

1 **Planning Commission Recommended Draft – February 12, 2013**

2 **RECOMMENDED DRAFT**

3 **Chapter 21A.50**
4 **ENVIRONMENTALLY CRITICAL AREAS**

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17 **21A.50.010 Purpose.**

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

- 22 (1) Establishing development standards to protect defined critical areas;
- 23 (2) Protecting members of the public and public resources and facilities from injury, loss of life, property
24 damage or financial loss due to flooding, erosion, landslides, seismic events, soil subsidence or steep slope
25 failures;
- 26 (3) Protecting unique, fragile, and valuable elements of the environment including, but not limited to, wildlife
27 and its habitat;
- 28 (4) Requiring mitigation of unavoidable impacts on environmentally critical areas by regulating alterations in
29 or near critical areas;
- 30 (5) Preventing cumulative adverse environmental impacts on water availability, water quality, groundwater,
31 wetlands, and streams;
- 32 (6) Measuring the quantity and quality of wetland and stream resources and preventing overall net loss of
33 wetland and stream functions and values;
- 34 (7) Protecting the public trust as to navigable waters and aquatic resources;
- 35 (8) Meeting the requirements of the National Flood Insurance Program and maintaining the City as an eligible
36 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 shall confirm that an emergency exists
12 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

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

4 **21A.50.060 Allowances for Existing Urban Development and Other Uses** ~~Partial exemptions — Critical areas.~~

Comment [EM1]: 2-14c, 5-1, & 5-20

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

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

14 (2) Modifications of Existing Improvements. Addition, expansion, reconstruction or revision of existing
15 building(s) or other structures is subject to the following:

16 a) Modification or replacement. Structural modification or replacement of legally established
17 structures that do not meet the building setback or buffer requirements for wetlands, streams, Fish
18 and Wildlife Habitat Conservation Area, wildlife habitat corridor, or landslide hazard areas is allowed
19 if the modification, replacement or related activity does not increase the existing footprint of the
20 structure lying within the critical area, buffer or building setback area, and there is no increased risk
21 to life or property.

22 b) Expansions. Structural modification of, addition to, or replacement of legally created building(s)
23 and associated impervious surfaces that do not meet the building setback or buffer requirements for
24 wetlands, streams, Fish and Wildlife Habitat Conservation Area, wildlife habitat corridor, or landslide
25 hazard areas are allowed a one-time up to 1,000 square foot increase in the existing total footprint of
26 the building(s) and associated impervious surface areas lying within the buffer or building setback
27 subject to the following:

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

32 2. If the existing legally created building(s) and associated impervious surfaces are
33 located over or within a wetland, stream, Fish and Wildlife Habitat Conservation Area,
34 wildlife habitat corridor, or landslide hazard area, no further expansion within the wetland,
35 stream, Fish and Wildlife Habitat Conservation Area, wildlife habitat corridor, or landslide
36 hazard area is allowed; and

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

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 detached
3 dwelling unit, except as provided under subsection "b." below.

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

9 c. Modifications, additions, or replacements authorized under subsections "a."
10 and "b." above, shall meet the following criteria:

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

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

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

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

19 b) Landscaping features may be revised or replaced with similar features or features with less
20 impact to the critical area or buffer, such that the remaining functions of the critical area and/or
21 buffer are maintained or improved (e.g. plant material replaced with alternate plant material,
22 hardscape replaced with alternate hardscape, hardscape replaced with plant material, etc.); and,

23 c) Revisions authorized under this section shall not require a critical areas study.

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

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

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

34 (5) ~~Select~~ Vegetation Removal Activities.

Comment [EM2]: Item 5-2

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

4 i. The 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;

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

9 v. Appropriate erosion-control measures are used;

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; and

14 vii. Removal of non-native or invasive plants authorized under this subsection shall not require a
15 critical areas study.

16 b) For removal of non-native vegetation in an area greater than 2,500 square feet, a clearing and
17 grading permit is required and must be accompanied by a native plant restoration plan in accordance
18 with applicable provisions of this chapter. A critical areas study may be required by the director.

19
20 (6) Reconstruction, replacement, or expansion of the exterior footprint of an existing, legally established
21 structure not meeting current regulations is allowed; provided, that the addition or reconstruction
22 does not increase the noncompliance to current regulations. A critical areas study may be required
23 by the director.

24 a) Replacement may be allowed in a different location not meeting current regulations if a
25 determination is made by the City that the new location results in less impact to environmental
26 critical area functions and values than replacement in the existing footprint.

27 b) Existing structures that were legally established but which are not meeting current
28 regulations may be maintained, reconstructed, or repaired; provided, that the maintenance /
29 reconstruction / repair does not increase the extent of noncompliance with current regulations by
30 encroaching upon or extending into the environmental critical areas or other area where new
31 construction or use would not be allowed.

32 c) If a structure not meeting current regulations is damaged by fire, explosion, or other casualty
33 and/or natural disaster or is otherwise demolished, it may be reconstructed to match the footprint

1 that existed immediately prior to the time the damage occurred or in accordance with subsection
2 (6)a) of this section; provided, that all of the following criteria are met:

3
4 (i) The owner(s) submit a complete application within 24 months of the date the
5 damage occurred; and

6 (ii) All permits are issued within two years of initial submittal of the complete
7 application, and the restoration is completed within two years of permit issuance. This
8 period may be extended for one additional year by the director if the applicant has
9 submitted the applications necessary to establish the use or activity and has provided written
10 justification for the extension.

11 d) A structure not meeting current regulations that is moved outside the existing footprint must
12 be brought into conformance with this chapter, except as allowed by subsection (6)a) of this section.

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

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

23 (b) Structural modification of, addition to or replacement of legally created single detached residences
24 and improvements constructed on existing associated legally created impervious surfaces in existence
25 before November 27, 1990, which do not meet the building setback or buffer requirements for
26 wetlands, streams, lakes, ponds or landslide hazard areas if the modification, addition, replacement or
27 related activity does not increase the existing total footprint of the residence and associated
28 impervious surface lying within the above-described buffer or building setback area by more than
29 1,000 square feet over that existing before November 27, 1990, and no portion of the modification,
30 addition or replacement is located closer to the critical area or, if the existing residence is in the critical
31 area, extends farther into the critical area.

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

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

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

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

7 (iii) ~~Evergreen blackberry (*R. laciniatus*);~~

8 (iv) ~~Ivy (*Hedera* spp.); and~~

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

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

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

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

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

22 ~~(2) Existing and ongoing agriculture and grazing of livestock is exempt from the provisions of this chapter and~~
23 ~~any administrative rules promulgated thereunder, except for the livestock restriction provisions, SMC~~
24 ~~[21A.50.290](#) and [21A.50.330](#), and any animal density limitations established by law, if the agriculture or~~
25 ~~grazing activity was in existence before November 27, 1990.~~

26 (73) A permit or approval sought as part of a development proposal where previous critical areas review has
27 been completed is exempt from the provisions of this chapter and any administrative rules promulgated
28 thereunder, except for the notice on title provisions, SMC [21A.50.180](#) and [21A.50.190](#), if:

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

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

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

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

6 (e) The prior permit or approval, including any conditions, has been complied with. (Ord. O2009-264 §
7 1 (Att. A); Ord. O2005-193 § 1; Ord. O99-29 § 1)

8 **21A.50.070 Exceptions.**

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

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

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

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

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

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

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

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

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

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

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

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

4 (iv) Any alterations permitted to the critical area or buffer shall be the minimum necessary to
5 allow for reasonable use of the property; and any authorized alteration of a critical area under
6 this subsection shall be subject to conditions established by the department including, but not
7 limited to, mitigation under an approved mitigation plan. (Ord. O2005-193 § 1; Ord. O2005-172
8 § 4; Ord. O99-29 § 1)

9 **21A.50.080 Modification or waiver of sensitive area requirements – Urban lots.**

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

11 **21A.50.090 Critical area maps and inventories.**

12 Not all of the critical areas in the City of Sammamish are fully mapped. Field verification and, if appropriate,
13 evaluation and mapping by a qualified professional of the location of critical areas will be required. The
14 distribution of many environmentally critical areas in the City of Sammamish is displayed in the City's critical
15 areas map folio, as amended. Additionally, the following maps are referenced and/or maintained by the City:

Comment [EM3]: Item 5-4

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

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

20 (c) The wetland management, erosion hazard near sensitive water bodies, critical aquifer recharge
21 area, and lake management special overlay districts are designated on maps maintained by the
22 City of Sammamish Department of Community Development.

23 All maps are deemed advisory with the exception of the Critical Aquifer Recharge Area, Flood Insurance
24 Study for King County, Wetland Management Area and Erosion Hazard Near Sensitive Water Bodies overlay
25 maps. If there is a conflict among the advisory maps, inventory and/or site-specific features, the
26 Department of Community Development shall verify the actual presence or absence of the features
27 defined in this title as environmental critical areas. The determination may be challenged by the property
28 owner pursuant to SMC 21A.05. (Ord. O2005-193 § 1; Ord. O99-29 § 1)

29 **21A.50.100 Disclosure by applicant.**

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

33 (2) If the development proposal site contains or is within a critical area or buffer, the applicant shall submit
34 an affidavit that declares whether the applicant has knowledge of any illegal alteration to any or all critical
35 areas or their buffers on the development proposal site and whether the applicant previously has been found
36 in violation of this chapter, pursuant to SMC Title 23. If the applicant previously has been found in violation,
37

1 the applicant shall declare whether such violation has been corrected to the satisfaction of the City. (Ord.
2 O2005-193 § 1; Ord. O99-29 § 1)

3 **21A.50.110 Critical area review.**

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

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

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

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

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

12 (d) Evaluate the critical areas study and independent peer review, if required; and

Comment [CdS4]: Item 4-10

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

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

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

18 **21A.50.120 Critical areas study requirement.**

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

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

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

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

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

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

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

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

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

10 **21A.50.130 Contents of critical areas study.**

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

Comment [CdS5]: Item 5-6

14 (a) The applicant shall disclose to the City the presence of critical areas on the development
15 proposal site and any mapped or identifiable critical areas within the distance equal to the largest
16 potential required buffer applicable to the development proposal area on the applicant's
17 property. ~~Identification and characterization of all critical areas and buffers within the distance equal~~
18 ~~to the largest potential required buffer that can be reasonably ascertained from the subject~~
19 ~~property;~~

20 (b) Assessment of the impacts or risks ~~of any alteration proposed for~~ to an environmental critical
21 area or buffer;

22 (i) Related to the development proposal and associated alterations to the subject property;
23 assessment of the impacts of any alteration on the development proposal; and

24 (ii) Affecting other properties and environmental critical areas or buffers ~~other properties and~~
25 ~~the environment, and/or assessment of the impacts to the development proposal resulting from~~
26 ~~development near the critical area or buffer;~~

27 (c) A description of efforts made to apply mitigation sequencing pursuant to SMC 21A.50.135 to
28 avoid, minimize and mitigate impacts to environmentally critical areas;

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

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

33 (f) Photographic records of the site both before any alteration;

Comment [EM6]: Item 5-6

1 | (fg) Detailed studies, as required by this chapter, for individual critical areas or as otherwise deemed
2 | necessary for critical areas protection by the director;

3 | (gh) Assessment of potential impacts that may occur downstream or downhill from the
4 | development site, such as sedimentation or erosion, **where applicable**;

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

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

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

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

14 | **21A.50.135 Avoiding impacts to critical areas.**

15 | (1) **Except as otherwise provided in SMC 21A.50.060.** An applicant for a development proposal, activity, or
16 | alteration shall document the consideration **of** and subsequently shall implement the following sequential
17 | measures, which appear in order of preference, to avoid, minimize, and mitigate impacts to environmentally
18 | critical areas and associated buffers:

19 | (a) Avoiding the impact or hazard by not taking a certain action, or redesigning the proposal to
20 | eliminate the impact. The applicant shall consider reasonable, affirmative steps and make best
21 | efforts to avoid critical area impacts. However, avoidance shall not be construed to mean
22 | mandatory withdrawal or denial of the development proposal or activity if the proposal or activity is
23 | an allowed, permitted, conditional, or special use in the SMC. In determining the extent to which the
24 | proposal should be redesigned to avoid the impact, the department may consider the purpose,
25 | effectiveness, engineering feasibility, commercial availability of technology, best management
26 | practices, safety and cost of the proposal and identified modifications to the proposal.

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

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

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

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

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

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

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

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

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

15 **21A.50.140 Mitigation, maintenance, monitoring and contingency.**

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

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

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

24 (4) The city may approve off-site mitigation if an applicant demonstrates that:

25 (a) It is not feasible to mitigate on the development proposal site; and

26 (b) The off-site mitigation will achieve equivalent or greater hydrological, water quality and wetland
27 or aquatic area habitat functions.

28 (5) When off-site mitigation is authorized, the city shall give priority to locations in the following order of
29 preference:

30 (a) Within the same drainage subbasin; and

31 (b) Within the city limits;

Comment [EM7]: Item 2-8 & 3-3

1 (c) Within the boundaries of an approved fee-in-lieu mitigation program.

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

6 **21A.50.145 Mitigation plan requirements.**

7 When mitigation is required, the applicant shall submit, for approval by the City of Sammamish, a mitigation
8 plan as part of, or in addition to, the critical areas study. The mitigation plan shall include, or be accompanied
9 by a report with, the following information, as determined to be applicable by the director:

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

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

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

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

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

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

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

27 (b) Grading and excavation details;

28 (c) Erosion and sediment control features;

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

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

31 (7) Monitoring Program. Mitigation plans shall include a program for monitoring construction of the
32 compensation project, and for assessing a completed project. A protocol shall be included that outlines the

1 schedule for site monitoring and how the monitoring data will be evaluated to determine if the performance
2 standards are being met. A monitoring report shall be submitted as needed to document milestones,
3 successes, problems, and contingency actions of the compensation project. The compensation project shall
4 be monitored for a period necessary to establish that performance standards have been met. The monitoring
5 period shall be five years; provided, that the director may approve a greater period when needed to ensure
6 mitigation success or a lesser period for minor mitigation; ~~and~~

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

10 (9) Fee in lieu program. If fee-in lieu mitigation is proposed, a critical areas study shall be supplied that
11 demonstrates how proposed impacts and mitigation meet the requirements of SMC 21A.50.140 and
12 21A.50.310 or 21A.50.350, whichever is applicable, and also the specific requirements of the fee-in-lieu
13 mitigation program to be utilized.

