

ORDINANCE
City of Sammamish
Ordinance No.O2005-193

AN ORDINANCE OF THE CITY OF SAMMAMISH, WASHINGTON, PERTAINING TO THE PROTECTION AND REGULATION OF ENVIRONMENTALLY CRITICAL AREAS, AMENDING CHAPTER 21A.50 OF THE SAMMAMISH MUNICIPAL CODE AND AMENDING CHAPTERS 15.10, 16.15, 21A.15, 21A.30, 21A.85 AND 21A.110 OF THE SAMMAMISH MUNICIPAL CODE TO CLARIFY LANGUAGE AND AMEND STANDARDS RELATING TO CRITICAL AREAS.

WHEREAS, the adopted City of Sammamish Comprehensive Land Use Plan supports the protection of environmentally critical areas through the adoption of development regulations; and

WHEREAS, the State Growth Management Act (GMA) includes adopted goals and requirements to guide the development and adoption of comprehensive plans and development regulations for those counties and cities that are required to plan under the Act (RCW36.70A.020); and

WHEREAS; the City has considered those adopted goals and requirements in development of the proposed Sammamish Municipal Code Amendments related to critical areas, and, has considered other state requirements law, rules guidelines, and agency comments; and

WHEREAS, the City researched and assessed the experience of other jurisdictions in regard to standards and requirements for regulating critical areas, undertook an extensive Best Available Science (BAS) review and public process in accordance with the requirements of the GMA, developed Sammamish Municipal Code amendment drafts, prepared environmental documents in accordance with the requirements of the State Environmental Policy Act (SEPA), and held meetings and hearings throughout the code development process; and

WHEREAS, the City has been provided feedback on draft work products and guidance from members of the public, city staff, a Citizen Advisory Committee (CAC), a Technical Advisory Committee (TAC), the Washington State Department of Ecology, other stakeholders and experts, the Sammamish Planning Commission, and elected and appointed officials during the development of the recommended code amendments; and

WHEREAS, in developing this ordinance, the City has followed the GMA's requirements, including to provide "early and continuous public involvement" through a variety of mechanisms described in the public record; and

WHEREAS, the City has followed the State guidelines for the BAS process required by RCW 36.70A.172 and WAC 365-195-900 through 925, employing a variety of mechanisms described in the public record; and

WHEREAS, a notice of intent to adopt the proposed code amendments was sent to the State of Washington Department of Community, Trade and Economic Development and to other State agencies on September 16, 2005, for a 60 day review and comment period in accordance with State law; and

WHEREAS, an environmental review has been conducted in accordance with the requirements of State Environmental Policy Act (SEPA), and a SEPA threshold determination was issued, and published on September 19, 2005, in the King County Journal; and

WHEREAS, a public open house was held on May 24, 2005, a Citizen Advisory Committee and a Technical Advisory Committee held a total of five CAC and three TAC meetings between May 4 and August 10, 2005; and

WHEREAS, the Planning Commission held a total of six public meetings to consider the proposed amendments, in addition to a joint meeting with the City Council on September 6, 2005, and including a public hearing beginning on September 22, 2005 and continuing through Sept 29, October 6, and October 13, 2005, and deliberations on October 13, 20 and 27, 2005; and

WHEREAS, the Planning Commission has provided a recommendation to the City Council related to the proposed amendments; and

WHEREAS, the City Council held a public hearing on the proposed amendments beginning on November 1, 2005, and continuing through November 15, 2005, November 29, 2005, and December 13, 2005, study sessions on November 8 and November 9, 2005, a first reading of the ordinance on November 15, 2005, a second reading on November 29, 2005, a third reading on December 13, 2005 and a fourth reading on December 20, 2005; and

WHEREAS, the City Council has considered the recommendation of the City Planning Commission and the public comments received; and

WHEREAS, the City Council has reviewed and considered a variety of information sources including Best Available Science materials, informational documents in the public record, and public testimony submitted verbally and in writing to the Planning Commission and to the City Council; and

WHEREAS, based upon the foregoing process, the City Council has made the following Findings of Facts and Conclusions:

1. The Growth Management Act requires critical areas to be designated and protected and for cities to include the best available science when developing critical areas regulations. RCW 36.70A.

2. Critical areas include wetlands, fish and wildlife habitat conservation areas, geologically hazardous areas, critical aquifer recharge areas, and frequently flooded areas.
3. The City of Sammamish has within its borders a variety of environmentally sensitive areas that require protection of important functions and values.
4. The proposed requirements for critical areas are sufficient and appropriate to protect the functions and values of those areas consistent with the Growth Management Act.
5. The amendments hereafter set forth address requirements related to development in and near critical areas including critical areas buffers, performance standards, mitigation requirements, exemptions and exceptions.
6. The amendments serve to further implement the Comprehensive Plan, and provide protection for critical areas that is generally consistent with Best Available Science while maintaining development flexibility, and are in the public interest.
7. The critical areas regulations continue to allow for reasonable use of property to ensure that such regulations do not infringe on constitutional private property rights.
8. The public record demonstrates that the amendments were developed through a review of the BAS literature available to the City for review and consideration.
9. The City has followed the GMA's requirements for public involvement and for including and considering BAS in modification of the regulations for critical areas.
10. The public testimony provided to the City included both support for the proposed amendments and suggestions for modifications.
11. Based on the review of the testimony and public record, the amendments attached to this ordinance reflect the City's requirement to protect critical areas and to consider the planning goals of the GMA, while recognizing public and private interests: and

NOW THEREFORE, THE CITY COUNCIL OF THE CITY OF SAMMAMISH, WASHINGTON, DO ORDAIN AS FOLLOWS:

Section 1. Environmentally Critical Areas. The amendments to SMC Chapter 21A.50, shown in Attachment A to this ordinance are hereby adopted.

Section 2. Flood Damage Prevention, Clearing and Grading, Technical Terms and Land Use Definitions, Development Standards-Design Requirements, Property-Specific Development Standards-Special District Overlays, Decision Criteria. The amendments to SMC Chapters 15.10, 16.15, 21A.15, 21A.30, 21A.85 and 21A.110, shown in Attachment B to this ordinance are hereby adopted.

Section 3. Interpretation. The City Council authorizes the Community Development Director to administratively interpret these provisions as necessary to implement the intent of the Council.

Section 4. Severability. Should any section, paragraph, sentence, clause or phrase of this Ordinance, or its application to any person or circumstance, be declared unconstitutional or otherwise invalid for any reason, or should any portion of this Ordinance be pre-empted by state or federal law or regulation, such decision or pre-emption shall not affect the validity of the remaining portions of this Ordinance or its application to other persons or circumstances.

Section 5. Effective Date. This Ordinance shall be published in the official newspaper of the City, and shall take effect and be in full force on January 3, 2006.

**ADOPTED BY THE CITY COUNCIL AT A REGULAR MEETING THEREOF
ON THE 20th DAY OF DECEMBER, 2005**

CITY OF SAMMAMISH



Mayor Donald J. Gerend

ATTEST/AUTHENTICATED:



Melonie Anderson, City Clerk

Approved as to form:



Bruce L. Disend, City Attorney

Filed with the City Clerk:	November 1, 2005
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Critical Areas Code Revisions

Chapter 21A.50 ENVIRONMENTALLY CRITICAL AREAS

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21A.50.010 Purpose.

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

- (1) Establishing development standards to protect defined critical areas;
- (2) Protecting members of the public and public resources and facilities from injury, loss of life, property damage or financial loss due to flooding, erosion, landslides, seismic events, soil subsidence or steep slope failures;
- (3) Protecting unique, fragile, and valuable elements of the environment including, but not limited to, wildlife and its habitat;
- (4) Requiring mitigation of unavoidable impacts on environmentally critical areas by regulating alterations in or near critical areas;
- (5) Preventing cumulative adverse environmental impacts on water availability, water quality, groundwater, wetlands, and streams;
- (6) Measuring the quantity and quality of wetland and stream resources and preventing overall net loss of wetland and stream functions and values;
- (7) Protecting the public trust as to navigable waters and aquatic resources;
- (8) Meeting the requirements of the National Flood Insurance Program and maintaining the City as an eligible community for federal flood insurance benefits;
- (9) Alerting members of the public including, but not limited to, appraisers, owners, potential buyers or lessees to the development limitations of critical areas;
- (10) Establishing special district overlays with alternative development standards for increasing minimum requirements to address unique site characteristics in areas of increased sensitivity;
- (11) Providing City officials with sufficient information to protect critical areas; and
- (12) Providing the public with a clear review and approval process for the development of sites constrained by critical areas. (Ord. O2005-172 § 4; Ord. O99-29 § 1)

21A.50.020 Applicability.

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

21A.50.030 Appeals.

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

21A.50.040 Critical areas rules.

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

21A.50.045 Fees.

- (1) Consistent with the City's adopted fee schedule, the City shall establish fees for the application filling, review and other services provided by the City for critical areas review. Basis for these fees shall include, but not be limited to, the cost of engineering and planning review time, cost of inspection time, costs for administration, costs for third-party peer review, and any other special costs attributable to the critical areas review process.
- (2) Unless otherwise indicated in this title, the applicant shall be responsible for the initiation, preparation, submission, and expense of all required reports, assessments, studies, plans, reconnaissances, or other work prepared in support of or necessary to review the application.

21A.50.050 Complete exemptions.

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

- (1) Alterations in response to emergencies that threaten the public health, safety, and welfare or that pose an imminent risk of damage to private property as long as any alteration undertaken pursuant to this subsection is reported to the department immediately. The director shall confirm that an emergency exists and determine what, if any, mitigation shall be required to protect the health, safety, welfare and environment and to repair any resource damage;
- (2) Public water, electric, and natural gas distribution, public sewer collection, cable communications, telephone utility, and related activities undertaken pursuant to City-approved best management practices, as follows:
 - (a) Normal and routine maintenance or repair of existing utility structures or rights-of-way;
 - (b) Relocation of electric facilities, lines, equipment or appurtenances, not including substations, with an associated voltage of 55,000 volts or less, only when required by a local governmental agency that approves the new location of the facilities;
 - (c) Replacement, operation, repair, modification, installation, or construction in existing developed utility corridors, an improved City street right-of-way or City-authorized private street of all electric facilities, lines, equipment, or appurtenances, not including substations;
 - (d) Relocation of public sewer local collection, public water local distribution, natural gas, cable communication or telephone facilities, lines, pipes, mains, equipment, or appurtenances, only when required by a local governmental agency that approves the new location of the facilities; and
 - (e) Replacement, operation, repair, modification, installation, or construction of public sewer local collection, public water local distribution, natural gas, cable communication or telephone facilities, lines, pipes, mains, equipment, or appurtenances when such facilities are located within an improved public right-of-way or authorized private street;

- (3) Maintenance, operation, repair, modification, or replacement of publicly improved streets as long as any such alteration does not involve the expansion of streets or related improvements into previously unimproved rights-of-way or portions of rights-of-way;
- (4) Maintenance, operation, or repair of parks, trails and publicly improved recreation areas as long as any such alteration does not involve the expansion of improvements into previously unimproved areas or new clearing of native vegetation beyond routine pruning and related activities; and
- (5) All clearing and grading activities that are exempt from the requirement for a clearing and grading permit as specified in SMC 16.15.050, unless these activities require other permits or authorizations as specified in SMC 21A.50.020. (Ord. O2005-172 § 4; Ord. O99-29 § 1)

21A.50.060 Partial exemptions.

- (1) The following developments, activities and uses are exempt from the review process of this chapter, except for the notice on title provisions, SMC 21A.50.180 through 21A.50.190, and the frequently flooded areas provisions, SMC 21A.50.230, and provided such exempt activities are otherwise consistent with the purpose of this chapter and other applicable regulations. The director may apply conditions to an underlying permit or approval to ensure that the activities are consistent with the provisions of this chapter.
 - (a) Structural modification of, addition to or replacement of existing legally created structures, except single detached residences in existence before November 27, 1990, which do not meet the building setback or buffer requirements for wetlands, streams, lakes, ponds or landslide hazard areas if the modification, addition, replacement or related activity does not increase the existing footprint of the structure lying within the above-described building setback area, critical area or buffer.
 - (b) Structural modification of, addition to or replacement of legally created single detached residences and improvements constructed on existing associated legally created impervious surfaces in existence before November 27, 1990, which do not meet the building setback or buffer requirements for wetlands, streams, lakes, ponds or landslide hazard areas if the modification, addition, replacement or related activity does not increase the existing total footprint of the residence and associated impervious surface lying within the above-described buffer or building setback area by more than 1,000 square feet over that existing before November 27, 1990, and no portion of the modification, addition or replacement is located closer to the critical area or, if the existing residence is in the critical area, extends farther into the critical area.
 - (c) Maintenance or repair of structures that do not meet the development standards of this chapter for landslide or seismic hazard areas if the maintenance or repair does not increase the footprint of the structure and there is no increased risk to life or property as a result of the proposed maintenance or repair.
 - (d) Select vegetation removal activities. The removal of the following invasive vegetation is allowed with hand labor and/or light equipment provided that the appropriate erosion-control measures are used and the area is replanted with native vegetation according to a restoration or enhancement plan that has been approved by the City of Sammamish:
 - (i) Noxious weeds as identified by Washington State or King County noxious weed lists;
 - (ii) Himalayan blackberry (*Rubus discolor*, *R. procerus*);
 - (iii) Evergreen blackberry (*R. laciniatus*);
 - (iv) Ivy (*Hedera* spp.); and
 - (v) Holly (*Ilex* spp.), laurel, Japanese knotweed (*Polygonum cuspidatum*), or any other species on the King County Noxious Weed List.Removal of any native vegetation or woody debris from a critical area is prohibited

- unless the action is part of an approved alteration.
- (e) Conservation, preservation, restoration and/or enhancement.
 - (i) Conservation and preservation of soil, water, vegetation, fish and other wildlife that does not entail alteration of the location, size, dimensions or functions of an existing critical area or buffer; and
 - (ii) Restoration and enhancement of critical areas or buffers provided that actions do not alter the location, dimensions or size of the critical area or buffer; that actions improve and do not reduce the existing quality or functions of the critical areas or buffers; and that actions are implemented according to a restoration or enhancement plan that has been approved by the City of Sammamish.
 - (2) Existing and ongoing agriculture and grazing of livestock is exempt from the provisions of this chapter and any administrative rules promulgated thereunder, except for the livestock restriction provisions, SMC 21A.50.290 and 21A.50.330, and any animal density limitations established by law, if the agriculture or grazing activity was in existence before November 27, 1990.
 - (3) A permit or approval sought as part of a development proposal where previous critical areas review has been completed is exempt from the provisions of this chapter and any administrative rules promulgated thereunder, except for the notice on title provisions, SMC 21A.50.180 through 21A.50.190, if:
 - (a) The City previously reviewed all critical areas on the site;
 - (b) There is no material change in the development proposal since the prior review that would affect a critical area;
 - (c) There is no new information available that is important to any critical area review of the site or particular critical area;
 - (d) No more than five years lapsed since the issuance of the permit or approval under which the prior review was conducted, provided that the director may allow a longer time period if new review would be unlikely to provide new information about the critical area; and
 - (e) The prior permit or approval, including any conditions, has been complied with. (Ord. O99-29 § 1)

21A.50.070 Exceptions.

