells are prohibited in Class 1 and 2 CARA areas. Injection wells are allowed, subject to city  
14 review and approval, in Class 3 CARA areas provided injection wells shall comply with the  
15 requirements of WAC 173-200 and 173-218 and Sammamish Municipal Code.

Comment [EM72]: Item 1-3 (2 of 2)

16 (d) Construction Activity. In all CARA classes, if construction vehicles will be refueled on a  
17 construction site and/or the quantity of hazardous materials that will be used or stored on a site  
18 exceeds 20 gallons, exclusive of the quantity of hazardous materials contained in fuel or fluid  
19 reservoirs of construction vehicles, then persons obtaining construction permits shall provide  
20 information to the public works department regarding the types and quantities of hazardous  
21 materials that will be on-site and then use BMPs to prevent and respond to spills. Construction site  
22 refueling must be conducted over impermeable pads, with containment curbs. The operator of the  
23 site shall immediately report to the City any spills and is responsible for complete recovery and  
24 cleanup.

25 (e) Fill Quality Standards and Imported Fill Source Statement. In all CARA classes, fill material shall  
26 not contain concentrations of contaminants that exceed cleanup standards for soil as specified in  
27 the Model Toxics Control Act (MTCA). An imported fill source statement is required for all projects  
28 where more than 100 cubic yards of fill will be imported to a site. The City may require analytical  
29 results to demonstrate that fill materials do not exceed cleanup standards. The imported fill source  
30 statement shall include:

31 (i) Source location of imported fill;

32 (ii) Previous land uses of the source location; and

33 (iii) Whether or not fill to be imported is native, undisturbed soil.

34 (f) In Class 1 and 2 CARAs, on lots smaller than one acre, new on-site septic systems are prohibited,  
35 unless:

(i) The system is approved by the Washington State Department of Health and the system either uses an upflow media filter system or a proprietary packed-bed filter system or is designed to achieve approximately 80 percent total nitrogen removal for typical domestic wastewater; or

(ii) The Seattle–King County department of public health determines that the systems required under subsection (5)(f)(i) of this section will not function on the site.

(g) In Class 3 CARAs, geothermal / heat exchange wells are allowed, subject to city review and approval, provided:

**Comment [EM73]:** Item 1-2 (3 of 3)

(i) The system is approved by the Washington Department of Ecology as compliant with the provisions of WAC 173-160; and

(ii) A notice on title is recorded documenting the maintenance requirements of the geothermal / heat exchange wells

**21A.50.290 Wetlands – Development standards.**

A development proposal on a parcel or parcels containing a wetland or associated buffer of a wetland located on-site or off-site shall meet the following requirements:

(1) The following standard buffers shall be established from the wetland edge:

Wetland Category		Standard Buffer Width (ft) by Impact of Land Use
Category I:	Natural Heritage or bog wetlands	All Land Use Types - 215
	Habitat score 29–36	Low – 450115
		Moderate – 490140
		High – 200150
Category II:	Habitat score 20–28	Low – 42575
	Habitat score 29–36	Moderate – 450100
		High – 450125
		Not meeting above criteria
Category III:	Habitat score 20–28	Low – 7550
		Moderate – 40060
		High – 440 70
	Not meeting above criteria	All Land Use Types - 7550
Category III:	Habitat score 20–28	Low – 6025

**Comment [C4S74]:** We have not seen the staff response to Item 3-4 justifying increased buffer widths. Prescriptive buffer widths for High land use and high habitat score should be at the standards currently in effect, and moderate and low use would thereby be lower. No BAS has been presented that justifies an increase from current buffer widths.

**Comment [EM75]:** Item 3-4

Wetland Category		Standard Buffer Width (ft) by Impact of Land Use
		Moderate - 75 High - 100
	Not meeting above criteria	All Land Use Types - 50
Category IV:		All Land Use Types - 50
Category III and IV:	subject to SMC 21A.50.320	

Comment [EM75]: Item 3-4

(a) High, moderate, and low impact land uses are defined as follows:

Comment [EM76]: Item 3-4

(i) High impact land uses include: commercial, industrial, institutional, retail sales, high-intensity recreation (golf courses, ball fields), and residential uses on property zoned with a density of more than one dwelling unit per acre.

Comment [C4577]: Zoning does not necessarily reflect the actual number of dwelling units allowed given other regulations.

(ii) Moderate impact land uses include residential uses on property zoned with a density of one unit per acre or less, moderate-intensity open space (parks), and paved trails.

Comment [C4578]: Zoning does not necessarily reflect the actual number of dwelling units allowed given other regulations.

(iii) Low impact land uses include: low-intensity open space (such as passive recreation and natural resources preservation) and unpaved trails.

(b) Where a legally established and constructed street or the East Lake Sammamish Trail transects a wetland buffer, the department may approve a modification of the standard buffer width to the edge of the street or the East Lake Sammamish Trail if the isolated part of the buffer does not provide additional protection of the wetland and provides insignificant biological, geological or hydrological buffer functions relating to the wetland. If the resulting buffer distance is less than 50 percent of the standard buffer for the applicable wetland category, no further reduction shall be allowed.

(c) Where a buffer has been previously established on a legally created parcel or tract that was legally established according to the regulations in place at the time of establishment through City or county development review on or after November 27, 1990, and is permanently recorded on title or placed within a separate tract, the buffer shall remain as previously established, provided it is at least as large as equal to or greater than 50 percent of the current required standard buffer distance for the applicable wetland category.

Comment [Cd579]: Item 5-9

(d) Where wetland functions have been improved due to voluntary implementation of an approved stewardship, restoration and/or enhancement plan that is not associated with required mitigation or enforcement, the standard wetland buffer width shall be determined based on the previously established wetland category and habitat score as documented in the approved stewardship and enhancement plan.

...

1 (2) ~~Repealed by Ord. O2009-264.~~ Removal of any native vegetation or woody debris from a wetland or  
2 wetland buffer may be allowed only as part of an approved alteration. Only native vegetation can be planted  
3 in wetland or buffer areas, unless the planting is otherwise allowed by SMC 21A.50.060 –Allowance for  
4 Existing Urban Development and Other Uses.

Comment [EM80]: Item 5-3

5 (3) Activities and uses shall be prohibited from wetlands and associated buffers, except as provided for in this  
6 chapter.

7 (4) Any wetland restored, relocated, replaced, or enhanced because of a wetland alteration shall have the  
8 buffer required for the highest wetland class involved.

9 (5) For a wetland buffer that includes a landslide hazard area, the buffer width shall be the greater of either  
10 the buffer width required by the wetland’s category in this section or 25 feet beyond the top of the landslide  
11 hazard area.

12 (6) Buffer Averaging. Buffer width averaging may be allowed by the department if:

13 (a) It will provide additional protection to wetlands or enhance their functions, as long as the total  
14 area contained in the buffer on the development proposal site does not decrease (see also SMC  
15 [21A.30.210\(5\)](#) for buffer compensation requirements for trails);

16 (b) The wetland contains variations in sensitivity due to existing physical characteristics or the  
17 character of the buffer varies in slope, soils, or vegetation, and the wetland would benefit from a  
18 wider buffer in places and would not be adversely impacted by a narrower buffer in other places;

19 (c) The buffer width is not reduced to less than 50 percent of the standard buffer width at any  
20 location; and

21 (de) The buffer width is decreased on one part of a wetland and increased on another part of the  
22 same wetland feature; and

Comment [CdS81]: Item 5-10

23 (ef) The buffer is associated with a development proposal and it will not further encumber a  
24 neighboring property not owned by the applicant.

Comment [CdS82]: Item 5-11 (part 1 of 2)

25 (fe) Buffer averaging may be used in conjunction with buffer reduction options in this section,  
26 provided the total combined reduction does not reduce the buffer to less than 50 percent of  
27 standard buffer width at any location.

28 (7) Increased Buffers. Increased buffer widths may be required by a distance necessary to protect wetland  
29 functions and provide connectivity to other wetland and habitat areas when the following occur:

30 (a) When a Category ~~4~~ or ~~2~~II wetland with a habitat score of greater than 29 points (per Washington  
31 State Wetland Rating System for Western Washington – Department of Ecology 2009 or as revised) is  
32 located within 200 feet of the wetland subject to the increased buffer;

33 (b) Critical drainage areas are at risk;

1 ~~(eb) Critical~~ Fish and wildlife habitat conservation area and habitat connections are present;

2 ~~(ec)~~ Landslide or erosion hazard areas are contiguous to wetlands;

3 ~~(ed)~~ Groundwater recharge and discharge areas are at risk;

4 ~~(fe)~~ Or to offset buffer impacts, such as trail and utility corridors; and

5 ~~(gf)~~ Ecological wetland functions are at risk including, but not limited to the following:

6 \_\_\_\_\_ (i) Habitat complexity, connectivity and biological functions;

7 \_\_\_\_\_ (ii) Seasonal hydrological dynamics as provided in the adopted Surface Water Design Manual;

8 \_\_\_\_\_ (iii) Sediment removal and erosion control;

9 \_\_\_\_\_ (iv) Pollutant removal;

10 \_\_\_\_\_ (v) Large wood debris (LWD) recruitment;

11 \_\_\_\_\_ (vi) Water temperature;

12 \_\_\_\_\_ (vii) Wildlife habitat; and

13 \_\_\_\_\_ (viii) Microclimate. ~~Increased Buffers. The department may require the standard buffer to be~~  
14 ~~increased by the greater of 50 feet or a distance necessary to protect wetland functions and provide~~  
15 ~~connectivity to other wetland and habitat areas when a Category 1 or 2 wetland with a habitat score greater~~  
16 ~~than 20 points is located within 300 feet of:~~

17 ~~(a) Another Category 1 or 2 wetland;~~

18 ~~(b) A fish and wildlife habitat conservation area; or~~

19 ~~(c) A type S or F stream.~~

20 ~~The increased buffer distance may be limited to those areas that provide connectivity or are necessary to~~  
21 ~~protect wetland and habitat functions.~~

22 (8) Buffer Reduction. Buffers may be reduced when buffer reduction impacts are mitigated and result in  
23 equal or greater protection of the wetland functions. Prior to considering buffer reductions, the applicant  
24 shall demonstrate application of mitigation sequencing as required in SMC [21A.50.135](#). A plan for mitigating  
25 buffer-reduction impacts must be prepared using selected incentive-based mitigation options from the list  
26 below. The following incentive options for reducing standard buffer widths shall be considered cumulative up  
27 to a maximum reduction of 50 percent of the standard buffer width. In all circumstances where a substantial  
28 portion of the remaining buffer is degraded, the buffer reduction plan shall include replanting with native  
29 vegetation in the degraded portions of the remaining buffer area and shall include a five-year monitoring and  
30 maintenance plan.

1 (a) ~~Installation of biofiltration/infiltration mechanisms: up to 20 percent reduction in the standard~~  
2 ~~buffer width may be allowed for the installation of bioswales, Water quality is improved in excess of~~  
3 ~~the requirements of King County Stormwater Design Manual though the use of created and/or~~  
4 enhanced wetlands, or ponds supplemental to existing storm drainage and water quality  
5 requirements.

6 (b) Removal of existing impervious surfaces:

7 (i) Up to 10 percent reduction in standard buffer width if impervious surfaces within the to-be-  
8 remaining buffer area are reduced by at least 50 percent; or

9 (ii) Up to 20 percent reduction in standard buffer width if the to-be-remaining buffer area is  
10 presently more than 50 percent impervious and all of it is to be removed.

11 (c) Removal of invasive, nonnative vegetation: up to 10 percent reduction in standard buffer width  
12 for the removal and extended (minimum five-year) monitoring and continued-removal maintenance  
13 of relatively dense stands of invasive, nonnative vegetation from significant portions of the  
14 remaining buffer area.

15 (d) Restoration, preservation and maintenance of the existing wetland and buffer vegetation if the  
16 following conditions are present and/or attainable as a result of action:

17 (i) An undisturbed vegetated buffer of 100 feet is preserved in the remaining buffer width;  
18 and,

19 (ii) Existing buffer conditions are degraded such that more than 40 percent of the buffer is  
20 covered by non-native/invasive plant species and are restored according to a ~~city~~City-  
21 approved restoration plan to improve wetland buffer functions; and,

22 (iii) Tree or shrub vegetation covers less than 25 percent of the total buffer area and the area  
23 will be re-vegetated according to a ~~city~~City-approved restoration plan with trees and shrubs  
24 to replace existing reduced and impacted buffer functions; and,

25 (iv) The wetland buffer has slopes of less than 25 percent.

26 The buffer reduction determination and percentage shall be on a site by site basis based on the  
27 applicant's plan and demonstration of improvement to water quality and habitat functions.

Comment [CdS83]: Item 3-10

28 ~~(de)~~ If not already required under an existing development proposal, installation of oil/water  
29 separators for storm water quality control: up to 10 percent reduction in standard buffer width.

30 ~~(ef)~~ Use of pervious material for driveway/road construction: up to 10 percent reduction in standard  
31 buffer width.

32 ~~(fg)~~ Restoration of on-site buffer and wetland areas, or restoration of off-site buffer and wetland  
33 areas within the same sub-basin of the impacted wetland if no on-site restoration is possible:  
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1 (i) Up to 10 percent reduction in standard buffer width if restoration area is at a 2:1 ratio or  
2 greater; or

3 (ii) Up to 20 percent reduction in standard buffer width if restoration area is at a 4:1 ratio or  
4 greater.

5 (~~g~~h) Removal of significant refuse or sources of toxic material: up to 10 percent reduction in  
6 standard buffer width.

7 (~~h~~i) Percentages listed above may be added together to create a total buffer reduction; provided,  
8 that the total reduction does not exceed 50 percent of the standard buffer width.

9 \*\*\*

**Comment [C4S84]:** Recommended location for new section (9) Buffer Delineation. See text under "Elaboration of comments" at end of this document.

10 (9) The use of hazardous substances, pesticides and fertilizers in the wetland and its buffer may be prohibited  
11 by the City.

12 (10) ~~The introduction of livestock into a wetland or wetland buffer is prohibited. Unless otherwise provided,~~  
13 ~~the following restrictions shall apply to all development proposals that include the introduction of livestock~~  
14 ~~on sites with wetlands or wetland buffers:~~

15 ~~(a) A plan to protect and enhance the wetland's water quality shall be implemented pursuant to the~~  
16 ~~adopted surface water design manual standards; and~~

17 ~~(b) Fencing located not closer to the wetland than the outer wetland buffer edge shall be required. (Ord.~~  
18 ~~02009-264 § 1 (Att. A); Ord. 02005-193 § 1; Ord. 02005-172 § 4; Ord. 099-29 § 1)~~

**Comment [CdS85]:** 5-12 (part 1 of 2)

19 **21A.50.300 Wetlands – Permitted alterations.**

20 Alterations to wetlands and wetland buffers are not allowed, except as provided for by complete  
21 exemptions, **partial exemptions** and exceptions in this chapter or as allowed for by this section.

**Comment [reb-86]:** Partial exemptions are no longer prescribed in this chapter.

22 (1) Alterations may be permitted if the department determines, based upon its review of critical areas  
23 studies completed by qualified professionals, that the proposed development will:

24 (a) Protect, restore or enhance the wildlife habitat, natural drainage, or other valuable functions of  
25 the wetland resulting in a net improvement to the functions of the wetland system;

26 (b) Design, implement, maintain, and monitor a mitigation plan prepared by a qualified professional;

27 (c) Perform the mitigation under the direction of a qualified professional; and

28 (d) Will otherwise be consistent with the purposes of this chapter.

29 (2) If a wetland is in a flood hazard area, the applicant shall notify affected communities and native tribes of  
30 proposed alterations prior to any alteration and submit evidence of such notification to the Federal Insurance  
31 Administration.

...

1 (3) There shall be no introduction of any nonnative or invasive plant or wildlife into any wetland or wetland  
2 buffer ~~unless authorized except as required~~ by a state or federal permit or approval ~~or as otherwise allowed~~  
3 ~~by SMC 21A.50.060 –Allowance for Existing Urban Development and Other Uses.~~

Comment [EM87]: Item 5-15 (part 1 of 2)

4 (4) Utilities may be allowed in wetland buffers if:

- 5 (a) The ~~director~~Director determines that no reasonable alternative location is available; and  
6 (b) The utility corridor meets any additional requirements for installation, replacement of vegetation  
7 and maintenance, as needed to mitigate impacts.

8 (5) Sewer utility corridors may be allowed in wetland buffers only if:

- 9 (a) The applicant demonstrates that ~~the sewer lines~~safe location is necessary for gravity flow;  
10 (b) The corridor is not located in a wetland or buffer used by species listed as endangered or  
11 threatened by the state or federal government or containing critical or outstanding actual habitat  
12 for those species or heron rookeries or raptor nesting trees;  
13 (c) The corridor alignment including, but not limited to, any allowed maintenance roads follows a  
14 path farthest from the wetland edge as feasible;  
15 (d) Corridor construction and maintenance protects the wetland and buffer and is aligned to avoid  
16 cutting trees greater than 12 inches in diameter at breast height, when possible, and pesticides,  
17 herbicides and other hazardous substances are not used;  
18 (e) An additional, contiguous and undisturbed buffer, equal in width to the proposed corridor,  
19 including any allowed maintenance roads, is provided to protect the wetland;  
20 (f) The corridor is revegetated with appropriate native vegetation at preconstruction densities or  
21 greater immediately upon completion of construction or as soon thereafter as possible, and the  
22 sewer utility ensures that such vegetation survives;  
23 (g) Any additional corridor access for maintenance is provided, to the extent possible, at specific  
24 points rather than by a parallel road; and  
25 (h) The width of any necessary parallel road providing access for maintenance is as small as possible,  
26 but not greater than 15 feet; the road is maintained without the use of herbicides, pesticides or  
27 other hazardous substances; and the location of the road is contiguous to the utility corridor on the  
28 side away from the wetland.