Comment [EM8]: Item 2-8 & 3-3

14 **21A.50.150 Financial guarantees.**

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

17 **21A.50.160 Vegetation management plan.**

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

21 (2) The vegetation management plan shall identify the proposed clearing limits for the project and any areas
22 where vegetation in a critical area or its buffer is proposed to be disturbed.

23 (3) Where clearing includes cutting any merchantable stand of timber, as defined in WAC 222-16-010(28), the
24 vegetation management plan shall include a description of proposed logging practices that demonstrates
25 how all critical areas will be protected in accordance with the provisions of this chapter.

26 (4) Clearing limits as shown on the plan shall be marked in the field in a prominent and durable manner.
27 Proposed methods of field marking shall be reviewed and approved by the City prior to any site alteration.
28 Field marking shall remain in place until the certificate of occupancy or final project approval is granted.

29 (5) The vegetation management plan may be incorporated into a temporary erosion and sediment control
30 plan or landscaping plan where either of these plans is required by other laws or regulations.

31 (6) Submittal requirements for vegetation management plans shall be set forth by the department. (Ord.
32 O2005-193 § 1; Ord. O99-29 § 1)

33 **21A.50.170 Critical area markers, signs and fencing.**

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

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

Comment [CdS9]: Item 5-7

Comment [CdS10]: Item 5-7

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

13 (a) Development proposals for:

14 (i) Plats;

15 (ii) Short plats;

16 (iii) Parks;

17 (iv) Other development proposals, including but not limited to multifamily, mixed use, and
18 commercial development where such fencing is necessary to protect the functions of the
19 critical area.

20 (b) Buffer reductions is employed as part of a development proposal;

21 (c) Buffer averaging is employed as part of a development proposal; and

22 (d) At the director's discretion to protect the values and functions of a critical area.

Comment [CdS11]: Item 5-7

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

26 **21A.50.180 Notice on title.**

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

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

4 **21A.50.190 Critical area tracts and designations on site plans.**

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

- 8 (a) All landslide hazard areas and buffers that are one acre or greater in size;
- 9 (b) All wetlands and buffers;
- 10 (c) All streams and buffers; and
- 11 (d) All fish and wildlife habitat conservation areas and buffers.

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

16 (3) Site plans submitted as part of development proposals for building permits, master plan developments,
17 and clearing and grading permits shall include and delineate all flood hazard areas (if they have been mapped
18 by FEMA ~~or King County~~ or if a critical areas study is required), landslide hazard areas, streams and wetlands,
19 buffers, and building setbacks. If only a part of the development site has been mapped pursuant to SMC
20 [21A.50.130](#)(3), the part of the site that has not been mapped shall be clearly identified and labeled on the
21 site plans. The site plans shall be attached to the notice on title required by SMC [21A.50.180](#). (Ord. O2005-
22 193 § 1; Ord. O99-29 § 1)

23 **21A.50.200 Alteration.**

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

25 **21A.50.210 Building setbacks.**

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

- 28 (1) Landscaping;
- 29 (2) Uncovered decks;
- 30 (3) Building overhangs if such overhangs do not extend more than 18 inches into the setback area;
- 31 (4) Impervious ground surfaces, such as driveways and patios; provided, that such improvements may be
32 subject to special drainage provisions adopted for the various critical areas; and

1 (5) Trails. (Ord. O2009-264 § 1 (Att. A); Ord. O2005-193 § 1; Ord. O2005-172 § 4; Ord. O99-29 § 1)

2 **21A.50.220 Erosion hazard areas – Development standards and permitted alterations.**

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

5 (a) Construction outside of this seasonal development limitation may be authorized if the director
6 determines that the hazard area will not be adversely impacted by the proposed construction work
7 or the applicant demonstrates that erosion hazards will be fully mitigated through a temporary
8 erosion and sediment control management plan that includes:

9 (i) The minimum requirements from the adopted Surface Water Design Manual and Title 13
10 Surface Water Management:

11 (A) Provisions to store site construction runoff and treat runoff sufficiently to
12 meet water quality standards prior to discharge;

13 (B) Daily and post-storm inspections of temporary erosion and sediment control
14 best management practices;

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

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

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

28 (F) A Seasonal Suspension Plan for suspending work until the end of the rainy
29 season if temporary erosion and sediment control measures are found to be
30 inadequate;

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

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

36 (iv) The owner must provide a financial guarantee in accordance with SMC 27A.15
37 specifically to cover all costs of implementing the approved temporary erosion and
38 sediment control plan, monitoring site discharges, permanently stabilizing the site, and

1 restoring any off-site impacts, including materials, labor, and City costs, to be used if
2 the development is stalled or not completed;

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

6 (vi) Preparation of a vegetation management plan by a qualified professional for
7 establishment of permanent vegetation on the site following completion of clearing and
8 grading work.

9 (b) In addition to the requirements of 21A.50.220(1)(a), the director may require a critical
10 areas additional studies of the site hydrology, soils and stormwater retention, and may also require,
11 grading, structural improvements, hydrology, soils and storm water retention studies, erosion
12 control measures, restoration plans, and/or an indemnification/release agreement.

Comment [EM12]: Item 4-1

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

15 (d) Construction activity associated with subdivisions, short subdivisions, and similar projects that
16 drain to Lake Sammamish during the wet season shall provide water quality monitoring reports to
17 the city consistent with SMC 21A.50.225(5)(g), and shall include monitoring of water temperature.

18 (ed) The director may halt wet season construction as necessary to protect the hazard area and/or
19 to prevent downstream impacts.

Comment [CdS13]: Item 4-1

20 (2) All development proposals on sites containing erosion hazard areas shall include a temporary erosion and
21 sediment control plan as specified in section (1)(a) above consistent with this section and other laws and
22 regulations prior to receiving approval. Specific requirements for such plans shall be set forth in the adopted
23 surface water design manual and Title 13 Surface Water Management, or as otherwise specified by the
24 department.

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

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

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

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

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

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

1 (iii) Drainage from the graded area will meet water quality standards to be established by the
2 adopted surface water design manual and Title 13 Surface Water Management.

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

Comment [CdS14]: Item 4-2

10 (5) The use of hazardous substances, pesticides, and fertilizers in erosion hazard areas may be prohibited by
11 the City. (Ord. O2005-193 § 1; Ord. O99-29 § 1)

12 **21A.50.225 Erosion hazards near sensitive water bodies – ~~Special district overlay~~.**

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

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

Comment [EM15]: Re-organization for clarity

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

Comment [EM16]: Item 4-15d

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

Comment [EM17]: Re-organization for clarity

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

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

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

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

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

1 (3) 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 d~~Development 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 environmentally 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 [EM18]: 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, as follows:

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

Comment [EM19]: Item 4-15e

12 (B) No more than ten (10) percent of the gross site area may be covered with impervious
13 surface.

14 (C) Limit stormwater discharge volumes to match average annual volume discharged from
15 the pre-developed forested site conditions as determined using a calibrated
16 continuous simulation hydrologic model based on the EPA's HSPF program or an
17 approved equivalent model. The city may modify these requirements based upon site
18 specific analysis of the feasibility of required improvements, standards and
19 specifications. Such analysis shall include evaluation of site and vicinity soils, hydrology,
20 and other factors, as determined by the City, affecting the successful design of the
21 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.

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 [EM20]: Re-organization for clarity

1 (ae) 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 surface water design manual and Title 13 Surface Water
9 Management,) shall be used to connect each lot to the central drainage system. The following
10 drainage systems shall be evaluated, using the following sequential measures, which appear in order
11 of preference:

12 (i) Infiltration of all site runoff shall be required in granular soils as defined in the adopted
13 surface water design manual and Title 13 Surface Water Management, King County Surface
14 Water Design Manual (KCSWDM);

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

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

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

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

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

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

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

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

13 (fc) For the portions of all subdivisions and short subdivisions that cannot infiltrate runoff up to the
14 100-year peak flow, no more than 35 percent of the gross site area shall be covered by impervious
15 surfaces. For new subdivisions and short subdivisions, maximum lot coverage should be specified for
16 subsequent residential building permits on individual lots.

17 (5) Pilot Program.

Comment [EM22]: Item 4-15d

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

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

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

Comment [EM23]: Item 4-15g

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

1 (ii) Where direct access to Lake Sammamish is not available, the applicant shall design a
2 project consistent with the development standards of Low Impact Development, specifically:

3 (A) Sixty-five (65) percent of the site shall remain as forested open space. Re-
4 vegetation shall be required to convert non-forested open space to forested as
5 part of the project approval.

6 (B) No more than ten (10) percent of the gross site area may be covered with
7 impervious surface.

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

20 (iii) Where access to Lake Sammamish is only available via connection to an existing offsite,
21 manmade conveyance, the applicant shall design a project consistent with the following:

22 (A) The project site must be less than 5 acres in size;

23 (B) Permanent stormwater treatment and flow control facilities shall be installed
24 consistent with current City standards. In addition, these facilities shall remove
25 60 percent of total phosphorus;

26 (C) Stormwater detention shall be enhanced to achieve Level 3 flow control or
27 equivalent based upon the adopted surface water design manual and Title 13
28 Surface Water Management;

29 (D) All treatment and flow control facilities, tightlines, and connections to existing
30 offsite, manmade conveyances shall be designed by a professional engineer,
31 using the adopted surface water design manual. The off-site manmade
32 conveyance shall be evaluated per section 1.2.4.2 (Conveyance Requirements for
33 Existing Systems) of the adopted surface water design manual and Title 13
34 Surface Water Management. A downstream analysis of all open channel
35 elements of the off-site, manmade conveyance shall be required. The analysis
36 shall address the entirety of the conveyance from the project site to Lake
37 Sammamish and shall include a field inspection, geotechnical review, and
38 quantitative hydraulic analysis. The analysis shall be subject to a third-party peer
39 review at the applicant's expense. Any necessary repairs or improvements to the
40 existing offsite, manmade conveyance, as identified in the downstream analysis,
41 shall be required to ensure that the conveyance can function properly without
42 creating or exacerbating erosive or flooding conditions within the conveyance or
43 on other affected areas;

44 (E) Temporary erosion and sediment control improvements, in particular temporary
45 flow attenuation and active water quality treatment, shall be installed in

1 accordance with current City standards, subject to the additional provisions of
2 5(e), below;

3 (F) Effective impervious surface coverage on each residential lot shall be limited to a
4 maximum of 50 percent of the lot area;

5 (G) A minimum of 15 percent of the gross project site area shall be retained as open
6 space. This open space shall be in addition to the open space otherwise required
7 for recreational use, and shall be established in dedicated tracts that may include
8 stormwater management facilities;

9 (H) In addition to meeting current tree retention standards per SMC
10 21A.35.210(1)(a), all dedicated open space areas shall be revegetated.
11 Revegetation shall consist of: native trees (70% evergreen), provided at a rate of
12 1 per 200 square feet and spaced no more than 40 feet on center; native shrubs,
13 provided at a rate of 1 per 20 square feet; and groundcover pursuant to SMC
14 21A.35.080. Revegetation shall apply to disturbed areas not otherwise occupied
15 by storm water management facilities or recreation area;

16 (I) A minimum of 15 percent of each residential lot shall contain drought-tolerant
17 native plantings; and,

18 (J) Each single-family residence developed shall provide roof rainwater harvesting
19 (collection, storage, and distribution) facilities sufficient to flush toilets for a
20 family of four.

21 (d) Pilot Program Administration.

22 (i) Application. Applications for eligible projects meeting the provisions of 5(c) above
23 must be submitted within three calendar years from the effective date of the adoption by
24 ordinance of the Pilot Program on forms provided by the Department.

25 (A) Application for eligible projects shall be accepted in the order received. To
26 qualify for application, an applicant must have a complete application as
27 described in the city's application material and SMC 20.05, and completed any
28 necessary preliminary steps prior to application as set forth in SMC 20.05. The
29 City shall maintain a register of applications submitted after the maximum
30 number of application have been received.

31 (B) In the event that an application for a project accepted into the Pilot Program is
32 withdrawn by the applicant or cancelled by the City prior to the expiration of the
33 Pilot Program, the next submitted application on the register for the same
34 development type shall be accepted into the Pilot Program.

35 (C) The city shall use its authority under SMC 20.05.100 to ensure expeditious
36 processing of subdivision applications. In particular, the director shall set a
37 reasonable deadline for the submittal of corrections, studies, or other
38 information when requested; an extension may be provided based upon a
39 reasonable request. Failure by the applicant to meet a deadline shall be cause
40 for the department to cancel/deny the application.

1 (D) Site development construction shall begin no later than 18 months from the date
2 of preliminary plat approval. The director may authorize a one year extension
3 based upon extenuating circumstances.

4 (ii) Pilot Program Expiration. The Pilot Program shall expire and no further applications
5 shall be accepted after such three year period as established in subsection "(d)(i)" above.
6 Projects for which applications are accepted into the Pilot Program may be reviewed,
7 approved and constructed, under the terms of the Pilot Program, even if such review,
8 approval, or construction occurs after the Pilot Program has expired.

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

12 (i) The development shall comply with the adopted Surface Water Design Manual (KCSWDM)
13 and Title 13 Surface Water Management;

14 (ii) Clearing of the site shall be limited based on the treatment capacity designed into the
15 permanent and temporary water quality treatment systems installed;

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

18 (A) On or after May 1st, site clearing and grading necessary for the installation of
19 permanent and temporary water quality treatment and conveyance may occur.
20 Clearing and grading shall be limited to those portions of a site where such work
21 is necessary to install tight-line stormwater conveyance, permanent and
22 temporary stormwater detention, and/or water quality facilities. For the
23 purposes of temporary erosion and sediment control, the required tightline
24 system may be either a portion of the permanent stormwater conveyance
25 system if feasible, or a temporary tightline system to be replaced by the
26 permanent system as construction progresses;

27 (B) On or after June 1st, development of the site may occur;

28 (C) No later than September 30th, all site clearing and grading activity must be
29 completed and the site fully prepared for winter rains, through techniques such
30 as hydroseeding or stabilization as set forth in an approved Construction Season
31 Work Limit Plan;

32 (D) Seasonal construction limitations may be extended with permission of the
33 director if appropriate erosion control measures and practices are in place and
34 weather patterns permit.