- (1) **Public agency and utility exception.** If the application of this chapter would prohibit an activity or a development proposal by a public agency or utility, the agency or utility may apply for an exception pursuant to this section:
 - (a) The public agency or utility shall apply to the department and shall make available to the department other related project documents such as permit applications to other agencies, special studies and SEPA documents.
 - (b) The director may approve alterations to critical areas, buffers and critical area setbacks by an agency or utility not otherwise allowed by this chapter when the following criteria are met:
 - (i) There is no other reasonable alternative to the activity or proposed development with less impact on the critical area; and
 - (ii) The activity or development proposal is designed to avoid, minimize, and mitigate the impact on environmentally critical areas consistent with the avoidance and mitigation sequencing requirements in this chapter; and, if applicable:
 - (iii) The proposed development or activity is of a linear nature and is on an existing corridor or connects to public lands, trails, utility corridors, rights-of-way or other public infrastructure, or is required for functional reasons such as gravity flow.

- (c) The department shall process exceptions, provide public notice, provide opportunity for the public to request a public hearing, and provide an appeal process consistent with the provisions of Chapter 20.05 SMC.
- (2) **Reasonable use exception.** If the application of this chapter would deny all reasonable use of the property, the applicant may apply for an exception pursuant to this subsection:
- (a) The director may approve alterations to critical areas, critical area buffers and setbacks to allow a reasonable use not otherwise allowed by this chapter when the following criteria are met:
- (i) The application of this chapter would deny all reasonable use of the property;
 - (ii) There is no other reasonable use with less impact on the critical area;
 - (iii) The proposed development does not pose an unreasonable threat to the public health, safety, or welfare on or off the development proposal site and is consistent with the general purposes of this chapter and the public interest; and
 - (iv) Any alterations permitted to the critical area or buffer shall be the minimum necessary to allow for reasonable use of the property; and any authorized alteration of a critical area under this subsection shall be subject to conditions established by the department including, but not limited to, mitigation under an approved mitigation plan. (Ord. O2005-172 § 4; Ord. O99-29 § 1)

21A.50.090 Critical area maps and inventories.

The distribution of many environmentally critical areas in the City of Sammamish is displayed in the City's critical areas map folio, as amended. Additionally, many of the wetlands are inventoried in the King County wetlands inventory notebooks. Many flood hazard areas are mapped by the Federal Insurance Administration in a scientific and engineering report entitled "The Flood Insurance Study for King County." The wetland management, erosion hazard near sensitive water bodies, and lake management special overlay districts are designated on maps maintained by the department of community development. If there is a conflict among the maps, inventory and site-specific features, the department of community development shall verify the actual presence or absence of the features defined in this title as critical areas. The determination may be challenged by the property owner. (Ord. O99-29 § 1)

21A.50.100 Disclosure by applicant.

- (1) The applicant shall disclose to the City the presence of critical areas on the development proposal site and any mapped or identifiable critical areas within the distance equal to the largest potential required buffer applicable to the development proposal area on the applicant's property.
- (2) If the development proposal site contains or is within a critical area or buffer, the applicant shall submit an affidavit that declares whether the applicant has knowledge of any illegal alteration to any or all critical areas or their buffers on the development proposal site and whether the applicant previously has been found in violation of this chapter, pursuant to SMC Title 23. If the applicant previously has been found in violation, the applicant shall declare whether such violation has been corrected to the satisfaction of the City. (Ord. O99-29 § 1)

21A.50.110 Critical area review.

- (1) The City shall perform a critical area review prior to issuing any approval for a development proposal permit application or other request for permission to proceed with an alteration on a site that includes a critical area or is within an identified critical area buffer or building setback area.
- (2) As part of the critical area review, the City shall:
 - (a) Confirm whether critical areas or buffers have been mapped or identified within the distance equal to the largest potential required buffer applicable to the development

- proposal area;
- (b) Confirm the nature and type of the critical area;
- (c) Determine whether a critical areas study is required;
- (d) Evaluate the critical areas study;
- (e) Determine whether the development proposal is consistent with this chapter;
- (f) Determine whether any proposed alteration to the critical area is necessary; and
- (g) Determine if the mitigation and monitoring plans and bonding measures proposed by the applicant are sufficient to protect the public health, safety, and welfare, consistent with the goals, purposes, objectives, and requirements of this chapter. (Ord. O99-29 § 1)

21A.50.120 Critical area study requirement.

- (1) An applicant for a development proposal where alteration of a landslide hazard area, wetland, stream, or fish and wildlife habitat conservation area, or modification or reduction of a buffer is proposed shall submit a critical areas study at a level determined by the director to adequately evaluate the proposal and probable impacts. A critical areas study shall also be required for a development proposal located in erosion and seismic hazard areas, critical aquifer recharge areas, and frequently flooded areas, consistent with the requirements of this chapter, as determined by the director.
- (2) The director may waive or modify the requirement for a critical areas study if the applicant shows, to the director's satisfaction, that:
 - (a) There will be no alteration of the critical area or buffer;
 - (b) The development proposal will not have an impact on the critical area in a manner contrary to the goals, purposes, objectives, and requirements of this chapter; and
 - (c) The minimum standards required by this chapter are met; or
 - (d) Critical areas are located off-site and access to applicable off-site property is restricted.
- (3) If the development proposal will affect only a part of the development proposal site, the department may limit the scope of the required critical areas study to include only that area that is affected by the development proposal.
- (4) If necessary to ensure compliance with this chapter, the director may require additional information from the applicant, separate from the critical areas study. (Ord. O99-29 § 1)
- (5) A development proposal may be allowed to utilize past studies from neighboring properties, if confirmed that the study findings remain accurate and applicable to proposed development.

21A.50.130 Contents of critical area study.

- (1) The critical areas study shall be in the form of a written report prepared by a qualified professional and shall contain the following, as determined to be applicable by the director:
 - (a) Identification and characterization of all critical areas and buffers within the distance equal to the largest potential required buffer that can be reasonably ascertained from the subject property;
 - (b) Assessment of the impacts or risks of any alteration proposed for a critical area or buffer, assessment of the impacts of any alteration on the development proposal, other properties and the environment, and/or assessment of the impacts to the development proposal resulting from development near the critical area or buffer;
 - (c) A description of efforts made to apply mitigation sequencing pursuant to SMC 21A.50.135 to avoid, minimize and mitigate impacts to critical areas;

- (d) Studies that propose adequate mitigation, maintenance, monitoring, and contingency plans and bonding measures as necessary to offset impacts to the critical area from the development proposal;
 - (e) A scale map of the development proposal site;
 - (f) Detailed studies, as required by this chapter for individual critical areas or as otherwise deemed necessary for critical area protection by the director;
 - (g) Assessment of potential impacts that may occur downstream or downhill from the development site, such as sedimentation or erosion;
 - (h) Assessment of potential impacts to wetland management areas, lake management areas, and other areas designated for special protection, where applicable; and
 - (i) Consideration of the protection recommendations of the East Lake Sammamish Basin and Nonpoint Action Plan (1994), the Lake Washington/Cedar/Sammamish Watershed Chinook Salmon Conservation Plan – WRIA 8 Steering Committee, and adopted subbasin plans.
- (2) A critical areas study may be combined with any studies required by other laws and regulations.
- (3) If the development proposal will affect only a part of the development proposal site, the director may limit the scope of the required critical areas study to include only that part of the site that may be affected by the development. (Ord. O99-29 § 1)

21A.50.135 Avoiding impacts to critical areas.

- (1) An applicant for a development proposal, activity, or alteration, shall document the consideration and subsequently shall implement the following sequential measures, which appear in order of preference, to avoid, minimize, and mitigate impacts to environmentally critical areas and associated buffers:
- (a) Avoiding the impact or hazard by not taking a certain action, or redesigning the proposal to eliminate the impact. The applicant shall consider reasonable, affirmative steps and make best efforts to avoid critical area impacts. However, avoidance shall not be construed to mean mandatory withdrawal or denial of the development proposal or activity if the proposal or activity is an allowed, permitted, conditional, or special use in the SMC. In determining the extent to which the proposal should be redesigned to avoid the impact, the department may consider the purpose, effectiveness, engineering feasibility, commercial availability of technology, best management practices, safety and cost of the proposal and identified modifications to the proposal.
The department may also consider the extent to which the avoidance of one type or location of an environmentally critical area could require or lead to impacts to other types or locations of nearby or adjacent environmentally critical areas. The department should seek to avoid, minimize and mitigate overall impacts based on the functions and values of all of the relevant environmentally critical areas and based on the recommendations of a critical areas study. If impacts cannot be avoided through redesign, or because of site conditions or project requirements, the applicant shall then proceed with the sequence of steps in subsection (1)(b) through (g) of this section.
 - (b) Minimizing the impact or hazard by limiting the degree or magnitude of the action or impact with appropriate technology or by changing the timing of the action.
 - (c) Restoring the impacted critical areas by repairing, rehabilitating or restoring the affected critical area or its buffer.
 - (d) Minimizing or eliminating the hazard by restoring or stabilizing the hazard area through plantings, engineering or other methods.
 - (e) Reducing or eliminating the impact or hazard over time by preservation or maintenance operations during the life of the development proposal, activity or alteration.

- (f) Compensating for the adverse impact by enhancing critical areas and their buffers or creating substitute critical areas and their buffers as required in the SMC.
 - (g) Monitoring the impact, hazard or success of required mitigation and taking remedial action based upon findings over time.
- (2) In addition to the above steps, the specific development standards, permitted alteration requirements, and mitigation requirements of this chapter and elsewhere in the SMC apply.
 - (3) The department shall document the decision-making process used under this section as a part of the critical areas review conducted pursuant to SMC 21A.50.110. (Ord. O2005-172 § 4)

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

- (1) When mitigation is required by this chapter to compensate for adverse impacts, unless otherwise provided, mitigation, maintenance, monitoring measures and contingency plans shall be in place to protect critical areas and buffers from alterations occurring on the development proposal site.
- (2) Where monitoring reveals a significant deviation from predicted impacts or a failure of mitigation or maintenance measures, the applicant shall be responsible for appropriate corrective action which, when approved, shall be subject to further monitoring.
- (3) Mitigation shall be in-kind and sufficient to maintain critical area and buffer functions, and to prevent risk from a hazard posed by a critical area.
- (4) Mitigation shall not be implemented until after the City of Sammamish approves the applicable critical area study, mitigation plan and any required permits. Following City approval, mitigation shall be implemented in accordance with the provisions of the approved critical areas study and mitigation plan. (Ord. O99-29 § 1)

21A.50.145 Mitigation plan requirements.

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

- (1) **Existing conditions and proposed impacts:** A description of existing critical area(s) and/or buffer(s) conditions, functions, and values and a description of the anticipated impacts;
- (2) **Proposed mitigation:** A description of proposed mitigating actions and mitigation site selection criteria;
- (3) **Environmental goals and objectives:** A description of the goals and objectives of proposed mitigation. The goals and objectives shall be related to the functions and values of the impacted critical area(s) and/or buffer(s);
- (4) **Best available science:** A review of the best available science supporting proposed mitigation, a description of the plan/report author's experience to date in restoring or creating the type of critical area proposed, and an analysis of the likelihood of success of the mitigation project;
- (5) **Performance standards:** A description of specific measurable criteria for evaluating whether or not the goals and objectives of the mitigation plan have been successfully attained and whether or not the requirements of this chapter have been met;
- (6) **Detailed construction plans:** Detailed site diagrams, cross-sectional drawings, topographic elevations at one or two-foot contours, slope percentage, final grade elevations, and any other drawings appropriate to show construction techniques or anticipated final outcome. In addition, plans should include specifications and descriptions of:
 - (a) Proposed construction sequence, timing, and duration;

- (b) Grading and excavation details;
 - (c) Erosion and sediment control features;
 - (d) A planting plan specifying plant species, quantities, locations, size, spacing, and density; and
 - (e) Measures to protect and maintain plants until established;
- (7) **Monitoring program:** Mitigation plans shall include a program for monitoring construction of the compensation project, and for assessing a completed project. A protocol shall be included that outlines the schedule for site monitoring and how the monitoring data will be evaluated to determine if the performance standards are being met. A monitoring report shall be submitted as needed to document milestones, successes, problems, and contingency actions of the compensation project. The compensation project shall be monitored for a period necessary to establish that performance standards have been met. The monitoring period shall be five (5) years, provided that the director may approve a greater period when needed to ensure mitigation success or lesser period for minor mitigation; and
- (8) **Contingency plan:** The mitigation plan shall include identification of potential courses of action, and any corrective measures to be taken if monitoring or evaluation indicates project performance standards are not being met.

21A.50.150 Financial guarantees.

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

21A.50.160 Vegetation management plan.

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

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

- (1) **Markers.** Permanent survey stakes delineating the boundary between adjoining property and critical area tracts shall be set, using markers capable of being magnetically located and as established by current survey standards.
- (2) **Signs.** The boundary between a critical area tract and contiguous land shall be identified with permanent signs. Permanent signs shall be a city approved type designed for high durability. Signs must be posted at an interval of one (1) per lot or every 50 feet, whichever is less, and must

be maintained by the property owner or home owner association in perpetuity. The wording of the signs shall be as specified by the director.

- (3) **Fencing.** The director may require fencing to protect the functions of a critical area. If found to be necessary, permanent fencing shall be required at the edge of the critical area or buffer. Fencing installed in accordance with this section shall be designed to not interfere with fish and wildlife migration and shall be constructed in a manner that minimizes critical areas impacts.
- (Ord. O99-29 § 1)

21A.50.180 Notice on title.

- (1) The owner of any property containing critical areas or buffers on which a development proposal is submitted or any property on which mitigation is established as a result of development, except a public right-of-way or the site of a permanent public facility, shall file a notice approved by the City with the records and elections division. The required contents and form of the notice shall be determined by the director. The notice shall inform the public of the presence of critical areas, buffers or mitigation sites on the property, of the application of this chapter to the property and that limitations on actions in or affecting such critical areas or buffers may exist. The notice shall run with the land.
- (2) The applicant shall submit proof that the notice has been filed for public record before the City shall approve any development proposal for the property or, in the case of subdivisions, short subdivisions and binding site plans, at or before recording. (Ord. O99-29 § 1)

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

- (1) Critical area tracts shall be used to delineate and protect those critical areas and buffers listed below in development proposals for subdivisions, short subdivisions, or binding site plans and shall be recorded on all documents of title of record for all affected lots:
- (a) All landslide hazard areas and buffers that are one acre or greater in size;
 - (b) All wetlands and buffers;
 - (c) All streams and buffers; and
 - (d) All fish and wildlife habitat conservation areas and buffers.
- (2) Any required critical area tract shall be held in an undivided interest by each owner of a building lot within the development with this ownership interest passing with the ownership of the lot or shall be held by an incorporated homeowner's association or other legal entity which assures the ownership, maintenance, and protection of the tract, or dedicated to the City of Sammamish, at the City's discretion.
- (3) Site plans submitted as part of development proposals for building permits, master plan developments, and clearing and grading permits shall include and delineate all flood hazard areas (if they have been mapped by FEMA or King County or if a critical areas study is required), landslide hazard areas, streams and wetlands, buffers, and building setbacks. If only a part of the development site has been mapped pursuant to SMC 21A.50.130 (3), the part of the site that has not been mapped shall be clearly identified and labeled on the site plans. The site plans shall be attached to the notice on title required by SMC 21A.50.180. (Ord. O99-29 § 1)

21A.50.200 Alteration.