29 (6) Joint use of an approved sewer utility corridor by other utilities may be allowed.

30 (7) ~~Where technically feasible, surface water discharge shall be located outside of the wetland and wetland~~  
31 ~~buffer. The following surface water management activities and facilities may be allowed in wetlands or their~~

...

1 buffers only as follows: Where surface water discharge is authorized within a wetland or wetland buffer, the  
2 following shall apply:

Comment [CdS88]: Item 5-13 (part 1 of 2)

3 (a) Surface water discharge to a wetland from a flow control or water quality treatment facility,  
4 sediment pond or other surface water management activity or facility may be allowed if the  
5 discharge does not increase the rate of flow, change the plant composition in a forested wetland or  
6 decrease the water quality of the wetland;

7 (b) Isolated Category 4-IV wetlands and buffers may be used as a flow control facility if:

8 (i) Presettlement pond or water quality treatment is required prior to flow into the wetland;  
9 and

10 (ii) They are not part of, or immediately adjacent to, a designated wildlife habitat corridor and  
11 all requirements of the applicable City-adopted storm water requirements are met; and

12 (c) Use of a wetland buffer for a surface water management activity or facility, other than a flow  
13 control or water quality treatment facility, such as an energy dissipater and associated pipes, may be  
14 allowed only if the applicant demonstrates, to the satisfaction of the department, that:

15 (i) No reasonable alternative exists; and

16 (ii) The functions of the buffer or the wetland are not adversely affected.

17 (8) Public and private trails may be allowed in wetland buffers consistent with the standards and  
18 requirements in this chapter, development standards in Chapter 21A.30 SMC, and requirements elsewhere in  
19 the SMC. Proposals for constructing viewing platforms, associated access trails, and spur trails must be  
20 reviewed by a qualified professional and a critical areas study may be required.

21 (9) A dock, pier, moorage, float, or launch facility may be allowed, subject to the provisions of SMC Title 25,  
22 if:

23 (a) The existing and zoned density around the wetland is three dwelling units per acre or more;

24 (b) At least 75 percent of the lots around the wetland have been built upon and no significant buffer  
25 or wetland vegetation remains on these lots; and

26 (c) Open water is a significant component of the wetland.

27 (10) Crossings. The use of existing crossings, including but not limited to utility corridors, road and railroad  
28 rights-of-way, within wetlands or buffers for public or private trails is preferred to new crossings, subject to  
29 the standards and requirements in the SMC. New wetland road and trail crossings may be allowed if:

30 (a) The ~~director~~ Director determines that:

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- (i) The crossing is identified as a part of a corridor shown in a City-adopted parks or trails plan, park master plan, transportation plan, or comprehensive plan, or otherwise is necessary to connect or construct the road or trail to publicly owned lands, utility corridors, rights-of-way or other public infrastructure, or is required to provide access to property where no other reasonable alternative access is possible; or
  - (ii) The applicant demonstrates that the new crossing creates less overall or less incremental impacts to critical areas and habitat than the use of an existing corridor while still achieving overall project goals and objectives;
- (b) All crossings avoid or minimize impact to the wetland and provide mitigation for unavoidable impacts through restoration, enhancement or replacement of disturbed areas as described in this chapter and in the SMC;
  - (c) Crossings do not significantly change the overall wetland hydrology;
  - (d) Crossings do not diminish the flood storage capacity of the wetland; and
  - (e) All crossings are constructed during summer low water periods.
- (11) Reconstruction, Remodeling, or Replacement of Existing Structures. Reconstruction, remodeling, or replacement of an existing structure upon another portion of an existing impervious surface that was established pursuant to ordinances and regulations in effect at the time may be allowed, provided:
- (a) If within the buffer, the structure is located no closer to the wetland than the existing structure; and
  - (b) The existing impervious surface within the buffer or wetland is not expanded as a result of the reconstruction or replacement.
- (12) Enhancement and Restoration. Wetland enhancement or restoration not associated with any other development proposal may be allowed if accomplished according to a plan for its design, implementation, maintenance and monitoring prepared by and carried out under the direction of a qualified professional. Restoration or enhancement must result in a net improvement to the functions of the wetland system.
- (13) Wetland Restoration Project. A wetland restoration project for habitat enhancement may be allowed if:
- (a) The restoration is sponsored by a public agency with a mandate to do such work;
  - (b) The restoration is not associated with mitigation of a specific development proposal;
  - (c) The restoration is limited to revegetation of wetlands and their buffers and other specific fish and wildlife habitat improvements that result in a net improvement to the functions of the wetland system;

1 ...  
2 (d) The restoration only involves the use of hand labor and light equipment, or the use of helicopters  
3 and cranes that deliver supplies to the project site; provided, that they have no contact with critical  
4 areas or their buffers; and

5 (e) The restoration is performed under the direction of a qualified professional. (Ord. O2005-193 §  
6 1; Ord. O2005-172 § 4; Ord. O99-29 § 1)

7 **21A.50.310 Wetlands – Mitigation requirements.**

8 When mitigation for wetland and/or wetland buffer impacts is required, mitigation shall meet the  
9 requirements listed in SMC [21A.50.145](#) in addition to the following supplementary requirements:

10 (1) Equivalent or Greater Biological Functions. Mitigation for alterations to wetland(s) and/or wetland  
11 buffer(s) shall achieve equivalent or greater biologic functions and shall be consistent with the Department of  
12 Ecology Guidance on Wetland Mitigation in Washington State (2004, Department of Ecology Publication No.  
13 04-06-013), or as revised.

14 (2) No Net Loss. Wetland mitigation actions shall not result in a net loss of wetland area.

15 (3) Functions and Values. Mitigation actions shall address and provide equivalent or greater wetland and  
16 buffer functions and values compared to wetland and buffer conditions existing prior to the proposed  
17 alteration.

18 (4) Mitigation Type and Location. Mitigation actions shall be in-kind and conducted within the same sub-  
19 basin and on the same site as the alteration except when the following apply:

20 (a) There are no reasonable on-site opportunities for mitigation, or on-site opportunities do not  
21 have a high likelihood of success due to development pressures, adjacent land uses, or on-site  
22 buffers or connectivity are inadequate;

23 (b) Off-site mitigation has a greater likelihood of providing equal or improved wetland functions  
24 than the impacted wetland; and

25 (c) Off-site locations shall be in the same sub-basin have been identified and evaluated in the  
26 following sequence order of preference:-

27 (i) Approved fee-in-lieu or mitigation bank program sites within the cityCity limits in  
28 accordance with SMC 21A.50.315;

29 (ii) Approved fee-in-lieu or mitigation bank program sites within the WRIA 8 in accordance  
30 with SMC 21A.50.315.

31 (5) Mitigation Timing. Where feasible, mitigation projects shall be completed prior to activities that will  
32 disturb wetlands. In all other cases, mitigation shall be completed immediately following disturbance and

**Comment [CdS89]:** Item 2-8 & 3-3 (part 4 of 6)

...

1 prior to use or occupancy of the activity or development. Construction of mitigation projects shall be timed  
2 to reduce impacts to existing wildlife and flora.

3 (6) Mitigation Ratios.

4 (a) Acreage Replacement Ratios. The following ratios shall apply to wetland creation or restoration  
5 that is in-kind, on-site, the same category, and has a high probability of success. The first number  
6 specifies the acreage of replacement wetlands and the second specifies the acreage of wetlands  
7 altered.

Category I	6 to 1
Category II	3 to 1
Category III	2 to 1
Category IV	1.5 to 1

9 (a) Wetland Mitigation Ratios. The following ratios shall apply to required wetland and/or wetland  
10 buffer mitigation. The first number specifies the acreage of replacement wetlands and the second  
11 specifies the acreage of wetlands altered.

Comment [EM90]: Item 3-6

12 (i) Permanent Wetland Mitigation. The following ratios of area of mitigation to area of  
13 alteration apply to mitigation measures for permanent alterations.

Category and type of wetland	Wetland reestablishment or creation	Wetland rehabilitation	1:1 Wetland reestablishment or wetland creation (R/C) and wetland enhancement (E)	Wetland enhancement only *Only after minimum 1:1 replacement requirement met. See SMC 21A.50.310(7)
Category I bog	Not allowed	6:1 rehabilitation of a bog	Case-by-case	Case-by-case
Category I natural heritage site	Not allowed	6:1 rehabilitation of a natural heritage site	Case-by-case	Case-by-case
Category I based on score for functions	4:1	8:1	1:1 R/C and 6:1 E	Case-by-case
Category I forested	6:1	12:1	1:1 R/C and 10:1 E	Case-by-case
Category II	3:1	8:1	1:1 R/C and 4:1 E	12:1

Category III	2:1	4:1	1:1 R/C and 2:1 E	8:1
Category IV	1.5:1	3:1	1:1 R/C and 2:1 E	6:1
Category III	2:1	4:1	1:1 R/C and 2:1 E	8:1
Category II	3:1	8:1	1:1 R/C and 4:1 E	12:1
Category I forested	6:1	12:1	1:1 R/C and 10:1 E	Case by case
Category I based on score for functions	4:1	8:1	1:1 R/C and 6:1 E	Case by case
Category I natural heritage site	Not allowed	6:1 rehabilitation of a natural heritage site	Case by case	Case by case
Category I bog	Not allowed	6:1 rehabilitation of a bog	Case by case	Case by case

(ii) Temporary Wetland Mitigation. The following ratios of area of mitigation to area of alteration apply to mitigation measures for temporary alterations where wetlands will not be impacted by permanent fill material:

Wetland category	Permanent conversion of forested and shrub wetlands into emergent wetlands			Mitigation for temporal loss of forested and shrub wetlands when the impacted wetlands will be revegetated to forest or shrub communities		
	Enhancement	Re-habilitation	Creation or restoration	Enhancement	Re-habilitation	Creation or restoration
Category I	6:1	4.5:1	3:1	3:1	2:1	1.5:1
Category II	3:1	2:1	1.5:1	1.5:1	1:1	.75:1
Category III	2:1	1.5:1	1:1	1:1	.75:1	.5:1
Category IV	1.5:1	1:1	.75:1	Not applicable	Not applicable	Not applicable

(b) Wetland Buffer Replacement Ratio. Altered wetland buffer area shall be replaced at a minimum ratio of one-to-one.

Comment [EM91]: Item 3-5

(c) Increased Replacement Ratio. The ~~director~~ Director may increase the ratios under the following circumstances:

- (i) Uncertainty exists as to the probable success of the proposed restoration or creation; or
- (ii) A significant period of time will elapse between impact and replication of wetland functions; or

1 (iii) Proposed mitigation will result in a lower category wetland or reduced functions relative to  
2 the wetland being impacted; or

3 (iv) The impact was an unauthorized impact.

4 (de) Decreased Replacement Ratio. The ~~director~~Director may decrease these ratios under the  
5 following circumstances:

6 (i) Documentation by a qualified professional demonstrates that the proposed mitigation  
7 actions have a very high likelihood of success. This documentation should specifically identify  
8 how the proposed mitigation actions are similar to other known mitigation projects with  
9 similar site-specific conditions and circumstances that have been shown to be successful;

10 (ii) Documentation by a qualified professional demonstrates that the proposed mitigation  
11 actions will provide functions and values that are significantly greater than the wetland being  
12 impacted; or

13 (iii) The proposed mitigation actions are conducted in advance of the impact and have been  
14 shown to be successful over the course of at least one full year.

15 (d) Minimum Replacement Ratio. In all cases, a minimum acreage replacement ratio of one to one  
16 shall be required.

17 (7) Wetland Enhancement as Mitigation.

18 (a) Impacts to wetlands may be mitigated by enhancement of existing significantly degraded  
19 wetlands only after a one-to-one minimum acreage replacement ratio has been satisfied. Applicants  
20 proposing to enhance wetlands must produce a critical areas study that identifies how enhancement  
21 will increase the functions of the degraded wetland and how this increase will adequately mitigate  
22 for the loss of wetland function at the impact site.

23 (b) At a minimum, enhancement acreage shall be double the acreage required for creation or  
24 restoration under subsection (6)(a) of this section. The ratios shall be greater than double the  
25 required acreage where the enhancement proposal would result in minimal gain in the performance  
26 of wetland functions and/or result in the reduction of other wetland functions currently being  
27 provided in the wetland.

28 (8) Restoration Required. Restoration shall be required when a wetland or its buffer is altered in violation of  
29 law or without any specific permission or approval by the City in accordance with the following provisions:-

30 (a) A mitigation plan for restoration ~~shall conforming~~ to the requirements of this chapter and section  
31 ~~shall be provided. (Ord. 02005-193 § 1; Ord. 099-29 § 1)~~

32 (b) On sites where non-native vegetation was cleared, restoration shall include installation of native  
33 vegetation with a density equal to or greater than the pre-altered site conditions.

Comment [CdS92]: Item 5-14 (part 1 of 2)

...

1 **21A.50.315 Wetlands – Alternative Mitigation banking.**

2 (1) Wetland banking:

3 (a) Credits from a wetland mitigation bank may be approved for use as compensation for  
4 unavoidable impacts to wetlands when:

5 (i) Criteria in SMC 21A.50.310(4) are met;

6 (ii) The bank is certified under Chapter 173-700 WAC;

7 (iii) The department determines that the wetland mitigation bank provides appropriate  
8 compensation for the authorized impacts;

9 (iv) The proposed use of credits is consistent with the terms and conditions of the bank’s  
10 certification; and

11 (v) The compensatory mitigation agreement occurs in advance of authorized impacts.

12 (b) Replacement ratios for projects using bank credits shall be consistent with replacement ratios  
13 specified in the bank’s certification.

14 (c) Credits from a certified wetland mitigation bank may be used to compensate for impacts  
15 located within the service area specified in the bank’s certification. In some cases, bank service  
16 areas may include portions of more than one adjacent drainage basin for specific wetland functions.

17 (d) Implementation of a mitigation bank is subject to City council review and approval. (~~Ord.~~  
18 ~~02005-193-S-1~~)

19 (2) Fee-in-lieu Mitigation:

20 (a) Fee-in-lieu mitigation may be approved for use as compensation for unavoidable impacts to  
21 wetlands, when:

22 (i) Criteria in SMC 21A.50.310(4) are met;

23 (ii) The fee-in-lieu mitigation program is state certified;

24 (iii) The department determines that the wetland fee-in-lieu mitigation provides appropriate  
25 compensation for the authorized impacts;

26 (iv) The proposed use of fee-in-lieu mitigation is consistent with the terms and conditions of the  
27 fee-in-lieu mitigation program; and

28 (v) The compensatory mitigation agreement occurs in advance of authorized impacts.

29 (b) Fee-in-lieu mitigation may be authorized ~~int ch in the city~~City based upon the following order of  
30 preference:  
31

**Comment [EM93]:** Item 2-8 & 3-3 (part 5 of 6)

**Comment [C4S94]:** Allows for more flexibility.

1 (i) A cityCity approved program that utilizes receiving mitigation sites within the cityCity of  
2 Sammamish.

3 (ii) The King County Mitigation Reserves Program, or other approved program that gives  
4 priority to sites within the same sub-basin and/or a pre-defined service area that includes the  
5 cityCity of Sammamish.

6 **21A.50.320 Wetlands – ~~Limited exemption~~ Development Flexibilities.**

7 (1) Isolated wetlands, as designated by a qualified professional in a written and approved critical areas study  
8 meeting the requirements of SMC 21A.50.130 and, which includes the use of the adopted Washington State  
9 Wetland Rating System for Western Washington, with a total area with an area of less up to than 1,000 square  
10 feet may be exempted from the avoidance sequencing provisions of SMC 21A.50.135(1)(a) and the  
11 provisions of SMC 21A.50.290 and may be altered by filling or dredging if the City determines that the  
12 cumulative impacts do not unduly counteract the purposes of this chapter and are mitigated pursuant to an  
13 approved mitigation plan.

14 (2) Isolated category III and IV wetlands, as designated by a qualified professional in a written and approved  
15 critical areas study meeting the requirements of SMC 21A.50.130 and, which includes the use of the adopted  
16 Washington State Wetland Rating System for Western Washington, with a total area of more than 1,000  
17 square feet and up to 2,500 square feet one-tenth of an acre (4,356 square feet), may be exempted from  
18 the avoidance sequencing provisions of SMC 21A.50.135(1)(a) and the provisions of SMC 21A.50.290 and  
19 may be altered, provided:

**Comment [C4S95]:** The Corps of Engineers does not regulate isolated wetlands below 1/10 of an acre. Nearby City of Renton has exempted Isolated Wetlands less than 4,000 sq ft with DOE approval..