35 (iv) Construction Season Work Limit Implementation. City approval of a temporary
36 erosion and sediment control plan consistent with this section, SMC 21A.50.220, and
37 other laws and regulations is required prior to any site work. The temporary erosion
38 and sediment control plan shall comply with grading limits, shall include Construction

1 Season Work Limits that comply with the construction season limitations, and shall
2 include a Close Out Plan identifying the actions that will be taken to ready the site for
3 winter weather. The Close Out Plan shall include the following:

4 (A) By August 15th City approval of any proposed changes to the Close Out Plan to
5 assure that the site will be prepared for winter weather by September 30th is
6 required.

7 (B) By September 1st review and approval of any revisions to the close out plan is
8 required.

9 (C) By September 15th, city inspection is required of the site to confirm that all
10 mandatory elements of the Close Out Plan are being implemented. Following
11 inspections, the city shall direct the applicant to take any additional actions that
12 are necessary and may order all construction work to be stopped other than
13 work to prepare the site for winter weather.

14 (D) By September 30th all site work to prepare the site for winter weather shall be
15 completed.

16 (E) Seasonal construction limitations may be extended with permission of the
17 director if appropriate erosion control measures and practices are in place and
18 weather patterns permit.

19 (v) Early Installation of Permanent Stormwater Management System. In addition to
20 installation of all required Temporary Sediment and Erosion Control measures, and
21 prior to any grading, other than grading necessary for installation of the stormwater
22 management system, the applicant shall construct the Project's stormwater
23 management systems in accordance with plans approved by the City. Stormwater
24 systems shall include permanent and temporary water quality treatment and
25 detention facilities specified in the latest approved version of the Surface Water
26 Design Manual and the pipes and outlet facilities necessary to convey stormwater to
27 the approved discharge location.

28 (A) Temporary water quality treatment facilities shall be sized to treat runoff
29 generated by cleared areas during the 10 year storm event during May through
30 September and the 25 year storm event for the remainder of the year and
31 release treated runoff with a measured turbidity of no more than 25 NTU.

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

36 (f) Post Development Phosphorous Control. Post development water quality treatment shall be
37 designed to remove, on an annual basis, 60% or more of all new total phosphorous loading
38 resulting from new development and associated storm water discharge.

Comment [EM25]: Item 4-15g

Comment [EM26]: Item 4-15g

1 (g) Monitoring and Reporting on Pilot Program projects. The purpose of collecting monitoring
2 and reporting information on the pilot program projects is to create inform the eventual
3 legislative decision on development in the no-disturbance area. Projects authorized by this
4 pilot program shall collect and report the following:

5 (i) Monitoring Data. Water quality monitoring data collected pursuant to this section shall
6 include the following:

7 (A) Turbidity;

8 (B) Total phosphorous;

9 (C) Total suspended solids;

10 (D) Flow rate; and,

11 (E) Volume.

12 Water quality monitoring data shall be retained by the project applicant for a period of
13 five years after final inspection of the last house built.

14 (ii) Prior to Construction. Prior to any site construction activity, the project applicant shall
15 be responsible for completing visual inspections of the site and downstream properties
16 to identify possible sources of erosion before, during, and after construction to provide a
17 baseline condition for other data collection.

18 (iii) During Construction. During any site construction activity the project applicant shall be
19 responsible for collecting monitoring data in accordance with the frequency established
20 by the NPDES permit at the natural discharge location. Monitoring data shall be
21 collected prior to the start of construction, through the construction period and until the
22 last house has been built on the site.

23 (iv) Following Construction. Following the final inspection of the last house built, the project
24 applicant shall be responsible for collecting monitoring data for five years. Data
25 collection shall occur at a frequency of seven times a year between the months of
26 October and June.

27 (v) Water Quality Reporting. Monitoring data shall be summarized in annual water quality
28 reports submitted to the city. Annual reports shall evaluate the effect on King County
29 water quality data from Lake Sammamish.

30 (vi) Administrative rules. The director is authorized to adopt administrative rules to ensure
31 the successful water quality data collection, monitoring, and reporting to the city.

32 (h) Pilot Program Evaluation. The city shall monitor the pilot program through the annual
33 reports and shall summarize the report findings in a report evaluating how well each project
34 achieved the pilot program's purpose and goals and present the report to the City Council
35 along with a recommended legislative action.

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

38 (h) The director may modify the property-specific development standards required by this section
39 when a critical areas study is conducted by the applicant and approved by the director which
40 demonstrates that the proposed development substantially increases water quality by showing the
41 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. (Ord. O2009-250 § 1; Ord. O2005-193 § 1)~~

21A.50.230 Frequently flooded areas.

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

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

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

Comment [EM27]: Clarification

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

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

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

21A.50.250 Channel relocation and stream meander areas.

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

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

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

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

Comment [CdS28]: Item 4-7

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

1 (ab) For single-family residential building permits only, the City may ~~waive the~~ reduce the scope of
2 the 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 [CdS29]: Item 5-8

4 (2) (b) In addition to the general requirements for critical areas studies that may be required consistent with
5 SMC 21A.50.130, the critical areas study for a landslide hazard area shall include a geotechnical report
6 prepared by a qualified professional consistent with SMC 21A.15.545, unless otherwise approved by the city,
7 which also includes the following:

Comment [EM30]: Item 5-6

Comment [EM31]: Item 5-6

8 (i) A description of the extent and type of vegetative cover;

9 (ii) A description of subsurface conditions based on data from site-specific explorations;

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

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

Comment [CdS32]: Item 4-11

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

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

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

Comment [CdS33]: 4-11

20 (vi) Recommendations for building siting limitations; ~~and~~

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

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

Comment [CdS34]: Item 4-11

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

32 (54) Vegetation on slopes within a landslide hazard area or buffer that has been damaged by human activity
33 or infested by noxious weeds may be replaced with native vegetation pursuant to an enhancement plan

1 approved by the City pursuant to SMC 21A.50.060. The use of hazardous substances, pesticides, and
2 fertilizers in landslide hazard areas and their buffers may be prohibited by the City.

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

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

6 (i) Approved surface water conveyances, as specified in the applicable adopted surface water
7 design manual and Title 13 Surface Water Management, ~~City-adopted storm water~~
8 ~~requirements~~, may be allowed in a landslide hazard area if they are installed in a manner to
9 minimize disturbance to the slope and vegetation;

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

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

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

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

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

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

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

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

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

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 [CdS35]: 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 regulated by the State Department of
5 Ecology.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

8 (d) A spill containment and response plan, when required by subsection (3)(b) of this section, is
9 required to identify equipment and/or structures that could fail and shall include provisions for

10 inspection as required by the applicable state regulations, repair and replacement of structures and
11 equipment that could fail.

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

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

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

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

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

27 (b) Table 21A.50.280b identifies land uses and materials that should be discontinued, removed and
28 decommissioned where existing in Class 1, 2 and 3 CARAs. The City shall require discontinuation,
29 removal and decommissioning of these uses from Class 1, 2 and 3 CARAs at the time of development
30 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)
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	**	**
<u>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.</u>	Prohibited	**	**
<u>Closed loop geothermal / heat exchange wells</u>	allowed subject to compliance with federal and state standards **		**
<u>Closed loop geothermal/heat exchange systems (surface)</u>	allowed subject to compliance with federal and state standards **		**
<u>Open loop geothermal / heat exchange wells</u>	allowed subject to compliance with federal and state		Prohibited

Comment [EM36]: Item 1-1

Comment [EM37]: Item 1-2

Comment [EM38]: Item 1-2

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)
	standards **		
<u>Injection Wells (storm water or reclaimed water)</u>	Prohibited	Prohibited	**
Cemeteries	prohibited	**	**
Wrecking yards	prohibited	prohibited	prohibited
Landfills with hazardous waste, municipal solid waste, or special waste	prohibited	prohibited	prohibited
Dry cleaning using chlorinated solvents	prohibited	prohibited	prohibited
**Best management practices (BMPS) and integrated pest management (IPM), <u>as applicable</u> , are required for these uses.			

Comment [EM39]: Item 1-3

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.

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

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

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

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

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

Comment [EM40]: Item 1-3

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

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

36 (i) Source location of imported fill;

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

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

(f) In Class 1 and 2 CARAs, on lots smaller than one acre, new on-site septic systems are prohibited, 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) Geothermal / heat exchange wells are allowed, subject to city review and approval, provided:

(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)
Category I:	Natural Heritage or bog wetlands	215
	Habitat score 29–36	200
	Habitat score 20–28	150
	Not meeting above criteria	125
Category II:	Habitat score 29–36	150
	Habitat score 20–28	100
	Not meeting above criteria	75
Category III:	Habitat score 20–28	75
	Not meeting above criteria	50
Category IV:		All Land Use Types - 50
Category III and IV:	<u>subject to SMC 21A.50.320</u>	

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

8 (b) In addition to the provisions of SMC 21A.50.060, where a buffer has been previously
9 established on a legally created parcel or tract that was legally established according to the
10 regulations in place at the time of establishment through City or county development review on or
11 after November 27, 1990, and is permanently recorded on title or placed within a separate tract, the
12 buffer shall be remain as previously established, provided it is at least as large as equal to or greater
13 than 50 percent of the current required standard buffer distance for the applicable wetland
14 category.

Comment [EM41]: Item 5-9

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

20 (2) ~~Repealed by Ord. 02009-264. Removal of any native vegetation or woody debris from a wetland or~~
21 ~~wetland buffer may be allowed only as part of an approved alteration. Only native vegetation can be planted~~
22 ~~in wetland or buffer areas, unless the planting is otherwise allowed by SMC 21A.50.060 –Allowance for~~
23 ~~Existing Urban Development and Other Uses.~~

Comment [EM42]: Item 5-3

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

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

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

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

32 (a) It will provide additional protection to wetlands or enhance their functions, as long as the total
33 area contained in the buffer on the development proposal site does not decrease (see also SMC
34 [21A.30.210](#)(5) for buffer compensation requirements for trails);

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

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

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

Comment [CdS43]: Item 5-10

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

Comment [CdS44]: Item 5-11

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

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

15 (a) When a Category 1 or 2 wetland with a habitat score of greater than 29 points (per Washington
16 State Wetland Rating System for Western Washington – Department of Ecology 2009 or as revised) is
17 located within 200 feet of the wetland subject to the increased buffer;

18 (b) Fish and wildlife habitat conservation area and habitat connections are present;

19 (c) Landslide or erosion hazard areas are contiguous to wetlands;

20 (d) Groundwater recharge and discharge areas are at risk;

21 (e) Or to offset buffer impacts, such as trail and utility corridors; and

22 (f) Ecological wetland functions are at risk including, but not limited to the following:

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

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

25 (iii) Sediment removal and erosion control;

26 (iv) Pollutant removal;

27 (v) Large wood debris (LWD) recruitment;

28 (vi) Water temperature;

29 (vii) Wildlife habitat; and

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

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

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

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

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

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

19 (a) ~~Installation of biofiltration/infiltration mechanisms: up to 20 percent reduction in the standard~~
20 ~~buffer width may be allowed for the installation of bioswales, Up to 20 percent reduction in the~~
21 ~~standard buffer width may be allowed if water quality is improved in excess of the requirements of~~
22 ~~the adopted surface water design manual and Title 13 Surface Water Management, through the use~~
23 ~~of created and/or enhanced wetlands, or ponds supplemental to existing storm drainage and water~~
24 ~~quality requirements.~~

25 (b) Removal of existing impervious surfaces:

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

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

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

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

1
2 (i) An undisturbed vegetated buffer of 100 feet is preserved in the remaining buffer width;
3 and,

4
5 (ii) Existing buffer conditions are degraded such that more than 40 percent of the buffer is
6 covered by non-native/invasive plant species and are restored according to a city-approved
7 restoration plan to improve wetland buffer functions; and,

8
9 (iii) Tree or shrub vegetation covers less than 25 percent of the total buffer area and the area
10 will be re-vegetated according to a city-approved restoration plan with trees and shrubs to
11 replace existing reduced and impacted buffer functions; and,

12
13 (iv) The wetland buffer has slopes of less than 25 percent.

14
15 (v) The buffer reduction determination and percentage shall be on a site by site basis based
16 on the applicant's plan and demonstration of improvement to water quality and habitat
17 functions.

Comment [CdS45]: Item 3-10

18
19 (e) If not already required under an existing development proposal, installation of oil/water
20 separators for storm water quality control: up to 10 percent reduction in standard buffer width.

21 (f) Use of pervious material for driveway/road construction: up to 10 percent reduction in standard
22 buffer width.

23 (g) Restoration of on-site buffer and wetland areas, or restoration of off-site buffer and wetland
24 areas within the same sub-basin of the impacted wetland if no on-site restoration is possible:

25 (i) Up to 10 percent reduction in standard buffer width if restoration area is at a 2:1 ratio or
26 greater; or

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

29 (gh) Removal of significant refuse or sources of toxic material: up to 10 percent reduction in
30 standard buffer width.

31 (hi) Percentages listed above may be added together to create a total buffer reduction; provided,
32 that the total reduction does not exceed 50 percent of the standard buffer width.

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

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

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

1 ~~(b) Fencing located not closer to the wetland than the outer wetland buffer edge shall be required. (Ord.~~
2 ~~O2009-264 § 1 (Att. A); Ord. O2005-193 § 1; Ord. O2005-172 § 4; Ord. O99-29 § 1)~~

Comment [CdS46]: Item 5-12

3 **21A.50.300 Wetlands – Permitted alterations.**

4 Alterations to wetlands and wetland buffers are not allowed, except as provided for by complete
5 exemptions, ~~allowances for existing urban development and other uses~~ ~~partial exemptions~~ and exceptions in
6 this chapter or as allowed for by this section.

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

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

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

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

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

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

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

Comment [EM47]: Item 5-15

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

21 (a) The director determines that no reasonable alternative location is available; and

22 (b) The utility corridor meets any additional requirements for installation, replacement of vegetation
23 and maintenance, as needed to mitigate impacts.