Recodified to Ch. 21A.15 by Ord. O2005-172. (Ord. O99-29 § 1)

21A.50.210 Building setbacks.

Unless otherwise provided, buildings and other structures shall be set back a distance of 15 feet from the edges of a critical area buffer. The setback from the Lake Sammamish buffer shall be 5 feet, provided that the setback shall not be less than required by this chapter or the Shoreline Master Program, whichever is greater. The following may be allowed in the building setback area:

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

(Ord. O2005-172 § 4; Ord. O99-29 § 1)

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

- (1) Land clearing, grading, filling, and foundation work in an erosion hazard area is allowed only from May 1st to September 30th, except that:
 - (a) Construction outside of this seasonal development limitation may be authorized if the director determines that the hazard area will not be adversely impacted by the proposed construction work or the applicant demonstrates that erosion hazards will be fully mitigated.
 - (b) The director may require a critical areas study of the site, grading, structural improvements, hydrology, soils and storm water retention studies, erosion control measures, restoration plans, and/or an indemnification/release agreement.
 - (c) Timber harvest may be allowed pursuant to an approved forest practice permit issued by the Washington Department of Natural Resources.
- (2) All development proposals on sites containing erosion hazard areas shall include a temporary erosion control plan consistent with this section and other laws and regulations prior to receiving approval. Specific requirements for such plans shall be set forth in the adopted surface water design manual or as otherwise specified by the department.
- (3) All subdivisions, short subdivisions, or binding site plans on sites with erosion hazard areas shall comply with the following additional requirements:
 - (a) Except as provided in this section, existing vegetation shall be retained on all lots until building permits are approved for development on individual lots;
 - (b) If any vegetation on the lots is damaged or removed during construction of the subdivision infrastructure, the applicant shall be required to submit a restoration plan to the department for review and approval. Following approval, the applicant shall be required to implement the plan;
 - (c) Clearing of vegetation on lots will not be allowed unless the City determines that:
 - (i) Such clearing is a necessary part of a large scale grading plan;
 - (ii) It is not a reasonable alternative to perform such grading on an individual lot basis; and
 - (iii) Drainage from the graded area will meet water quality standards to be established by the adopted surface water design manual.

- (4) Where the City determines that erosion from a development site poses a significant risk of damage to downstream receiving waters, based either on the size of the project, the proximity to the receiving water or the sensitivity of the receiving water, the applicant shall be required to provide regular monitoring of surface water discharge from the site. If the project does not meet adopted water quality standards established by law, the City may suspend further development work on the site until such standards are met.
- (5) The use of hazardous substances, pesticides, and fertilizers in erosion hazard areas may be prohibited by the City. (Ord. O99-29 § 1)

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

- (1) The purpose of the erosion hazards near sensitive water bodies special overlay district is to provide a means to designate sloped areas posing erosion hazards that drain directly to lakes or streams of high resource value that are particularly sensitive to the impacts of increased erosion and the resulting sediment loads from development.
- (2) The department of community development shall maintain a map of the boundaries of the Erosion Hazard Near Sensitive Water Bodies overlay district.
- (3) The following development standards shall be applied, in addition to all applicable requirements of this chapter, to development proposals located within the erosion hazards near a sensitive water bodies special district overlay:
 - (a) A no-disturbance area shall be established on the sloped portion of the special district overlay to prevent damage from erosion. The upslope boundary of the no-disturbance area lies at the first obvious break in slope from the upland plateau over onto the steep valley walls. The downslope boundary of the no-disturbance area is the extent of those areas designated as erosion or landslide hazard areas. The department shall maintain maps of the approximate location of the no-disturbance areas, which shall be subject to field verification for new development proposals.
 - (b) Land clearing or development shall not occur in the no-disturbance area, except for the clearing activities listed in subsection (3)(b)(i) of this section. Clearing activities listed in subsection (3)(b)(i) of this section shall only be permitted if they meet the requirements of subsection (3)(b)(ii) of this section.
 - (i) Clearing activities may be permitted as follows:
 - (a) For single-family residences, associated landscaping and appurtenances on pre-existing separate lots;
 - (b) For utility corridors to service existing development along existing rights-of-way including any vacated portions of otherwise contiguous rights-of-way, or for the construction of utility corridors identified within an adopted water, storm water, or sewer comprehensive plan; or
 - (c) For streets providing sole access to buildable property and associated utility facilities within those streets.
 - (ii) The clearing activities listed in subsection (3)(b)(i) of this section may be permitted only if the following requirements are met:
 - (a) A report that meets the requirements of SMC 21A.50.130 shall show that the clearing activities will not subject the area to risk of landslide or erosion and that the purpose of the no-disturbance area is not compromised in any way;
 - (b) The clearing activities shall be mitigated, monitored and bonded consistent with the mitigation requirements applicable to critical areas;

- (c) The clearing activities are limited to the minimal area and duration necessary for construction; and
 - (d) The clearing activities are consistent with this chapter.
- (c) New development proposals for sites that drained predeveloped runoff to the no-disturbance zone shall evaluate the suitability of on-site soils for infiltration. All runoff from newly constructed impervious surfaces shall be retained on-site unless this requirement precludes a proposed subdivision or short subdivision from achieving 75% of the maximum net density as identified in Chapter 21A.25 SMC. When 75% of the maximum net density cannot be met, the applicant shall retain runoff onsite and a perforated tightline (Figure C.2.I, Appendix C of the 1998 KCSWDM, as amended) shall be used to connect each lot to the central drainage system. The following drainage systems shall be evaluated, using the following sequential measures, which appear in order of preference:
 - (i) Infiltration of all site runoff shall be required in granular soils as defined in the King County Surface Water Design Manual (KCSWDM);
 - (ii) Infiltration of downspouts shall be required in granular soils and in soil conditions defined as allowable in the KCSWDM when feasible to fit the required trench lengths on-site. All flows not going to an individual infiltration system shall be detained on-site using the most restrictive flow control standard; and
 - (iii) When infiltration of downspouts is not feasible, the applicant shall design a drainage system that will detain flows on-site using the applicable flow control standard and shall install an outlet from the drainage system designed using the best available science techniques to limit the risk of landslide or erosion to the no-disturbance area. Provided that in no case shall development proposals generating more than 2,000 square feet of impervious surface create point discharges in or upstream of the no-disturbance or landslide hazard areas.
- (d) For the portions of proposed subdivisions, short subdivisions and binding site plans that cannot infiltrate runoff up to the 100-year peak flow, at least 25 percent shall remain undisturbed and set aside in an open space tract consistent with SMC 21A.50.160 through 21A.50.190. The open space tract shall be located adjacent to any required critical area tracts and shall be designed to maximize the amount of separation between the critical area and the proposed development. If no critical areas tracts are required, the open space tract shall be located to provide additional protection to the no-disturbance area.
- (e) For the portions of all subdivisions and short subdivisions that cannot infiltrate runoff up to the 100-year peak flow, no more than 35 percent of the gross site area shall be covered by impervious surfaces. For new subdivisions and short subdivisions, maximum lot coverage should be specified for subsequent residential building permits on individual lots.
- (f) If the application of this section would deny all reasonable use of property, the applicant may apply for a reasonable use exception pursuant to SMC 21A.50.070 (2).
- (g) The director may modify the property specific development standards required by this section, when a critical areas study is conducted by the applicant and approved by the director, which demonstrates that the proposed development substantially increases water quality by showing the following:
 - (i) Water quality on-site is improved through site enhancements and/or other innovative management techniques;
 - (ii) The development project will not subject downstream channels to increased risk of landslide or erosion; and
 - (iii) The development project will not subject the nearest sensitive water body to additional erosion hazards.

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 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.
- (2) Development in frequently flooded areas shall be subject to provisions in Chapter 15.10 SMC.

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 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.
- (2) 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 offsite.
 - (a) For single-family residential building permits only, the City may waive the critical areas study requirement if other development in the area has already provided sufficient information or if such information is otherwise readily available.
 - (b) In addition to the general requirements for critical areas studies that may be required consistent with SMC 21A.50.130, the critical areas study for a landslide hazard area shall specifically include:
 - (i) A description of the extent and type of vegetative cover;
 - (ii) A description of subsurface conditions based on data from site-specific explorations;
 - (iii) Descriptions of surface and ground water conditions, public and private sewage disposal systems, fills and excavations, and all structural improvements;
 - (iv) An estimate of slope stability and the effect construction and placement of structures will have on the slope over the estimated life of the structure;
 - (v) An estimate of the bluff retreat rate that recognizes and reflects potential catastrophic events such as seismic activity or a one hundred-year storm event;
 - (vi) Consideration of the run-out hazard of landslide debris and/or the impacts of landslide run-out on down slope properties;
 - (vii) A study of slope stability including an analysis of proposed cuts, fills, and other site grading;
 - (viii) Recommendations for building siting limitations; and

- (ix) An analysis of proposed surface and subsurface drainage, and the vulnerability of the site to erosion.
- (3) Unless otherwise provided herein or as part of an approved alteration, removal of any vegetation from a landslide hazard area or buffer shall be prohibited, except for limited removal of vegetation necessary for surveying purposes and for the removal of hazard trees determined to be unsafe by the City. The City may require the applicant to submit a report prepared by a certified arborist to confirm hazard tree conditions. Notice to the City shall be provided prior to any vegetation removal permitted by this subsection.
- (4) Vegetation on slopes within a landslide hazard area or buffer that has been damaged by human activity or infested by noxious weeds may be replaced with native vegetation pursuant to an enhancement plan approved by the City. The use of hazardous substances, pesticides, and fertilizers in landslide hazard areas and their buffers may be prohibited by the City.
- (5) Alterations to landslide hazard areas and buffers may be allowed only as follows:
 - (a) A landslide hazard area located on a slope 40 percent or steeper may be altered only if the alteration meets the following standards and limitations:
 - (i) Approved surface water conveyances, as specified in the applicable City-adopted stormwater requirements, may be allowed in a landslide hazard area if they are installed in a manner to minimize disturbance to the slope and vegetation;
 - (ii) Public and private trails may be allowed in a landslide hazard area subject to the standards and mitigations contained in this chapter, development standards in Chapter 21A.30 SMC, and requirements elsewhere in the SMC, when locating outside of the hazard area is not feasible;
 - (iii) Utility corridors may be allowed in a landslide hazard area if a critical areas study shows that such alteration will not subject the area to the risk of landslide or erosion;
 - (iv) Limited trimming and pruning of vegetation may be allowed in a landslide hazard area pursuant to an approved vegetation management plan for the creation and maintenance of views if the soils are not disturbed;
 - (v) Stabilization of sites where erosion or landsliding threaten public or private structures, utilities, roads, driveways or trails, or where erosion and landsliding threatens any lake, stream, wetland, or shoreline. Stabilization work shall be performed in a manner that causes the least possible disturbance to the slope and its vegetative cover; and
 - (vi) Reconstruction, remodeling, or replacement of an existing structure upon another portion of an existing impervious surface that was established pursuant to City ordinances and regulations may be allowed provided:
 - (a) If within the buffer, the structure is located no closer to the landslide hazard area than the existing structure; and
 - (b) The existing impervious surface within the buffer or landslide hazard area is not expanded as a result of the reconstruction or replacement.
 - (b) A landslide hazard area located on a slope less than 40 percent may be altered only if the alteration meets the following requirements:
 - (i) The development proposal will not decrease slope stability on contiguous properties; and
 - (ii) Mitigation based on the best available engineering and geological practices is implemented that either eliminates or minimizes the risk of damage, death, or injury resulting from landslides; and

- (c) Neither buffers nor a critical area tract shall be required if the alteration meets the standards of subsection (5)(b) of this section.
- (6) Point discharges from surface water facilities in erosion hazard areas and onto or upstream from landslide hazard areas shall be prohibited for developments generating more than 2,000 square feet of impervious surface area, except if conveyed via continuous storm pipe downslope to a point where there are no erosion hazard areas downstream from the discharge.
- (7) The following are exempt from the provisions of this section:
 - (a) Slopes that are 40 percent or steeper with a vertical elevation change of up to 20 feet if no adverse impact will result from the exemption based on the City's review of and concurrence with a soils report prepared by a geologist or geotechnical engineer; and
 - (b) The approved regrading of any slope that was created through previous legal grading activities.(Ord. O99-29 § 1)

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

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

- (1) All applicable building code requirements; and
- (2) Alterations to seismic hazard areas may be allowed only as follows:
 - (a) The evaluation of site-specific subsurface conditions shows that the proposed development site is not located in a seismic hazard area; or
 - (b) Mitigation based on the best available engineering and geological practices is implemented that either eliminates or minimizes the risk of damage, death, or injury resulting from seismically induced settlement or soil liquefaction.

(Ord. O99-29 § 1)

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

(1) Groundwater quantity protection standards.

For developments in all CARA classes, the applicant shall provide surface water infiltration as follows.

- (a) Seventy-five percent of onsite stormwater volume generated from the proposed development shall be infiltrated, provided that a lesser standard may apply or onsite infiltration may be waived when:
 - (i) The applicant demonstrates that infiltration is not a reasonable alternative due to site-specific soil and/or geologic conditions;
 - (ii) It is determined that increased saturation of soils would result in an increased risk to existing facilities and/or adjacent properties;
 - (iii) Infiltration would result in significant unavoidable impacts to other critical areas or result in an excessive loss of native vegetation; or
 - (iv) The applicant proposes an addition of no more than 700 square feet of total new impervious surface compared cumulatively to 2005 levels.
- (b) If infiltration is not feasible or required, then stormwater facilities shall be constructed in accordance with City standards.