20 (a) The total area of wetland alterations shall be limited to 2,500 square feet; and

21 (ab) A critical areas study is prepared, which includes the use of the adopted Washington State Wetland  
22 Rating System for Western Washington, that includes a review of the existing functions that the wetland  
23 provides, and determines how the isolated wetland should be managed for ecological function of the  
24 watershed as a whole, and according to the approved critical areas study meets all of the following criteria;  
25 and,

26 (bi) The wetland is not associated with adjacent to a riparian corridor area; and,

27 (cii) The wetland is not part of a wetland mosaic; and,

28 (diii) The wetland does not scores 15 points or less greater for habitat; in the adopted Western Washington  
29 Rating System; and,

30 (eiv) The wetland does not contain habitat identified as essential for local populations of priority species  
31 identified by Washington Department of Fish and Wildlife; and,

**Comment [EM96]:** Item 3-7 & 3-19c

32 (cf) Mitigation to replace lost wetland functions and values, consistent with SMC 21A.50.310 shall be  
33 prepared for review and approval by the City.

34 {Ord. O2005-193 § 1; Ord. O99-29 § 1}

1 (2) Category III and IV wetlands with a total area of 4,000 square feet or less may have the buffer reduced to  
2 15 feet, provided:

Comment [EM97]: Item 3-19d

3 (a) The wetland does not score 15 points or greater for habitat in the adopted Western Washington  
4 Rating System; and,

5 (b) The wetland is not part of a wetland mosaic; and,

6 (c) The buffer functions associated with the area of the reduced buffer width are mitigated through  
7 the enhancement of the wetland, the remaining on-site wetland buffer area, and/or other adjoining  
8 high value habitat areas as needed to replace lost buffer functions and values; and,

9 (d) No subsequent buffer reduction or averaging is authorized.

10 **21A.50.322 Wetland management area – Special district overlay.**

11 (1) The purpose of the wetland management area special overlay district is to provide a means to designate  
12 certain unique and outstanding wetlands when necessary to protect their functions and values from the  
13 impacts created from geographic and hydrologic isolation and impervious surface.

14 (2) The wetland management area special overlay district shall be designated on critical areas maps  
15 maintained by the ~~department~~ Department of ~~community~~ Community ~~development~~ Development.

16 (3) The following development standards shall be applied in addition to all applicable requirements of this  
17 chapter to development proposals located within a wetland management area district overlay:

18 (a) All development proposals on properties zoned R-1 in wetland management areas shall have a  
19 maximum impervious surface area of eight percent of the gross acreage of the site. Distribution of  
20 the allowable impervious area among the platted lots shall be recorded on the face of the plat.  
21 Impervious surface of existing streets need not be counted towards the allowable impervious area.  
22 The provisions of this section shall not apply to the Sammamish Town Center Study Area as  
23 identified in Ordinance O2005-185;

24 (b) All subdivisions and short subdivisions on properties identified in a management area for  
25 clustering and set aside requirements in the East Lake Sammamish Basin and Nonpoint Action Plan  
26 (1994) shall be required to cluster away from wetlands or the axis of corridors along stream  
27 tributaries and identified swales connecting wetlands. At least 50 percent of all portions of the  
28 property located within wetland management areas identified for vegetation retention shall be left  
29 in native vegetation, preferably forest, and placed in a permanent open space tract. The open space  
30 tract shall be designed to maximize the amount of separation between any critical areas and the  
31 proposed development. If no critical area tracts are required, the open space tract shall be located  
32 to provide additional protection to nearby wetlands;

33 (c) Clearing and grading activity from October 1st through April 30th shall meet the provisions of  
34 SMC 16.15.120(4) wherever not already applicable;

...  
1 (d) All R-1 zoned properties within wetland management areas, as identified in the East Lake  
2 Sammamish Basin and Nonpoint Action Plan, shall retain native vegetation, or revegetate with trees  
3 to meet the following standards:

4 (i) Fifty percent of the site area shall be used to retain trees or revegetate with trees;

5 (ii) Retained vegetation shall be located primarily within the 50 percent open space area  
6 required by SMC [21A.25.030](#);

7 (iii) Retained vegetation shall consist primarily of trees with 0.0096 significant trees per square  
8 foot;

9 (iv) Areas revegetated shall provide 0.012 trees per square foot. Planted trees shall meet the  
10 following specifications:

11 (A) Coniferous trees shall be at least three feet tall;

12 (B) Deciduous trees shall be at least five feet tall; and

13 (C) Trees shall be planted primarily in the required open space area;

14 (v) The provisions of this section shall not apply to the Sammamish Town Center Study Area as  
15 identified in Ordinance O2005-185; and

16 (e) The ~~director~~Director may, based upon review and approval of a critical areas special study,  
17 modify the provisions of this chapter to allow for:

18 (i) The installation of site access; provided, that the applicant shall limit impervious surfaces to  
19 the minimum required to grant access; or

20 (ii) Development using low impact development techniques to achieve standards adopted by  
21 the City that will demonstrably minimize development impacts consistent with subsections

22 (3)(a) through (c) of this section. (Ord. O2005-193 § 1)

23  
24 **21A.50.325 Fish and wildlife habitat conservation areas – Development standards.**

25 A development proposal that includes ~~alteration of~~ a fish and wildlife habitat conservation area or buffer  
26 shall meet the following requirements:

27 (1) When appropriate due to the type of habitat or species present or the project area conditions, the  
28 ~~director~~Director may require a critical areas study that includes a habitat management plan consistent with  
29 the latest guidance from the Department of Fish and Wildlife. If the habitat conservation area is also  
30 classified as a stream, lake, pond or a wetland, then the stream, lake, pond or wetland protection standards  
31 shall apply and habitat management shall be addressed as part of the stream, lake, pond or wetland review;

**Comment [C4S98]:** Fish and wildlife conservation areas should be applied only to undeveloped land in which other environmental buffers exist. They should not exceed the environmental buffers already required or create any new buffer areas. This limitation on scope should be spelled out in this section.

**Comment [EM99]:** Item 2-13

...

1 provided, that the City may impose additional requirements when necessary to provide for protection of the  
2 habitat conservation areas consistent with this chapter.

3 (2) The ~~director~~Director may require the following site- and proposal-related information with the critical  
4 areas study:

5 (a) Identification of any endangered, threatened, sensitive or candidate species that have a primary  
6 association with habitat on or adjacent to the project area, and an assessment of potential project  
7 impacts to the species;

8 (b) A discussion of any federal or state management recommendations, including Washington  
9 Department of Fish and Wildlife habitat management recommendations, that have been developed  
10 for species or habitats located on or adjacent to the project area;

11 (c) A discussion of any ongoing management practices that will protect habitat after the project site  
12 has been developed, including any proposed monitoring, maintenance, and adaptive management  
13 programs; ~~and~~

14 (d) When appropriate due to the type of habitat or species present or the project area conditions,  
15 the ~~director~~Director may also require the habitat management plan to include an evaluation by the  
16 State Department of Fish and Wildlife, local Native American Indian Tribe, or other qualified  
17 professional regarding the applicant's analysis and the effectiveness of any proposed mitigating  
18 measures or programs, to include any recommendations as appropriate.

19 (e) When appropriate, information from the Washington Department of Fish and Wildlife's Fish and  
20 Wildlife's Backyard Wildlife Sanctuary Program shall be included.

Comment [CdS101]: Item 2-13c

21 (3) General Requirements. Habitat conservation areas that are lakes shall be governed by the requirements  
22 of the Sammamish Shoreline Master program. Other habitat conservation areas are subject to the following  
23 provisions:

24 (a) The department shall require the establishment of buffer areas for development activities in, or  
25 adjacent to, habitat conservation areas when needed to protect habitat conservation areas. Buffers  
26 shall consist of an undisturbed area of native vegetation, or areas identified for restoration, established  
27 to protect the integrity and functions of the habitat. Required buffer widths shall consider the  
28 management recommendations identified in subsection (2) of this section and reflect the sensitivity of  
29 the habitat and the type and intensity of human activity proposed to be conducted nearby. When a  
30 species is more susceptible to adverse impacts during specific periods of the year, seasonal restrictions  
31 may apply. Development activities may be further restricted and buffers may be increased during the  
32 specified season.

33 (b) Where applicable, a fish and wildlife habitat corridor required in 21A.50.327.

Comment [CdS101]: Item 2-13c

1 | ...  
2 | (~~cb~~) A habitat conservation area may be altered only if the proposed alteration of the habitat or the  
3 | mitigation proposed does not reduce the quantitative and qualitative functions and values of the  
4 | habitat, except in accordance with this chapter.

4 | (d) Removal of any native vegetation or woody debris from the habitat conservation area may be  
5 | allowed only as part of an approved habitat management plan, critical areas study, and/or alteration  
6 | plan.

Comment [C102]: Item 5-3 (3 of 6)

7 | (~~ce~~) Low impact uses and development activities which are consistent with the purpose and function of  
8 | the habitat conservation area and do not detract from its integrity may be permitted within the  
9 | conservation area depending on the sensitivity of the habitat area. Examples of uses and development  
10 | activities which may be permitted in appropriate cases include trails that are pervious, viewing  
11 | platforms, storm water management facilities such as grass-lined swales, utility easements and other  
12 | similar uses and development activities; provided, that any impacts to the habitat resulting from such  
13 | permitted facilities shall be fully mitigated.

14 | (~~fd~~) Whenever development activities are proposed in or adjacent to a habitat conservation area with  
15 | which state or federally endangered or threatened species have a primary association, such area shall  
16 | be protected through the application of measures in accordance with a critical areas report prepared  
17 | by a qualified professional and approved by the City of Sammamish, with guidance provided by the  
18 | appropriate state and/or federal agencies.

19 | (~~gf~~) Plant, wildlife, or fish species not indigenous to the coastal region of the Pacific Northwest shall not  
20 | be introduced into habitat conservation areas unless authorized by this chapter and by any required  
21 | state or federal permit or approval.

22 | (~~gh~~) Mitigation sites shall be located to achieve contiguous wildlife habitat corridors in accordance with  
23 | a mitigation plan that is part of an approved critical areas report to minimize the isolating effects of  
24 | development on habitat areas, so long as mitigation of aquatic habitat is located within the same  
25 | aquatic ecosystem as the area disturbed.

26 | (~~hi~~) The ~~director~~Director shall condition approvals of development activities allowed within or adjacent  
27 | to a habitat conservation area or its buffers, as necessary, to minimize or mitigate any potential  
28 | adverse impacts. Conditions may include, but are not limited to, the following:

- 29 | (i) Establishment of buffer zones;
- 30 | (ii) Preservation of critically important vegetation;
- 31 | (iii) Limitation of public access to the habitat area, including fencing to deter unauthorized access;
- 32 | (iv) Seasonal restriction of development activities;
- 33 | (v) Establishment of a duration and timetable for periodic review of mitigation activities; and

(vi) Requirement of a performance bond, when necessary, to ensure completion and success of proposed mitigation.

(ii) Mitigation of alterations to habitat conservation areas shall achieve equivalent or greater biologic functions, and shall include mitigation for adverse impacts from the proposed development as appropriate. Mitigation shall address each function affected by the alteration to achieve functional equivalency or improvement on a per-function basis. (Ord. O2005-193 § 1)

**21A.50.327 Fish and Wildlife habitat corridors.**

~~Habitat~~ On development proposal sites that contain Type F or Np streams and/or wetlands with a high habitat score greater than or equal to 29, that are also located within 200 feet of an on-site or off-site Type F or Np stream and/or wetland with a high habitat score greater than or equal to 29, ~~for~~ corridors as defined in 21A.15.467 a fish and wildlife habitat corridor shall be set aside and protected for preserving connections between habitats along the designated wildlife habitat network as follows:

(1) Habitat corridors shall be identified and protected in one of the following ways:

(1)(a) Subdivisions and short subdivisions shall either place the corridor in a contiguous permanent open space tract with all developable lots sited on the remaining portion of the project site, or shall design the lots so that conservation easements on individual lots can form a contiguous easement covering the corridor;

(2)(b) Individual lots shall place the corridor in a conservation easement.

(2)(3) The fish and wildlife habitat corridor shall be sited on the property in order to meet the following conditions:

(a) Forms one contiguous tract that connects on-site high value habitat areas to other on-site or off-site high value habitat areas. ~~that enters and exits the property at the points the designated wildlife habitat network crosses the property boundary;~~

(b) New development proposals shall provide a minimum fish and wildlife habitat corridor width of 300 feet or a corridor width that is consistent with an approved habitat management plan. ~~Maintains a width, wherever possible, of 300 feet. The network width shall not be less than 150 feet wide at any point;~~

(c) Development proposals on sites constrained by a fish and wildlife habitat corridor and where development already exists, shall maintain a minimum fish and wildlife habitat corridor width of 300 feet unless through an approved habitat management plan it can be shown that a lesser habitat corridor width supports and maintains the corridor's function and value; ~~and~~

(d) Be contiguous with and may include sensitive critical area tracts and their buffers and open space tracts or wooded areas on adjacent properties, if present; ~~and~~

(e) ~~The director~~ Director may shall, when a lesser habitat is permitted by subsection (c) above, modify corridor widths based on supporting conditions from an approved habitat management plan.

Comment [EM103]: Item 2-13

Comment [C4S104]: Fish and wildlife habitat corridors should be applied only to undeveloped land in which other environmental buffers exist. They should not exceed the environmental buffers already required or create any new buffer areas. This limitation on scope should be spelled out in this section.

Comment [reb-105]: This requirement for corridors to allow the travel of wildlife is to some extent at odds with the requirement to maintain stream buffers in a natural state. In a matter of just a couple years once open areas along streams can become so overgrown with vegetation that passage of larger animals is not possible. (I can provide a good example.) If the passage of larger animals is an intended function of corridors along streams, there needs to be some provision for controlling the density of the vegetation in the corridor, and it needs to be reconciled with the hands-off policy reflected in the Streams code. There is currently no such provision in this subsection; indeed, sub-item (5) seems to discourage it. This issue should be addressed in this update.

Comment [EM106]: Item 2-13

Comment [C4S107]: Limit unnecessary discretionary influence of Director, and clarify.

Comment [EM108]: Item 2-13

...

1) (34) When feasible, the fish and wildlife habitat corridor shall be sited on the property in order to meet the following conditions:

(a) Connect isolated critical areas or habitat; and

(b) Connect with other fish and wildlife habitat corridors, open space tracts or wooded areas on adjacent properties, if present.

~~(4) The wildlife corridor tract shall be permanently marked consistent with the methods contained in SMC 21A.50.170. Conservation easements are exempt from the permanent marking requirement.~~

(545) A management plan for the wildlife corridor contained within a tract or tracts shall be prepared that specifies the permissible extent of recreation, forestry or other uses compatible with preserving and enhancing the wildlife habitat value of the tract or tracts. The management plan shall be reviewed and approved by the department. The approved management plan for a subdivision shall be contained within and recorded with the covenants, conditions and restrictions (CCRs). If the wildlife corridor is contained in a conservation easement, a management plan is not required, but may be submitted to the department for review and approval, and recorded with the conservation easement.

(565) Clearing within the wildlife corridor contained in a tract or tracts shall be limited to that allowed by the management plan or as otherwise allowed by this chapter. No clearing, including the removal of woody debris, shall be allowed within a wildlife corridor contained within a conservation easement on individual lots, unless the property owner has an approved management plan.

Comment [CdS109]: Item 5-3 (4 of 6)

(676) A homeowners' association or other entity capable of long-term maintenance and operation shall be established to monitor and assure compliance with the management plan. The association shall provide homeowners with information on Washington Department of Fish and Wildlife's Backyard Wildlife Sanctuary Program.

Comment [CdS110]: Item 2-13c

(898) Wildlife corridors set aside in tracts or conservation easements shall meet the provisions in SMC 16.15.120.

(9409) The permanent open space tract containing the wildlife corridor may be credited toward the other applicable requirements such as surface water management and the recreation space requirement of SMC 21A.30.140, provided the proposed uses within the tract are compatible with preserving and enhancing the wildlife habitat value. Restrictions on other uses within the wildlife corridor tract shall be clearly identified in the management plan.

(41019) Low impact uses and activities which are consistent with the purpose and function of the habitat corridor and do not detract from its integrity may be permitted within the corridor depending on the sensitivity of the habitat area. Examples of uses and activities which may be permitted in appropriate cases include trails that are pervious, viewing platforms, storm water management facilities such as grass-lined swales, utility easements and other similar uses, or activities otherwise described and approved by the Washington Department of Fish and Wildlife and activities; provided, that any impacts to the corridor resulting from such permitted facilities shall be fully mitigated.

Comment [C111]: Item 2-13

...

1) (12114) At the discretion of the ~~director~~Director, these standards may be waived or reduced for public facilities such as schools, fire stations, parks, and public road projects. (Ord. O2005-193 § 1)

21A.50.330 Streams – Development standards.

A development proposal on a parcel or parcels containing a stream or associated buffer of a stream located on-site or off-site shall meet the following requirements:

(1) The following standard buffers shall be established from the ordinary high water mark or from the top of the bank if the ordinary high water mark cannot be identified:

Stream Type	Standard Buffer Width (ft)
Type S:	150
Type F:	<del>150</del> 50
Type Np:	<del>75</del> 20
Type Ns:	<del>50</del> 15

**Comment [reb-112]:** This is another case where the overreaching use of the term "development" is a problem. This section should only apply to new development, and that should be made clear here. See "Elaboration of Comments" at end of this document for further discussion. See also comment on 21A.15.310.