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

25 (a) The applicant demonstrates that ~~the sewer lines are~~ ~~location is~~ necessary for gravity flow;

26 (b) The corridor is not located in a wetland or buffer used by species listed as endangered or
27 threatened by the state or federal government or containing critical or outstanding actual habitat
28 for those species or heron rookeries or raptor nesting trees;

29 (c) The corridor alignment including, but not limited to, any allowed maintenance roads follows a
30 path farthest from the wetland edge as feasible;

1 (d) Corridor construction and maintenance protects the wetland and buffer and is aligned to avoid
2 cutting trees greater than 12 inches in diameter at breast height, when possible, and pesticides,
3 herbicides and other hazardous substances are not used;

4 (e) An additional, contiguous and undisturbed buffer, equal in width to the proposed corridor,
5 including any allowed maintenance roads, is provided to protect the wetland;

6 (f) The corridor is revegetated with appropriate native vegetation at preconstruction densities or
7 greater immediately upon completion of construction or as soon thereafter as possible, and the
8 sewer utility ensures that such vegetation survives;

9 (g) Any additional corridor access for maintenance is provided, to the extent possible, at specific
10 points rather than by a parallel road; and

11 (h) The width of any necessary parallel road providing access for maintenance is as small as possible,
12 but not greater than 15 feet; the road is maintained without the use of herbicides, pesticides or
13 other hazardous substances; and the location of the road is contiguous to the utility corridor on the
14 side away from the wetland.

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

16 (7) ~~Where technically feasible, surface water discharge shall be located outside of the wetland and wetland~~
17 ~~buffer. The following surface water management activities and facilities may be allowed in wetlands or their~~
18 ~~buffers only as follows: Where surface water discharge is authorized within a wetland or wetland buffer, the~~
19 ~~following shall apply:~~

Comment [CdS48]: Item 5-13

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

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

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

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

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

32 (i) No reasonable alternative exists; and

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

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

5 (9) A dock, pier, moorage, float, or launch facility may be allowed, subject to the provisions of SMC Title [25](#),
6 if:

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

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

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

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

14 (a) The director determines that:

15 (i) The crossing is identified as a part of a corridor shown in a City-adopted parks or trails plan,
16 park master plan, transportation plan, or comprehensive plan, or otherwise is necessary to
17 connect or construct the road or trail to publicly owned lands, utility corridors, rights-of-way or
18 other public infrastructure, or is required to provide access to property where no other
19 reasonable alternative access is possible; or

20 (ii) The applicant demonstrates that the new crossing creates less overall or less incremental
21 impacts to critical areas and habitat than the use of an existing corridor while still achieving
22 overall project goals and objectives;

23 (b) All crossings avoid or minimize impact to the wetland and provide mitigation for unavoidable
24 impacts through restoration, enhancement or replacement of disturbed areas as described in this
25 chapter and in the SMC;

26 (c) Crossings do not significantly change the overall wetland hydrology;

27 (d) Crossings do not diminish the flood storage capacity of the wetland; and

28 (e) All crossings are constructed during summer low water periods.

29 ~~(11) Reconstruction, Remodeling, or Replacement of Existing Structures. Reconstruction, remodeling, or~~
30 ~~replacement of an existing structure upon another portion of an existing impervious surface that was~~
31 ~~established pursuant to ordinances and regulations in effect at the time may be allowed, provided:~~

1 (a) If within the buffer, the structure is located no closer to the wetland than the existing structure;
2 and

3 (b) The existing impervious surface within the buffer or wetland is not expanded as a result of the
4 reconstruction or replacement.

5 (1~~2~~) Enhancement and Restoration. Wetland enhancement or restoration not associated with any other
6 development proposal may be allowed if accomplished according to a plan for its design, implementation,
7 maintenance and monitoring prepared by and carried out under the direction of a qualified professional.
8 Restoration or enhancement must result in a net improvement to the functions of the wetland system.

9 (1~~2~~) Wetland Restoration Project. A wetland restoration project for habitat enhancement may be allowed if:

10 (a) The restoration is sponsored by a public agency with a mandate to do such work;

11 (b) The restoration is not associated with mitigation of a specific development proposal;

12 (c) The restoration is limited to revegetation of wetlands and their buffers and other specific fish and
13 wildlife habitat improvements that result in a net improvement to the functions of the wetland
14 system;

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

18 (e) The restoration is performed under the direction of a qualified professional. (Ord. O2005-193 §
19 1; Ord. O2005-172 § 4; Ord. O99-29 § 1)

20 **21A.50.310 Wetlands – Mitigation requirements.**

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

23 (1) Equivalent or Greater Biological Functions. Mitigation for alterations to wetland(s) and/or wetland
24 buffer(s) shall achieve equivalent or greater biologic functions and shall be consistent with the Department of
25 Ecology Guidance on Wetland Mitigation in Washington State (2004, Department of Ecology Publication No.
26 04-06-013), or as revised.

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

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

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

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

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

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

8 (ii) Approved fee-in-lieu or mitigation bank program sites within the city limits in accordance
9 with SMC 21A.50.315;

10 (iii) Approved fee-in-lieu or mitigation bank program sites within the WRIA 8 in accordance
11 with SMC 21A.50.315.

Comment [CdS49]: Item 2-8 & 3-3

12
13 (5) Mitigation Timing. Where feasible, mitigation projects shall be completed prior to activities that will
14 disturb wetlands. In all other cases, mitigation shall be completed immediately following disturbance and
15 prior to use or occupancy of the activity or development. Construction of mitigation projects shall be timed
16 to reduce impacts to existing wildlife and flora.

17 (6) Mitigation Ratios.

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

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

22
23 (a) Wetland Mitigation Ratios. The following ratios shall apply to required wetland mitigation. The
24 first number specifies the acreage of replacement wetlands and the second specifies the acreage of
25 wetlands altered.

Comment [EM50]: Item 3-6

26 (i) Permanent Wetland Mitigation. The following ratios of area of mitigation to area of
27 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)
Category I bog	Not allowed	6:1 rehabilitation of a bog	Case-by-case

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

(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:

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

(b) Wetland Buffer Replacement Ratio. Altered wetland buffer area shall be replaced at a minimum ratio of one-to-one, provided that the replacement ratio may be increased at the director's discretion to replace lost functions and values.

Comment [EM51]: Item 3-5

(cb) Increased Replacement Mitigation Ratio. The 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-Mitigation** Ratio. The 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-Mitigation** Ratio. In all cases **of permanent wetland impacts**, a minimum
16 acreage replacement ratio of one to one 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 [CdS52]: Item 5-14

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 approved 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 in the city based upon the following order of preference:
30

Comment [EM53]: Item 2-8 & 3-3

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

6 **21A.50.320 Wetlands – ~~Limited exemption~~ Development Flexibilities.** The following alterations shall be
7 authorized if the City determines that the cumulative impacts do not unduly counteract the purposes of this
8 chapter SMC 21A.50 Environmentally Critical Areas and are mitigated pursuant to an approved mitigation
9 plan.

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

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

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

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

28 (i) The wetland is not adjacent to a riparian area; and

29 (ii) The wetland is not part of a wetland mosaic; and

30 (iii) The wetland does not score 15 points or greater for habitat; and

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

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

Comment [EM54]: Item 3-7 & 3-19e

1 (3) 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:

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 of community 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 may, based upon review and approval of a critical areas special study, modify the
17 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 may require a critical areas study ~~that includes a habitat management plan consistent with the latest~~
29 ~~guidance from the Department of Fish and Wildlife~~. If the habitat conservation area is also classified as a
30 stream, lake, pond or a wetland, then the stream, lake, pond or wetland protection standards shall apply and
31 habitat management shall be addressed as part of the stream, lake, pond or wetland review; provided, that

Comment [EM56]: Item 2-13

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

3 (2) The director may require the following site- and proposal-related information with the critical areas
4 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 may also require the habitat management plan to include an evaluation by the State
16 Department of Fish and Wildlife, local Native American Indian Tribe, or other qualified professional
17 regarding the applicant's analysis and the effectiveness of any proposed mitigating measures or
18 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 [CdS57]: 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 [CdS58]: Item 2-13c

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

4 | (d) In addition to the provisions of SMC 21A.50.060, Removal of any native vegetation or woody
5 | debris from the habitat conservation area may be allowed only as part of an approved habitat
6 | management plan, critical areas study, and/or alteration plan.

Comment [C59]: Item 5-3

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 | (g) 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 | (h) The director shall condition approvals of development activities allowed within or adjacent to a
27 | habitat conservation area or its buffers, as necessary, to minimize or mitigate any potential adverse
28 | 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.

(i) 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.

Comment [EM60]: Item 2-13

~~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, ~~fish 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) In addition to the provisions of SMC 21A.50.060, 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~~

Comment [EM61]: Item 2-13

~~(e)~~ 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

1 ~~(e) The director may modify corridor widths based on supporting conditions from an approved~~
2 ~~habitat management plan.~~

Comment [EM62]: Item 2-13

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

5 (a) Connect isolated critical areas or habitat; and

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

8 ~~(4) The wildlife corridor tract shall be permanently marked consistent with the methods contained in SMC~~
9 ~~21A.50.170. Conservation easements are exempt from the permanent marking requirement.~~

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

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

Comment [CdS63]: Item 5-3

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

Comment [CdS64]: Item 2-13c

25 ~~(89)~~ Wildlife corridors set aside in tracts or conservation easements shall meet the provisions in SMC
26 16.15.120.

27 ~~(910)~~ The permanent open space tract containing the wildlife corridor may be credited toward the other
28 applicable requirements such as surface water management and the recreation space requirement of SMC
29 21A.30.140, provided the proposed uses within the tract are compatible with preserving and enhancing the
30 wildlife habitat value. Restrictions on other uses within the wildlife corridor tract shall be clearly identified in
31 the management plan.

32 ~~(110)~~ Low impact uses and activities which are consistent with the purpose and function of the habitat
33 corridor and do not detract from its integrity may be permitted within the corridor depending on the
34 sensitivity of the habitat area. Examples of uses and activities which may be permitted in appropriate cases
35 include trails that are pervious, viewing platforms, storm water management facilities such as grass-lined

Comment [C65]: Item 2-13

1 swales, utility easements and other similar uses, or activities otherwise described and approved by the
2 Washington Department of Fish and Wildlife and activities; provided, that any impacts to the corridor
3 resulting from such permitted facilities shall be fully mitigated.

4 (1~~2~~) At the discretion of the director, these standards may be waived or reduced for public facilities such as
5 schools, fire stations, parks, and public road projects. (Ord. O2005-193 § 1)

6 **21A.50.330 Streams – Development standards.**

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

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

Stream Type	Standard Buffer Width (ft)
Type S:	150
Type F:	150
Type Np:	75
Type Ns:	50

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

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

Comment [CdS66]: Item 5-9

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

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

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

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

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

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

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

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

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

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

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

22 ~~(a) Critical drainage areas;~~

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

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

26 ~~(d) Groundwater recharge and discharge area;~~

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

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

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

Comment [CdS67]: Item 5-11

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

2 (iii) Sediment removal and erosion control;

3 (iv) Pollutant removal;

4 (v) Large wood debris (LWD) recruitment;

5 (vi) Water temperature;

6 (vii) Wildlife habitat; and

7 (viii) Microclimate.

Comment [CdS68]: Item 2-5

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

Comment [CdS69]: Item 2-4

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

18 (a) ~~Installation of biofiltration/infiltration mechanisms: up to 20 percent reduction in standard buffer~~
19 ~~width for the installation of bioswales, Up to 20 percent reduction in the standard buffer width may~~
20 ~~be allowed if water quality is improved in excess of the requirements of the adopted surface water~~
21 ~~design manual and Title 13 Surface Water Management, through the use of~~ created and/or
22 enhanced wetlands, or ponds supplemental to existing storm drainage and water quality
23 requirements.

24 (b) Removal of existing impervious surfaces:

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

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

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

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

3 (i) An undisturbed vegetated buffer is preserved in the remaining buffer width; and,
4

5
6 (ii) Existing buffer conditions are degraded such that more than 40 percent of the buffer is
7 covered by non-native/invasive plant species and are restored according to a city-approved
8 restoration plan to improve wetland buffer functions; and,
9

10 (iii) Tree or shrub vegetation covers less than 25 percent of the total buffer area the area will
11 be re-vegetated according to a city-approved restoration plan with trees and shrubs to
12 replace impacted buffer functions; and,
13

14 (iv) The stream buffer has slopes of less than 25 percent.
15

16 (v) The buffer reduction determination and percentage shall be on a site by site basis based
17 on the applicant's plan and demonstration of improvement to water quality and habitat
18 functions.

19 ~~(ed)~~ In-stream habitat enhancement:

20 (i) Up to 20 percent reduction in standard buffer width for log structure placement,
21 bioengineered bank stabilization, or culvert removal; or

22 (ii) Up to 30 percent reduction in standard buffer width for improving fish passage and/or
23 creation of side channel or backwater areas.

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

26 ~~(gf)~~ Use of pervious material for driveway/road construction: up to 10 percent reduction in standard
27 buffer width.

28 ~~(hg)~~ Restoration of on-site buffer and habitat areas, or restoration of off-site buffer and habitat
29 areas within the same sub-basin of the impacted stream if no on-site restoration is possible:

30 (i) Up to 10 percent reduction in standard buffer width if restoration area is at a 2:1 ratio or
31 greater; or

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

34 ~~(ih)~~ Removal of significant refuse or sources of toxic material: up to 10 percent reduction in standard
35 buffer width.

36 ~~(7g)~~ The use of hazardous substances, pesticides and fertilizers in the stream corridor and its buffer may be
37 prohibited by the City.

1 (89) ~~The introduction of livestock into a stream or stream buffer is prohibited. The livestock restrictions in~~
2 ~~SMC 21A.50.290 shall also apply to Type S and F streams and their buffers. (Ord. O2005-193 § 1; Ord. O2005-~~
3 ~~172 § 4; Ord. O99-29 § 1)~~

Comment [CdS70]: Item 5-12

4 (10) ~~in addition to the provisions of SMC 21A.50.060, Removal of any native vegetation or woody debris~~
5 ~~from the stream or stream buffer may be allowed only as part of an approved habitat management plan,~~
6 ~~critical areas study, and/or alteration plan.~~

Comment [C71]: Item 5-3

7 **21A.50.340 Streams – Permitted alterations.**

8 Alterations to streams and stream buffers are not allowed except as provided for by complete exemptions,
9 ~~allowances for existing urban development and other uses, partial exemptions~~ and exceptions in this chapter
10 or as allowed for by this section.