- (c) The design and implementation of infiltration facilities shall follow the Ecology infiltration guidelines specified in the Western Washington Stormwater Manual (2005), or other technical guidance as approved by the City.
 - (d) To prevent groundwater contamination, stormwater infiltration may be prohibited for all or a portion of a site that includes use of hazardous substances.
- (2) **Groundwater quality protection standards.** The following provisions shall apply to development in all CARA classes:
- (a) Activities may only be permitted in a critical aquifer recharge area if the proposed activity will not result in a significant increased risk of contamination of drinking water supplies;
 - (b) The City shall impose development conditions when necessary to prevent degradation of groundwater. Conditions to permits shall be based on known, available and reasonable methods of prevention control and treatment; and
 - (c) The proposed activity must comply with the water source protection requirements and recommendations of the federal Environmental Protection Agency, state Department of Ecology, state Department of Health, and the Seattle-King County Health District.
- (3) **Regulation of facilities handling and storing hazardous materials.**
- (a) New and existing commercial and industrial land uses and activities located in Class 1 and Class 2 CARAs shall submit a Hazardous Materials Inventory Statement with a land use or building permit application.
 - (b) **Report requirement.** Commercial and industrial land uses and activities that involve the use, storage, transport or disposal of hazardous materials, as defined in this chapter, in quantities equal to or greater than twenty (20) gallons or the equivalent of two-hundred (200) pounds, located in Class 1 and Class 2 CARAs shall submit a critical areas study in accordance with SMC 21A.50.130 including, as necessary, a Hydrogeologic Critical Area Assessment Report, Spill Containment and Response Plan and/or Groundwater Monitoring Plan except for the following uses/activities:
 - (i) Retail sale of containers 5 gallons or less in size, where there is less than 500 total gallons; and
 - (ii) Hazardous materials of no risk to the aquifer.
 - (c) A Hydrogeologic Critical Area Assessment Report, when required by subsection (3)(b) of this section, shall be prepared by a qualified professional to determine potential impacts of contaminants on the aquifer. The report shall include the following site and proposal related information, at a minimum:
 - (i) Information regarding geologic and hydrogeologic characteristics of the site including the surface location of all CARA classes located on site or immediately adjacent to the site and permeability of the unsaturated/vadose zone;
 - (ii) Groundwater depth, flow direction and gradient;
 - (iii) Data on wells and springs within 1,300 feet of the project area;
 - (iv) Location of other critical areas, including surface waters, within 1,300 feet of the project area;
 - (v) Historic hydrogeologic data for the area to be affected by the proposed activity;
 - (vi) Best Management Practices (BMPs) and Integrated Pest Management (IPM) proposed to be used; and
 - (vii) Discussion of the effects of the proposed project on the groundwater quality and quantity, including:
 - a) Predictive evaluation of groundwater withdrawal and recharge effects on nearby wells and surface water features;

- b) Predictive evaluation of contaminant transport based on potential releases to groundwater; and
 - c) Predictive evaluation of changes in the infiltration/recharge rate.
 - (d) A Spill Containment and Response Plan, when required by subsection (3)(b) of this section, is required to identify equipment and/or structures that could fail and shall include provisions for inspection as required by the applicable state regulations, repair and replacement of structures and equipment that could fail.
 - (e) A Groundwater Monitoring Plan, when required by subsection (3) (b) of this section, may be required to monitor quality and quantity of groundwater, surface water runoff, and/or site soils. The City may require the owner of a facility to install one or more groundwater monitoring wells to accommodate the required groundwater monitoring.
 - (i) Criteria used to determine the need for site monitoring shall include, but not be limited to, the proximity of the facility to production or monitoring wells, the type and quantity of hazardous materials on site, and whether or not the hazardous materials are stored in underground vessels.
 - (ii) The City may employ an outside consultant at the applicant’s expense to review the monitoring plan and analysis, to ensure that the monitoring plan is followed, and that corrective actions are completed.
- (4) **Prohibited Uses** – Where land uses or materials prohibited in this section are allowed in the Table of Permitted Land Uses (SMC 21A.20), this section shall control and the use shall be prohibited.
 - (a) Table 21A.50.280a, identifies land uses and materials prohibited in Class 1, 2 and 3 CARAs for new uses; and
 - (b) Table 21A.50.280b, identifies land uses and materials that should be discontinued, removed and decommissioned where existing in Class 1, 2 and 3 CARAs. The City shall require discontinuation, removal and decommissioning of these uses from Class 1, 2 and 3 CARAs at the time of development and redevelopment, in proportion to the degree and nature of the proposal.

Table 21A.50.280a

Prohibited Land Uses and Materials (new uses/activities)	Class 1 (1 & 5 yr. WHPA)	Class 2 (10 yr. 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 w/ 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 w/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	**	**
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) are required for these uses.

Table 21A.50.280b

Restricted Land Uses and Materials - (existing uses/activities)	Class 1 (1 & 5 yr. WHPA)	Class 2 (10 yr. 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		

(5) **Requirements for specific uses and activities.**

(a) **Commercial vehicle repair and servicing.**

- (i) In all CARA classes, vehicle repair and servicing must be conducted over impermeable pads, with containment curbs, and within a covered structure capable of withstanding normally expected weather conditions. Chemicals used in the process of vehicle repair and servicing must be stored in a manner that protects them from weather and provides containment should leaks occur.
- (ii) In all CARA classes, no dry wells shall be allowed on sites used for vehicle repair and servicing. Dry wells existing on the site prior to facility establishment must be abandoned using techniques approved by the state Department of Ecology prior to commencement of the proposed activity.

(b) **Use of pesticides, herbicides, and fertilizers.**

- (i) Residential use. In all CARA classes, application of household pesticides, herbicides, and fertilizers shall not exceed times, rates, concentrations and locations specified on the packaging.
- (ii) Other uses. In Class 1 and 2 CARA areas, proposed developments with maintained landscape areas greater than 10,000 square feet in area, shall prepare an Operations and Maintenance Manual using Best Management Practices (BMPs) and Integrated Pest Management (IPM) for fertilizer and

pesticide/herbicide applications. The BMPs shall include recommendations on the quantity, timing and type of fertilizers applied to lawns and gardens to protect groundwater quality.

- (c) **Spreading or injection of stormwater or reclaimed water.** Water reuse projects for reclaimed water and stormwater are regulated in accordance with the adopted water, sewer or stormwater comprehensive plans that have been approved by the Departments of Ecology and Health.
- (d) **Construction activity.** In all CARA classes, if construction vehicles will be refueled on a construction site and/or the quantity of hazardous materials that will be used or stored on a site exceeds twenty (20) gallons, exclusive of the quantity of hazardous materials contained in fuel or fluid reservoirs of construction vehicles, then persons obtaining construction permits shall provide information to the Public Works Department regarding the types and quantities of hazardous materials that will be on site and then use BMPs to prevent and respond to spills. Construction site refueling must be conducted over impermeable pads, with containment curbs. The operator of the site shall immediately report to the city any spills and is responsible for complete recovery and cleanup.
- (e) **Fill quality standards and imported fill source statement.** In all CARA classes, fill material shall not contain concentrations of contaminants that exceed cleanup standards for soil as specified in the Model Toxics Control Act (MTCA). An Imported Fill Source Statement is required for all projects where more than one-hundred (100) cubic yards of fill will be imported to a site. The City may require analytical results to demonstrate that fill materials do not exceed cleanup standards. The Imported Fill Source Statement shall include:
 - (i) Source location of imported fill;
 - (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 up flow media filter system or a proprietary packed-bed filter system or is designed to achieve approximately eighty 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

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:	50

- (a) Where a legally established and constructed street transects a wetland buffer, the department may approve a modification of the standard buffer width to the edge of the street if the isolated part of the buffer does not provide additional protection of the wetland and provides insignificant biological, geological or hydrological buffer functions relating to the wetland. If the resulting buffer distance is less than 50% of the standard buffer for the applicable wetland category, no further reduction shall be allowed.
- (b) Where a buffer has been previously established through city or county development review on or after November 27, 1990, and is permanently recorded on title or placed within a separate tract, the buffer shall be as previously established, provided it is at least as large as 50% of the required standard buffer distance for the applicable wetland category.
- (c) Where wetland functions have been improved due to voluntary implementation of an approved stewardship, restoration and/or enhancement plan that is not associated with required mitigation or enforcement, the standard wetland buffer width shall be determined based on the previously established wetland category and habitat score as documented in the approved stewardship and enhancement plan.
- (2) Wetlands located entirely waterward of the ordinary high water mark of a lake or pond shall be regulated by the buffer and development standards provided for lakes and ponds in SMC 21A.50.351 and 352, and by the adopted shoreline master program.
- (3) Activities and uses shall be prohibited from wetlands and associated buffers except as provided for in this chapter.
- (4) Any wetland restored, relocated, replaced, or enhanced because of a wetland alteration shall have the buffer required for the highest wetland class involved.
- (5) For a wetland buffer that includes a landslide hazard area, the buffer width shall be the greater of either the buffer width required by the wetland's category in this section or 25 feet beyond the top of the landslide hazard area.
- (6) **Buffer averaging.** Buffer width averaging may be allowed by the department if:

- (a) It will provide additional protection to wetlands or enhance their functions, as long as the total area contained in the buffer on the development proposal site does not decrease (see also SMC 21A.30.210(4) for buffer compensation requirements for trails);
 - (b) The wetland contains variations in sensitivity due to existing physical characteristics or the character of the buffer varies in slope, soils, or vegetation, and the wetland would benefit from a wider buffer in places and would not be adversely impacted by a narrower buffer in other places;
 - (c) The buffer width is not reduced to less than 50% of the standard buffer width at any location; and
 - (d) Buffer averaging may be used in conjunction with buffer reduction options in this section, provided the total combined reduction does not reduce the buffer to less than 50% of standard buffer width at any location.
- (7) **Increased buffers.** The department may require the standard buffer to be increased by the greater of 50 feet or a distance necessary to protect wetland functions and provide connectivity to other wetland and habitat areas when a category 1 or 2 wetland with a habitat score greater than 20 points is located within 300 feet of:
- (a) Another category 1 or 2 wetland;
 - (b) A fish and wildlife habitat conservation area; or
 - (c) A type S or F stream.
- The increased buffer distance may be limited to those areas that provide connectivity or are necessary to protect wetland and habitat functions.
- (8) **Buffer reduction.** Buffers may be reduced when buffer reduction impacts are mitigated and result in equal or greater protection of the wetland functions. Prior to considering buffer reductions, the applicant shall demonstrate application of mitigation sequencing as required in SMC 21A.50.135. A plan for mitigating buffer-reduction impacts must be prepared using selected incentive-based mitigation options from the list below. The following incentive options for reducing standard buffer widths shall be considered cumulative up to a maximum reduction of fifty percent (50%) of the standard buffer width. In all circumstances where a substantial portion of the remaining buffer is degraded, the buffer reduction plan shall include replanting with native vegetation in the degraded portions of the remaining buffer area and shall include a five (5) year monitoring and maintenance plan.
- (a) Installation of biofiltration/infiltration mechanisms: up to twenty percent (20%) reduction in the standard buffer width may be allowed for the installation of bioswales, created and/or enhanced wetlands, or ponds supplemental to existing storm drainage and water quality requirements.
 - (b) Removal of existing impervious surfaces:
 - (i) Up to ten percent (10%) reduction in standard buffer width if impervious surfaces within the to-be-remaining buffer area are reduced by at least fifty percent (50%); or
 - (ii) Up to twenty percent (20%) reduction in standard buffer width if the to-be-remaining buffer area is presently more than fifty percent (50%) impervious AND all of it is to be removed.
 - (c) Removal of invasive, non-native vegetation: up to ten percent (10%) reduction in standard buffer width for the removal and extended (minimum 5 year) monitoring and continued-removal maintenance of relatively dense stands of invasive, non-native vegetation from significant portions of the remaining buffer area.

- (d) If not already required under an existing development proposal, installation of oil/water separators for storm water quality control: up to ten percent (10%) reduction in standard buffer width.
- (e) Use of pervious material for driveway/road construction: up to ten percent (10%) reduction in standard buffer width.
- (f) Restoration of on-site buffer and wetland areas, or restoration of off-site buffer and wetland areas within the same sub-basin of the impacted wetland if no on-site restoration is possible:
 - (i) Up to ten percent (10%) reduction in standard buffer width if restoration area is at a 2:1 ratio or greater; or
 - (ii) Up to twenty percent (20%) reduction in standard buffer width if restoration area is at a 4:1 ratio or greater.
- (g) Removal of significant refuse or sources of toxic material: up to ten percent (10%) reduction in standard buffer width.
- (h) Percentages listed above may be added together to create a total buffer reduction, provided that the total reduction does not exceed 50% of the standard buffer width.
- (9) The use of hazardous substances, pesticides and fertilizers in the wetland and its buffer may be prohibited by the City.
- (10) Unless otherwise provided, the following restrictions shall apply to all development proposals that include the introduction of livestock on sites with wetlands or wetland buffers:
 - (a) A plan to protect and enhance the wetland's water quality shall be implemented pursuant to the adopted surface water design manual standards; and
 - (b) Fencing located not closer to the wetland than the outer wetland buffer edge shall be required.

(Ord. O2005-172 § 4; Ord. O99-29 § 1)

21A.50.300 Wetlands – Permitted alterations.

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

- (1) Alterations may be permitted if the department determines, based upon its review of critical areas studies completed by qualified professionals, that the proposed development will:
 - (a) Protect, restore or enhance the wildlife habitat, natural drainage, or other valuable functions of the wetland resulting in a net improvement to the functions of the wetland system;
 - (b) Design, implement, maintain, and monitor a mitigation plan prepared by a qualified professional;
 - (c) Perform the mitigation under the direction of a qualified professional; and
 - (d) Will otherwise be consistent with the purposes of this chapter.
- (2) If a wetland is in a flood hazard area, the applicant shall notify affected communities and native tribes of proposed alterations prior to any alteration and submit evidence of such notification to the Federal Insurance Administration.
- (3) There shall be no introduction of any non-native or invasive plant or wildlife into any wetland or wetland buffer unless authorized by a state or federal permit or approval.
- (4) Utilities may be allowed in wetland buffers if:
 - (a) The director determines that no reasonable alternative location is available; and

- (b) The utility corridor meets any additional requirements for installation, replacement of vegetation and maintenance, as needed to mitigate impacts.
- (5) Sewer utility corridors may be allowed in wetland buffers only if:
- (a) The applicant demonstrates that sewer lines are necessary for gravity flow;
 - (b) The corridor is not located in a wetland or buffer used by species listed as endangered or threatened by the state or federal government or containing critical or outstanding actual habitat for those species or heron rookeries or raptor nesting trees;
 - (c) The corridor alignment including, but not limited to, any allowed maintenance roads follows a path farthest from the wetland edge as feasible;
 - (d) Corridor construction and maintenance protects the wetland and buffer and is aligned to avoid cutting trees greater than 12 inches in diameter at breast height, when possible, and pesticides, herbicides and other hazardous substances are not used;
 - (e) An additional, contiguous and undisturbed buffer, equal in width to the proposed corridor including any allowed maintenance roads, is provided to protect the wetland;
 - (f) The corridor is revegetated with appropriate native vegetation at preconstruction densities or greater immediately upon completion of construction or as soon thereafter as possible, and the sewer utility ensures that such vegetation survives;
 - (g) Any additional corridor access for maintenance is provided, to the extent possible, at specific points rather than by a parallel road; and
 - (h) The width of any necessary parallel road providing access for maintenance is as small as possible, but not greater than 15 feet, the road is maintained without the use of herbicides, pesticides or other hazardous substances and the location of the road is contiguous to the utility corridor on the side away from the wetland.
- (6) Joint use of an approved sewer utility corridor by other utilities may be allowed.
- (7) The following surface water management activities and facilities may be allowed in wetlands or their buffers only as follows:
- (a) Surface water discharge to a wetland from a flow control or water quality treatment facility, sediment pond or other surface water management activity or facility may be allowed if the discharge does not increase the rate of flow, change the plant composition in a forested wetland or decrease the water quality of the wetland;
 - (b) Isolated Category 4 wetlands and buffers may be used as a flow control facility if:
 - (i) Presettlement pond or water quality treatment is required prior to flow into the wetland; and
 - (ii) They are not part of, or immediately adjacent to, a designated wildlife habitat corridor and all requirements of the applicable City-adopted stormwater requirements are met; and
 - (c) Use of a wetland buffer for a surface water management activity or facility, other than a flow control or water quality treatment facility, such as an energy dissipater and associated pipes, may be allowed only if the applicant demonstrates, to the satisfaction of the department, that:
 - (i) No reasonable alternative exists; and
 - (ii) The functions of the buffer or the wetland are not adversely affected.
- (8) Public and private trails may be allowed in wetland buffers consistent with the standards and requirements in this chapter, development standards in Chapter 21A.30 SMC, and requirements elsewhere in the SMC. Proposals for constructing viewing platforms, associated access trails, and spur trails must be reviewed by a qualified professional and a critical area study may be required.