**Comment [C4S113]:** A 50-foot buffer will be consistent with the setback from Pine and Beaver lakes. Both lakes and type F streams are candidates for Fish and Wildlife Habitat Conservation Areas according to WAC 365-190-130(2)(g)

**Comment [C4S114]:** The City's rationale for the 20-foot setback from Lake Sammamish can be found in the City Council packet for June 20, 2011 beginning page 153. <http://www.ci.sammamish.wa.us/files/packet/7959.pdf>

**Comment [C4S115]:** As described in the City's rationale referenced above, a 15-foot buffer removes 50% of the phosphorus.

**Comment [reb-116]:** These are not the only man-made features that can define a de facto boundary to a buffer. Driveways, buildings, and solid fences and walls can also. Changes to 21A.50.060 recognize this for buildings, at least in part. There needs to be recognition as well of driveways and other paved surfaces (where they do not allow sheet flow over them toward a stream), walls, and other solid barriers to influence. Buffer delineation will provide for this.

**Comment [reb-117]:** This 50 percent constraint is yet another "magic number" that is arbitrary and has no basis in science. If the far side of a barrier is less than 50% of the standard buffer width (which itself is arbitrary), there is no reason to impose a larger buffer. Delete this clause.

**Comment [CdS118]:** Item 5-9

(a) Where a legally established and constructed street or the East Lake Sammamish Trail transects a stream buffer, the department may approve a modification of the standard buffer width to the edge of the street or the East Lake Sammamish Trail if the isolated part of the buffer does not provide additional protection of the stream and provides insignificant biological, geological or hydrological buffer functions relating to the stream. If the resulting buffer distance is less than 50 percent of the standard buffer, no further reduction shall be allowed.

(b) Where a buffer has been previously established on a legally created parcel or tract that was legally established according to the regulations in place at the time of establishment through City or county development review on or after November 27, 1990, and is permanently recorded on title or placed within a separate tract, the buffer shall be remain as previously established, provided it is at least equal to or greater than 50 percent of the required standard buffer distance for the applicable stream category.

(2) Any stream with an ordinary high water mark within 25 feet of the toe of a slope 30 percent or steeper, but less than 40 percent, shall have:

(a) The minimum buffer required for the stream class involved or a 25-foot buffer beyond the top of the slope, whichever is greater, if the horizontal length of the slope, including small benches and terraces, is within the buffer for that stream class; or

(b) A 25-foot buffer beyond the minimum buffer width required for the stream class involved if the horizontal length of the slope, including small benches and terraces, extends beyond the buffer for that stream class.

...

(3) Any stream adjoined by a riparian wetland or other contiguous critical area shall have the buffer required for the stream type involved or the buffer that applies to the wetland or other critical area, whichever is greater.

(4) Buffer Averaging. Buffer width averaging may be allowed by the City if:

(a) It will provide additional natural resource protection, as long as the total area contained in the buffer on the development proposal site does not decrease (see also SMC [21A.30.210](#)(4) for buffer compensation requirements for trails);

(b) The stream contains variations in sensitivity due to existing physical characteristics or the character of the buffer varies in slope, soils, or vegetation, and the stream would benefit from a wider buffer in places and would not be adversely impacted by a narrower buffer in other places;

(c) The buffer width is not reduced to less than 50 percent of the standard buffer; ~~and~~

~~(de) The buffer is associated with a development proposal and it will not further encumber a neighboring property not owned by the applicant; and.~~

~~(ed) Buffer averaging may be used in conjunction with buffer reduction options in this section, provided the total combined reduction does not reduce the buffer to less than 50 percent of the standard buffer width at any location; and.~~

Comment [CdS119]: Item 5-11 (part 2 of 2)

(5) Increased Buffers. ~~Increased buffer widths shall~~ may be required by ~~the a distance necessary City when necessary~~ to protect:

~~(a) Critical drainage areas;~~

~~(ba) Critical fish and wildlife habitat conservation areas and habitat connections based on an approved habitat management plan as defined by the Department of Fish and Wildlife;~~

~~(eb) Landslide or erosion hazard areas contiguous to streams;~~

~~(ec) Groundwater recharge and discharge area;~~

~~(ed) Or to offset buffer impacts, such as trail and utility corridors; and~~

~~(fe) At risk ecological streams, functions including, but not limited to the following: critical drainage areas, critical fish and wildlife habitat, landslide or erosion hazard areas contiguous to streams, and groundwater recharge and discharge area, or to offset buffer impacts, such as trail and utility corridors.~~

~~(i) Habitat complexity, connectivity and biological functions;~~

~~(ii) Seasonal hydrological dynamics as provided in the adopted Surface Water Design Manual;~~

~~(iii) Sediment removal and erosion control;~~

1 (iv) Pollutant removal;

2 (v) Large woody debris (LWD) recruitment;

3 (vi) Water temperature;

4 (vii) Wildlife habitat; and

5 (viii) Microclimate.

Comment [CdS120]: Item 2-5

6 (6) Buffer Reduction. Buffers may be reduced when buffer-reduction impacts are mitigated and result in  
7 equal or greater protection of the ecological stream functions as defined in 21A.50.330.

Comment [CdS121]: Item 2-4

8 Prior to considering buffer reductions, the applicant shall demonstrate application of mitigation sequencing  
9 as required in SMC 21A.50.135. A plan for mitigating buffer-reduction impacts must be prepared using  
10 selected incentive-based mitigation options from the list below, and is subject to approval by the City. The  
11 following incentive options for reducing standard buffer widths shall be considered cumulative up to a  
12 maximum reduction of 50 percent of the standard buffer width. In all circumstances where a substantial  
13 portion of the remaining buffer is degraded, the buffer reduction plan shall include replanting with native  
14 vegetation in the degraded portions of the remaining buffer area and shall include a five-year monitoring and  
15 maintenance plan.

16 (a) ~~Installation of biofiltration/infiltration mechanisms: up to 20 percent reduction in standard buffer~~  
17 ~~width for the installation of bioswales. Water quality is improved in excess of the requirements of~~  
18 King County Stormwater Design Manual through the use of created and/or enhanced wetlands, or  
19 ponds supplemental to existing storm drainage and water quality requirements.

20 (b) Removal of existing impervious surfaces:

21 (i) Up to 10 percent reduction in standard buffer width if impervious surfaces within the to-be-  
22 remaining buffer area are reduced by at least 50 percent; or

23 (ii) Up to 20 percent reduction in standard buffer width if the to-be-remaining buffer area is  
24 presently more than 50 percent impervious and all of it is to be removed.

25 (c) Removal of invasive, nonnative vegetation: up to 10 percent reduction in standard buffer width  
26 for the removal and extended (minimum five-year) monitoring and continued-removal maintenance  
27 of relatively dense stands of invasive, nonnative vegetation from significant portions of the  
28 remaining buffer area.

29 (d) Restoration, preservation and maintenance of the existing stream and buffer vegetation if the  
30 following conditions are present and/or attainable as a result of action:

31 (i) An undisturbed vegetated buffer of 100 feet is preserved; and,  
32  
33

1 ...  
2 (ii) Existing buffer conditions are degraded such that more than 40 percent of the buffer is  
3 covered by non-native/invasive plant species and are restored according to a cityCity-  
4 approved restoration plan to improve wetland buffer functions; and,

5 (iii) Tree or shrub vegetation covers less than 25 percent of the total buffer area the area will  
6 be re-vegetated according to a cityCity-approved restoration plan with trees and shrubs to  
7 replace impacted buffer functions; and,

8  
9 \_\_\_\_\_ (iv) Thestream buffer has slopes of less than 25 percent.

10  
11 The buffer reduction determination and percentage shall be on a site by site basis based on the  
12 applicant's plan and demonstration of improvement to water quality and habitat functions.

13 (ed) In-stream habitat enhancement:

14 (i) Up to 20 percent reduction in standard buffer width for log structure placement,  
15 bioengineered bank stabilization, or culvert removal; or

16 (ii) Up to 30 percent reduction in standard buffer width for improving fish passage and/or  
17 creation of side channel or backwater areas.

18 (fe) If not already required under an existing development proposal, installation of oil/water  
19 separators for storm water quality control: up to 10 percent reduction in standard buffer width.

20 (gf) Use of pervious material for driveway/road construction: up to 10 percent reduction in standard  
21 buffer width.

22 (hg) Restoration of on-site buffer and habitat areas, or restoration of off-site buffer and habitat  
23 areas within the same sub-basin of the impacted stream if no on-site restoration is possible:

24 (i) Up to 10 percent reduction in standard buffer width if restoration area is at a 2:1 ratio or  
25 greater; or

26 (ii) Up to 20 percent reduction in standard buffer width if restoration area is at a 4:1 ratio or  
27 greater.

28 (ih) Removal of significant refuse or sources of toxic material: up to 10 percent reduction in standard  
29 buffer width.

30 \*\*\*

31 (78) The use of hazardous substances, pesticides and fertilizers in the stream corridor and its buffer may be  
32 prohibited by the City.

33 (89) The introduction of livestock into a stream or stream buffer is prohibited. The livestock restrictions in  
34 SMC 21A.50.290 shall also apply to Type S and F streams and their buffers. (Ord. O2005-193 § 1; Ord. O2005-  
35 172 § 4; Ord. O99-29 § 1)

**Comment [C4S122]:** Recommended location for new section (7) Buffer Delineation. See text under "Elaboration of comments" at end of this document.

**Comment [CdS123]:** Item 5-12 (part 2 of 2)

1 (10) Removal of any native vegetation or woody debris from the stream or stream buffer may be allowed only  
2 as part of an approved habitat management plan, critical areas study, and/or alteration plan.

Comment [C124]: Item 5-3 (5 of 6)

3 **21A.50.340 Streams – Permitted alterations.**

4 Alterations to streams and stream buffers are not allowed except as provided for by complete exemptions,  
5 partial exemptions and exceptions in this chapter or as allowed for by this section.

Comment [reb-125]: This requirement as applied to stream buffers in developed neighborhoods is overreaching. These plans/study should only be required for actions of significant scale and within viable habitat; they should not apply to maintenance and enhancement of established landscaping regardless of whether the city is going to insist on "development proposals" for that or not.

This problem can be solved by either better defining/limiting what scale of activity requires a "development proposal" or by explicitly excluding normal maintenance and enhancement actions here as discussed in Elaboration of Comments below for reb-85.

Comment [reb-126]: Partial exemptions are no longer prescribed in this chapter.

6 (1) Alterations may only be permitted if based upon a critical areas study conducted in accordance with SMC  
7 21A.50.130 that determines the proposed development will:

- 8 (a) Protect, restore or enhance the habitat, natural drainage, or other valuable functions of the  
9 stream resulting in a net improvement to the stream and stream buffer;
- 10 (b) Design, implement, maintain and monitor a restoration or enhancement plan prepared by a  
11 qualified professional;
- 12 (c) Perform the restoration or enhancement under the direction of a qualified professional; and
- 13 (d) Will otherwise be consistent with the purposes of this chapter.

14 (2) The applicant shall notify affected communities and native tribes of proposed alterations prior to any  
15 alteration if a stream is in a flood hazard area and shall submit evidence of such notification to the Federal  
16 Insurance Administration.

17 (34) There shall be no introduction of any plant or wildlife which is not indigenous to the coastal region of the  
18 Pacific Northwest into any stream or buffer unless required authorized by a state or federal permit or  
19 approval or as otherwise allowed by SMC 21A.50.060 – Allowance for Existing Urban Development and Other  
20 Uses.

Comment [reb-127]: (3) is now missing.

Comment [reb-128]: With this revision, this now seems like a rather strange requirement. Are there actions a developer or resident might take that entail a state or federal permit or approval and that require the introduction into a stream or buffer of plants or wildlife that are not indigenous to the coastal region of the PNW? If not, this clause is meaningless and should be deleted.

21 (45) Utilities may be allowed in stream buffers if:

- 22 (a) No reasonable alternative location is available;
- 23 (b) The utility corridor meets any additional requirements for installation, replacement of vegetation  
24 and maintenance, as needed to mitigate impacts;
- 25 (c) The requirements for sewer utility corridors in SMC 21A.50.300 shall also apply to streams; and
- 26 (d) Joint use of an approved sewer utility corridor by other utilities may be allowed.

27 (56) Where technically feasible, surface water discharge shall be located outside of the stream and stream  
28 buffer. If surface water discharge to a stream or stream buffer is unavoidable, the following management  
29 activities and provisions shall apply:

Comment [CdS129]: Item 5-13 (part 2 of 2)

30 The following surface water management activities and facilities may be allowed in stream buffers as follows:

1 ...  
2 (a) Surface water discharge to a stream from a flow control or water quality treatment facility,  
3 sediment pond or other surface water management activity or facility may be allowed if the  
4 discharge is in compliance with the applicable City-adopted storm water requirements.

5 (b) A Type ~~Np or~~ Ns stream buffer may be used as a regional storm water management facility if:

6 (i) A public agency and utility exception is granted pursuant to SMC [21A.50.070](#);

7 (ii) All requirements of the applicable City-adopted storm water requirements are met;

8 (iii) The use will not lower the rating or alter the factors used in rating the stream; and

9 (iv) There are no significant adverse impacts to the stream or habitat.

10 ~~(67)~~ Except as provided in subsection (7) of this section, public and private trails may be allowed in stream  
11 buffers consistent with the standards and requirements in this chapter, the development standards in  
12 Chapter [21A.30](#) SMC, and requirements elsewhere in the SMC. Proposals for constructing viewing platforms,  
13 associated access trails, and spur trails must be reviewed by a qualified professional and a critical areas study  
14 may be required.

15 ~~(78)~~ Crossings. The use of existing crossings, including but not limited to utility corridors, road and railroad  
16 rights-of-way, across streams or buffers for public or private trails is preferred to new crossings, subject to  
17 the standards and requirements in the SMC. New stream crossings may be allowed and may encroach on the  
18 otherwise required stream buffer if:

19 (a) Bridges, bottomless culverts or other appropriate methods demonstrated to provide fisheries  
20 protection shall be used for stream crossings and the applicant shall demonstrate that such methods  
21 and their implementation will pose no harm to the stream habitat or inhibit migration of  
22 anadromous fish;

23 (b) All crossings are constructed during the summer low flow and are timed to avoid stream  
24 disturbance during periods when use is critical to resident or anadromous fish including salmonids;

25 (c) Crossings do not occur over spawning areas used by resident or anadromous fish including  
26 salmonids unless the City determines that no other reasonable crossing site exists;

27 (d) Bridge piers or abutments are not placed within the FEMA floodway or the ordinary high water  
28 mark;

29 (e) Crossings do not diminish the flood-carrying capacity of the stream;

30 (f) Underground utility crossings are laterally drilled and located at a depth of four feet below the  
31 maximum depth of scour for the base flood predicted by a civil engineer licensed by the state of  
32 Washington. Temporary bore pits to perform such crossings may be permitted within the stream  
33 buffer established in SMC [21A.50.330](#). Crossing of Type Ns streams when dry may be made with  
open cuts; and

1 (g) Trail crossings shall use bridges and boardwalks consistent with the design requirements of the  
2 Washington Department of Fish and Wildlife [WDFW, 2003, Design of Road Culverts for Fish Passage  
3 as amended]; and

Comment [EM130]: Item 2-3

4 (h)(e) The number of crossings is minimized and consolidated to serve multiple purposes and  
5 properties whenever possible.

6 (89) Relocations. Stream relocations may be allowed only for:

7 (a) Type F, Np, and Ns streams as part of a public road, trail, or park project for which a public agency  
8 and utility exception is granted pursuant to SMC 21A.50.050; and

Comment [EM131]: Item 2-7

9 (b) Type E, Np and Ns streams for the purpose of enhancing resources in the stream if:

Comment [EM132]: Item 2-6

10 (i) Appropriate floodplain protection measures are used; and

11 (ii) The relocation occurs on-site, except that relocation off-site may be allowed if the applicant  
12 demonstrates that any on-site relocation is impracticable, the applicant provides all necessary  
13 easements and waivers from affected property owners and the off-site location is in the same  
14 drainage sub-basin as the original stream.

15 (910) For any relocation allowed by this section, the applicant shall demonstrate, based on information  
16 provided by qualified professionals, including a civil engineer and a biologist, that:

17 (a) The equivalent base flood storage volume and function will be maintained;

18 (b) There will be no adverse impact to local groundwater;

19 (c) There will be no increase in velocity;

20 (d) There will be no interbasin transfer of water;

21 (e) There will be no increase in sediment load;

22 (f) Requirements set out in the mitigation plan are met;

23 (g) The relocation conforms to other applicable laws; and

24 (h) All work will be carried out under the direct supervision of a qualified biologist.

25 (4011) A stream channel may be stabilized if:

26 (a) Movement of the stream channel threatens existing residential or commercial structures, public  
27 facilities or improvements, unique natural resources or the only existing access to property;

28 (b) The stabilization is done in compliance with the requirements of SMC 21A.50.230; and

...  
1 (c) Soft-bank stabilization techniques are utilized unless the applicant demonstrates that soft-bank  
2 techniques are not a reasonable alternative due to site-specific soil, geologic and/or hydrologic  
3 conditions.