11 (1) Alterations may only be permitted if based upon a critical areas study conducted in accordance with SMC
12 21A.50.130 that determines the proposed development will:

- 13 (a) Protect, restore or enhance the habitat, natural drainage, or other valuable functions of the
14 stream resulting in a net improvement to the stream and stream buffer;
- 15 (b) Design, implement, maintain and monitor a restoration or enhancement plan prepared by a
16 qualified professional;
- 17 (c) Perform the restoration or enhancement under the direction of a qualified professional; and
- 18 (d) Will otherwise be consistent with the purposes of this chapter.

19 (2) The applicant shall notify affected communities and native tribes of proposed alterations prior to any
20 alteration if a stream is in a flood hazard area and shall submit evidence of such notification to the Federal
21 Insurance Administration.

22 (343) There shall be no introduction of any plant or wildlife which is not indigenous to the coastal region of
23 the Pacific Northwest into any stream or buffer unless ~~required-authorized~~ by a state or federal permit or
24 approval ~~or as otherwise allowed by SMC 21A.50.060 – Allowance for Existing Urban Development and Other~~
25 ~~Uses.~~

26 (45) Utilities may be allowed in stream buffers if:

- 27 (a) No reasonable alternative location is available;
- 28 (b) The utility corridor meets any additional requirements for installation, replacement of vegetation
29 and maintenance, as needed to mitigate impacts;
- 30 (c) The requirements for sewer utility corridors in SMC 21A.50.300 shall also apply to streams; and
- 31 (d) Joint use of an approved sewer utility corridor by other utilities may be allowed.

1 (56) Where technically feasible, surface water discharge shall be located outside of the stream and stream
2 buffer. If surface water discharge to a stream or stream buffer is unavoidable, the following management
3 activities and provisions shall apply:

Comment [CdS72]: Item 5-13

4 ~~The following surface water management activities and facilities may be allowed in stream buffers as follows:~~

5 (a) Surface water discharge to a stream from a flow control or water quality treatment facility,
6 sediment pond or other surface water management activity or facility may be allowed if the
7 discharge is in compliance with the applicable City-adopted storm water requirements.

8 (b) A Type ~~Np or~~ Ns stream buffer may be used as a regional storm water management facility if:

9 (i) A public agency and utility exception is granted pursuant to SMC [21A.50.070](#);

10 (ii) All requirements of the applicable City-adopted storm water requirements are met;

11 (iii) The use will not lower the rating or alter the factors used in rating the stream; and

12 (iv) There are no significant adverse impacts to the stream or habitat.

13 (67) Except as provided in subsection (7) of this section, public and private trails may be allowed in stream
14 buffers consistent with the standards and requirements in this chapter, the development standards in
15 Chapter [21A.30](#) SMC, and requirements elsewhere in the SMC. Proposals for constructing viewing platforms,
16 associated access trails, and spur trails must be reviewed by a qualified professional and a critical areas study
17 may be required.

18 (78) Crossings. The use of existing crossings, including but not limited to utility corridors, road and railroad
19 rights-of-way, across streams or buffers for public or private trails is preferred to new crossings, subject to
20 the standards and requirements in the SMC. New stream crossings may be allowed and may encroach on the
21 otherwise required stream buffer if:

22 (a) Bridges, bottomless culverts or other appropriate methods demonstrated to provide fisheries
23 protection shall be used for stream crossings and the applicant shall demonstrate that such methods
24 and their implementation will pose no harm to the stream habitat or inhibit migration of
25 anadromous fish;

26 (b) All crossings are constructed during the summer low flow and are timed to avoid stream
27 disturbance during periods when use is critical to resident or anadromous fish including salmonids;

28 (c) Crossings do not occur over spawning areas used by resident or anadromous fish including
29 salmonids unless the City determines that no other reasonable crossing site exists;

30 (d) Bridge piers or abutments are not placed within the FEMA floodway or the ordinary high water
31 mark;

32 (e) Crossings do not diminish the flood-carrying capacity of the stream;

1 (f) Underground utility crossings are laterally drilled and located at a depth of four feet below the
2 maximum depth of scour for the base flood predicted by a civil engineer licensed by the state of
3 Washington. Temporary bore pits to perform such crossings may be permitted within the stream
4 buffer established in SMC [21A.50.330](#). Crossing of Type Ns streams when dry may be made with
5 open cuts; and

6 (g) Trail crossings shall use bridges and boardwalks consistent with the design requirements of the
7 Washington Department of Fish and Wildlife [WDFW, 2003, Design of Road Culverts for Fish Passage
8 as amended]; and

Comment [EM73]: Item 2-3

9 (h)(e) The number of crossings is minimized and consolidated to serve multiple purposes and
10 properties whenever possible.

11 (89) Relocations. Stream relocations may be allowed only for:

12 (a) Type F, Np, and Ns streams as part of a public road, trail, or park project for which a public
13 agency and utility exception is granted pursuant to SMC [21A.50.050](#); and

14 (b) Type E, Np and Ns streams for the purpose of enhancing resources in the stream if:

Comment [EM74]: Item 2-6

15 (i) Appropriate floodplain protection measures are used; and

16 (ii) The relocation occurs on-site, except that relocation off-site may be allowed if the applicant
17 demonstrates that any on-site relocation is impracticable, the applicant provides all necessary
18 easements and waivers from affected property owners and the off-site location is in the same
19 drainage sub-basin as the original stream.

20 (910) For any relocation allowed by this section, the applicant shall demonstrate, based on information
21 provided by qualified professionals, including a civil engineer and a biologist, that:

22 (a) The equivalent base flood storage volume and function will be maintained;

23 (b) There will be no adverse impact to local groundwater;

24 (c) There will be no increase in velocity;

25 (d) There will be no interbasin transfer of water;

26 (e) There will be no increase in sediment load;

27 (f) Requirements set out in the mitigation plan are met;

28 (g) The relocation conforms to other applicable laws; and

29 (h) All work will be carried out under the direct supervision of a qualified biologist.

30 (1011) A stream channel may be stabilized if:

1 (a) Movement of the stream channel threatens existing residential or commercial structures, public
2 facilities or improvements, unique natural resources or the only existing access to property;

3 (b) The stabilization is done in compliance with the requirements of SMC [21A.50.230](#); and

4 (c) Soft-bank stabilization techniques are utilized unless the applicant demonstrates that soft-bank
5 techniques are not a reasonable alternative due to site-specific soil, geologic and/or hydrologic
6 conditions.

7 ~~(1412)~~ Replacement of existing culverts to enhance stream habitat, not associated with any other
8 development proposal, may be allowed if accomplished according to a plan for its design, implementation,
9 maintenance, and monitoring prepared by qualified professionals, including a civil engineer and a biologist,
10 and carried out under the direction of a qualified biologist.

11 ~~(1213)~~ Stream and habitat restoration or enhancement may be allowed if:

12 (a) The restoration is sponsored ~~or approved~~ by a public agency with a mandate to do such work;

Comment [CdS75]: Item 5-16

13 (b) The restoration is unassociated with mitigation of a specific development proposal;

14 (c) The restoration is limited to placement of rock weirs, log controls, spawning gravel, and other
15 specific habitat improvements for resident or anadromous fish including salmonids;

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

19 (e) The restoration is performed under the direction of qualified professionals; ~~and,~~

20 ~~(f) The restoration is part of a relocation plan consistent with 21A.50.340;~~

Comment [EM76]: Item 2-6

21 ~~(1314)~~ Roadside ditches that carry streams with salmonids may be maintained through the use of best
22 management practices developed in consultation with relevant City, state, and federal agencies.

23 ~~(1415) Reconstruction, remodeling, or replacement of an existing structure upon another portion of an
24 existing impervious surface that was established pursuant to City ordinances and regulations may be allowed,
25 provided:~~

26 ~~(a) If within the buffer, the structure is located no closer to the stream than the existing structure;
27 and~~

28 ~~(b) The existing impervious surface within the buffer or stream is not expanded as a result of the
29 reconstruction or replacement. (Ord. O2005-193 § 1; Ord. O2005-172 § 4; Ord. O99-29 § 1)~~

30 **21A.50.350 Streams – Mitigation requirements.**

1 When mitigation for stream or stream buffer impacts is required, mitigation shall meet the requirements
2 listed in SMC [21A.50.145](#) in addition to the following supplementary requirements:

3 (1) Equivalent or Greater Functions. Mitigation for alterations to stream(s) and/or stream buffer(s) shall
4 achieve equivalent or greater functions including, but not limited to:

5 (a) Habitat complexity, connectivity, and other biological functions;

6 (b) Seasonal hydrological dynamics, water storage capacity and water quality; and

7 (c) Geomorphic and habitat processes and functions.

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

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

13 (b) Off-site mitigation has a greater likelihood of providing equal or improved functions than the
14 impacted stream; and

15 (c) Off-site locations ~~shall have been identified and evaluated in the following order of preference:~~

16 (i) Approved fee-in-lieu or mitigation bank program sites within the city limits in accordance
17 with the provisions of this section;

18 (ii) Approved fee-in-lieu or mitigation bank program sites within the WRIA 8 in accordance with
19 the provisions of this section. ~~be in the same sub-basin.~~

20 (3) Fee-In-Lieu Stream Mitigation Program. Fee-in-lieu mitigation may be authorized for streams, subject to
21 the avoidance sequence requirements– and mitigation measures of this title, and the approval of a program
22 by the city, to be used in the following order of preference:

23 (a) A city approved program that utilizes receiving mitigation sites within the city of Sammamish.

24 (b) The King County Mitigation Reserves Program, or other approved program that gives priority to
25 sites within the same sub-basin and/or a pre-defined service area that includes the city of
26 Sammamish.

27

28 (3) Mitigation Timing. Where feasible, mitigation projects shall be completed prior to activities that will
29 disturb streams. In all other cases, mitigation shall be completed immediately following disturbance and prior
30 to use or occupancy of the activity or development. Construction of mitigation projects shall be timed to
31 reduce impacts to existing wildlife and flora.

1 (4) Restoration Required. Restoration shall be required when a stream or its buffer is altered in violation of
2 law or without any specific permission or approval by the City. A mitigation plan for restoration shall conform
3 to the requirements of this chapter and demonstrate that:

4 (a) The restoration will reliably and demonstrably improve the water quality and fish and wildlife
5 habitat of the stream; ~~and~~

6 (b) The restoration will have no lasting significant adverse impact on any stream functions; ~~and~~

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

Comment [CdS77]: Item 5-14

9 (5) Surface water management or flood control alterations shall not be considered enhancement unless
10 other functions are simultaneously improved. (Ord. O2005-193 § 1; Ord. O2005-172 § 4; Ord. O99-29 § 1)

11 ~~**21A.50.351 Ponds — Development standards.**~~

12 ~~(1) Naturally Occurring Ponds — New Residence Setback and Tree Retention.~~

13 ~~(a) A 50-foot building setback for new residences shall be established from the ordinary high water~~
14 ~~mark (OHWM) for naturally occurring ponds that are not otherwise regulated by the Sammamish~~
15 ~~shoreline master program.~~

16 ~~(b) On lots abutting a pond or containing the 50-foot setback area, 25 percent of existing significant~~
17 ~~trees shall be retained on site. Half of the significant trees to be retained shall be located within the~~
18 ~~50-foot building setback area. Where half of the trees to be retained are not present within the~~
19 ~~setback area, the remaining number may be retained elsewhere on site. (Ord. O2009-264 § 1 (Att.~~
20 ~~A); Ord. O2005-193 § 1)~~

Comment [CdS78]: Item 5-17

21 **21A.50.352 Lake Sammamish buffer – Permitted alterations.**

22 *Repealed by Ord. O2009-264.* (Ord. O2005-193 § 1)

23 **21A.50.355 Lake management areas – Special district overlay.**

24 (1) The purpose of lake management areas is to designate the Beaver Lake and Pine Lake watersheds as
25 special management areas for total phosphorus loading control and to establish standard procedures for
26 evaluating drainage plans and related materials for applications of development within the Beaver Lake and
27 Pine Lake Watersheds (within the East Lake Sammamish drainage basin).

28 (2) The lake management areas special overlay district shall be designated on critical areas maps maintained
29 by the department of community development.

30 ~~(3) Definitions. In addition to the definitions listed below, all definitions included in the King County Surface~~
31 ~~Water Design Manual are hereby adopted by reference.~~

32 ~~(a) “AKART” means all known, available, and reasonable methods of prevention, control, and~~
33 ~~treatment.~~

1 (b) "Eutrophic" means a trophic status characterized by moderately high algal productivity, more
2 serious oxygen depletion in the bottom waters, some recreational use impairment, summer
3 chlorophyll a concentration greater than 10 micrograms/liter, a summer Secchi depth of less than
4 two meters, and a winter total phosphorus concentration greater than 20 micrograms/liter.

5 (c) "Hypereutrophic" means a trophic status characterized by high algal productivity, intense algal
6 blooms, fish kills due to oxygen depletion in the bottom waters, frequent recreational use
7 impairment, summer chlorophyll a concentration greater than 10 micrograms/liter, a summer
8 Secchi depth generally less than two meters, and a winter total phosphorus concentration greater
9 than 30 micrograms/liter.

10 (d) "Lake management plan" means the plan (and supporting documents as appropriate) describing
11 the lake management recommendations and requirements.

12 (e) "Mesotrophic" means a trophic status characterized by moderate algal productivity, oxygen
13 depletion in the bottom waters, usually no recreational use impairment, summer chlorophyll a
14 concentration averaging four to 10 micrograms/liter, a summer Secchi depth of two to five meters,
15 and a winter total phosphorus concentration ranging from 10 to 20 micrograms/liter.

16 (f) "Oligotrophic" means a trophic status characterized by low algal productivity, algal blooms are
17 rare, water clarity is high, all recreational uses unimpaired, summer chlorophyll a concentration
18 average less than four micrograms/liter, a summer Secchi depth greater than five meters, and a
19 winter total phosphorus concentration ranging from zero to 10 micrograms/liter.

20 (g) "Phosphorus" means elemental phosphorus and for the purposes of this section shall be
21 measured as total phosphorus.

22 (h) "Phosphorus concentration" means the mass of phosphorus per liquid volume.

23 (i) "Phosphorus loading" means the total mass of phosphorus per time basis.

24 (j) "Total phosphorus" means the phosphorus concentration as determined by a state-certified
25 analytical laboratory using EPA 365.3 or SM 4500 P-B, E or an equivalent method.