- (9) A dock, pier, moorage, float, or launch facility may be allowed, subject to the provisions of SMC Title 25, if:
- (a) The existing and zoned density around the wetland is three dwelling units per acre or more;
 - (b) At least 75 percent of the lots around the wetland have been built upon and no significant buffer or wetland vegetation remains on these lots; and
 - (c) Open water is a significant component of the wetland.
- (10) **Crossings.** The use of existing crossings, including but not limited to utility corridors, road and railroad rights-of-way, within wetlands or buffers for public or private trails is preferred to new crossings, subject to the standards and requirements in the SMC. New wetland road and trail crossings may be allowed if:
- (a) The director determines that:
 - (i) The crossing is identified as a part of a corridor shown in a City-adopted parks or trails plan, park master plan, transportation plan, or comprehensive plan, or otherwise is necessary to connect or construct the road or trail to publicly-owned lands, utility corridors, rights-of-way or other public infrastructure, or is required to provide access to property where no other reasonable alternative access is possible; or
 - (ii) The applicant demonstrates that the new crossing creates less overall or less incremental impacts to critical areas and habitat than the use of an existing corridor while still achieving overall project goals and objectives;
 - (b) All crossings avoid or minimize impact to the wetland and provide mitigation for unavoidable impacts through restoration, enhancement or replacement of disturbed areas as described in this chapter and in the SMC;
 - (c) Crossings do not significantly change the overall wetland hydrology;
 - (d) Crossings do not diminish the flood storage capacity of the wetland; and
 - (e) All crossings are constructed during summer low water periods.
- (11) **Reconstruction, remodeling, or replacement of existing structures.** Reconstruction, remodeling, or replacement of an existing structure upon another portion of an existing impervious surface that was established pursuant to ordinances and regulations in effect at the time may be allowed provided:
- (a) If within the buffer, the structure is located no closer to the wetland than the existing structure; and
 - (b) The existing impervious surface within the buffer or wetland is not expanded as a result of the reconstruction or replacement.
- (12) **Enhancement and restoration.** Wetland enhancement or restoration not associated with any other development proposal may be allowed if accomplished according to a plan for its design, implementation, maintenance and monitoring prepared by and carried out under the direction of a qualified professional. Restoration or enhancement must result in a net improvement to the functions of the wetland system.
- (13) **Wetland restoration project.** A wetland restoration project for habitat enhancement may be allowed if:
- (a) The restoration is sponsored by a public agency with a mandate to do such work;
 - (b) The restoration is not associated with mitigation of a specific development proposal;

- (c) The restoration is limited to revegetation of wetlands and their buffers and other specific fish and wildlife habitat improvements that result in a net improvement to the functions of the wetland system;
- (d) The restoration only involves the use of hand labor and light equipment, or the use of helicopters and cranes that deliver supplies to the project site provided that they have no contact with critical areas or their buffers; and
- (e) The restoration is performed under the direction of a qualified professional. (Ord. O2005-172 § 4; Ord. O99-29 § 1)

21A.50.310 Wetlands – Mitigation requirements.

When mitigation for wetland and/or wetland buffer impacts is required, mitigation shall meet the requirements listed in SMC 21A.50.145 in addition to the following supplementary requirements.

- (1) **Equivalent or greater biological functions.** Mitigation for alterations to wetland(s) and/or wetland buffer(s) shall achieve equivalent or greater biologic functions and shall be consistent with the Department of Ecology *Guidance on Wetland Mitigation in Washington State* (2004, Department of Ecology Publication #04-06-013), or as revised.
- (2) **No net loss.** Wetland mitigation actions shall not result in a net loss of wetland area.
- (3) **Functions and values.** Mitigation actions shall address and provide equivalent or greater wetland and buffer functions and values compared to wetland and buffer conditions existing prior to the proposed alteration.
- (4) **Mitigation type and location.** Mitigation actions shall be in-kind and conducted within the same sub-basin and on the same site as the alteration except when the following apply:
 - (a) There are no reasonable on-site opportunities for mitigation or on-site opportunities do not have a high likelihood of success due to development pressures, adjacent land uses, or on-site buffers or connectivity are inadequate;
 - (b) Off-site mitigation has a greater likelihood of providing equal or improved wetland functions than the impacted wetland; and
 - (c) Off-site locations shall be in the same sub-basin.
- (5) **Mitigation timing.** Where feasible, mitigation projects shall be completed prior to activities that will disturb wetlands. In all other cases, mitigation shall be completed immediately following disturbance and prior to use or occupancy of the activity or development. Construction of mitigation projects shall be timed to reduce impacts to existing wildlife and flora.
- (6) **Mitigation ratios.**
 - (a) **Acreage replacement ratios.** The following ratios shall apply to wetland creation or restoration that is in-kind, on-site, the same category, and has a high probability of success. The first number specifies the acreage of replacement wetlands and the second specifies the acreage of wetlands altered.

Category I	4-to-1
Category II	2-to-1
Category III	1.5-to-1
Category IV	1.5-to-1
 - (b) **Increased replacement 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
 - iii. Proposed mitigation will result in a lower category wetland or reduced functions relative to the wetland being impacted; or

- iv. The impact was an unauthorized impact.
 - (c) **Decreased replacement ratio.** The director may decrease these ratios under the following circumstances:
 - i. Documentation by a qualified professional demonstrates that the proposed mitigation actions have a very high likelihood of success. This documentation should specifically identify how the proposed mitigation actions are similar to other known mitigation projects with similar site specific conditions and circumstances that have been shown to be successful;
 - ii. Documentation by a qualified professional demonstrates that the proposed mitigation actions will provide functions and values that are significantly greater than the wetland being impacted; or
 - iii. The proposed mitigation actions are conducted in advance of the impact and have been shown to be successful over the course of at least one full year.
 - (d) **Minimum replacement ratio.** In all cases, a minimum acreage replacement ratio of 1-to-1 shall be required.
- (7) **Wetland enhancement as mitigation.**
- (a) Impacts to wetlands may be mitigated by enhancement of existing significantly degraded wetlands only after a one-to-one minimum acreage replacement ratio has been satisfied. Applicants proposing to enhance wetlands must produce a critical areas study that identifies how enhancement will increase the functions of the degraded wetland and how this increase will adequately mitigate for the loss of wetland function at the impact site.
 - (b) At a minimum, enhancement acreage shall be double the acreage required for creation or restoration under subsection 6a. The ratios shall be greater than double the required acreage where the enhancement proposal would result in minimal gain in the performance of wetland functions and/or result in the reduction of other wetland functions currently being provided in the wetland.
- (8) **Restoration required.** Restoration shall be required when a wetland or its buffer is altered in violation of law or without any specific permission or approval by the City. A mitigation plan for restoration shall conform to the requirements of this chapter and section.

(Ord. O99-29 § 1)

21A.50.315 Wetlands – Mitigation banking.

- (1) Credits from a wetland mitigation bank may be approved for use as compensation for unavoidable impacts to wetlands when:
 - (a) The bank is certified under Chapter 173-700 WAC;
 - (b) The department determines that the wetland mitigation bank provides appropriate compensation for the authorized impacts;
 - (c) The proposed use of credits is consistent with the terms and conditions of the bank's certification; and
 - (d) The compensatory mitigation agreement occurs in advance of authorized impacts.
- (2) Replacement ratios for projects using bank credits shall be consistent with replacement ratios specified in the bank's certification.
- (3) Credits from a certified wetland mitigation bank may be used to compensate for impacts located within the service area specified in the bank's certification. In some cases, bank service areas may include portions of more than one adjacent drainage basin for specific wetland functions.
- (4) Implementation of a mitigation bank is subject to City Council review and approval.

21A.50.320 Wetlands – Limited exemption.

Isolated wetlands less than 1,000 square feet may be exempted from the provisions of SMC 21A.50.290 and may be altered by filling or dredging if the City determines that the cumulative impacts do not unduly counteract the purposes of this chapter and are mitigated pursuant to an approved mitigation plan. (Ord. O99-29 § 1)

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

- (1) The purpose of the wetland management area special overlay district is to provide a means to designate certain unique and outstanding wetlands when necessary to protect their functions and values from the impacts created from geographic and hydrologic isolation and impervious surface.
- (2) The wetland management area special overlay district shall be designated on critical areas maps maintained by the department of community development.
- (3) The following development standards shall be applied in addition to all applicable requirements of this chapter to development proposals located within a wetland management area district overlay:
 - (a) All development proposals on properties zoned R-1 in wetland management areas shall have a maximum impervious surface area of eight percent of the gross acreage of the site. Distribution of the allowable impervious area among the platted lots shall be recorded on the face of the plat. Impervious surface of existing streets need not be counted towards the allowable impervious area. The provisions of this section shall not apply to the Sammamish Town Center Study Area as identified in Ordinance 2005-185;
 - (b) All subdivisions and short subdivisions on properties identified in a management area for clustering and set aside requirements in the East Lake Sammamish Basin and Nonpoint Action Plan (1994) shall be required to cluster away from wetlands or the axis of corridors along stream tributaries and identified swales connecting wetlands. At least 50 percent of all portions of the property located within wetland management areas identified for vegetation retention shall be left in native vegetation, preferably forest, and placed in a permanent open space tract. The open space tract shall be designed to maximize the amount of separation between any critical areas and the proposed development. If no critical area tracts are required, the open space tract shall be located to provide additional protection to nearby wetlands;
 - (c) Clearing and grading activity from October 1st through April 30th shall meet the provisions of SMC 16.15.120(4) wherever not already applicable; (Ord. O2003-132 § 13)
 - (d) All R-1 zoned properties within wetland management areas, as identified in the East Lake Sammamish Basin and Non-point Action Plan, shall retain native vegetation, or re-vegetate with trees to meet the following standards:
 1. Fifty percent (50%) of the site area shall be used to retain trees or re-vegetate with trees;
 2. Retained vegetation shall be located primarily within the 50% open space area required by SMC 21A.25.030;
 3. Retained vegetation shall consist primarily of trees with one significant tree per 0.0096 square feet;
 4. Areas re-vegetated shall provide one tree per 0.012 square feet. Planted trees shall meet the following specifications:
 - a. Coniferous trees shall be at least three (3) feet tall;
 - b. Deciduous trees shall be at five (5) feet tall; and

- c. Trees shall be planted primarily in the required open space area;
- 5. The provisions of this section shall not apply to the Sammamish Town Center Study Area as identified in Ordinance 2005-185; and
- (e) The director may, based upon review and approval of a critical areas special study, modify the provisions of this chapter to allow for:
 - (i) The installation of site access, provided that the applicant shall limit impervious surfaces to the minimum required to grant access; or,
 - (ii) Development using low impact development techniques to achieve standards adopted by the city that will demonstrably minimize development impacts consistent with subsections (a) through (c) above.

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

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

- (1) When appropriate due to the type of habitat or species present or the project area conditions, the director may require a critical areas study. If the habitat conservation area is also classified as a stream, lake, pond or a wetland, then the stream, lake, pond or wetland protection standards shall apply and habitat management shall be addressed as part of the stream, lake, pond or wetland review, provided that the City may impose additional requirements when necessary to provide for protection of the habitat conservation areas consistent with this chapter.
- (2) The director may require the following site and proposal related information with the critical areas study:
 - (a) Identification of any endangered, threatened, sensitive or candidate species that have a primary association with habitat on or adjacent to the project area, and an assessment of potential project impacts to the species;
 - (b) A discussion of any federal or state management recommendations, including Washington Department of Fish and Wildlife habitat management recommendations, that have been developed for species or habitats located on or adjacent to the project area;
 - (c) A discussion of any ongoing management practices that will protect habitat after the project site has been developed, including any proposed monitoring, maintenance, and adaptive management programs; and
 - (d) When appropriate due to the type of habitat or species present or the project area conditions, the director may also require the habitat management plan to include an evaluation by the state Department of Fish and Wildlife, local Native American Indian Tribe, or other qualified professional regarding the applicant's analysis and the effectiveness of any proposed mitigating measures or programs, to include any recommendations as appropriate.
- (3) **General requirements.**
 - (a) The department shall require the establishment of buffer areas for development activities in, or adjacent to, habitat conservation areas when needed to protect habitat conservation areas. Buffers shall consist of an undisturbed area of native vegetation, or areas identified for restoration, established to protect the integrity and functions of the habitat. Required buffer widths shall consider the management recommendations identified in (2), above, and reflect the sensitivity of the habitat and the type and intensity of human activity proposed to be conducted nearby. When a species is more susceptible to adverse impacts during specific periods of the year, seasonal restrictions may apply. Development activities may be further restricted and buffers may be increased during the specified season.

- (b) A habitat conservation area may be altered only if the proposed alteration of the habitat or the mitigation proposed does not reduce the quantitative and qualitative functions and values of the habitat, except in accordance with this chapter.
- (c) Low impact uses and development activities which are consistent with the purpose and function of the habitat conservation area and do not detract from its integrity may be permitted within the conservation area depending on the sensitivity of the habitat area. Examples of uses and development activities which may be permitted in appropriate cases include trails that are pervious, viewing platforms, stormwater management facilities such as grass-lined swales, utility easements and other similar uses and development activities; provided, that any impacts to the habitat resulting from such permitted facilities shall be fully mitigated.
- (d) Whenever development activities are proposed in or adjacent to a habitat conservation area with which state or federally endangered or threatened species have a primary association, such area shall be protected through the application of measures in accordance with a critical area report prepared by a qualified professional and approved by the City of Sammamish, with guidance provided by the appropriate state and/or federal agencies.
- (e) Plant, wildlife, or fish species not indigenous to the coastal region of the Pacific Northwest shall not be introduced into habitat conservation areas unless authorized by this chapter and by any required state or federal permit or approval.
- (f) Mitigation sites shall be located to achieve contiguous wildlife habitat corridors in accordance with a mitigation plan that is part of an approved critical area report to minimize the isolating effects of development on habitat areas, so long as mitigation of aquatic habitat is located within the same aquatic ecosystem as the area disturbed.
- (g) The director shall condition approvals of development activities allowed within or adjacent to a habitat conservation area or its buffers, as necessary to minimize or mitigate any potential adverse impacts. Conditions may include, but are not limited to, the following:
 - (i) Establishment of buffer zones;
 - (ii) Preservation of critically important vegetation;
 - (iii) Limitation of public access to the habitat area, including fencing to deter unauthorized access;
 - (iv) Seasonal restriction of development activities;
 - (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.
- (h) 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.

21A.50.327 Wildlife habitat corridors.