4 ~~(4412)~~ Replacement of existing culverts to enhance stream habitat, not associated with any other  
5 development proposal, may be allowed if accomplished according to a plan for its design, implementation,  
6 maintenance, and monitoring prepared by qualified professionals, including a civil engineer and a biologist,  
7 and carried out under the direction of a qualified biologist.

8 ~~(4213)~~ Stream and habitat restoration or enhancement may be allowed if:

9 (a) The restoration is sponsored or approved by a public agency with a mandate to do such work;

10 (b) The restoration is unassociated with mitigation of a specific development proposal;

11 (c) The restoration is limited to placement of rock weirs, log controls, spawning gravel, and other  
12 specific habitat improvements for resident or anadromous fish including salmonids;

13 (d) The restoration only involves the use of hand labor and light equipment; or the use of helicopters  
14 and cranes that deliver supplies to the project site; provided, that they have no contact with critical  
15 areas or their buffers; ~~and~~

16 (e) The restoration is performed under the direction of qualified professionals; and,

17 (f) The restoration is part of a relocation plan consistent with 21A.50.340;

18 ~~(4314)~~ Roadside ditches that carry streams with salmonids may be maintained through the use of best  
19 management practices developed in consultation with relevant City, state, and federal agencies.

20 ~~(4415)~~ Reconstruction, remodeling, or replacement of an existing structure upon another portion of an  
21 existing impervious surface that was established pursuant to City ordinances and regulations may be allowed,  
22 provided:

23 (a) If within the buffer, the structure is located no closer to the stream than the existing structure;  
24 and

25 (b) The existing impervious surface within the buffer or stream is not expanded as a result of the  
26 reconstruction or replacement. (Ord. O2005-193 § 1; Ord. O2005-172 § 4; Ord. O99-29 § 1)

27 **21A.50.350 Streams – Mitigation requirements.**

28 When mitigation for stream or stream buffer impacts is required, mitigation shall meet the requirements  
29 listed in SMC [21A.50.145](#) in addition to the following supplementary requirements:

30 (1) Equivalent or Greater Functions. Mitigation for alterations to stream(s) and/or stream buffer(s) shall  
31 achieve equivalent or greater functions including, but not limited to:

**Comment [reb-133]:** How is this distinguished from the provisions of 21A.50.060 (4) above? It appears that by adding that, redundancy has been created, which at the least makes it more difficult to maintain this code. But if there is some basic distinction between the treatment here and above, that should be spelled out.

**Comment [CdS134]:** Item 5-16

**Comment [EM135]:** Item 2-6

- ...
- 1 (a) Habitat complexity, connectivity, and other biological functions;
  - 2 (b) Seasonal hydrological dynamics, water storage capacity and water quality; and
  - 3 (c) Geomorphic and habitat processes and functions.

4 (2) Mitigation Type and Location. Mitigation actions shall be in-kind and conducted within the same sub-  
5 basin and on the same site as the alteration, except when the following apply:

6 (a) There are no reasonable on-site opportunities for mitigation or on-site opportunities do not have  
7 a high likelihood of success due to development pressures, adjacent land uses, or on-site buffers or  
8 connectivity are inadequate;

9 (b) Off-site mitigation has a greater likelihood of providing equal or improved functions than the  
10 impacted stream; and

11 (c) Off-site locations ~~shall~~ have been identified and evaluated in the following order of preference:

12 (i) Fee-in-lieu program sites within the cityCity limits in accordance with the provisions of this  
13 section;

14 (ii) Fee-in-lieu program sites within the WRIA 8 in accordance with the provisions of this  
15 section, be in the same sub-basin.

16 (3) Fee-In-Lieu Stream Mitigation Program. Fee-in-lieu mitigation may be authorized for streams, subject to  
17 the avoidance sequence requirements and mitigation measures of this title, and the approval of a program  
18 by the cityCity, to be used in the following order of preference:

19 (a) A cityCity-approved program that utilizes receiving sites within the cityCity of Sammamish.

20 (b) The King County Mitigation Reserves Program, or other similar program that gives priority to  
21 sites within the same sub-basin and/or a pre-defined service area that includes the cityCity of  
22 Sammamish.

24 (3) Mitigation Timing. Where feasible, mitigation projects shall be completed prior to activities that will  
25 disturb streams. In all other cases, mitigation shall be completed immediately following disturbance and prior  
26 to use or occupancy of the activity or development. Construction of mitigation projects shall be timed to  
27 reduce impacts to existing wildlife and flora.

28 (4) Restoration Required. Restoration shall be required when a stream or its buffer is altered in violation of  
29 law or without any specific permission or approval by the City, where required. A mitigation plan for  
30 restoration shall conform to the requirements of this chapter and demonstrate that:

31 (a) The restoration will reliably and demonstrably improve the water quality and fish and wildlife  
32 habitat of the stream; ~~and~~

33 (b) The restoration will have no lasting significant adverse impact on any stream functions; ~~and~~

**Comment [reb-136]:** This added clause is necessary given the extremely broad definition of "alteration" (21A.15.056) which includes all activities except "walking, fishing, or any other passive recreation or other similar activities". With the new 21A.50.060 there are now types of alterations in a buffer that do not (or should not) require "specific permission or approval by the City", e.g., maintenance of or common revisions to landscaping. This clause eliminates the implication that **any** alteration without approval is illegal.

1 ~~(c) On sites where non-native vegetation was cleared, restoration shall include installation of native~~  
2 ~~vegetation with a density equal to or greater than the pre-altered site conditions.~~

Comment [CdS137]: Item 5-14 (part 2 of 2)

3 (5) Surface water management or flood control alterations shall not be considered enhancement unless  
4 other functions are simultaneously improved. (Ord. O2005-193 § 1; Ord. O2005-172 § 4; Ord. O99-29 § 1)

5 ~~**21A.50.351 Ponds — Development standards.**~~

6 ~~(1) Naturally Occurring Ponds — New Residence Setback and Tree Retention.~~

7 ~~(a) A 50-foot building setback for new residences shall be established from the ordinary high water~~  
8 ~~mark (OHWM) for naturally occurring ponds that are not otherwise regulated by the Sammamish~~  
9 ~~shoreline master program.~~

10 ~~(b) On lots abutting a pond or containing the 50-foot setback area, 25 percent of existing significant~~  
11 ~~trees shall be retained on site. Half of the significant trees to be retained shall be located within the~~  
12 ~~50-foot building setback area. Where half of the trees to be retained are not present within the~~  
13 ~~setback area, the remaining number may be retained elsewhere on site. (Ord. O2009-264 § 1 (Att.~~  
14 ~~A); Ord. O2005-193 § 1)~~

Comment [CdS138]: Item 5-17 (1 of 2)

15 **21A.50.352 Lake Sammamish buffer – Permitted alterations.**

16 *Repealed by Ord. O2009-264. (Ord. O2005-193 § 1)*

17 **21A.50.355 Lake management areas – Special district overlay.**

18 (1) The purpose of lake management areas is to designate the Beaver Lake and Pine Lake watersheds as  
19 special management areas for total phosphorus loading control and to establish standard procedures for  
20 evaluating drainage plans and related materials for applications of development within the Beaver Lake and  
21 Pine Lake Watersheds (within the East Lake Sammamish drainage basin).

22 (2) The lake management areas special overlay district shall be designated on critical areas maps maintained  
23 by the ~~department of community development~~ [Department of Community Development](#).

24 ~~(3) Definitions. In addition to the definitions listed below, all definitions included in the King County Surface~~  
25 ~~Water Design Manual are hereby adopted by reference.~~

26 ~~(a) “AKART” means all known, available, and reasonable methods of prevention, control, and~~  
27 ~~treatment.~~

28 ~~(b) “Eutrophic” means a trophic status characterized by moderately high algal productivity, more~~  
29 ~~serious oxygen depletion in the bottom waters, some recreational use impairment, summer~~  
30 ~~chlorophyll a concentration greater than 10 micrograms/liter, a summer Secchi depth of less than~~  
31 ~~two meters, and a winter total phosphorus concentration greater than 20 micrograms/liter.~~

32 ~~(c) “Hypereutrophic” means a trophic status characterized by high algal productivity, intense algal~~  
33 ~~blooms, fish kills due to oxygen depletion in the bottom waters, frequent recreational use~~  
34 ~~impairment, summer chlorophyll a concentration greater than 10 micrograms/liter, a summer~~

1 Secchi depth generally less than two meters, and a winter total phosphorus concentration greater  
2 than 30 micrograms/liter.

3 (d) "Lake management plan" means the plan (and supporting documents as appropriate) describing  
4 the lake management recommendations and requirements.

5 (e) "Mesotrophic" means a trophic status characterized by moderate algal productivity, oxygen  
6 depletion in the bottom waters, usually no recreational use impairment, summer chlorophyll a  
7 concentration averaging four to 10 micrograms/liter, a summer Secchi depth of two to five meters,  
8 and a winter total phosphorus concentration ranging from 10 to 20 micrograms/liter.

9 (f) "Oligotrophic" means a trophic status characterized by low algal productivity, algal blooms are  
10 rare, water clarity is high, all recreational uses unimpaired, summer chlorophyll a concentration  
11 average less than four micrograms/liter, a summer Secchi depth greater than five meters, and a  
12 winter total phosphorus concentration ranging from zero to 10 micrograms/liter.

13 (g) "Phosphorus" means elemental phosphorus and for the purposes of this section shall be  
14 measured as total phosphorus.

15 (h) "Phosphorus concentration" means the mass of phosphorus per liquid volume.

16 (i) "Phosphorus loading" means the total mass of phosphorus per time basis.

17 (j) "Total phosphorus" means the phosphorus concentration as determined by a state certified  
18 analytical laboratory using EPA 365.3 or SM 4500 P-B, E or an equivalent method.

19 (k) "Trophic state index" means a classification system which uses algal biomass as the basis for  
20 classification which can be independently measured by chlorophyll a, Secchi depth, and total  
21 phosphorus concentration.

22 (l) "Trophic status" means a classification which defines lake quality by the degree of biological  
23 productivity.

Comment [CdS139]: Item 5-18 (1 of 13)

24 (43) The Beaver Lake watershed as generally identified in the Beaver Lake management plan, which is  
25 available at the City of Sammamish community development department, is a sensitive lake and is hereby  
26 designated a critical drainage area. This designation is:

27 (a) Existing whole-lake total phosphorus concentration for the combined Beaver Lake system is 23  
28 micrograms/liter. Beaver Lake 1 and Beaver Lake 2, individually, have whole-lake total phosphorus  
29 concentrations of 36 (±2) micrograms/liter and 20 (±1) micrograms/liter, respectively;

30 (b) Whole-lake total phosphorus concentration, chlorophyll a, and Secchi depth indicate that the  
31 Beaver Lake system is bordering on eutrophic conditions;

1 (c) Modeling of the Beaver Lake system's future trophic status indicates that the lake will become  
2 hypereutrophic with a whole-lake total phosphorus concentration predicted to be 36  
3 micrograms/liter without additional phosphorus removal via storm water treatment; and

4 (d) Maintaining existing trophic status is a management plan goal. To maintain existing trophic  
5 status, an 80 percent total phosphorus annual loading removal goal was established for new  
6 impervious surface development prior to storm water discharges to Beaver Lake.

7 (54) The Pine Lake watershed is generally identified in the City of Sammamish comprehensive plan (Figure IV-  
8 1 in the comprehensive plan or as updated). All appropriate Beaver Lake specific water quality regulations  
9 shall be extended to the Pine Lake drainage basin ~~as well~~.

10 (a) These ~~interim~~ regulations shall only be in effect until such time that a customized Pine Lake  
11 water quality strategy is developed and development regulations are adopted based on approved  
12 findings of the study.

13 (b) An applicant for development within the Pine Lake drainage basin may apply for a variance from  
14 the standards specified in subsection (8) of this section if it can be proven that conditions are clearly  
15 different than at Beaver Lake.

16 (65) The standards specified in subsection (8) of this section shall apply to all development proposals located  
17 within the Beaver Lake and Pine Lake watersheds which require drainage review as specified in the King  
18 County Surface Water Design Manual.

19 (76) Development proposals within the Beaver Lake or Pine Lake watersheds may be exempt from  
20 management plan requirements if they demonstrate to the satisfaction of the community development  
21 department that on-site surface and storm water runoff drainage does not in fact drain into the basin in  
22 question.

23 (87) Phosphorous Control Required.

**Comment [C4S140]:** Phosphorous or phosphorus? Throughout this section.

24 (a) Applicability. Unless the conditions identified in subsection (6) of this section are documented to  
25 the satisfaction of the ~~community development department~~ Department of Community  
26 Development, the following development proposals are subject to the conditions and standards  
27 contained subsections 87(b) through 87(d) below:

**Comment [EM141]:** Item 3-12 (1 of 2)

28 (i) For ~~p~~Projects which ~~that~~ create greater than 5,000 square feet of new impervious surface  
29 subject to vehicular use in the Beaver Lake or Pine Lake watersheds, the following conditions  
30 shall apply, unless the conditions identified in subsection (6) of this section are documented to  
31 the satisfaction of the community development department; or

32 (ii) Projects that create greater than one acre of pollution generating pervious surface in the  
33 Beaver Lake or Pine Lake watersheds.

**Comment [C142]:** Item 3-12 (2 of 2)

1 | ~~(b)~~ The proposed storm water facilities shall be designed to remove 80 percent of all new total  
2 | phosphorus loading on an annual basis due to new development (and associated storm water  
3 | discharges) in the Beaver Lake or Pine Lake watersheds where feasible or utilize AKART if infeasible.

4 | ~~(c)~~ ~~Currently,~~ The AKART standard or ~~interim~~ best management practices for phosphorus-sensitive  
5 | lakes can be fulfilled by achieving the 50% phosphorous removal standard from adopted King  
6 | County Stormwater Design Manual and City of Sammamish addendum ~~along with standard~~  
7 | ~~proposed by the applicant together with additional applicant proposed measures as follows:~~

Comment [EM143]: Item 3-14 (1 of 2)

8 | (i) For all development proposals subject to this section, the applicants shall demonstrate that a  
9 | reduction of 80% total phosphorous is achievable through the use of engineering design  
10 | computations. Development proposals using on-site infiltration shall demonstrate 80% or  
11 | better phosphorus treatment can be expected with on-site infiltration than by methods  
12 | described in subsection (7)(c)(iii) of this section.

Comment [EM144]: Item 3-14 (2 of 2)

13 | (ii) As the adopted King County Surface Water Design Manual is updated and additional  
14 | treatment options and designs for total phosphorus removal become available, new treatment  
15 | systems may be approved by the ~~city~~City if the AKART standard for phosphorus removal can be  
16 | demonstrated using the Department of Ecology's Technology Assessment Protocol – Ecology  
17 | (TAPE protocol).

Comment [EM145]: Item 3-13

18 | (iii) Where soils are suitable, on-site infiltration of storm water runoff can be pursued through  
19 | the variance process as an AKART alternative using methods described in the manual, as well  
20 | as providing an organic soil layer consistent with the standards of the adopted King County  
21 | Surface Water Design Manual and City of Sammamish addendum

22 | the following storm water treatment design criteria:

23 | ~~(i) A wetpond or combined detention/wetpond with a permanent pool volume equal to four and~~  
24 | ~~one-half times the volume of runoff from the mean annual storm (VB/VR=4.5).~~

25 | ~~(A) Mandatory roof downspout infiltration, unless shown to be infeasible, and maximization of~~  
26 | ~~forest or native vegetation retention.~~

27 | ~~(B) Pond volume can be reduced by maximizing forest retention according to the following schedule:~~

Forest (%)	VB/VR ratio
25	4.25
30	4.00

Forest (%)	VB/VR ratio
40	3.50
50	3.25
60	3.00

(C) Forest retention areas shall be in tracts dedicated to the City. Buffers without trails can be counted in the percent forest figure.

(D) The VB/VR ratio is the volume of the wetpond basin divided by the volume of the runoff from the mean annual storm. The mean annual storm is equal to 0.46 inches at SeaTac. Runoff can be estimated using a runoff coefficient of 0.9 for impervious area and 0.25 for all other pervious area. Forested areas in tracts dedicated to the City need not be included in the calculation of pond sizing (i.e., zero new runoff volume assumed). If this method is used in other areas, and SeaTac precipitation statistics underestimate the rainfall as judged by the isopluvial distribution of the two-year 24-hour precipitation, the mean annual rainfall should be adjusted upward.

(ii) Although current King County SWM designs are not complete for sand filtration, incorporation of sand filters into storm water treatment facility designs (i.e., treatment trains) can be pursued through the variance process to achieve additional total phosphorus removal. The proponent must demonstrate that equivalent or improved total phosphorus treatment can be expected with an alternative treatment system which incorporates sand filtration other than by methods described in subsection (8)(b)(i) of this section.