26 (k) "Trophic state index" means a classification system which uses algal biomass as the basis for
27 classification which can be independently measured by chlorophyll a, Secchi depth, and total
28 phosphorus concentration.

29 (l) "Trophic status" means a classification which defines lake quality by the degree of biological
30 productivity.

Comment [CdS79]: Item 5-18

31 (43) The Beaver Lake watershed as generally identified in the Beaver Lake management plan, which is
32 available at the City of Sammamish community development department, is a sensitive lake and is hereby
33 designated a critical drainage area. This designation is:

1 (a) Existing whole-lake total phosphorus concentration for the combined Beaver Lake system is 23
2 micrograms/liter. Beaver Lake 1 and Beaver Lake 2, individually, have whole-lake total phosphorus
3 concentrations of 36 (±2) micrograms/liter and 20 (±1) micrograms/liter, respectively;

4 (b) Whole-lake total phosphorus concentration, chlorophyll a, and Secchi depth indicate that the
5 Beaver Lake system is bordering on eutrophic conditions;

6 (c) Modeling of the Beaver Lake system's future trophic status indicates that the lake will become
7 hypereutrophic with a whole-lake total phosphorus concentration predicted to be 36
8 micrograms/liter without additional phosphorus removal via storm water treatment; and

9 (d) Maintaining existing trophic status is a management plan goal. To maintain existing trophic
10 status, an 80 percent total phosphorus annual loading removal goal was established for new
11 impervious surface development prior to storm water discharges to Beaver Lake.

12 (54) The Pine Lake watershed is generally identified in the City of Sammamish comprehensive plan (Figure IV-
13 1 in the comprehensive plan or as updated). All appropriate Beaver Lake specific water quality regulations
14 shall be extended to the Pine Lake drainage basin ~~as well~~.

15 (a) These ~~interim~~ regulations shall only be in effect until such time that a customized Pine Lake
16 water quality strategy is developed and development regulations are adopted based on approved
17 findings of the study.

18 (b) An applicant for development within the Pine Lake drainage basin may apply for a variance from
19 the standards specified in subsection (8) of this section if it can be proven that conditions are clearly
20 different than at Beaver Lake.

21 (65) The standards specified in subsection (8) of this section shall apply to all development proposals located
22 within the Beaver Lake and Pine Lake watersheds which require drainage review as specified in the adopted
23 surface water design manual and Title 13 Surface Water Management, King County Surface Water Design
24 Manual.

25 (76) Development proposals within the Beaver Lake or Pine Lake watersheds may be exempt from
26 management plan requirements if they demonstrate to the satisfaction of the community development
27 department that on-site surface and storm water runoff drainage does not in fact drain into the basin in
28 question.

29 (87) Phosphorous Control Required.

30 (a) Applicability. Unless the conditions identified in subsection (6) of this section are documented to
31 the satisfaction of the department, the following development proposals are subject to the
32 conditions and standards contained subsections 7(b) through 7(d) below:

33 (i) For projects which that create greater than 5,000 square feet of new impervious surface
34 subject to vehicular use in the Beaver Lake or Pine Lake watersheds, the following conditions

Comment [EM80]: Item 3-12

1 shall apply, unless the conditions identified in subsection (6) of this section are documented to
2 the satisfaction of the community development department; or

3 (ii) Projects that create greater than one acre of pollution generating pervious surface, as
4 defined in the adopted surface water design manual and Title 13 Surface Water Management,
5 in the Beaver Lake or Pine Lake watersheds.

Comment [EM81]: Item 3-12

6 (ba) The proposed storm water facilities shall be designed to remove 80 percent of all new total
7 phosphorus loading on an annual basis due to new development (and associated storm water
8 discharges) in the Beaver Lake or Pine Lake watersheds where feasible or utilize AKART if infeasible.

9 (cb) Currently, The AKART standard or interim best management practices for phosphorus-sensitive
10 lakes can be fulfilled by achieving the 50% phosphorous removal standard from the adopted surface
11 water design manual and Title 13 Surface Water Management, together with additional applicant
12 proposed measures:

Comment [EM82]: Item 3-14

13 (i) For all development proposals subject to this section, the applicant shall demonstrate
14 that a reduction of 80% total phosphorous is achievable through the use of engineering design
15 computations.

Comment [EM83]: Item 3-14

16
17 (ii) As the adopted King County Surface Water Design Manual is updated and additional
18 treatment options and designs for total phosphorus removal become available, new treatment
19 systems may be approved by the city if the AKART standard for phosphorus removal can be
20 demonstrated using the Department of Ecology's Technology Assessment Protocol – Ecology
21 (TAPE) protocol).

Comment [EM84]: Item 3-13

22 (iii) Where soils are suitable, on-site infiltration of storm water runoff can be pursued through
23 the variance process as an AKART alternative using methods described in the manual, as well
24 as providing an organic soil layer consistent with the standards of the adopted surface water
25 design manual and Title 13 Surface Water Management.

26 (iv) Development proposals using on-site infiltration, that do not comply with subsection
27 7(c)(iii), shall demonstrate that 80%, or better, phosphorus treatment can be expected with the
28 designed on-site infiltration system, rather than by methods described in subsection (7)(c)(iii)
29 of this section.

30 the following storm water treatment design criteria:

31 (i) A wetpond or combined detention/wetpond with a permanent pool volume equal to four and
32 one half times the volume of runoff from the mean annual storm (VB/VR=4.5).

33 (A) Mandatory roof downspout infiltration, unless shown to be infeasible, and maximization of
34 forest or native vegetation retention.

35 (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
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

1 ~~No. 100 sieve, or (2) 25 percent minimum passes the No. 40 sieve and five percent~~
2 ~~minimum passes the No. 200 sieve; and~~

3 ~~(D) The infiltration rate is 2.4 inches/hour or less.~~

4 ~~Additionally, the proponent must demonstrate that equivalent or better phosphorus~~
5 ~~treatment can be expected with on-site infiltration than by methods described in subsection~~
6 ~~(8) of this section.~~

7 ~~(iv) As the King County Surface Water Design Manual is updated and additional treatment~~
8 ~~options and designs for total phosphorus removal become available, alternative treatment~~
9 ~~systems may be utilized if the AKART standard for phosphorus removal can be demonstrated.~~

10 (de) Hydrologic analysis shall be determined using a continuous hydrologic model such as the
11 Hydrologic Simulation Program – Fortran (HSPF) ~~or~~ the King County Runoff Time Series Program
12 (KCRTS), ~~the Santa Barbara Urban Hydrograph, or the VB/VR~~ methodology. These methodologies
13 may be revised or superseded by other methodologies for achieving the same performance goal as
14 stipulated by future revision to the Surface Water Design Manual. (Ord. O2005-193 § 1)

15 ~~**21A.50.360 Critical areas mitigation fee – Creation of fund.**~~

16 ~~There is hereby created a critical areas mitigation fund. This fund shall be administered by the City's finance~~
17 ~~director. (Ord. O2005-193 § 1; Ord. O99-29 § 1)~~

18 ~~**21A.50.370 Critical areas mitigation fee – Source of funds.**~~

19 ~~All monies received from penalties resulting from the violation of rules and laws regulating development and~~
20 ~~activities within critical areas shall be deposited into the fund. (Ord. O2005-193 § 1; Ord. O99-29 § 1)~~

21 ~~**21A.50.380 Critical areas mitigation fee – Use of funds.**~~

22 ~~Monies from the fund shall only be used for paying the cost of enforcing and implementing critical area laws~~
23 ~~and rules. (Ord. O2005-193 § 1; Ord. O99-29 § 1)~~

24 ~~**21A.50.390 Critical areas mitigation fee – Investment of funds.**~~

25 ~~Monies in the fund not needed for immediate expenditure shall be deposited in a separate investment fund~~
26 ~~pursuant to RCW 36.29.020. The finance director shall be designated as the investment fund director. (Ord.~~
27 ~~O2005-193 § 1; Ord. O99-29 § 1)~~

28 ~~**21A.50.400 Sunset provisions.**~~

29 ~~The provisions contained in SMC 21A.50.290, Wetlands – Development standards, 21A.50.310(6)(a), wetland~~
30 ~~mitigation ratios, and 21A.50.330, Streams – Development standards, shall revert to those in effect prior to~~
31 ~~January 3, 2006, 84 months following the January 3, 2006, effective date of the ordinance codified in this~~
32 ~~chapter unless renewed or revised. (Ord. O2011-315 § 1; Ord. O2009-274 § 1 (Att. A); Ord. O2005-193 § 1)~~
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Chapter 21A.15
TECHNICAL TERMS AND LAND USE DEFINITIONS

Please Note: The city has selected relevant definitions from the definitions section; for brevity, not all definitions are included here. The complete code is available at:
<http://www.codepublishing.com/wa/sammamish/>

21A.15.050 AKART.

"AKART" means all known, available, and reasonable methods of prevention, control, and treatment.

Comment [CdS85]: Item 5-18

21A.15.056 Alteration.

Any human activity that results or is likely to result in an impact upon the existing condition of a critical area is an "alteration" that is subject to specific limitations as specified for each critical area. Alterations include, but are not limited to, grading, filling, dredging, draining, channelizing, applying herbicides or pesticides or any hazardous substance, discharging pollutants, except storm water, grazing domestic animals, paving, constructing, applying gravel, modifying for surface water management purposes, cutting, pruning, topping, trimming, relocating or removing vegetation or any other human activity that results or is likely to result in an impact to existent vegetation, hydrology, fish or wildlife, or fish or wildlife habitat. Alterations do not include walking, fishing, or any other passive recreation or other similar activities. (Ord. O2005-193 § 2; Ord. O2005-172 § 2; Ord. O99-29 § 1. Formerly 21A.50.200)

21A.15.062 Anadromous fish.

"Anadromous fish" are those that live part or the majority of their lives in saltwater, but return to freshwater to spawn. (Ord. O2005-172 § 2)

21A.15.080 Base flood.

"Base flood" means a flood having a one percent chance of being equaled or exceeded in any given year, often referred to as the "100-year flood." (Ord. O2003-132 § 10)

21A.15.085 Base flood elevation.

"Base flood elevation" means the water surface elevation of the base flood in relation to the National Geodetic Vertical Datum of 1929. (Ord. O2003-132 § 10)

21A.15.098 Best available science.

"Best available science" means the process used and information developed consistent with requirements in RCW 36.70A.172 and WAC 365-195-900 through 365-195-925. (Ord. O2005-172 § 2)

21A.15.110 Biologist.

"Biologist" means a person who has earned at least a Bachelor of Science degree in the biological sciences from an accredited college or university or who has equivalent educational training and experience. (Ord. O2003-132 § 10)

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.** "Development" means the construction or exterior expansion of structures or
30 buildings; clearing or grading; paving, landscaping, placing of obstructions; any project of a permanent or
31 temporary nature exterior to a building.

Comment [EM86]: Item 4-15

32 **21A.15.310 Development proposal.**

33 "Development proposal" means any activities requiring a permit or other approval from the City of Sammamish
34 relative to the use or development of land. (Ord. O2003-132 § 10)

35 **21A.15.365 Dwelling unit, single detached.**

1 "Dwelling unit, single detached" means a detached building containing one dwelling unit. (Ord. O2003-132 §
2 10)

3 **21A.15.400 Enhancement.**

4 "Enhancement" means an action that increases the functions and values of a stream, wetland, or other
5 sensitive area or buffer. (Ord. O2003-132 § 10)

6 **21A.15.410 Erosion.**

7 "Erosion" means the process by which soil particles are mobilized and transported by natural agents such as
8 wind, rainsplash, frost action or surface water flow. (Ord. O2003-132 § 10)

9 **21A.15.415 Erosion hazard areas.**

10 "Erosion hazard areas" means those areas in the City underlain by soils that are subject to severe erosion
11 when disturbed. Such soils include, but are not limited to, those classified as having a severe or very severe
12 erosion hazard according to the USDA Soil Conservation Service, the 1973 King County Soils Survey or any
13 subsequent revisions or addition by or to these sources. These soils include the following when they occur on
14 slopes 15 percent or steeper:

15 (1) The Alderwood gravelly sandy loam (AgD);

16 (2) The Alderwood and Kitsap soils (AkF);

17 (3) The Beausite gravelly sandy loam (BeD and BeF);

18 (4) The Everett gravelly sandy loam (EvD);

19 (5) The Kitsap silt loam (KpD);

20 (6) The Ovall gravelly loam (OvD and OvF);

21 (7) The Ragnar fine sandy loam (RaD); and

22 (8) The Ragnar-Indianola Association (RdE). (Ord. O2005-193 § 2; Ord. O2003-132 § 10)

23 **21A.15.4XX Erosion Hazard Near Sensitive Water Body Overlay.** The Erosion Hazard Near Sensitive
24 Water Body overlay means an area within the city where sloped areas posing erosion hazards, or
25 contributing to erosion hazards, that drain directly to lakes or streams of high resource value that are
26 particularly sensitive to the impacts of increased erosion and the resulting sediment loads from
27 development. The department of community development shall maintain a map of the boundaries of the
28 erosion hazard near sensitive water bodies overlay district.

Comment [EM87]: Item 4-15

29
30 The Erosion Hazard Near Sensitive Water Body overlay is divided into two areas:

31 (a) The no-disturbance area. The no-disturbance area shall be established on the sloped portion of the
32 special district overlay to prevent damage from erosion. The upslope boundary of the no-disturbance
33 area lies at the first obvious break in slope from the upland plateau over onto the valley walls. For
34 the purposes of locating the first obvious break in slope, the first obvious break shall generally be
35 located at the top of the erosion hazard area associated with the slope. The downslope boundary of

1 the no-disturbance area is the extent of those areas designated as erosion or landslide hazard areas.
2 The department shall maintain maps, supported by LIDAR (Light Detection and Ranging) data or
3 other suitable technology, of the approximate location of the no-disturbance areas, which shall be
4 subject to field verification for new development proposals.

Comment [EM88]: Item 4-3

5 (b) Properties draining to the no-disturbance area. Properties draining to the no-disturbance area are
6 within the Erosion Hazard near Sensitive Water body overlay that drain to the no-disturbance area.

7 **21A.15.420 Eutrophic.**

8 "Eutrophic" means a trophic status characterized by moderately high algal productivity, more serious oxygen
9 depletion in the bottom waters, some recreational use impairment, summer chlorophyll a concentration greater
10 than 10 micrograms/liter, a summer Secchi depth of less than two meters, and a winter total phosphorus
11 concentration greater than 20 micrograms/liter.