Habitat corridors 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:
 - (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;

- (b) Individual lots shall place the corridor in a conservation easement.
- (2) The wildlife habitat corridor shall be sited on the property in order to meet the following conditions:
 - (a) Forms one contiguous tract that enters and exits the property at the points the designated wildlife habitat network crosses the property boundary;
 - (b) Maintains a width, wherever possible, of 300 feet. The network width shall not be less than 150 feet wide at any point; and
 - (c) Be contiguous with and may include sensitive area tracts and their buffers.
- (3) When feasible, the wildlife habitat corridor shall be sited on the property in order to meet the following conditions:
 - (a) Connect isolated critical areas or habitat; and
 - (b) Connect with wildlife habitat corridors, open space tracts or wooded areas on adjacent properties, if present.
- (4) The wildlife corridor tract shall be permanently marked consistent with the methods contained in SMC 21A.50.170. Conservation easements are exempt from the permanent marking requirement.
- (5) A management plan for the wildlife corridor contained within a tract or tracts shall be prepared that specifies the permissible extent of recreation, forestry or other uses compatible with preserving and enhancing the wildlife habitat value of the tract or tracts. The management plan shall be reviewed and approved by the department. The approved management plan for a subdivision shall be contained within and recorded with the covenants, conditions and restrictions (CCRs). If the wildlife corridor is contained in a conservation easement, a management plan is not required, but may be submitted to the department for review and approval, and recorded with the conservation easement.
- (6) Clearing within the wildlife corridor contained in a tract or tracts shall be limited to that allowed by the management plan or as otherwise allowed by this chapter. No clearing shall be allowed within a wildlife corridor contained within a conservation easement on individual lots, unless the property owner has an approved management plan.
- (7) A homeowner's association or other entity capable of long term maintenance and operation shall be established to monitor and assure compliance with the management plan.
- (8) Wildlife corridors set aside in tracts or conservation easements shall meet the provisions in SMC 16.15.120.
- (9) The permanent open space tract containing the wildlife corridor may be credited toward the other applicable requirements such as surface water management and the recreation space requirement of SMC 21A.30.140, provided the proposed uses within the tract are compatible with preserving and enhancing the wildlife habitat value. Restrictions on other uses within the wildlife corridor tract shall be clearly identified in the management plan.
- (10) Low impact uses and activities which are consistent with the purpose and function of the habitat corridor and do not detract from its integrity may be permitted within the corridor depending on the sensitivity of the habitat area. Examples of uses and activities which may be permitted in appropriate cases include trails that are pervious, viewing platforms, stormwater management facilities such as grass-lined swales, utility easements and other similar uses and activities; provided, that any impacts to the corridor resulting from such permitted facilities shall be fully mitigated.
- (11) At the discretion of the director, these standards may be waived or reduced for public facilities such as schools, fire stations, parks, and public road projects. (Ord. O99-29 § 1)

21A.50.330 Streams – Development standards.

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

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

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

- (a) Where a legally established and constructed street transects a stream buffer, the department may approve a modification of the standard buffer width to the edge of the street if the isolated part of the buffer does not provide additional protection of the stream and provides insignificant biological, geological or hydrological buffer functions relating to the stream. If the resulting buffer distance is less than 50% of the standard buffer, no further reduction shall be allowed.
- (b) Where a buffer has been previously established through city or county development review on or after November 27, 1990, and is permanently recorded on title or placed within a separate tract, the buffer shall be as previously established, provided it is at least 50% of the required standard buffer distance.
- (2) Any stream with an ordinary high water mark within 25 feet of the toe of a slope 30 percent or steeper, but less than 40 percent, shall have:
- (a) The minimum buffer required for the stream class involved or a 25-foot buffer beyond the top of the slope, whichever is greater, if the horizontal length of the slope including small benches and terraces is within the buffer for that stream class; or
- (b) A 25-foot buffer beyond the minimum buffer width required for the stream class involved if the horizontal length of the slope including small benches and terraces extends beyond the buffer for that stream class.
- (3) Any stream adjoined by a riparian wetland or other contiguous critical area shall have the buffer required for the stream type involved or the buffer that applies to the wetland or other critical area, whichever is greater.
- (4) **Buffer averaging.** Buffer width averaging may be allowed by the City if:
- (a) It will provide additional natural resource protection, as long as the total area contained in the buffer on the development proposal site does not decrease (see also SMC 21A.30.210(4) for buffer compensation requirements for trails);
- (b) The stream contains variations in sensitivity due to existing physical characteristics or the character of the buffer varies in slope, soils, or vegetation, and the stream would benefit from a wider buffer in places and would not be adversely impacted by a narrower buffer in other places;
- (c) The buffer width is not reduced to less than 50% of the standard buffer; and
- (d) Buffer averaging may be used in conjunction with buffer reduction options in this section, provided the total combined reduction does not reduce the buffer to less than 50% of the standard buffer width at any location.
- (5) **Increased buffers.** Increased buffer widths shall be required by the City when necessary to protect streams, critical drainage areas, critical fish and wildlife habitat, landslide or erosion hazard areas contiguous to streams, and groundwater recharge and discharge area, or to offset buffer impacts, such as trail and utility corridors.

- (6) **Buffer reduction.** Buffers may be reduced when buffer reduction impacts are mitigated and result in equal or greater protection of the stream functions. Prior to considering buffer reductions, the applicant shall demonstrate application of mitigation sequencing as required in SMC 21A.50.135. A plan for mitigating buffer-reduction impacts must be prepared using selected incentive-based mitigation options from the list below, and is subject to approval by the city. The following incentive options for reducing standard buffer widths shall be considered cumulative up to a maximum reduction of fifty percent (50%) of the standard buffer width. In all circumstances where a substantial portion of the remaining buffer is degraded, the buffer reduction plan shall include replanting with native vegetation in the degraded portions of the remaining buffer area and shall include a five (5) year monitoring and maintenance plan.
- (a) Installation of biofiltration/infiltration mechanisms: up to twenty percent (20%) reduction in standard buffer width for the installation of bioswales, created and/or enhanced wetlands, or ponds supplemental to existing storm drainage and water quality requirements.
 - (b) Removal of existing impervious surfaces:
 - (i) Up to ten percent (10%) reduction in standard buffer width if impervious surfaces within the to-be-remaining buffer area are reduced by at least fifty percent (50%); or
 - (ii) Up to twenty percent (20%) reduction in standard buffer width if the to-be-remaining buffer area is presently more than fifty percent (50%) impervious AND all of it is to be removed.
 - (c) Removal of invasive, non-native vegetation: up to ten percent (10%) reduction in standard buffer width for the removal and extended (minimum 5 year) monitoring and continued-removal maintenance of relatively dense stands of invasive, non-native vegetation from significant portions of the remaining buffer area.
 - (d) In-stream habitat enhancement:
 - (i) Up to twenty percent (20%) reduction in standard buffer width for log structure placement, bioengineered bank stabilization, or culvert removal; or
 - (ii) Up to thirty percent (30%) reduction in standard buffer width for improving fish passage and/or creation of side channel or backwater areas.
 - (e) If not already required under an existing development proposal, installation of oil/water separators for storm water quality control: up to ten percent (10%) reduction in standard buffer width.
 - (f) Use of pervious material for driveway/road construction: up to ten percent (10%) reduction in standard buffer width.
 - (g) Restoration of on-site buffer and habitat areas, or restoration of off-site buffer and habitat areas within the same sub-basin of the impacted stream if no on-site restoration is possible:
 - (i) Up to ten percent (10%) reduction in standard buffer width if restoration area is at a 2:1 ratio or greater; or
 - (ii) Up to twenty percent (20%) reduction in standard buffer width if restoration area is at a 4:1 or greater.
 - (h) Removal of significant refuse or sources of toxic material: up to ten percent (10%) reduction in standard buffer width.
- (7) The use of hazardous substances, pesticides and fertilizers in the stream corridor and its buffer may be prohibited by the City.
- (8) The livestock restrictions in SMC 21A.50.290 shall also apply to Type S and F streams and their buffers. (Ord. O2005-172 § 4; Ord. O99-29 § 1)

21A.50.340 Streams – Permitted alterations.

Alterations to streams and stream buffers are not allowed except as provided for by complete exemptions, partial exemptions and exceptions in this chapter or as allowed for by this section.

- (1) Alterations may only be permitted if based upon a critical areas study conducted in accordance with SMC 21A.50.130 that determines the proposed development will:
 - (a) Protect, restore or enhance the habitat, natural drainage, or other valuable functions of the stream resulting in a net improvement to the stream and stream buffer;
 - (b) Design, implement, maintain and monitor a restoration or enhancement plan prepared by a qualified professional;
 - (c) Perform the restoration or enhancement under the direction of a qualified professional; and
 - (d) Will otherwise be consistent with the purposes of this chapter.
- (2) The applicant shall notify affected communities and native tribes of proposed alterations prior to any alteration if a stream is in a flood hazard area and shall submit evidence of such notification to the Federal Insurance Administration.
- (3) There shall be no introduction of any plant or wildlife which is not indigenous to the coastal region of the Pacific Northwest into any stream or buffer unless authorized by a state or federal permit or approval.
- (4) Utilities may be allowed in stream buffers if:
 - (a) No reasonable alternative location is available;
 - (b) The utility corridor meets any additional requirements for installation, replacement of vegetation and maintenance, as needed to mitigate impacts;
 - (c) The requirements for sewer utility corridors in SMC 21A.50.300 shall also apply to streams; and
 - (d) Joint use of an approved sewer utility corridor by other utilities may be allowed.
- (5) The following surface water management activities and facilities may be allowed in stream buffers as follows:
 - (a) Surface water discharge to a stream from a flow control or water quality treatment facility, sediment pond or other surface water management activity or facility may be allowed if the discharge is in compliance with the applicable City-adopted stormwater requirements.
 - (b) A Type Np or Ns stream buffer may be used as a regional stormwater management facility if:
 - (i) A public agency and utility exception is granted pursuant to SMC 21A.50.070;
 - (ii) All requirements of the applicable City-adopted stormwater requirements are met;
 - (iii) The use will not lower the rating or alter the factors used in rating the stream; and
 - (iv) There are no significant adverse impacts to the stream or habitat.
- (6) Except as provided in subsection (7) of this section, public and private trails may be allowed in stream buffers consistent with the standards and requirements in this chapter, the development standards in Chapter 21A.30 SMC, and requirements elsewhere in the SMC. Proposals for constructing viewing platforms, associated access trails, and spur trails must be reviewed by a qualified professional and a critical area study may be required.

- (7) **Crossings.** The use of existing crossings, including but not limited to utility corridors, road and railroad rights-of-way, across streams or buffers for public or private trails is preferred to new crossings, subject to the standards and requirements in the SMC. New stream crossings may be allowed and may encroach on the otherwise required stream buffer if:
- (a) Bridges, bottomless culverts or other appropriate methods demonstrated to provide fisheries protection shall be used for stream crossings and the applicant shall demonstrate that such methods and their implementation will pose no harm to the stream habitat or inhibit migration of anadromous fish;
 - (b) All crossings are constructed during the summer low flow and are timed to avoid stream disturbance during periods when use is critical to resident or anadromous fish including salmonids;
 - (c) Crossings do not occur over spawning areas used by resident or anadromous fish including salmonids unless the City determines that no other reasonable crossing site exists;
 - (d) Bridge piers or abutments are not placed within the FEMA floodway or the ordinary high water mark;
 - (e) Crossings do not diminish the flood-carrying capacity of the stream;
 - (f) Underground utility crossings are laterally drilled and located at a depth of four feet below the maximum depth of scour for the base flood predicted by a civil engineer licensed by the state of Washington. Temporary bore pits to perform such crossings may be permitted within the stream buffer established in SMC 21A.50.330. Crossing of Type Ns streams when dry may be made with open cuts; and
 - (g) The number of crossings is minimized and consolidated to serve multiple purposes and properties whenever possible.
- (8) **Relocations.** Stream relocations may be allowed only for:
- (a) Type F, Np, and Ns streams as part of a public road, trail, or park project for which a public agency and utility exception is granted pursuant to SMC 21A.50.050; and
 - (b) Type Np and Ns streams for the purpose of enhancing resources in the stream if:
 - (i) Appropriate floodplain protection measures are used; and
 - (ii) The relocation occurs on site, except that relocation off site may be allowed if the applicant demonstrates that any on-site relocation is impracticable, the applicant provides all necessary easements and waivers from affected property owners and the off-site location is in the same drainage sub-basin as the original stream.
- (9) For any relocation allowed by this section, the applicant shall demonstrate, based on information provided by qualified professionals, including a civil engineer and a biologist, that:
- (a) The equivalent base flood storage volume and function will be maintained;
 - (b) There will be no adverse impact to local groundwater;
 - (c) There will be no increase in velocity;
 - (d) There will be no interbasin transfer of water;
 - (e) There will be no increase in sediment load;
 - (f) Requirements set out in the mitigation plan are met;
 - (g) The relocation conforms to other applicable laws; and
 - (h) All work will be carried out under the direct supervision of a qualified biologist.
- (10) A stream channel may be stabilized if:
- (a) Movement of the stream channel threatens existing residential or commercial structures, public facilities or improvements, unique natural resources or the only existing access to property;
 - (b) The stabilization is done in compliance with the requirements of SMC 21A.50.230; and

- (c) Soft-bank stabilization techniques are utilized unless the applicant demonstrates that soft-bank techniques are not a reasonable alternative due to site-specific soil, geologic and/or hydrologic conditions.
- (11) Replacement of existing culverts to enhance stream habitat, not associated with any other development proposal, may be allowed if accomplished according to a plan for its design, implementation, maintenance, and monitoring prepared by qualified professionals, including a civil engineer and a biologist, and carried out under the direction of a qualified biologist.
- (12) Stream and habitat restoration or enhancement may be allowed if:
 - (a) The restoration is sponsored by a public agency with a mandate to do such work;
 - (b) The restoration is unassociated with mitigation of a specific development proposal;
 - (c) The restoration is limited to placement of rock weirs, log controls, spawning gravel, and other specific habitat improvements for resident or anadromous fish including salmonids;
 - (d) The restoration only involves the use of hand labor and light equipment; or the use of helicopters and cranes that deliver supplies to the project site; provided, that they have no contact with critical areas or their buffers; and
 - (e) The restoration is performed under the direction of qualified professionals.
- (13) Roadside ditches that carry streams with salmonids may be maintained through the use of best management practices developed in consultation with relevant City, state, and federal agencies.
- (14) Reconstruction, remodeling, or replacement of an existing structure upon another portion of an existing impervious surface that was established pursuant to City ordinances and regulations may be allowed provided:
 - (a) If within the buffer, the structure is located no closer to the stream than the existing structure; and
 - (b) The existing impervious surface within the buffer or stream is not expanded as a result of the reconstruction or replacement. (Ord. O2005-172 § 4; Ord. O99-29 § 1)

21A.50.350 Streams – Mitigation requirements.

When mitigation for stream or stream buffer impacts is required, mitigation shall meet the requirements listed in SMC 21A.50.145 in addition to the following supplementary requirements:

- (1) **Equivalent or greater functions.** Mitigation for alterations to stream(s) and/or stream buffer(s) shall achieve equivalent or greater functions including, but not limited to:
 - (a) Habitat complexity, connectivity, and other biological functions;
 - (b) Seasonal hydrological dynamics, water storage capacity and water quality; and
 - (c) Geomorphic and habitat processes and functions.
- (2) **Mitigation type and location.** Mitigation actions shall be in-kind and conducted within the same sub-basin and on the same site as the alteration except when the following apply:
 - (a) There are no reasonable on-site opportunities for mitigation or on-site opportunities do not have a high likelihood of success due to development pressures, adjacent land uses, or on-site buffers or connectivity are inadequate;
 - (b) Off-site mitigation has a greater likelihood of providing equal or improved functions than the impacted wetland; and
 - (c) Off-site locations shall be in the same sub-basin.
- (3) **Mitigation timing.** Where feasible, mitigation projects shall be completed prior to activities that will disturb streams. In all other cases, mitigation shall be completed immediately following

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

- (4) **Restoration required.** Restoration shall be required when a stream or its buffer is altered in violation of law or without any specific permission or approval by the City. A mitigation plan for restoration shall conform to the requirements of this chapter and demonstrate that:
- (a) The restoration will reliably and demonstrably improve the water quality and fish and wildlife habitat of the stream; and
 - (b) The restoration will have no lasting significant adverse impact on any stream functions.
- (5) Surface water management or flood control alterations shall not be considered enhancement unless other functions are simultaneously improved. (Ord. O2005-172 § 4; Ord. O99-29 § 1)

21A.50.351 Lakes and ponds – Development standards.