(iii) Where soils are suitable, on-site infiltration of storm water runoff can be pursued through the variance process as an AKART alternative. Soils are considered suitable for infiltration if at least two feet of soil exist where one of the following soil conditions are met:

(A) The cation exchange capacity of the soil equals or is greater than five milliequivalents;

(B) The organic content of the soil is equal to or greater than five percent;

(C) The grain size distribution of site soils is equivalent to not more than 25 percent gravel by weight (75 percent passing the No. 4 sieve) and of that passing the No. 4 sieve, either (1) 50 percent minimum passes the No. 40 sieve and two percent minimum passes the No. 100 sieve, or (2) 25 percent minimum passes the No. 40 sieve and five percent minimum passes the No. 200 sieve; and

(D) The infiltration rate is 2.4 inches/hour or less.

1 ...  
2 Additionally, the proponent must demonstrate that equivalent or better phosphorus  
3 treatment can be expected with on-site infiltration than by methods described in subsection  
4 (8) of this section.

5 (iv) As the King County Surface Water Design Manual is updated and additional treatment  
6 options and designs for total phosphorus removal become available, alternative treatment  
7 systems may be utilized if the AKART standard for phosphorus removal can be demonstrated.

8 (de) Hydrologic analysis shall be determined using a continuous hydrologic model such as the  
9 Hydrologic Simulation Program – Fortran (HSPF) ~~or~~ the King County Runoff Time Series Program  
10 (KCRTS), ~~the Santa Barbara Urban Hydrograph, or the VB/VR~~ methodology. These methodologies  
11 may be revised or superseded by other methodologies for achieving the same performance goal as  
12 stipulated by future revision to the Surface Water Design Manual. (Ord. O2005-193 § 1)

13 **~~21A.50.360 Critical areas mitigation fee – Creation of fund.~~**

14 ~~There is hereby created a critical areas mitigation fund. This fund shall be administered by the City's finance  
15 director. (Ord. O2005-193 § 1; Ord. O99-29 § 1)~~

16 **~~21A.50.370 Critical areas mitigation fee – Source of funds.~~**

17 ~~All monies received from penalties resulting from the violation of rules and laws regulating development and  
18 activities within critical areas shall be deposited into the fund. (Ord. O2005-193 § 1; Ord. O99-29 § 1)~~

19 **~~21A.50.380 Critical areas mitigation fee – Use of funds.~~**

20 ~~Monies from the fund shall only be used for paying the cost of enforcing and implementing critical area laws  
21 and rules. (Ord. O2005-193 § 1; Ord. O99-29 § 1)~~

22 **~~21A.50.390 Critical areas mitigation fee – Investment of funds.~~**

23 ~~Monies in the fund not needed for immediate expenditure shall be deposited in a separate investment fund  
24 pursuant to RCW 36.29.020. The finance director shall be designated as the investment fund director. (Ord.  
25 O2005-193 § 1; Ord. O99-29 § 1)~~

26 **~~21A.50.400 Sunset provisions.~~**

27 ~~The provisions contained in SMC 21A.50.290, Wetlands – Development standards, 21A.50.310(6)(a), wetland  
28 mitigation ratios, and 21A.50.330, Streams – Development standards, shall revert to those in effect prior to  
29 January 3, 2006, 84 months following the January 3, 2006, effective date of the ordinance codified in this  
30 chapter unless renewed or revised. (Ord. O2011-315 § 1; Ord. O2009-274 § 1 (Att. A); Ord. O2005-193 § 1)~~

1 ...  
2 **Chapter 21A.15**  
**TECHNICAL TERMS AND LAND USE DEFINITIONS**

3 **Please Note:** The cityCity has selected relevant definitions from the definitions section; for brevity, not all  
4 definitions are included here. The complete code is available at:  
5 <http://www.codepublishing.com/wa/sammamish/>  
6

7 **21A.15.050 AKART.**

8 "AKART" means all known, available, and reasonable methods of prevention, control, and treatment.

Comment [CdS146]: Item 5-18 (2 of 13)

9 **21A.15.056 Alteration.**

10 Any human activity that results or is likely to result in an impact upon the existing condition of a critical area is  
11 an "alteration" that is subject to specific limitations as specified for each critical area. Alterations include, but  
12 are not limited to, grading, filling, dredging, draining, channelizing, applying herbicides or pesticides or any  
13 hazardous substance, discharging pollutants, except storm water, grazing domestic animals, paving,  
14 constructing, applying gravel, modifying for surface water management purposes, cutting, pruning, topping,  
15 trimming, relocating or removing vegetation or any other human activity that results or is likely to result in an  
16 impact to existent vegetation, hydrology, fish or wildlife, or fish or wildlife habitat. Alterations do not include  
17 walking, fishing, or any other passive recreation or other similar activities. (Ord. O2005-193 § 2; Ord. O2005-  
18 172 § 2; Ord. O99-29 § 1. Formerly 21A.50.200)

19 **21A.15.062 Anadromous fish.**

20 "Anadromous fish" are those that live part or the majority of their lives in saltwater, but return to freshwater to  
21 spawn. (Ord. O2005-172 § 2)

22 **21A.15.080 Base flood.**

23 "Base flood" means a flood having a one percent chance of being equaled or exceeded in any given year,  
24 often referred to as the "100-year flood." (Ord. O2003-132 § 10)

25 **21A.15.085 Base flood elevation.**

26 "Base flood elevation" means the water surface elevation of the base flood in relation to the National Geodetic  
27 Vertical Datum of 1929. (Ord. O2003-132 § 10)

28 **21A.15.098 Best available science.**

29 "Best available science" means the process used and information developed consistent with requirements in  
30 RCW 36.70A.172 and WAC 365-195-900 through 365-195-925. (Ord. O2005-172 § 2)

31 **21A.15.110 Biologist.**

32 "Biologist" means a person who has earned at least a Bachelor of Science degree in the biological sciences  
33 from an accredited college or university or who has equivalent educational training and experience. (Ord.  
34 O2003-132 § 10)

35 **21A.15.122 Buffer.**

...

1 "Buffer" means a designated area contiguous to a steep slope or landslide hazard area intended to protect  
2 slope stability, attenuation of surface water flows and landslide hazards, or a designated area contiguous to a  
3 habitat conservation area, stream or wetland intended to protect the habitat, stream or wetland and be an  
4 integral part of the habitat, stream or wetland ecosystem. (Ord. O2005-193 § 2; Ord. O2003-132 § 10)

5 **21A.15.195 Clearing.**

6 "Clearing" means the limbing, pruning, trimming, topping, cutting or removal of vegetation or other organic  
7 plant matter by physical, mechanical, chemical or other means. (Ord. O2003-132 § 10)

8 **21A.15.253 Critical aquifer recharge area.**

9 "Critical aquifer recharge areas" means those areas in the City of Sammamish with a critical recharging effect  
10 on aquifers used for potable water as defined by WAC 365-190-030(2). CARAs have prevailing geologic  
11 conditions associated with infiltration rates that create a high potential for contamination of groundwater  
12 resources or contribute significantly to the replenishment of groundwater. CARAs shall be classified based on  
13 the following criteria:

14 (1) Class 1 CARAs include those areas located within the mapped one- or five-year capture zone of a  
15 wellhead protection area.

16 (2) Class 2 CARAs include those areas located within the mapped 10-year capture zone of a wellhead  
17 protection area.

18 (3) Class 3 CARAs include those areas outside wellhead protection areas that are identified as high aquifer  
19 recharge potential areas based on characteristics of surficial geology and soil types. (Ord. O2005-193 § 2)

20 **21A.15.254 Critical areas.**

21 "Critical areas" means those areas in the City that are erosion hazard areas, frequently flooded areas,  
22 landslide hazard areas, seismic hazard areas, critical aquifer recharge areas, wetlands, streams, and fish and  
23 wildlife habitat conservation areas. (Ord. O2005-193 § 2)

24 **21A.15.255 Critical drainage area.**

25 "Critical drainage area" means an area that has been formally determined by the King County surface water  
26 management department to require more restrictive regulation than countywide standards afford in order to  
27 mitigate severe flooding, drainage, erosion, or sedimentation problems that result from the cumulative impacts  
28 of development and urbanization. (Ord. O2003-132 § 10)

29 **21A.15.XXX Development.**

30 "Development" means the construction or exterior alteration of structures or buildings; clearing or grading;  
31 paving, landscaping, placing of obstructions; any project of a permanent or temporary nature exterior to a  
32 building.

33 **21A.15.310 Development Proposal.**

34 "Development proposal" means any activities requiring a permit or other approval from the City of Sammamish  
35 relative to the use or development of land. (Ord. O2003-132 § 10)

**Comment [reb-147]:** This definition is overgeneral. E.g., pruning is a "project of a temporary nature exterior to a building" and thus would be subject to the requirements elsewhere in this code that "development" be approved via a development proposal submitted to the city. That is unreasonable for common yard maintenance activities like pruning. This definition needs to be reworked to more clearly distinguish development from maintenance. (See also comment on Maintenance below.)

**Comment [EM148]:** Item 4-15

**Comment [C4S149]:** There are a multitude of references to "development proposal" in the ECA code, but nowhere is it stated what conditions or nature of project require one. For example, does placing a tool shed in a stream buffer require one? (That seems excessive, but since it constitutes "modification of a buffer" it is therefore currently subject to a critical areas study per 21A.50.120.) A threshold for actions needs to be defined below which a development proposal is not required.

...

1 **21.A.15.365 Dwelling unit, single detached.**

2 "Dwelling unit, single detached" means a detached building containing one dwelling unit. (Ord. O2003.132 §  
3 10)

4 **21A.15.400 Enhancement.**

5 "Enhancement" means an action that increases the functions and values of a stream, wetland, or other  
6 sensitive area or buffer. (Ord. O2003-132 § 10)

7 **21A.15.410 Erosion.**

8 "Erosion" means the process by which soil particles are mobilized and transported by natural agents such as  
9 wind, rainsplash, frost action or surface water flow. (Ord. O2003-132 § 10)

10 **21A.15.415 Erosion hazard areas.**

11 "Erosion hazard areas" means those areas in the City underlain by soils that are subject to severe erosion  
12 when disturbed. Such soils include, but are not limited to, those classified as having a severe or very severe  
13 erosion hazard according to the USDA Soil Conservation Service, the 1973 King County Soils Survey or any  
14 subsequent revisions or addition by or to these sources. These soils include the following when they occur on  
15 slopes 15 percent or steeper:

- 16 (1) The Alderwood gravelly sandy loam (AgD);
- 17 (2) The Alderwood and Kitsap soils (AkF);
- 18 (3) The Beausite gravelly sandy loam (BeD and BeF);
- 19 (4) The Everett gravelly sandy loam (EvD);
- 20 (5) The Kitsap silt loam (KpD);
- 21 (6) The Ovall gravelly loam (OvD and OvF);
- 22 (7) The Ragnar fine sandy loam (RaD); and
- 23 (8) The Ragnar-Indianola Association (RdE). (Ord. O2005-193 § 2; Ord. O2003-132 § 10)

24 **21A.15.4XX — Erosion Hazard Near Sensitive Water Body Overlay.**

25 The Erosion Hazard Near Sensitive Water Body overlay means an area within the cityCity where sloped areas  
26 posing erosion hazards, or contributing to erosion hazards, that drain directly to lakes or streams of high  
27 resource value that are particularly sensitive to the impacts of increased erosion and the resulting sediment  
28 loads from development. The department of community development shall maintain a map of the  
29 boundaries of the erosion hazard near sensitive water bodies overlay district.

30  
31 The Erosion Hazard Near Sensitive Water Body overlay is divided into two areas:

- 32 (a) The no-disturbance area. The no-disturbance area shall be established on the sloped portion of the  
33 special district overlay to prevent damage from erosion. The upslope boundary of the no-disturbance  
34 area lies at the first obvious break in slope from the upland plateau over onto the valley walls. For  
35 the purposes of locating the first obvious break in slope, the first obvious break shall generally be

Comment [EM150]: Item 4-15

...  
1 located at the top of the erosion hazard area associated with the slope. The downslope boundary of  
2 the no-disturbance area is the extent of those areas designated as erosion or landslide hazard areas.  
3 The department shall maintain maps, supported by LIDAR (Light Detection and Ranging) data or  
4 other suitable technology, of the approximate location of the no-disturbance areas, which shall be  
5 subject to field verification for new development proposals.

Comment [EM151]: Item 4-3

6 (b) Properties draining to the no-disturbance area. Properties draining to the no-disturbance area are  
7 within the Erosion Hazard near Sensitive Water body overlay that drain to the no-disturbance area.

#### 8 21A.15.420 Eutrophic.

9 "Eutrophic" means a trophic status characterized by moderately high algal productivity, more serious oxygen  
10 depletion in the bottom waters, some recreational use impairment, summer chlorophyll a concentration greater  
11 than 10 micrograms/liter, a summer Secchi depth of less than two meters, and a winter total phosphorus  
12 concentration greater than 20 micrograms/liter.

Comment [CdS152]: Item 5-18 (3 of 13)

#### 13 21A.15.467 Fish and wildlife habitat corridors.

14 "Fish and wildlife habitat corridors" means those corridors set aside and protected for preserving connections  
15 between habitats on development proposal sites that contain Type F or Np streams and/or wetlands with a  
16 high habitat score greater than or equal to 29 on the Washington State Wetland Rating System for Western  
17 Washington (Department of Ecology 2004 or as revised) that are located within 200 feet of an on-site or off-  
18 site Type F or Np stream and/or wetland with a high habitat score greater than or equal to 29 on the  
19 Washington State Wetland Rating System for Western Washington.

Comment [CdS153]: Item 2-13

#### 20 21A.15.468 Fish and wildlife habitat conservation areas.

21 "Fish and wildlife habitat conservation areas" means those areas that are essential for the preservation of  
22 critical habitat and species. All areas within the City of Sammamish meeting one or more of the following  
23 criteria are designated wildlife habitat conservation areas:  
24

25 (1) Areas with which state or federally designated endangered, threatened, and sensitive species have a  
26 primary association.

27 (a) Federally designated endangered and threatened species are those fish and wildlife species  
28 identified by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service that are in  
29 danger of extinction or are threatened to become endangered. The U.S. Fish and Wildlife Service and  
30 the National Marine Fisheries Service should be consulted as necessary for current listing status;

31 (b) State-designated endangered, threatened, and sensitive species are those fish and wildlife species  
32 native to the coastal region of the Pacific Northwest identified by the State Department of Fish and  
33 Wildlife, that are in danger of extinction, threatened to become endangered, vulnerable, or declining and  
34 -are likely to become endangered or threatened in a significant portion of their range within the state  
35 without cooperative management or removal of threats. State-designated endangered, threatened, and  
36 sensitive species are periodically recorded in WAC 232-12-014 (state endangered species), and WAC  
37 232-12-011 (state threatened and sensitive species). The State Department of Fish and Wildlife  
38 maintains the most current listing and should be consulted as necessary for current listing status;

39 (2) Streams, lakes and naturally occurring ponds;

...

(3) State natural area preserves and natural resource conservation areas. Natural area preserves and natural resource conservation areas are defined, established, and managed by the State Department of Natural Resources; and

(4) ~~Fish and Wildlife habitat corridors as defined in 21A.15.467 for preserving connections between habitats along the designated wildlife habitat network. (Ord. O2005-193 § 2)~~

Comment [EM154]: Item 2-13

**21A.15.470 Flood fringe.**

“Flood fringe” means that portion of the floodplain outside of the zero-rise floodway that is covered by floodwaters during the base flood, generally associated with standing water rather than rapidly flowing water. (Ord. O2003-132 § 10)

**21A.15.475 Flood hazard areas.**

“Flood hazard areas” means those areas in the City of Sammamish subject to inundation by the base flood and those areas subject to risk from channel relocation or stream meander including, but not limited to, streams, lakes, wetlands, and closed depressions. (Ord. O2003-132 § 10)

**21A.15.480 Flood insurance rate map.**

“Flood insurance rate map” means the official map on which the Federal Insurance Administration has delineated some areas of flood hazard. (Ord. O2003-132 § 10)

**21A.15.485 Flood insurance study for King County.**

“Flood insurance study for King County” means the official report provided by the Federal Insurance Administration that includes flood profiles and the flood insurance rate map. (Ord. O2003-132 § 10)

**21A.15.490 Flood protection elevation.**

“Flood protection elevation” means an elevation that is one foot above the base flood elevation. (Ord. O2003-132 § 10)

**21A.15.495 Floodplain.**

“Floodplain” means the total area subject to inundation by the base flood. (Ord. O2003-132 § 10)

**21A.15.500 Floodproofing.**

“Floodproofing” means adaptations that will make a structure that is below the flood protection elevation substantially impermeable to the passage of water and resistant to hydrostatic and hydrodynamic loads including the impacts of buoyancy. (Ord. O2003-132 § 10)

**21A.15.505 Floodway, zero-rise.**

“Floodway, zero-rise” means the channel of a stream and that portion of the adjoining floodplain which is necessary to contain and discharge the base flood flow without any measurable increase in flood height. A measurable increase in base flood height means a calculated upward rise in the base flood elevation, equal to or greater than .01 foot, resulting from a comparison of existing conditions and changed conditions directly attributable to development in the floodplain. This definition is broader than that of the FEMA floodway, but always includes the FEMA floodway. The boundaries of the 100-year floodplain, as shown on the flood

...