Comment [CdS89]: Item 5-18

12 **21A.15.XXX Feasible.**

13 "Feasible" means that an action, such as a development project, mitigation, or preservation requirement,
14 meets all of the following conditions:

15 (a) The action can be accomplished with technologies and methods that have been used in the past in
16 similar circumstances, or studies or tests have demonstrated in similar circumstances that such
17 approaches are currently available and likely to achieve the intended results;

18 (b) The action provides a reasonable likelihood of achieving its intended purpose; and

19 (c) The action does not physically preclude achieving the project's primary intended legal use. In cases
20 where these guidelines require certain actions unless they are infeasible, the burden of proving
21 infeasibility is on the applicant. In determining an action's infeasibility, the reviewing agency may
22 weigh the action's relative public costs and public benefits, considered in the short- and long-term
23 time frames.

24 **21A.15.467 Fish and wildlife habitat corridors.**

25 "Fish and wildlife habitat corridors" means those corridors set aside and protected for preserving connections
26 between habitats on development proposal sites that contain Type F or Np streams and/or wetlands with a
27 high habitat score greater than or equal to 29 on the Washington State Wetland Rating System for Western
28 Washington (Department of Ecology 2004 or as revised) that are located within 200 feet of an on-site or off-
29 site Type F or Np stream and/or wetland with a high habitat score greater than or equal to 29 on the
30 Washington State Wetland Rating System for Western Washington.

Comment [CdS90]: Item 2-13

32 **21A.15.468 Fish and wildlife habitat conservation areas.**

33 "Fish and wildlife habitat conservation areas" means those areas that are essential for the preservation of
34 critical habitat and species. All areas within the City of Sammamish meeting one or more of the following
35 criteria are designated wildlife habitat conservation areas:

36 (1) Areas with which state or federally designated endangered, threatened, and sensitive species have a
37 primary association.

38 (a) Federally designated endangered and threatened species are those fish and wildlife species
39 identified by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service that are in
40 danger of extinction or are threatened to become endangered. The U.S. Fish and Wildlife Service and
41 the National Marine Fisheries Service should be consulted as necessary for current listing status;

1 (b) State-designated endangered, threatened, and sensitive species are those fish and wildlife species
2 native to the coastal region of the Pacific Northwest identified by the State Department of Fish and
3 Wildlife, that are in danger of extinction, threatened to become endangered, vulnerable, or declining and
4 -are likely to become endangered or threatened in a significant portion of their range within the state
5 without cooperative management or removal of threats. State-designated endangered, threatened, and
6 sensitive species are periodically recorded in WAC 232-12-014 (state endangered species), and WAC
7 232-12-011 (state threatened and sensitive species). The State Department of Fish and Wildlife
8 maintains the most current listing and should be consulted as necessary for current listing status;

9 (2) Streams ~~and, lakes and naturally occurring ponds;~~

10 (3) State natural area preserves and natural resource conservation areas. Natural area preserves and natural
11 resource conservation areas are defined, established, and managed by the State Department of Natural
12 Resources; and

13 (4) ~~Fish and Wildlife habitat corridors as defined in 21A.15.467 for preserving connections between habitats
14 along the designated wildlife habitat network. (Ord. O2005-193 § 2)~~

Comment [EM91]: Item 2-13

15 **21A.15.470 Flood fringe.**

16 "Flood fringe" means that portion of the floodplain outside of the zero-rise floodway that is covered by
17 floodwaters during the base flood, generally associated with standing water rather than rapidly flowing water.
18 (Ord. O2003-132 § 10)

19 **21A.15.475 Flood hazard areas.**

20 "Flood hazard areas" means those areas in the City of Sammamish subject to inundation by the base flood
21 and those areas subject to risk from channel relocation or stream meander including, but not limited to,
22 streams, lakes, wetlands, and closed depressions. (Ord. O2003-132 § 10)

23 **21A.15.480 Flood insurance rate map.**

24 "Flood insurance rate map" means the official map on which the Federal Insurance Administration has
25 delineated some areas of flood hazard. (Ord. O2003-132 § 10)

26 **21A.15.485 Flood insurance study for King County.**

27 "Flood insurance study for King County" means the official report provided by the Federal Insurance
28 Administration that includes flood profiles and the flood insurance rate map. (Ord. O2003-132 § 10)

29 **21A.15.490 Flood protection elevation.**

30 "Flood protection elevation" means an elevation that is one foot above the base flood elevation. (Ord. O2003-
31 132 § 10)

32 **21A.15.495 Floodplain.**

33 "Floodplain" means the total area subject to inundation by the base flood. (Ord. O2003-132 § 10)

34 **21A.15.500 Floodproofing.**

1 "Floodproofing" means adaptations that will make a structure that is below the flood protection elevation
2 substantially impermeable to the passage of water and resistant to hydrostatic and hydrodynamic loads
3 including the impacts of buoyancy. (Ord. O2003-132 § 10)

4 **21A.15.505 Floodway, zero-rise.**

5 "Floodway, zero-rise" means the channel of a stream and that portion of the adjoining floodplain which is
6 necessary to contain and discharge the base flood flow without any measurable increase in flood height. A
7 measurable increase in base flood height means a calculated upward rise in the base flood elevation, equal to
8 or greater than .01 foot, resulting from a comparison of existing conditions and changed conditions directly
9 attributable to development in the floodplain. This definition is broader than that of the FEMA floodway, but
10 always includes the FEMA floodway. The boundaries of the 100-year floodplain, as shown on the flood
11 insurance study for King County, are considered the boundaries of the zero-rise floodway unless otherwise
12 delineated by a sensitive area special study. (Ord. O2003-132 § 10)

13 **21A.15.532 Frequently flooded areas.**

14 "Frequently flooded areas" means those lands in the City in the floodplain subject to a one percent or greater
15 chance of flooding in any given year and those lands that provide important flood storage, conveyance, and
16 attenuation functions, as determined by the City in accordance with WAC 365-190-080(3). Frequently flooded
17 areas perform important hydrologic functions and may present a risk to persons and property. Frequently
18 flooded areas include all areas of special flood hazards within the jurisdiction of the City of Sammamish. (Ord.
19 O2005-193 § 2)

20 **21A.15.545 Geologist.**

21 "Geologist" means a professional geologist who holds a current geologist license from the Washington state
22 Geologist Licensing Board, means a person who has earned at least a Bachelor of Science degree in the
23 geological sciences from an accredited college or university or who has equivalent educational training and at
24 least four years of professional experience. (Ord. O2003-132 § 10)

Comment [CdS92]: Item 4-14

Comment [CdS93]: Item 4-13

25 **21A.15.550 Geotechnical engineer.**

26 "Geotechnical engineer" means a practicing geotechnical/civil engineer licensed as a professional civil
27 engineer by the state of Washington who has at least four years of professional employment as a geotechnical
28 engineer. (Ord. O2003-132 § 10)

29 **21A.15.575 Hypereutrophic.**

30 "Hypereutrophic" means a trophic status characterized by high algal productivity, intense algal blooms, fish
31 kills due to oxygen depletion in the bottom waters, frequent recreational use impairment, summer chlorophyll a
32 concentration greater than 10 micrograms/liter, a summer Secchi depth generally less than two meters, and a
33 winter total phosphorus concentration greater than 30 micrograms/liter.

Comment [CdS94]: Item 5-18

34 **21A.15.620 Lake Management Plan.**

35 "Lake management plan" means the plan (and supporting documents as appropriate) describing the lake
36 management recommendations and requirements.

Comment [CdS95]: Item 5-18

37 **21A.15.670 Landscaping.**

1 "Landscaping" means live vegetative materials required for a development. Said materials provided along the
2 boundaries of a development site are referred to as perimeter landscaping. (Ord. O2003-132 § 10)

3 **21A.15.675 Landslide.**

4 "Landslide" means episodic downslope movement of a mass including, but not limited to, soil, rock or snow.
5 (Ord. O2003-132 § 10)

6 **21A.15.680 Landslide hazard areas.**

7 "Landslide hazard areas" means those areas in the City of Sammamish potentially subject to risk of mass
8 movement due to a combination of geologic, topographic, and hydrologic factors. These areas are typically
9 susceptible to landslides because of a combination of factors including: bedrock, soil, slope gradient, slope
10 aspect, geologic structure, groundwater, or other factors. Landslide hazard areas include the following:

11 (1) Areas of historic failures, such as:

12 (a) Those areas delineated by the U.S. Department of Agriculture's Natural Resources Conservation
13 Service as having a "severe" limitation for building site development;

14 (b) Areas designated as quaternary slumps, earthflows, mudflows, or landslides on maps published by
15 the U.S. Geological Survey or Department of Natural Resources;

16 (2) Areas that have shown movement during the Holocene epoch, from 10,000 years ago to the present, or
17 which are underlain by mass wastage debris from that epoch;

18 (3) Any area with all three of the following characteristics:

19 (a) Slopes steeper than 15 percent; and

20 (b) Hillsides intersecting geologic contacts with a relatively permeable sediment overlying a relatively
21 impermeable sediment or bedrock; and

22 (c) Springs or groundwater seepage;

23 (4) Areas with a slope of 40 percent or steeper and with a vertical relief of 10 or more feet except areas
24 composed of consolidated rock. A slope is delineated by establishing its toe and top, as defined in SMC
25 21A.15.1230, and measured by averaging the inclination over at least 10 feet of vertical relief;

Comment [CdS96]: Item 4-12

26 (5) Slopes that are parallel or subparallel to planes of weakness (such as bedding planes, joint systems, and
27 fault planes) in subsurface materials;

28 (6) Slopes having gradients steeper than 80 percent subject to rock fall during seismic shaking;

29 (7) Areas potentially unstable because of rapid stream incision, stream bank erosion or undercutting by wave
30 action; and

1 (8) Landslide hazard areas do not include those areas composed of slopes greater than 40 percent that were
2 created from a previously non-landslide hazard area through legal grading activity and that are confirmed to be
3 stable by a qualified professional. (Ord. O2005-193 § 2; Ord. O2003-132 § 10)

4 **21A.15.XXX Maintenance.** “Maintenance” means those usual acts to prevent a decline, lapse or cessation
5 from a lawfully established condition or use. Maintenance may include, but is not limited to, pruning, plant
6 material replaced with alternate plant material, hardscape replaced with alternate hardscape, hardscape
7 replaced with plant material.

Comment [EM97]: Item 2-14

8 **21A.15.720 Mesotrophic.**
9 “Mesotrophic” means a trophic status characterized by moderate algal productivity, oxygen depletion in the
10 bottom waters, usually no recreational use impairment, summer chlorophyll a concentration averaging four to
11 10 micrograms/liter, a summer Secchi depth of two to five meters, and a winter total phosphorus concentration
12 ranging from 10 to 20 micrograms/liter.

Comment [CdS98]: Item 5-18

13 **21A.15.XXX Microclimate.** “Microclimate” means a climatic condition in a relatively small area, within a few
14 feet above and below the Earth's surface and within canopies of vegetation. Microclimates are affected by
15 such factors as temperature, humidity, wind and turbulence, dew, frost, heat balance, evaporation, the nature
16 of the soil and vegetation, the local topography, latitude, elevation, and season. Weather and climate are
17 sometimes influenced by microclimatic conditions, especially by variations in surface characteristics.

18 **21A.15.751 Mitigation bank.**

19 “Mitigation bank” means a property that has been protected in perpetuity, and approved by appropriate City,
20 state, and federal agencies expressly for the purpose of providing compensatory mitigation in advance of
21 authorized impacts through restoration, creation, and/or enhancement of wetlands, and in exceptional
22 circumstances, preservation of adjacent wetlands, wetland buffers, and/or other aquatic resources. (Ord.
23 O2003-132 § 10)

24 **21A.15.752 Mitigation banking.**

25 “Mitigation banking” means a system for providing compensatory mitigation in advance of authorized wetland
26 impacts of development in the City in which credits are generated through restoration, creation, and/or
27 enhancement of wetlands, and in exceptional circumstances, preservation of adjacent wetlands, wetland
28 buffers, and/or other aquatic resources. (Ord. O2003-132 § 10)

29 **21A.15.765 Monitoring.**

30 “Monitoring” means evaluating the impacts of development proposals on biologic, hydrologic, and geologic
31 systems and assessing the performance of required mitigation through the collection and analysis of data for
32 the purpose of understanding and documenting changes in natural ecosystems, functions and features
33 including, but not limited to, gathering baseline data. (Ord. O2003-132 § 10)

34 **21A.15.790 Native vegetation.**

35 “Native vegetation” means vegetation comprised of plant species, other than noxious weeds, which are
36 indigenous to the coastal region of the Pacific Northwest and that reasonably could have been expected to
37 naturally occur on the site. (Ord. O2005-193 § 2; Ord. O2003-132 § 10)

1 **21A.15.794 Naturalized species.**

Comment [EM99]: Item 3-20

2 "Naturalized species" means non-native species of vegetation that are adaptable to the climatic conditions of
3 the coastal region of the Pacific Northwest. (Ord. O2011-300 § 1 (Att. A); Ord. O2003-132 § 10. Formerly
4 21A.15.796)

5 **21A.15.795 Naturally occurring ponds.**

6 See "Ponds, naturally occurring," SMC 21A.15.898. (Ord. O2011-300 § 1 (Att. A); Ord. O2005-193 § 2.
7 Formerly 21A.15.796)

Comment [CdS100]: Item 5-17

8 **21A.15.810 Oligotrophic.**

9 "Oligotrophic" means a trophic status characterized by low algal productivity, algal blooms are rare, water
10 clarity is high, all recreational uses unimpaired, summer chlorophyll a concentration average less than four
11 micrograms/liter, a summer Secchi depth greater than five meters, and a winter total phosphorus
12 concentration ranging from zero to 10 micrograms/liter.

Comment [CdS101]: Item 5-18

13 **21A.15.825 Ordinary high water mark.**

14 "Ordinary high water mark" means the mark found by examining the bed and banks of a stream, lake, or tidal
15 water and ascertaining where the presence and action of waters are so common and long maintained in
16 ordinary years as to mark upon the soil a vegetative character distinct from that of the abutting upland. In any
17 area where the ordinary high water mark cannot be found, the line of mean high water shall substitute. In any
18 area where neither can be found, the top of the channel bank shall substitute. In braided channels and alluvial
19 fans, the ordinary high water mark or line of mean high water shall be measured so as to include the entire
20 stream feature. (Ord. O2003-132 § 10)

21 **21A.15.850 Phosphorus.**

22 "Phosphorus" means elemental phosphorus and ~~for the purposes of this section shall be measured as total~~
23 phosphorus.