A development proposal on a parcel or parcels containing a lake, pond or associated buffer or setback shall meet the following requirements:

- (1) **Lake Sammamish buffer.** A 45-foot standard buffer shall be established from the ordinary high water mark, as defined by the Shoreline Management Act, of Lake Sammamish provided that up to 25 percent, or no less than 15 feet, of the lake frontage may be used for shoreline access.
- (2) **Increased Lake Sammamish buffers.** The department may require the Lake Sammamish buffer to be increased when necessary to protect other fish and wildlife habitat conservation areas. Where the lake exists adjacent to a stream or wetland located landward of the ordinary high water mark, the standards that provide greater protection shall prevail. Where the lake buffer includes a landslide hazard area, the buffer width shall be the greater of either the lake buffer or 25 feet beyond the top of the landslide hazard area.
- (3) **Lake Sammamish buffer reduction.** The Lake Sammamish buffer may be reduced when buffer reduction impacts are mitigated using any combination of the following mitigation options and result in equal or greater protection of lake functions. In no case shall the buffer be less than 15 feet. The Lake Sammamish buffer may be reduced by:
- (a) 15 feet for:
 - (i) Removal of an existing bulkhead located at, below, or within 5 feet landward of the lake's ordinary high water mark (OHWM) and subsequent restoration of the shoreline to a natural or semi-natural state, including restoration of topography, soil composition, and vegetation;
 - (ii) Restoration of shoreline to a natural or semi-natural state if no bulkhead is present, but other existing unnatural shoreline contours are present; or
 - (iii) Preservation of existing natural shoreline conditions if no bulkhead or other unnatural shoreline features are present;
 - (b) 10 feet for preservation of existing trees and native vegetation or restoration of native vegetation, as necessary, in the remaining Lake Sammamish buffer to be retained along at least 75 percent of the site's lake frontage. Up to 25 percent by area of preserved and/or restored vegetation can be comprised of non-invasive, non-native vegetation. Up to 25 percent, or no less than 15 feet, of the lake frontage may be used for shoreline access, provided that access areas are located to avoid areas of greater sensitivity and habitat value. Restoration of native vegetation shall consist of a mixture of trees, shrubs and groundcover and be designed to improve habitat functions;

- (c) 5 feet for preservation of existing native vegetation or restoration of native vegetation, as necessary, in the minimum 5-foot-wide nearshore area below the lake's ordinary high water mark (OHWM);
 - (d) 5 feet for preparation of, and agreement to adhere to, a shoreline vegetation management plan that includes appropriate limitations on the use of fertilizer, herbicides, and pesticides as needed to protect lake water quality; and
 - (e) 5 feet for limiting lawn area to no greater than 20% of the lot area. Landscaped areas outside of the lawn and buffer areas shall be maintained or planted in non-invasive vegetation.
- (4) **Other lakes and ponds - New residence setback and tree retention.**
- (a) A 50 foot building setback for new residences shall be established from the ordinary high water mark (OHWM), as defined by the Shoreline Management Act, for lakes and ponds other than Lake Sammamish.
 - (b) On lots abutting a lake or pond or containing the 50 foot setback area, 25 percent of existing significant trees shall be retained on site. Half of the significant trees to be retained shall be located within the 50 foot building setback area. Where half of the trees to be retained are not present within the setback area, the remaining number may be retained elsewhere on site.

21A.50.352 Lake Sammamish buffer – Permitted alterations.

Alterations to the Lake Sammamish buffers are not allowed except as provided for by complete exemptions, partial exemptions and exceptions in this chapter or as allowed for by this section.

- (1) New development and uses shall be prohibited from the Lake Sammamish buffer except as provided for in this chapter. Developments associated with water-dependent and water-enjoyment uses allowed by the shoreline master program are not required to meet the required buffer, provided that the placement of structures, storage, and hard surfaces within the buffer shall be limited to the minimum necessary for the successful operation of the use. In no case shall surface parking be allowed within the lake buffer;
- (2) Surface water management activity or facility, such as an energy dissipater and associated pipes, is allowed in the Lake Sammamish buffer only if the applicant demonstrates, to the satisfaction of the department, that:
 - (a) No reasonable alternative exists; and
 - (b) The functions of the lake and related buffer are not adversely affected;
- (3) Public and private trails are allowed in the Lake Sammamish buffer consistent with the standards and requirements in this chapter, development standards in Chapter 21A.30 SMC, and requirements elsewhere in the SMC. Proposals for constructing viewing platforms, associated access trails, and spur trails must be reviewed by a qualified professional and a critical area study may be required;
- (4) A dock, pier, moorage, float, or launch facility may be allowed, subject to the provisions of SMC Title 25;
- (5) Enhancement and restoration. Lake buffer enhancement or restoration not associated with any other development proposal may be allowed if accomplished according to a plan for its design, implementation, maintenance and monitoring prepared by and carried out under the direction of a

qualified professional. Restoration or enhancement must result in a net improvement to the functions of the lake ecosystem;

- (6) Restoration required. Restoration shall be required when the lake buffer is altered in violation of law or without any specific permission or approval by the City. A mitigation plan for the restoration shall conform to the requirements of this chapter; and
- (7) Development may be further regulated by the adopted shoreline master program.

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

- (1) The purpose of lake management areas is to designate the Beaver Lake and Pine Lake watersheds as special management areas for total phosphorus loading control and to establish standard procedures for evaluating drainage plans and related materials for applications of development within the Beaver Lake and Pine Lake Watersheds (within the East Lake Sammamish drainage basin).
- (2) The lake management areas special overlay district shall be designated on critical areas maps maintained by the department of community development.
- (3) Definitions. In addition to the definitions listed below, all definitions included in the King County Surface Water Design Manual are hereby adopted by reference.
 - (a) “AKART” means all known, available, and reasonable methods of prevention, control, and treatment.
 - (b) “Eutrophic” means a trophic status characterized by moderately high algal productivity, more serious oxygen depletion in the bottom waters, some recreational use impairment, summer chlorophyll a concentration greater than 10 micrograms/liter, a summer Secchi depth of less than 2 meters, and a winter total phosphorus concentration greater than 20 micrograms/liter.
 - (c) “Hypereutrophic” means a trophic status characterized by high algal productivity, intense algal blooms, fish kills due to oxygen depletion in the bottom waters, frequent recreational use impairment, summer chlorophyll a concentration greater than 10 micrograms/liter, a summer Secchi depth generally less than 2 meters, and a winter total phosphorus concentration greater than 30 micrograms/liter.
 - (d) “Lake management plan” means the plan (and supporting documents as appropriate) describing the lake management recommendations and requirements.
 - (e) “Mesotrophic” means a trophic status characterized by moderate algal productivity, oxygen depletion in the bottom waters, usually no recreational use impairment, summer chlorophyll a concentration averaging 4 to 10 micrograms/liter, a summer Secchi depth of two to five meters, and a winter total phosphorus concentrations ranging from 10 to 20 micrograms/liter.
 - (f) “Oligotrophic” means a trophic status characterized by low algal productivity, algal blooms are rare, water clarity is high, all recreational uses unimpaired, summer chlorophyll a concentration average less than four micrograms/liter, a summer Secchi depth greater than five meters, and a winter total phosphorus concentrations ranging from 0 to 10 micrograms/liter.
 - (g) “Phosphorus” means elemental phosphorus and for the purposes of this rule shall be measured as total phosphorus.
 - (h) “Phosphorus concentration” means the mass of phosphorus per liquid volume.
 - (i) “Phosphorus loading” means the total mass of phosphorus per time basis.

- (j) “Total phosphorus” means the phosphorus concentration as determined by a state certified analytical laboratory using EPA 365.3 or SM 4500-P-B,E or an equivalent method.
 - (k) “Trophic state index” means a classification system which uses algal biomass as the basis for classification which can be independently measured by chlorophyll a, Secchi depth, and total phosphorus concentration.
 - (l) “Trophic status” means a classification which defines lake quality by the degree of biological productivity.
- (4) The Beaver Lake watershed as generally identified in the Beaver Lake management plan, which is available at the City of Sammamish community development department, is a sensitive lake and is hereby designated a critical drainage area. This designation is:
- (a) Existing whole-lake total phosphorus concentration for the combined Beaver Lake system is 23 micrograms/liter. Beaver Lake 1 and Beaver Lake 2, individually, have whole-lake total phosphorus concentrations of 36 (± 2) micrograms/liter and 20 (± 1) micrograms/liter, respectively;
 - (b) Whole-lake total phosphorus concentration, chlorophyll a, and Secchi depth indicate that the Beaver Lake system is bordering on eutrophic conditions;
 - (c) Modeling of the Beaver Lake system’s future trophic status indicates that the lake will become hypereutrophic with a whole-lake total phosphorus concentration predicted to be 36 micrograms/liter without additional phosphorus removal via stormwater treatment; and
 - (d) Maintaining existing trophic status is a management plan goal. To maintain existing trophic status, an 80 percent total phosphorus annual loading removal goal was established for new impervious surface development prior to stormwater discharges to Beaver Lake.
- (5) The Pine Lake watershed is generally identified in the City of Sammamish comprehensive plan (Figure IV-1). All appropriate Beaver Lake specific water quality regulations shall be extended to the Pine Lake drainage basin as well.
- (a) These interim regulations shall only be in effect until such time that a customized Pine Lake water quality strategy is developed and development regulations are adopted based on approved findings of the study.
 - (b) An applicant for development within the Pine Lake drainage basin may apply for a variance from the standards specified in subsection (8) of this section if it can be proven that conditions are clearly different than at Beaver Lake.
- (6) The standards specified in subsection (8) of this section shall apply to all development proposals located within the Beaver Lake and Pine Lake watersheds which require drainage review as specified in the King County Surface Water Design Manual.
- (7) Development proposals within the Beaver Lake or Pine Lake watersheds may be exempt from management plan requirements if they demonstrate to the satisfaction of the community development department that on-site surface and stormwater runoff drainage does not in fact drain into the basin in question.
- (8) For projects which create greater than 5,000 square feet of new impervious surface subject to vehicular use in the Beaver Lake or Pine Lake watersheds, the following conditions shall apply, unless the conditions identified in subsection (6) of this section are documented to the satisfaction of the community development department.

- (a) The proposed stormwater facilities shall be designed to remove 80 percent of all new total phosphorus loading on an annual basis due to new development (and associated stormwater discharges) in the Beaver Lake or Pine Lake watersheds where feasible or utilize AKART if infeasible.
- (b) Currently the AKART standard or interim best management practices for phosphorus sensitive lakes can be fulfilled by the following stormwater treatment design criteria:
- (i) A wetpond or combined detention/wetpond with a permanent pool volume equal to 4.5 times the volume of runoff from the mean annual storm (VB/VR=4.5).
- (A) Mandatory roof downspout infiltration unless shown to be infeasible, and maximization of forest or native vegetation retention.
- (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 stormwater 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 than by methods described in subsection (8)(b)(i) of this section.
- (iii) Where soils are suitable, on-site infiltration of stormwater 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: 1) the cation exchange capacity of the soil equals or is greater than five milliequivalents; 2) the organic content of the soil is equal to or greater than five percent; 3) the grain size distribution of site soils is equivalent to not more than 25 percent gravel by weight (75 percent passing the #4 sieve) and of that passing the #4 sieve, either a) 50 percent minimum passes the #40 sieve and two percent minimum passes the #100 sieve, or b) 25 percent minimum passes the #40 sieve and five percent minimum passes the #200 sieve; and 4) the infiltration rate is 2.4 inches/hour or less. Additionally, the proponent must demonstrate that equivalent or better phosphorus treatment can be expected with on-site infiltration than by methods described in subsection (8) of this section.

- (iv) As the King County Surface Water Design Manual is updated and additional treatment options and designs for total phosphorus removal become available, alternative treatment systems may be utilized if the AKART standard for phosphorus removal can be demonstrated.
- (c) Hydrologic analysis shall be determined using a continuous hydrologic model such as the Hydrologic Simulation Program-Fortran (HSPF), the King County Runoff Time Series Program (KCRTS), the Santa Barbara Urban Hydrograph, or the VB/VR methodology. These methodologies may be revised or superseded by other methodologies for achieving the same performance goal as stipulated by future revision to the Surface Water Design Manual. (Ord. O2003-132 § 13)

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

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

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

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

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

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

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

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

21A.50.400 Sunset Provisions.

The provisions contained in Sections 21A.50.351 (Lakes and Ponds -Development Standards), 21A.50.330 (Streams - Development Standards), and 21A.50.290 (Wetlands - Development Standards) and 21A.50.310 (6)(a) (Wetland mitigation ratios) shall revert to those in effect prior to January 3, 2006, 48 months following the January 3, 2006 effective date of this Chapter unless renewed or revised.

Supplemental Code Changes Related to Critical Areas

This document shows supplemental critical areas revisions. These are changes to other titles & chapters of the Sammamish Municipal Code in addition to Chapter 21A.50 SMC that are directly related to the critical areas update. It contains revisions and additions to critical areas definitions in Chapter 21A.15 and various other changes to chapters 15.10, 16.15, 21A.30, 21A.85 and 21A.110.

15.10.130 Duties and responsibilities of the City manager.

Duties of the City manager or designee shall include, but not be limited to:

- (1) Permit Review.
 - (a) Review all development permits to determine that the permit requirements of this chapter have been satisfied;
 - (b) Review all development permits to determine that all necessary permits have been obtained from those federal, state, or local governmental agencies from which prior approval is required; and
 - (c) Review all development permits to determine if the proposed development is located in the floodway. If located in the floodway, assure that the encroachment provisions of SMC 15.10.170(1) are met.
- (2) Use of Other Base Flood Data. When base flood elevation data has not been provided in accordance with SMC 15.10.060, Basis for establishing the areas of special flood hazard, the City manager or designee shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a federal, state, or other source, in order to administer SMC 15.10.160, Specific standards, and SMC 15.10.170(1), Floodways.
- (3) Information to Be Obtained and Maintained.
 - (a) Where base flood elevation data is provided through the flood insurance study or required as in subsection (2) of this section, obtain and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, whether or not the structure contains a basement.
 - (b) For all new or substantially improved floodproofed structures:
 - (i) Verify and record the actual elevation (in relation to mean seal level) to which the structure was floodproofed; and
 - (ii) Maintain the floodproofing certifications required in SMC 15.10.110(2)(c).
 - (c) Maintain for public inspection all records pertaining to the provisions of this chapter.
- (4) Alteration of Watercourses.
 - (a) Notify adjacent communities and the Department of Ecology prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration.
 - (b) Require that maintenance is provided within the altered or relocated portion of said watercourse so that the flood carrying capacity is not diminished.
- (5) Interpretation of FIRM Boundaries. Make interpretations where needed, as to exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in SMC 15.10.140. (Ord. O2000-54 § 13)

15.10.160 Specific standards.

In all areas of special flood hazards where base flood elevation data has been provided as set forth in SMC 15.10.060, Basis for establishing the areas of special flood hazard, or SMC 15.10.130(2), Use of other base flood data, the following provisions are required:

- (1) Residential Construction.
 - (a) New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated one foot above the base flood elevation. Exception: The finished ground level of the underfloor space may be a maximum of two feet below the outside finished ground level where constructed in accordance with FEMA/FIA-TB-11 and the International Residential Code.
 - (b) Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of flood waters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:
 - (i) A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided;
 - (ii) The bottom of all openings shall be no higher than one foot above grade; and
 - (iii) Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of flood waters.
- (2) Nonresidential Construction. New construction and substantial improvement of any commercial, industrial, or other nonresidential structure shall either have the lowest floor, including basement, elevated one foot above the base flood elevation or together with attendant utility and sanitary facilities, shall:
 - (a) Be floodproofed so that below one foot above the base flood level the structure is watertight with walls substantially impermeable to the passage of water;
 - (b) Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;
 - (c) Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting provisions of this subsection based on the engineer or architect's development and/or review of the structural design, specifications and plans. Such certifications shall be provided to the official as set forth in SMC 15.10.130(3) (b) ;
 - (d) Nonresidential structures that are elevated and not floodproofed must meet the same standards for space below the lowest floor as described in subsection (1)(b) of this section; and
 - (e) Applicants floodproofing nonresidential buildings shall be notified that flood insurance premiums will be based on rates that are one foot below the floodproofed level (e.g., a building floodproofed to the base flood level will be rated as one foot below).
- (3) Manufactured Homes.
 - (a) All manufactured homes to be placed or substantially improved on sites:
 - (i) Outside of a manufactured home park or subdivision;
 - (ii) In a new manufactured home park or subdivision;
 - (iii) In an expansion to an existing manufactured home park or subdivision; or
 - (iv) In an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the result of a

flood; shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated one foot above the base flood elevation and shall be securely anchored to an adequately anchored foundation system to resist flotation, collapse and lateral movement.