1 insurance study for King County, are considered the boundaries of the zero-rise floodway unless otherwise  
2 delineated by a sensitive area special study. (Ord. O2003-132 § 10)

3 **21A.15.532 Frequently flooded areas.**

4 "Frequently flooded areas" means those lands in the City in the floodplain subject to a one percent or greater  
5 chance of flooding in any given year and those lands that provide important flood storage, conveyance, and  
6 attenuation functions, as determined by the City in accordance with WAC 365-190-080(3). Frequently flooded  
7 areas perform important hydrologic functions and may present a risk to persons and property. Frequently  
8 flooded areas include all areas of special flood hazards within the jurisdiction of the City of Sammamish. (Ord.  
9 O2005-193 § 2)

10 **21A.15.545 Geologist.**

11 "Geologist" means a professional geologist who holds a current geologist license from the Washington state  
12 Geologist Licensing Board, means a person who has earned at least a Bachelor of Science degree in the  
13 geological sciences from an accredited college or university or who has equivalent educational training and at  
14 least four years of professional experience. (Ord. O2003-132 § 10)

Comment [CdS155]: Item 4-14

Comment [CdS156]: Item 4-13

15 **21A.15.550 Geotechnical engineer.**

16 "Geotechnical engineer" means a practicing geotechnical/civil engineer licensed as a professional civil  
17 engineer by the state of Washington who has at least four years of professional employment as a geotechnical  
18 engineer. (Ord. O2003-132 § 10)

19 **21A.15.575 Hypereutrophic.**

20 "Hypereutrophic" means a trophic status characterized by high algal productivity, intense algal blooms, fish  
21 kills due to oxygen depletion in the bottom waters, frequent recreational use impairment, summer chlorophyll a  
22 concentration greater than 10 micrograms/liter, a summer Secchi depth generally less than two meters, and a  
23 winter total phosphorus concentration greater than 30 micrograms/liter.

Comment [CdS157]: Item 5-18 (4 of 13)

24 **21A.15.620 Lake Management Plan.**

25 "Lake management plan" means the plan (and supporting documents as appropriate) describing the lake  
26 management recommendations and requirements.

Comment [CdS158]: Item 5-18 (5 of 13)

27 **21A.15.670 Landscaping.**

28 "Landscaping" means live vegetative materials required for a development. Said materials provided along the  
29 boundaries of a development site are referred to as perimeter landscaping. (Ord. O2003-132 § 10)

30 **21A.15.675 Landslide.**

31 "Landslide" means episodic downslope movement of a mass including, but not limited to, soil, rock or snow.  
32 (Ord. O2003-132 § 10)

33 **21A.15.680 Landslide hazard areas.**

34 "Landslide hazard areas" means those areas in the City of Sammamish potentially subject to risk of mass  
35 movement due to a combination of geologic, topographic, and hydrologic factors. These areas are typically  
36 susceptible to landslides because of a combination of factors including: bedrock, soil, slope gradient, slope  
37 aspect, geologic structure, groundwater, or other factors. Landslide hazard areas include the following:

[11/30/2012 Planning Commission Deliberation Version--](#)

...

- 1 (1) Areas of historic failures, such as:
  - 2 (a) Those areas delineated by the U.S. Department of Agriculture's Natural Resources Conservation
  - 3 Service as having a "severe" limitation for building site development;
  - 4 (b) Areas designated as quaternary slumps, earthflows, mudflows, or landslides on maps published by
  - 5 the U.S. Geological Survey or Department of Natural Resources;
- 6 (2) Areas that have shown movement during the Holocene epoch, from 10,000 years ago to the present, or
- 7 which are underlain by mass wastage debris from that epoch;
- 8 (3) Any area with all three of the following characteristics:
  - 9 (a) Slopes steeper than 15 percent; and
  - 10 (b) Hillsides intersecting geologic contacts with a relatively permeable sediment overlying a relatively
  - 11 impermeable sediment or bedrock; and
  - 12 (c) Springs or groundwater seepage;
- 13 (4) Areas with a slope of 40 percent or steeper and with a vertical relief of 10 or more feet except areas
- 14 composed of consolidated rock. A slope is delineated by establishing its toe and top, as defined in SMC
- 15 21A.15.1230, and measured by averaging the inclination over at least 10 feet of vertical relief;
- 16 (5) Slopes that are parallel or subparallel to planes of weakness (such as bedding planes, joint systems, and
- 17 fault planes) in subsurface materials;
- 18 (6) Slopes having gradients steeper than 80 percent subject to rock fall during seismic shaking;
- 19 (7) Areas potentially unstable because of rapid stream incision, stream bank erosion or undercutting by wave
- 20 action; and
- 21 (8) Landslide hazard areas do not include those areas composed of slopes greater than 40 percent that were
- 22 created from a previously non-landslide hazard area through legal grading activity and that are confirmed to be
- 23 stable by a qualified professional. (Ord. O2005-193 § 2; Ord. O2003-132 § 10)
- 24 21A.15.XXX Maintenance.
- 25 "Maintenance" means those usual acts to prevent a decline, lapse or cessation from a lawfully established
- 26 condition or use. Maintenance may include, but is not limited to, pruning, plant material replaced with alternate
- 27 plant material, hardscape replaced with alternate hardscape, hardscape replaced with plant material, and
- 28 small garden or storage structures replaced with structures of like kind and size.
- 29 21A.15.720 Mesotrophic.
- 30 "Mesotrophic" means a trophic status characterized by moderate algal productivity, oxygen depletion in the
- 31 bottom waters, usually no recreational use impairment, summer chlorophyll a concentration averaging four to

Comment [CdS159]: 4-12 (1 of 2)

Comment [EM160]: Item 2-14

...

10 micrograms/liter, a summer Secchi depth of two to five meters, and a winter total phosphorus concentration ranging from 10 to 20 micrograms/liter.

Comment [CdS161]: Item 5-18 (6 of 13)

**21A.15.XXX Microclimate.**

“Microclimate” means a climatic condition in a relatively small area, within a few feet above and below the Earth’s surface and within canopies of vegetation. Microclimates are affected by such factors as temperature, humidity, wind and turbulence, dew, frost, heat balance, evaporation, the nature of the soil and vegetation, the local topography, latitude, elevation, and season. Weather and climate are sometimes influenced by microclimatic conditions, especially by variations in surface characteristics.

**21A.15.751 Mitigation bank.**

“Mitigation bank” means a property that has been protected in perpetuity, and approved by appropriate City, state, and federal agencies expressly for the purpose of providing compensatory mitigation in advance of authorized impacts through restoration, creation, and/or enhancement of wetlands, and in exceptional circumstances, preservation of adjacent wetlands, wetland buffers, and/or other aquatic resources. (Ord. O2003-132 § 10)

**21A.15.752 Mitigation banking.**

“Mitigation banking” means a system for providing compensatory mitigation in advance of authorized wetland impacts of development in the City in which credits are generated through restoration, creation, and/or enhancement of wetlands, and in exceptional circumstances, preservation of adjacent wetlands, wetland buffers, and/or other aquatic resources. (Ord. O2003-132 § 10)

**21A.15.765 Monitoring.**

“Monitoring” means evaluating the impacts of development proposals on biologic, hydrologic, and geologic systems and assessing the performance of required mitigation through the collection and analysis of data for the purpose of understanding and documenting changes in natural ecosystems, functions and features including, but not limited to, gathering baseline data. (Ord. O2003-132 § 10)

**21A.15.790 Native vegetation.**

“Native vegetation” means vegetation comprised of plant species, other than noxious weeds, which are indigenous to the coastal region of the Pacific Northwest and that reasonably could have been expected to naturally occur on the site. (Ord. O2005-193 § 2; Ord. O2003-132 § 10)

~~21A.15.794 Naturalized species.~~

~~“Naturalized species” means non-native species of vegetation that are adaptable to the climatic conditions of the coastal region of the Pacific Northwest. (Ord. O2011-300 § 1 (Att. A); Ord. O2003-132 § 10. Formerly 21A.15.796)~~

Comment [EM162]: Item 3-20

~~21A.15.795 Naturally occurring ponds.~~

See “Ponds, naturally occurring,” SMC 21A.15.898. (Ord. O2011-300 § 1 (Att. A); Ord. O2005-193 § 2. Formerly 21A.15.796)

Comment [CdS163]: Item 5-17 (2 of 2)

**21A.15.810 Oligotrophic.**

...

1 "Oligotrophic" means a trophic status characterized by low algal productivity, algal blooms are rare, water  
2 clarity is high, all recreational uses unimpaired, summer chlorophyll a concentration average less than four  
3 micrograms/liter, a summer Secchi depth greater than five meters, and a winter total phosphorus  
4 concentration ranging from zero to 10 micrograms/liter.

Comment [CdS164]: Item 5-18 (7 of 13)

5 **21A.15.825 Ordinary high water mark.**

6 "Ordinary high water mark" means the mark found by examining the bed and banks of a stream, lake, or tidal  
7 water and ascertaining where the presence and action of waters are so common and long maintained in  
8 ordinary years as to mark upon the soil a vegetative character distinct from that of the abutting upland. In any  
9 area where the ordinary high water mark cannot be found, the line of mean high water shall substitute. In any  
10 area where neither can be found, the top of the channel bank shall substitute. In braided channels and alluvial  
11 fans, the ordinary high water mark or line of mean high water shall be measured so as to include the entire  
12 stream feature. (Ord. O2003-132 § 10)

13 **21A.15.850 Phosphorus.**

14 "Phosphorus" means elemental phosphorus and ~~for the purposes of this section shall be measured as total~~  
15 phosphorus.

Comment [CdS165]: Item 5-18 (8 of 13)

16 **21A.15.855 Phosphorus concentration.**

17 "Phosphorus concentration" means the mass of phosphorus per liquid volume.

Comment [CdS166]: Item 5-18 (9 of 13)

18 **21A.15.860 Phosphorus loading.**

19 "Phosphorus loading" means the total mass of phosphorus per time basis.

Comment [CdS167]: Item 5-18 (10 of 13)

20 **21A.15.898 Ponds, naturally occurring.**

21 "Ponds, naturally occurring" means those surface water bodies under 20 acres and their submerged aquatic  
22 beds that provide fish or wildlife habitat, including those manmade ponds intentionally created in order to  
23 mitigate critical area impacts. Naturally occurring ponds do not include ponds deliberately designed and  
24 created from dry sites for other reasons such as canals, detention facilities, wastewater treatment facilities,  
25 farm ponds, temporary construction ponds, and landscape amenities, unless such artificial ponds were  
26 intentionally created for mitigation. (Ord. O2005-193 § 2)

Comment [EM168]: Item 3-20

27 **21A.15.942 Qualified professional.**

28 "Qualified professional" means a person with experience and training in the applicable field or critical area. A  
29 qualified professional must have obtained a B.S. or B.A. or equivalent degree in biology, engineering,  
30 environmental studies, fisheries, geomorphology or a related field, and two years of related work experience.

31 (1) A qualified professional for watercourses, wetlands, and wildlife habitat conservation areas must have a  
32 degree in biology or a related field and relevant professional experience.

33 (2) A qualified professional for preparing geotechnical reports and geotechnical design recommendations must  
34 be a professional geotechnical engineer or geologist licensed in the state of Washington. Identification of  
35 geologic hazards may be performed by geologists or other geology professionals with experience identifying  
36 geologic hazards.

...

(3) A qualified professional for preparing critical aquifer recharge reports must be a professional hydrogeologist or geologist licensed in the state of Washington.

**21A.15.1000 Restoration.**

“Restoration” means returning a stream, wetland, other sensitive area or any associated buffer to a state in which its stability and functions approach its unaltered state as closely as possible. (Ord. O2003-132 § 10)

~~21A.15.XXXX Riparian.~~

Comment [EM169]: Item 3-19c

~~“Riparian” means the area adjacent to flowing or standing freshwater aquatic systems. Riparian habitat encompasses the area beginning at the ordinary high water mark and extends to that portion of the terrestrial landscape that is influenced by, or that directly influences, the aquatic ecosystem. In riparian systems, the vegetation, water tables, soils, microclimate, and wildlife inhabitants of terrestrial ecosystems are often influenced by perennial or intermittent water. Simultaneously, adjacent vegetation, nutrient and sediment loading, terrestrial wildlife, as well as organic and inorganic debris influence the biological and physical properties of the aquatic ecosystem. Riparian habitat includes the entire extent of the floodplain and riparian areas of wetlands that are directly connected to stream courses or other freshwater.~~

Comment [C4S170]: The definition of “riparian” is included in the Wetland Rating form.

**21A.15.1015 Salmonid.**

“Salmonid” means a member of the fish family Salmonidae, including:

- (1) Chinook, coho, chum, sockeye and pink salmon;
- (2) Rainbow, steelhead and cutthroat salmon;
- (3) Brown trout;
- (4) Brook and dolly varden char;
- (5) Kokanee; and
- (6) Whitefish. (Ord. O2003-132 § 10)

**21A.15.1045 Seismic hazard areas.**

~~“Seismic hazard areas” means those areas mapped as moderate to high and high liquefaction susceptibility and peat deposits on the Liquefaction Susceptibility Map of King County, Washington, Washington Division of Geology and Earth Sciences, OFR 2004-20, Palmer et al., September, 2004 as revised those areas in the City subject to severe risk of earthquake damage as a result of soil liquefaction in areas underlain by cohesionless soils of low density and usually in association with a shallow groundwater table or of other seismically induced settlement. (Ord. O2003-132 § 10)~~

Comment [EM171]: Item 1-4

**21A.15.1070 Setback.**

“Setback” means the minimum required distance between a structure and a specified line such as a lot, easement or buffer line that is required to remain free of structures. (Ord. O2003-132 § 10)

**21A.15.1230 Steep slope hazard areas.**

~~11/30/2012 Planning Commission Deliberation Version--~~

...

1 “Steep slope hazard areas” means those landslide hazard areas in the City on slopes 40 percent or steeper  
2 within a vertical elevation change of at least 10 feet. A slope is delineated by establishing its toe and top and is  
3 measured by averaging the inclination over at least 10 feet of vertical relief. For the purpose of this definition:

4 (1) The toe of a slope is a distinct topographic break in slope that separates slopes inclined at less than 40  
5 percent from slopes 40 percent or steeper. Where no distinct break exists, the toe of a steep slope is the  
6 lowermost limit of the area where the ground surface drops 10 feet or more vertically within a horizontal  
7 distance of 25 feet; and

8 (2) The top of a slope is a distinct, topographic break in slope that separates slopes inclined at less than 40  
9 percent from slopes 40 percent or steeper. Where no distinct break exists, the top of a steep slope is the  
10 uppermost limit of the area where the ground surface drops 10 feet or more vertically within a horizontal  
11 distance of 25 feet. (Ord. O2005-193 § 2; Ord. O2003-132 § 10)

12 ~~(3) A distinct topographic break occurs when the change in gradient is less than 5 feet vertically within a~~  
13 ~~horizontal distance of 25 feet.~~

**Comment [C4S172]:** Conflicts with definitions 1 and 2.

**Comment [CdS173]:** 4-12 (2 of 2)

14 **21A.15.1235 Stream functions.**

15 “Stream functions” means natural processes performed by streams including functions that are important in  
16 facilitating food chain production, providing habitat for nesting, rearing, and resting sites for aquatic, terrestrial,  
17 and avian species, maintaining the availability and quality of water, such as purifying water, acting as recharge  
18 and discharge areas for groundwater aquifers, moderating surface and storm water flows and maintaining the  
19 free flowing conveyance of water, sediments, and other organic matter. (Ord. O2003-132 § 10)

20 **21A.15.1240 Streams.**

21 “Streams” means those areas in the City where surface waters produce a defined channel or bed, not  
22 including irrigation ditches, canals, storm or storm water runoff conveyance devices or other entirely artificial  
23 watercourses, unless they are used by salmonids or are used to convey streams naturally occurring prior to  
24 construction of such watercourses. For the purpose of this definition, a defined channel or bed is an area that  
25 demonstrates clear evidence of the passage of water and includes, but is not limited to, bedrock channels,  
26 gravel beds, sand and silt beds, and defined-channel swales. The channel or bed need not contain water year-  
27 round. For the purpose of defining the following categories of streams, normal rainfall is rainfall that is at or  
28 near the mean of the accumulated annual rainfall record, based upon the water year for King County as  
29 recorded at the Seattle-Tacoma International Airport.

30 (1) Streams shall be classified according to the following criteria:

31 (a) Type S streams are all streams inventoried as “shorelines of the state” under the City’s shoreline  
32 master program. No Type S streams have been identified in the City as of September 1, 2005.

33 (b) Type F streams are those streams that are used by salmonids, have the potential to support  
34 salmonid uses, or that have been identified as being of special significance. Streams of special  
35 significance are those perennial reaches designated by the City based on historic fish presence and/or  
36 the probability of restoration of the following:

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- (i) George Davis Creek;
- (ii) Ebright Creek;
- (iii) Pine Lake Creek; and
- (iv) Laughing Jacobs Creek, below Laughing Jacobs Lake.

(c) Type Np streams which are perennial during a year of normal rainfall and do not have the potential to be used by salmonids. Type Np streams include the intermittent dry portions of the perennial channel below the uppermost point of perennial flow. If the uppermost point of perennial flow cannot be identified with simple, nontechnical observations, then the point of perennial flow should be determined using the best professional judgment of a qualified professional.

(d) Type Ns streams which are seasonal or ephemeral during a year of normal rainfall and do not have the potential to be used by salmonids.