Comment [CdS102]: Item 5-18

24 **21A.15.855 Phosphorus concentration.**

25 "Phosphorus concentration" means the mass of phosphorus per liquid volume.

Comment [CdS103]: Item 5-18

26 **21A.15.860 Phosphorus loading.**

27 "Phosphorus loading" means the total mass of phosphorus per time basis.

Comment [CdS104]: Item 5-18

28 **21A.15.898 Ponds, naturally occurring.**

Comment [EM105]: Item 3-20

29 "Ponds, naturally occurring" means those surface water bodies under 20 acres and their submerged aquatic
30 beds that provide fish or wildlife habitat, including those manmade ponds intentionally created in order to
31 mitigate critical area impacts. Naturally occurring ponds do not include ponds deliberately designed and
32 created from dry sites for other reasons such as canals, detention facilities, wastewater treatment facilities,
33 farm ponds, temporary construction ponds, and landscape amenities, unless such artificial ponds were
34 intentionally created for mitigation. (Ord. O2005-193 § 2)

35 **21A.15.942 Qualified professional.**

1 "Qualified professional" means a person with experience and training in the applicable field or critical area. A
2 qualified professional must have obtained a B.S. or B.A. or equivalent degree in biology, engineering,
3 environmental studies, fisheries, geomorphology or a related field, and two years of related work experience.

4 (1) A qualified professional for watercourses, wetlands, and wildlife habitat conservation areas must have a
5 degree in biology or a related field and relevant professional experience.

6 (2) A qualified professional for preparing geotechnical reports and geotechnical design recommendations must
7 be a professional geotechnical engineer or geologist licensed in the state of Washington. Identification of
8 geologic hazards may be performed by geologists or other geology professionals with experience identifying
9 geologic hazards.

10 (3) A qualified professional for preparing critical aquifer recharge reports must be a professional
11 hydrogeologist or geologist licensed in the state of Washington.

12 **21A.15.1000 Restoration.**

13 "Restoration" means returning a stream, wetland, other sensitive area or any associated buffer to a state in
14 which its stability and functions approach its unaltered state as closely as possible. (Ord. O2003-132 § 10)

15 **21A.15.XXXX Riparian.**

Comment [EM106]: Item 3-19c

16 "Riparian" means the area adjacent to flowing or standing freshwater aquatic systems. Riparian habitat
17 encompasses the area beginning at the ordinary high water mark and extends to that portion of the terrestrial
18 landscape that is influenced by, or that directly influences, the aquatic ecosystem. In riparian systems, the
19 vegetation, water tables, soils, microclimate, and wildlife inhabitants of terrestrial ecosystems are often
20 influenced by perennial or intermittent water. Simultaneously, adjacent vegetation, nutrient and sediment
21 loading, terrestrial wildlife, as well as organic and inorganic debris influence the biological and physical
22 properties of the aquatic ecosystem. Riparian habitat includes the entire extent of the floodplain and riparian
23 areas of wetlands that are directly connected to stream courses or other freshwater.

24 **21A.15.1015 Salmonid.**

25 "Salmonid" means a member of the fish family Salmonidae, including:

26 (1) Chinook, coho, chum, sockeye and pink salmon;

27 (2) Rainbow, steelhead and cutthroat salmon;

28 (3) Brown trout;

29 (4) Brook and dolly varden char;

30 (5) Kokanee; and

31 (6) Whitefish. (Ord. O2003-132 § 10)

32 **21A.15.1045 Seismic hazard areas.**

Comment [EM107]: Item 1-4

1 “Seismic hazard areas” means those areas mapped as moderate to high and high liquefaction susceptibility
2 and peat deposits on the Liquefaction Susceptibility Map of King County, Washington, Washington Division of
3 Geology and Earth Sciences, OFR 2004-20, Palmer et al., September, 2004 as revised, these areas in the City
4 subject to severe risk of earthquake damage as a result of soil liquefaction in areas underlain by cohesionless
5 soils of low density and usually in association with a shallow groundwater table or of other seismically induced
6 settlement. (Ord. O2003-132 § 10)

7 **21A.15.1070 Setback.**

8 “Setback” means the minimum required distance between a structure and a specified line such as a lot,
9 easement or buffer line that is required to remain free of structures. (Ord. O2003-132 § 10)

10 **21A.15.1230 Steep slope hazard areas.**

11 “Steep slope hazard areas” means those landslide hazard areas in the City on slopes 40 percent or steeper
12 within a vertical elevation change of at least 10 feet. A slope is delineated by establishing its toe and top and is
13 measured by averaging the inclination over at least 10 feet of vertical relief. For the purpose of this definition:

14 (1) The toe of a slope is a distinct topographic break in slope that separates slopes inclined at less than 40
15 percent from slopes 40 percent or steeper. Where no distinct break exists, the toe of a steep slope is the
16 lowermost limit of the area where the ground surface drops 10 feet or more vertically within a horizontal
17 distance of 25 feet; and

18 (2) The top of a slope is a distinct, topographic break in slope that separates slopes inclined at less than 40
19 percent from slopes 40 percent or steeper. Where no distinct break exists, the top of a steep slope is the
20 uppermost limit of the area where the ground surface drops 10 feet or more vertically within a horizontal
21 distance of 25 feet. (Ord. O2005-193 § 2; Ord. O2003-132 § 10)

22 (3) A distinct topographic break occurs when the change in gradient is less than 5 feet vertically within a
23 horizontal distance of 25 feet.

Comment [CdS108]: Item 4-12

24 **21A.15.1235 Stream functions.**

25 “Stream functions” means natural processes performed by streams including functions that are important in
26 facilitating food chain production, providing habitat for nesting, rearing, and resting sites for aquatic, terrestrial,
27 and avian species, maintaining the availability and quality of water, such as purifying water, acting as recharge
28 and discharge areas for groundwater aquifers, moderating surface and storm water flows and maintaining the
29 free flowing conveyance of water, sediments, and other organic matter. (Ord. O2003-132 § 10)

30 **21A.15.1240 Streams.**

31 “Streams” means those areas in the City where surface waters produce a defined channel or bed, not
32 including irrigation ditches, canals, storm or storm water runoff conveyance devices or other entirely artificial
33 watercourses, unless they are used by salmonids or are used to convey streams naturally occurring prior to
34 construction of such watercourses. For the purpose of this definition, a defined channel or bed is an area that
35 demonstrates clear evidence of the passage of water and includes, but is not limited to, bedrock channels,
36 gravel beds, sand and silt beds, and defined-channel swales. The channel or bed need not contain water year-
37 round. For the purpose of defining the following categories of streams, normal rainfall is rainfall that is at or

1 near the mean of the accumulated annual rainfall record, based upon the water year for King County as
2 recorded at the Seattle-Tacoma International Airport.

3 (1) Streams shall be classified according to the following criteria:

4 (a) Type S streams are all streams inventoried as "shorelines of the state" under the City's shoreline
5 master program. No Type S streams have been identified in the City as of September 1, 2005.

6 (b) Type F streams are those streams that are used by salmonids, have the potential to support
7 salmonid uses, or that have been identified as being of special significance. Streams of special
8 significance are those perennial reaches designated by the City based on historic fish presence and/or
9 the probability of restoration of the following:

10 (i) George Davis Creek;

11 (ii) Ebright Creek;

12 (iii) Pine Lake Creek; and

13 (iv) Laughing Jacobs Creek, below Laughing Jacobs Lake.

14 (c) Type Np streams which are perennial during a year of normal rainfall and do not have the potential to
15 be used by salmonids. Type Np streams include the intermittent dry portions of the perennial channel
16 below the uppermost point of perennial flow. If the uppermost point of perennial flow cannot be identified
17 with simple, nontechnical observations, then the point of perennial flow should be determined using the
18 best professional judgment of a qualified professional.

19 (d) Type Ns streams which are seasonal or ephemeral during a year of normal rainfall and do not have
20 the potential to be used by salmonids.

21 (2) For the purposes of this definition, "used by salmonids" and "potential to support salmonid uses" is
22 presumed for:

23 (a) Streams where naturally reoccurring use by salmonid populations has been documented by a
24 government agency;

25 (b) Streams that are fish passable by salmonid populations from Lake Sammamish, as determined by a
26 qualified professional based on review of stream flow, gradient and barriers and criteria for fish
27 passability established by the Washington Department of Fish and Wildlife; and

28 (c) Streams that are planned for restoration in a six-year capital improvement plan adopted by a
29 government agency that will result in a fish passable connection to Lake Sammamish. (Ord. O2005-193
30 § 2; Ord. O2003-132 § 10)

31 **21A.15.1265 Submerged land.**

32 "Submerged land" means any land at or below the ordinary high water mark. (Ord. O2003-132 § 10)

1 **21A.15.1275 Total phosphorus.**

2 "Total phosphorus" means the phosphorus concentration as determined by a state-certified analytical
3 laboratory using EPA 365.3 or SM 4500-P-B, E or an equivalent method.

Comment [CdS109]: Item 5-18

4 **21A.15.1285 Trails.**

5 "Trails" means manmade pathways designed and intended for use by pedestrians, bicyclists, equestrians,
6 and/or recreational users. Trails may be paved or unpaved, and may be intended and constructed for
7 transportation, recreation, and nature contact and enjoyment. Types of trails are described and defined in the
8 park and recreation plan, trails, bikeways and paths plan, or elsewhere in the city comprehensive plan. (Ord.
9 O2005-172 § 2; Ord. O2003-132 § 10)

10 **21A.15.1295 Trophic state index.**

11 "Trophic state index" means a classification system which uses algal biomass as the basis for classification
12 which can be independently measured by chlorophyll a, Secchi depth, and total phosphorus concentration.

Comment [CdS110]: Item 5-18

13 **21A.15.1300 Trophic status.**

14 "Trophic status" means a classification which defines lake quality by the degree of biological productivity.

Comment [CdS111]: Item 5-18

15 ~~**21A.15.1390 Wet meadows, grazed.**~~

16 ~~"Wet meadows, grazed" means palustrine emergent wetlands typically having up to six inches of standing
17 water during the wet season and dominated under normal conditions by meadow emergents such as reed
18 canary grass, spike rushes, bulrushes, sedges and rushes. During the growing season, the soil is often
19 saturated but not covered with water. These meadows have been frequently used for livestock activities. (Ord.
20 O2003-132 § 10)~~

Comment [EM112]: Item 3-20

21 **21A.15.1395 Wetland edge.**

22 "Wetland edge" means the line delineating the outer edge of a wetland, consistent with the Washington State
23 Wetlands and Delineation Manual (1997, as amended). (Ord. O2005-193 § 2; Ord. O2003-132 § 10)

24 ~~**21A.15.1400 Wetland, forested.**~~

25 ~~"Wetland, forested" means a wetland that is characterized by woody vegetation at least 20 feet tall. (Ord.
26 O2003-132 § 10)~~

Comment [EM113]: Item 3-20

27 **21A.15.1405 Wetland functions.**

28 "Wetland functions" means natural processes performed by wetlands including functions that are important in
29 facilitating food chain production, providing habitat for nesting, rearing, and resting sites for aquatic, terrestrial,
30 and avian species, maintaining the availability and quality of water, acting as recharge and discharge areas for
31 groundwater aquifers and moderating surface and storm water flows, as well as performing other functions
32 including, but not limited to, those set forth in 33 CFR 320.4(b)(2), 1988. (Ord. O2003-132 § 10)

33 **21A.15.1410 Wetland, isolated.**

34 "Wetland, isolated" means a wetland that is hydrologically isolated from other wetlands or streams, does not
35 have permanent open water, and is determined to be of low function. (Ord. O2005-193 § 2; Ord. O2003-132 §
36 10)

1 **21A.15.1415 Wetlands.**

2 "Wetlands" are those areas in the City of Sammamish designated in accordance with the federal 1987 Wetland
3 Delineation Manual (Environmental Laboratory, 1987) and the United States Army Corps of Engineers
4 (USACE) Interim Regional Supplement for Western Mountains, Valleys, and Coast Region (USACE,
5 2010), Washington State Wetlands Identification and Delineation Manual (1997, as amended). Wetlands are
6 areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to
7 support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life
8 in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. Wetlands
9 do not include those artificial wetlands intentionally created from nonwetland sites, including, but not limited to,
10 irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities,
11 farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally
12 created as a result of the construction of a road, street, or highway. Wetlands may include those artificial
13 wetlands intentionally created from nonwetland areas to mitigate the conversion of wetlands.

Comment [EM114]: Item 3-1

14 Wetlands shall be rated according to the Washington State Wetland Rating System for Western Washington
15 (Department of Ecology, 2004, or as revised). This document contains the definitions, methods and a rating
16 form for determining the categorization of wetlands described below:

17 (1) Category 1. Category 1 wetlands include those that receive a score of greater than or equal to 70 based on
18 functions, or those that are rated Category 1 based on special characteristics as defined in the rating form.

19 (2) Category 2. Category 2 wetlands include those that receive a score of 51 through 69 based on functions, or
20 those that are rated Category 2 based on special characteristics as defined in the rating form.

21 (3) Category 3. Category 3 wetlands include those that receive a score of 30 through 50 based on functions.

22 (4) Category 4. Category 4 wetlands score less than 30 points based on functions. (Ord. O2005-193 § 2; Ord.
23 O2003-132 § 10)

24
25 **Chapter 21A.70**
26 **NONCONFORMANCE, TEMPORARY USES, AND RE-USE OF FACILITIES**

27 **21A.70.020 Nonconformance – Applicability.**

28 (1) All nonconformances except nonconforming uses and improvements related to the provisions of SMC
29 21A.50, shall be subject to the provisions of this chapter.

Comment [EM115]: Item 2-14

30 (2) The provisions of this chapter do not supersede or relieve a property owner from compliance with:

31 (a) The requirements of the Uniform Building and Fire Codes; or

32 (b) The provisions of this code beyond the specific nonconformance addressed by this chapter. (Ord.
33 O99-29 § 1)