(2) For the purposes of this definition, "used by salmonids" and "potential to support salmonid uses" is presumed for:

- (a) Streams where naturally reoccurring use by salmonid populations has been documented by a government agency;
- (b) Streams that are fish passable by salmonid populations from Lake Sammamish, as determined by a qualified professional based on review of stream flow, gradient and barriers and criteria for fish passability established by the Washington Department of Fish and Wildlife; and
- (c) Streams that are planned for restoration in a six-year capital improvement plan adopted by a government agency that will result in a fish passable connection to Lake Sammamish. (Ord. O2005-193 § 2; Ord. O2003-132 § 10)

**21A.15.1265 Submerged land.**

"Submerged land" means any land at or below the ordinary high water mark. (Ord. O2003-132 § 10)

**21A.15.1275 Total phosphorus.**

"Total phosphorus" means the phosphorus concentration as determined by a state-certified analytical laboratory using EPA 365.3 or SM 4500-P-B, E or an equivalent method.

**Comment [CdS174]:** Item 5-18 (11 of 13)

**21A.15.1285 Trails.**

"Trails" means manmade pathways designed and intended for use by pedestrians, bicyclists, equestrians, and/or recreational users. Trails may be paved or unpaved, and may be intended and constructed for transportation, recreation, and nature contact and enjoyment. Types of trails are described and defined in the park and recreation plan, trails, bikeways and paths plan, or elsewhere in the [cityCity](#) comprehensive plan. (Ord. O2005-172 § 2; Ord. O2003-132 § 10)

**21A.15.1295 Trophic state index.**

...

1 "Trophic state index" means a classification system which uses algal biomass as the basis for classification  
2 which can be independently measured by chlorophyll a, Secchi depth, and total phosphorus concentration.

Comment [CdS175]: Item 5-18 (12 of 13)

3 **21A.15.1300 Trophic status.**

4 "Trophic status" means a classification which defines lake quality by the degree of biological productivity.

Comment [CdS176]: Item 5-18 (13 of 13)

5 **21A.15.1390 Wet meadows, grazed.**

6 "Wet meadows, grazed" means palustrine emergent wetlands typically having up to six inches of standing  
7 water during the wet season and dominated under normal conditions by meadow emergents such as reed  
8 canary grass, spike rushes, bulrushes, sedges and rushes. During the growing season, the soil is often  
9 saturated but not covered with water. These meadows have been frequently used for livestock activities. (Ord.  
10 O2003-132 § 10)

Comment [EM177]: Item 3-20

11 **21A.15.1395 Wetland edge.**

12 "Wetland edge" means the line delineating the outer edge of a wetland, consistent with the Washington State  
13 Wetlands and Delineation Manual (1997, as amended). (Ord. O2005-193 § 2; Ord. O2003-132 § 10)

14 **21A.15.1400 Wetland, forested.**

15 "Wetland, forested" means a wetland that is characterized by woody vegetation at least 20 feet tall. (Ord.  
16 O2003-132 § 10)

Comment [EM178]: Item 3-20

17 **21A.15.1405 Wetland functions.**

18 "Wetland functions" means natural processes performed by wetlands including functions that are important in  
19 facilitating food chain production, providing habitat for nesting, rearing, and resting sites for aquatic, terrestrial,  
20 and avian species, maintaining the availability and quality of water, acting as recharge and discharge areas for  
21 groundwater aquifers and moderating surface and storm water flows, as well as performing other functions  
22 including, but not limited to, those set forth in 33 CFR 320.4(b)(2), 1988. (Ord. O2003-132 § 10)

23 **21A.15.1410 Wetland, isolated.**

24 "Wetland, isolated" means a wetland that is hydrologically isolated from other wetlands or streams, does not  
25 have permanent open water, and is determined to be of low function. (Ord. O2005-193 § 2; Ord. O2003-132 §  
26 10)

27 **21A.15.1415 Wetlands.**

28 "Wetlands" are those areas in the City of Sammamish designated in accordance with the federal 1987 Wetland  
29 Delineation Manual (Environmental Laboratory, 1987) and the United States Army Corps of Engineers (USACE)  
30 Interim Regional Supplement for Western Mountains, Valleys, and Coast Region (USACE, 2010), Washington  
31 State Wetlands Identification and Delineation Manual (1997, as amended). Wetlands are areas that are  
32 inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that  
33 under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil  
34 conditions. Wetlands generally include swamps, marshes, bogs and similar areas. Wetlands do not include  
35 those artificial wetlands intentionally created from nonwetland sites, including, but not limited to, irrigation and  
36 drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds,  
37 and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a

Comment [EM179]: Item 3-1

...

1 result of the construction of a road, street, or highway. Wetlands may include those artificial wetlands  
2 intentionally created from nonwetland areas to mitigate the conversion of wetlands.

3 Wetlands shall be rated according to the Washington State Wetland Rating System for Western Washington  
4 (Department of Ecology, 2004, or as revised). This document contains the definitions, methods and a rating  
5 form for determining the categorization of wetlands described below:

6 (1) Category 1. Category 1 wetlands include those that receive a score of greater than or equal to 70 based on  
7 functions, or those that are rated Category 1 based on special characteristics as defined in the rating form.

8 (2) Category 2. Category 2 wetlands include those that receive a score of 51 through 69 based on functions, or  
9 those that are rated Category 2 based on special characteristics as defined in the rating form.

10 (3) Category 3. Category 3 wetlands include those that receive a score of 30 through 50 based on functions.

11 (4) Category 4. Category 4 wetlands score less than 30 points based on functions. (Ord. O2005-193 § 2; Ord.  
12 O2003-132 § 10)

13  
14 **Chapter 21A.70**  
15 **NONCONFORMANCE, TEMPORARY USES, AND RE-USE OF FACILITIES**

16 **21A.70.020 Nonconformance – Applicability.**

17 (1) All nonconformances except nonconforming uses and improvements related to the provisions of SMC  
18 21A.50, shall be subject to the provisions of this chapter.

Comment [EM180]: Item 2-14

19 (2) The provisions of this chapter do not supersede or relieve a property owner from compliance with:

20 (a) The requirements of the Uniform Building and Fire Codes; or

21 (b) The provisions of this code beyond the specific nonconformance addressed by this chapter. (Ord.  
22 O99-29 § 1)

1 **Elaboration of reb [and C4S](#) Comments**

2 [reb-405112](#)

3  
4 Section 21A.50.330 should only apply to new developments, and that should be made clear in the  
5 introductory paragraph. Many of its provisions should not apply to activities homeowners commonly  
6 perform to maintain or enhance their homes and yards that have no effect on a nearby watercourse. But  
7 due to continued ambiguity as to what constitutes “development” and what requires a “development  
8 proposal”, it could be easily construed as applicable to homeowners by plan review personnel, or used  
9 as leverage to pursue an agenda of environmental activism.

10  
11 Take for example a property owner who wants to rework some landscaping beyond merely mowing,  
12 pruning, and applying ground cover (ref. 16.15.050 (8)). Perhaps he wants to change some plantings.  
13 And perhaps he is separated from the watercourse in question by two other houses. Are the provisions  
14 of this section intended to apply to such a case? I submit that they should not. But it could be construed  
15 that the [cityCity](#) expects that homeowner to submit a development proposal for such minor activities (ref.  
16 comment on 21A.15.310). Therefore a literal interpretation would indicate that these provisions **do**  
17 apply to such a case.

18  
19 If this is the intent, I strongly object. That opens the door, via sub-item (5) below, to the [cityCity](#) using  
20 activities that are minor and commonplace, but that nevertheless require development proposals (itself  
21 an issue), as leverage to impose increased buffer widths. It also requires, via sub-item (10), a habitat  
22 management plan, critical areas study, and/or alteration plan, for anything that involves removal of any  
23 native vegetation or woody debris from the stream buffer no matter how far away from the stream. Both  
24 are unreasonable in the context of developed neighborhoods and should not be enabled by the  
25 ambiguity now present in the code.

26  
27 This section should only apply to new development, and that should be made clear.

28 Text for Buffer Delineation

29 (n) Buffer Delineation. As an alternative to the Standard Buffer Widths defined in (1) above, a buffer  
30 may be located by analysis of the actual range of influence on the [“wetland” or “stream”] from  
31 proposed or existing developments or uses given features and conditions present in the vicinity of the  
32 [wetland or stream]. Such analysis will be performed by qualified, licensed professionals based on site  
33 inspection and the application of hydrological, geotechnical, and biological science. The analysis shall  
34 delineate a buffer boundary of varying width that constitutes the distance beyond which the proposed  
35 or existing developments or uses will have no appreciable effect on the [wetland or stream] and  
36 associated habitat.

37  
38 Factors to be considered in such analysis shall include, but not be limited to, the following:

39  
40 (a) Barriers. Existing natural or man-made structures that constitute barriers to influence on the  
41 [wetland or stream]. Buffers shall not extend across roads or other lawfully established structures or  
42 hardened surfaces, except for hardened surfaces which, due to grade, allow significant sheet flow into  
43 the [wetland or stream].

44  
45 (b) Topography. A change in grade that results in drainage of ground water away from rather than  
46 toward the [wetland or stream].

47  
48 (c) Quality. Environmental value of the [wetland or stream]

49  
50 (d) Adjoining Habitat. Extent of viable habitat in the vicinity of the [wetland or stream]

51  
52 These and any other factors deemed relevant shall be combined to delineate a buffer beyond which  
53 negligible further protection of the [wetland or stream] and associated habitat would be provided.  
54

1 A report of the buffer delineation shall be submitted to the cityCity for review and approval. The report  
2 shall map the location of the buffer boundary on the subject property to within an accuracy of plus or  
3 minus one foot and shall thoroughly describe the basis for that location. Once approved, the resulting  
4 delineation shall be recorded as a notice on title for the subject property as stipulated in 21A.50.180.  
5

#### 6 Fish and wildlife habitat conservation areas and corridors

7  
8 New definition 21A.15.467, Fish and wildlife habitat corridors, prescribes a 200 ft region on either side of  
9 a Type F or Np stream, or a wetland with a high habitat score, as a fish and wildlife habitat corridor.

10  
11 Existing definition 21A.15.468, Fish and wildlife habitat conservation areas, includes fish and wildlife  
12 habitat corridors (item (4)). This implies that any fish and wildlife habitat corridor is by definition a fish  
13 and wildlife habitat conservation area, and thus exists within 200 ft of these two types of critical areas.

14  
15 Section 21A.50.325, Fish and wildlife habitat conservation areas – Development standards, places  
16 various restrictions on these areas, such as requiring “an approved habitat management plan, critical  
17 areas study, and/or alteration plan” for the removal of any native vegetation or woody debris, and gives  
18 “the department” the authority to require **yet additional buffers outside these areas.**

19  
20 So with these provisions a 150 ft stream buffer is subsumed into a 200 ft habitat conservation area plus  
21 some undefined additional buffer width.

22  
23 Section 21A.50.327, Fish and wildlife habitat corridors, requires that for sites that contain Type F or Np  
24 streams, or wetlands with a high habitat score, a fish and wildlife habitat corridor be set aside that is a  
25 minimum of 300 ft wide. The same is true for sites “where development already exists” unless “through  
26 an approved habitat management plan it can be shown that a lesser habitat corridor width supports and  
27 maintains the corridor’s function and value”. Similar restrictions (e.g., on clearing and grading, removal  
28 of woody debris, etc.) apply as for fish and wildlife conservation areas.

29  
30 With the above definitions and code sections, as with stream and wetland buffers, the issue is the failure  
31 of the existing code to adequately distinguish development activities on raw land from reasonable and  
32 commonplace uses of land in established neighborhoods; it does not recognize that just because a  
33 watercourse or wetland may be present in an urban setting there is not necessarily viable habitat or a  
34 route for wildlife travel that comes anywhere close to the sizes presumed in these definitions and code  
35 sections. Both of these sections impose arbitrary restrictions (like a 400 ft band around a Type F  
36 stream) that are even more onerous if applied to developed neighborhoods than are the standard stream  
37 and wetland buffers. The definition of “development” (21A.15.XXX) is broad; it includes “any project of a  
38 permanent or temporary nature exterior to a building”. If the intent is that any “development” triggers the  
39 imposition of these habitat corridors, conservation areas, and further buffers, that it is far overreaching in  
40 the case of developed neighborhoods. Like arbitrary and excessive stream and wetland buffers, it can  
41 restrict human uses for no true environmental gain. And the action of one property owner, if it triggers  
42 the declaration of a fish and wildlife habitat conservation area and/or corridor, can affect numerous other  
43 property owners. That is an invitation for public backlash.

44  
45 If, on the other hand, the intent is that these requirements just apply to new development on raw land,  
46 then the code needs to make that clear; it needs to spell out the distinctions between development and  
47 maintenance in this regard, as it is attempting to do in the rewritten section 21A.50.060 for critical area  
48 buffers and building setbacks.

49  
50 A solution to this problem is imperative, as it is potentially even more unfair to established residents than  
51 arbitrary, one-size-fits-all stream and wetland buffers. We recommend that additional material be added  
52 to 21A.50.060 that makes it clear that the kinds of developments, activities, and uses that are  
53 commonplace in developed urban neighborhoods do **not** cause the declaration of a new fish and wildlife  
54 conservation area or corridor, or the expansion of an existing one. Alternately, text can be added to  
55 21A.50.325 and 21A.50.327 that accomplishes the same purpose.

56  
57 C4S –  
58

1 (Substitute language for pilot program)

2 21A.50.225 Erosion hazards near sensitive water bodies overlay.

3  
4 (5)(c)(ii) Where access to Lake Sammamish is only available via connection to an existing  
5 offsite, manmade conveyance, the applicant shall design a project consistent with the  
6 following:

- 7  
8 (A) The project site must be less than 5 acres in size;
- 9 (B) Permanent stormwater treatment and flow control facilities shall be installed  
10 consistent with current City standards. In addition, these facilities shall remove  
11 60 percent of total phosphorus;
- 12 (C) Stormwater detention shall be enhanced to achieve Level 3 flow control or  
13 equivalent based upon the adopted surface water design manual;
- 14 (D) All treatment and flow control facilities, tightlines, and connections to existing  
15 offsite, manmade conveyances shall be designed by a professional engineer,  
16 using the adopted surface water design manual. The off-site manmade  
17 conveyance shall be evaluated per section 1.2.4.2 of the KCSWDM. A  
18 downstream analysis of all open channel elements of the off-site, manmade  
19 conveyance shall be required. The analysis shall address the entirety of the  
20 conveyance from the project site to Lake Sammamish and shall include a field  
21 inspection, geotechnical review, and quantitative hydraulic analysis. The analysis  
22 shall be subject to a third-party peer review at the applicant's expense. Any  
23 necessary repairs or improvements to the existing offsite, manmade conveyance,  
24 as identified in the downstream analysis, shall be required to ensure that the  
25 conveyance can function properly without creating or exacerbating erosive or  
26 flooding conditions within the conveyance or on other affected areas;
- 27
- 28 (E) Temporary erosion and sediment control improvements, in particular temporary  
29 flow attenuation and active water quality treatment, shall be installed in  
30 accordance with current City standards, subject to the additional provisions of  
31 5(e), below;
- 32 (F) Effective impervious surface coverage on each residential lot shall be limited to a  
33 maximum of 50 percent of the lot area;
- 34 (G) A minimum of 15 percent of the gross project site area shall be retained as open  
35 space. This open space shall be in addition to the open space otherwise required  
36 for recreational use, and shall be established in dedicated tracts that may include  
37 stormwater management facilities;
- 38 (H) In addition to meeting current tree retention standards per SMC  
39 21A.35.210(1)(a), all dedicated open space areas shall be revegetated.  
40 Revegetation shall consist of: native trees (70% evergreen), provided at a rate of  
41 1 per 200 square feet and spaced no more than 40 feet on center; native shrubs,  
42 provided at a rate of 1 per 20 square feet; and groundcover pursuant to SMC  
43 21A.35.080. Revegetation shall apply to disturbed areas not otherwise occupied  
44 by storm water management facilities or recreation area;
- 45 (I) A minimum of 15 percent of each residential lot shall contain drought-tolerant  
46 native plantings; or

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(iii) Where direct access to LakeSammamish is not available, the applicant shall design a project consistent with the following:

(A) Net stormwater discharge volume from the site shall be limited to match average annual volume discharged from the pre-developed site conditions existing as of the date of adoption of this ordinance (specify date) as determined using a calibrated continuous simulation hydrologic model based on the EPA’s HSPF program or an approved equivalent model.

(B) Stormwater detention shall be provided to achieve Level 3 flow control or equivalent based upon the adopted surface water design manual.

(C) For projects accessing the lake via an existing offsite, manmade conveyance, this conveyance shall be evaluated per section 1.2.4.2 of the KCSWDM. In addition, a thorough review of all open channel elements will be required and shall include a field inspection, geotechnical review, and quantitative hydraulic analysis. Repairs or improvements to existing deficiencies in the manmade conveyances identified in the study shall be required to ensure the conveyance can function properly without creating or worsening erosive conditions within the conveyance or on other affected areas.

(5)(e)(iv)

(A) Water quality treatment facilities shall be sized to treat runoff generated by cleared areas during a X 50 year storm event and release treated runoff with a measured turbidity of no more than 20 25 NTU.