- (b) Manufactured homes to be placed or substantially improved on sites in an existing manufactured home park or subdivision that are not subject to the above manufactured home provisions shall be elevated so that either:
 - (i) The lowest floor of the manufactured home is elevated one foot above the base flood elevation; or
 - (ii) The manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade and securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.
- (4) Recreational Vehicles. Recreational vehicles placed on sites are required to either:
 - (a) Be on the site for fewer than 180 consecutive days;
 - (b) Be fully licensed and ready for highway use, on their wheels or jacking systems, attached to the site only by quick disconnect type utilities and security devices, and have no permanently attached additions; or
 - (c) Meet the requirements of subsection (3) of this section and the elevation and anchoring requirements for manufactured homes. (Ord. O2000-54 § 16)

15.10.170 Floodways.

Located within areas of special flood hazard established in SMC 15.10.060 are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of flood waters that carry debris, potential projectiles, and erosion potential, the following provisions apply:

- (1) Encroachments are prohibited, including fill, new construction, substantial improvements, and other development unless certification by a registered professional engineer is provided demonstrating through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.
- (2) Construction or reconstruction of residential structures is prohibited within designated floodways, except for:
 - (a) Repairs, reconstruction, or improvements to a structure that do not increase the ground floor area; and
 - (b) Repairs, reconstruction or improvements to a structure, the cost of which does not exceed 50 percent of the market value of the structure either:
 - (i) Before the repair or reconstruction is started; or
 - (ii) If the structure has been damaged and is being restored, the market value before the damage occurred.

Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications that have been identified by the local code enforcement official and that are the minimum necessary to assure safe living conditions or to structures identified as historic places may be excluded in the 50 percent.

- (3) If subsection (1) of this section is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of SMC 15.10.150 through 15.10.210. (Ord. O2000-54 § 17)

16.15.020 Definitions

(XX) “**Pruning**” means cutting or removal of branches and leaving at least two-thirds of the existing tree branch structure. Topping and removal of more than one-third of the existing limbs shall only be permitted under the supervision of a certified arborist.

16.15.050 Clearing and grading permit required – Exceptions.

No person shall do any clearing or grading without first having obtained a clearing and grading permit from the director except for the following:

- (1) An on-site excavation or fill for basements and footings of a building, retaining wall, parking lot, or other structure authorized by a valid building permit. This shall not exempt any fill made with the material from such excavation nor exempt any excavation having an unsupported height greater than five feet after the completion of such structure;
- (2) Maintenance of existing driveways or private access roads within their existing road prisms; provided, that the performance and restoration requirements of this chapter are met and best management practices are utilized to protect water quality;
- (3) Any grading within a publicly owned road right-of-way, provided this does not include clearing or grading that expands further into a critical area or buffer;
- (4) Clearing or grading by a public agency for the following routine maintenance activities:
 - (a) Roadside ditch cleaning provided the ditch does not contain salmonids;
 - (b) Pavement maintenance;
 - (c) Normal grading of gravel shoulders;
 - (d) Maintenance of culverts;
 - (e) Maintenance of flood control or other approved surface water management facilities;
 - (f) Routine clearing within road right-of-way;
- (5) Cemetery graves; provided, that this exception does not apply except for routine maintenance if the clearing or grading is within a critical area as regulated in Chapter 21A.50 SMC;
- (6) Minor stream restoration projects for fish habitat enhancement by a public agency, utility, or tribe as set out in Chapter 21A.50 SMC;
- (7) Any clearing or grading that has been approved by the director as part of a commercial site development permit and for which a financial guarantee has been posted;
- (8) The following activities are exempt from the clearing requirements of this chapter and no permit shall be required:
 - (a) Normal and routine maintenance of existing lawns and landscaping subject to the limitations on the use of pesticides in critical areas as set out in Chapter 21A.50 SMC;
 - (b) Emergency tree removal to prevent imminent danger or hazard to persons or property;
 - (c) Normal and routine horticultural activities associated with commercial orchards, nurseries, or Christmas tree farms subject to the limitations on the use of pesticides in critical areas as set out in Chapter 21A.50 SMC. This does not include clearing or grading in order to develop or expand such activities;
 - (d) Normal and routine maintenance of existing public park properties and private and public golf courses. This does not include clearing or grading in order to

- develop or expand such activities in critical areas;
 - (e) Removal of noxious weeds from steep slope hazard areas and the buffers of streams and wetlands subject to the limitations on such removal and the use of pesticides in critical areas as set out in Chapter 21A.50 SMC;
 - (f) Pruning and limbing of vegetation for maintenance of above-ground electrical and telecommunication facilities; provided, that the clearing is consistent with the electric, natural gas, cable communication and telephone utility exemption in critical areas as regulated in Chapter 21A.50 SMC;
- (9) The cutting and removal of any coniferous tree of less than eight inches DBH or any deciduous tree of less than 12 inches DBH when not located within a critical area or buffer;
- (10) The pruning, limbing, and general maintenance of trees outside of environmentally critical areas and buffers, consistent with the requirements of Chapter 21A.35 SMC; and (Ord. O2005-175 § 1; Ord. O2004-149 § 2; Ord. O2003-132 § 2)
- (11) The pruning, limbing, and general maintenance of trees in buffers or that are otherwise required to be retained pursuant to SMC 21A.50.

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 stormwater, 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. O2005-172 § 2; Ord. O99-29 § 1. Formerly 21A.50.200)

21A.15.122 Buffer.

"Buffer" means a designated area contiguous to a steep slope or landslide hazard area intended to protect slope stability, attenuation of surface water flows and landslide hazards, or a designated area contiguous to a habitat conservation area, stream or wetland intended to protect the habitat, stream or wetland and be an integral part of the habitat, stream or wetland ecosystem. (Ord. O2003-132 § 10)

21A.15.253 Critical aquifer recharge area.

"Critical aquifer recharge areas" are those areas in the city of Sammamish with a critical recharging effect on aquifers used for potable water as defined by WAC 365-190-030(2). CARAs have prevailing geologic conditions associated with infiltration rates that create a high potential for contamination of ground water resources or contribute significantly to the replenishment of ground water. CARAs shall be classified based on the following criteria:

- (1) Class 1 CARAs include those areas located within the mapped one (1) or five (5) year capture zone of a Wellhead Protection Area.

- (2) Class 2 CARAs include those areas located within the mapped ten (10) year capture zone of a Wellhead Protection Area.
- (3) Class 3 CARAs include those areas outside Wellhead Protection Areas that are identified as high aquifer recharge potential areas based on characteristics of surficial geology and soil types.

21A.15.254 Critical areas.

"Critical areas" means those areas in the City that are erosion hazard areas, frequently flooded area, landslide hazard areas, seismic hazard areas, critical aquifer recharge areas, wetlands, streams, and fish and wildlife habitat conservation areas.

21A.15.415 Erosion hazard areas.

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

- (1) The Alderwood gravely sandy loam (AgD);
- (2) The Alderwood and Kitsap soils (AkF);
- (3) The Beausite gravely sandy loam (BeD and BeF);
- (4) The Everett gravelly sandy loam (EvD);
- (5) The Kitsap silt loam (KpD);
- (6) The Ovall gravely loam (OvD and OvF);
- (7) The Ragnar fine sandy loam (RaD); and
- (8) The Ragnar-Indianola Association (RdE). (Ord. O2003-132 § 10)

21A.15.468 Fish and wildlife habitat conservation areas.

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

- (1) Areas with which state or federally designated endangered, threatened, and sensitive species have a primary association.
 - (a) Federally designated endangered and threatened species are those fish and wildlife species identified by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service that are in danger of extinction or are threatened to become endangered. The U.S. Fish and Wildlife Service and the National Marine Fisheries Service should be consulted as necessary for current listing status.
 - (b) State designated endangered, threatened, and sensitive species are those fish and wildlife species native the coastal region of the Pacific Northwest identified by the state Department of Fish and Wildlife, that are in danger of extinction, threatened to become endangered, vulnerable, or declining and are likely to become endangered or threatened in a significant portion of their range within the state without cooperative management or removal of threats. State designated endangered, threatened, and sensitive species are periodically recorded in WAC 232-12-014 (state endangered species), and WAC 232-12-011 (state threatened and sensitive species). The state Department of Fish and Wildlife maintains the most current listing and should be consulted as necessary for current listing

status;

- (2) Streams, lakes and naturally occurring ponds;
- (3) State natural area preserves and natural resource conservation areas. Natural area preserves and natural resource conservation areas are defined, established, and managed by the state Department of Natural Resources; and
- (4) Wildlife habitat corridors for preserving connections between habitats along the designated wildlife habitat network.

21A.15.532 Frequently flooded areas.

“Frequently flooded areas” means those lands in the City in the floodplain subject to a one percent (1%) or greater chance of flooding in any given year and those lands that provide important flood storage, conveyance, and attenuation functions, as determined by the City in accordance with WAC 365-190-080(3). Frequently flooded areas perform important hydrologic functions and may present a risk to persons and property. Frequently flooded areas include all areas of special flood hazards within the jurisdiction of the City of Sammamish.

21A.15.586 Hazardous Trees.

“Hazardous trees” means those trees with a structural defect, combination of defects or disease resulting in a structural defect that, under the normal range of environmental conditions at the site, will result in the loss of a major structural component of the tree in a manner that will:

- (1) Damage a residential structure or accessory structure, place of employment or public assembly or approved parking for a residential structure or accessory structure or place of employment or public assembly;
- (2) Damage an approved road or utility facility; or
- (3) Prevent emergency access in the case of medical hardship.

21A.15.664 Lakes.

“Lakes” means an open body of surface water, not including streams or rivers, that is twenty acres or greater in total area.

21A.15.680 Landslide hazard areas.

"Landslide hazard areas" means those areas in the City of Sammamish potentially subject to risk of mass movement due to a combination of geologic, topographic, and hydrologic factors. These areas are typically susceptible to landslides because of a combination of factors including: bedrock, soil, slope gradient, slope aspect, geologic structure, ground water, or other factors. Landslide hazard areas include the following: (1) Areas of historic failures, such as:

- (a) Those areas delineated by the U.S. Department of Agriculture’s Natural Resources Conservation Service as having a "severe" limitation for building site development;
- (b) Areas designated as quaternary slumps, earthflows, mudflows, or landslides on maps published by the U.S. Geological Survey or Department of Natural Resources;

- (2) Areas that have shown movement during the Holocene epoch, from 10,000 years ago to the present, or which is underlain by mass wastage debris from that epoch;
- (3) Any area with all three of the following characteristics:
 - (a) Slopes steeper than 15 percent; and
 - (b) Hillsides intersecting geologic contacts with a relatively permeable sediment overlying a relatively impermeable sediment or bedrock; and
 - (c) Springs or groundwater seepage;
- (4) Areas with a slope of forty percent (40%) or steeper and with a vertical relief of ten (10) or more feet except areas composed of consolidated rock. A slope is delineated by establishing its toe and top and measured by averaging the inclination over at least ten (10) feet of vertical relief;
- (5) Slopes that are parallel or subparallel to planes of weakness (such as bedding planes, joint systems, and fault planes) in subsurface materials;
- (6) Slopes having gradients steeper than eighty percent (80%) subject to rock fall during seismic shaking;
- (7) Areas potentially unstable because of rapid stream incision, stream bank erosion or undercutting by wave action; and
- (8) Landslide hazard areas do not include those areas composed of slopes greater than 40% that were created from a previously non-landslide hazard area through legal grading activity and that are confirmed to be stable by a qualified professional.

(Ord. O2003-132 § 10)

21A.15.790 Native vegetation.

“Native vegetation” means vegetation comprised of plant species, other than noxious weeds, which are indigenous to the coastal region of the Pacific Northwest and that reasonably could have been expected to naturally occur on the site. (Ord. O2003-132 § 10)

21A.15.796 Naturally occurring ponds.

See “Ponds, naturally occurring.”

21A.15.835 Park.

“Park” means a developed or undeveloped site designed or developed for recreational use by the public including, but not limited to:

- (1) Indoor facilities, such as:
 - (a) Gymnasiums;
 - (b) Swimming pools; or
 - (c) Activity centers;
- (2) Outdoor facilities, such as:
 - (a) Playfields;
 - (b) Fishing areas;
 - (c) Picnic and related outdoor activity areas; or
 - (d) Approved campgrounds;
- (3) Areas and trails for:
 - (a) Hikers;

- (b) Equestrians;
- (c) Bicyclists; or
- (d) Off-road recreational vehicle users;
- (4) Recreation space areas required under SMC 21A.30.140;
- (5) Play areas required under SMC 21A.30.160; and
- (6) Facilities for on-site maintenance. (Ord. O2003-132 § 10)

21A.15.898 Ponds, naturally occurring.

“Ponds, naturally occurring” are those surface water bodies under twenty (20) acres and their submerged aquatic beds that provide fish or wildlife habitat, including those man-made ponds intentionally created in order to mitigate critical area impacts. Naturally occurring ponds do not include ponds deliberately designed and created from dry sites for other reasons such as canals, detention facilities, wastewater treatment facilities, farm ponds, temporary construction ponds, and landscape amenities, unless such artificial ponds were intentionally created for mitigation.

21A.15.942 Qualified professional.

“Qualified professional” means a person with experience and training in the applicable field or critical area. A qualified professional must have obtained a B.S. or B.A. or equivalent degree in biology, engineering, environmental studies, fisheries, geomorphology or related field, and two years of related work experience.

- (1) A qualified professional for watercourses, wetlands, and wildlife habitat conservation areas must have a degree in biology or related field and relevant professional experience.
- (2) A qualified professional for preparing geotechnical reports and geotechnical design recommendations must be a professional geotechnical engineer, licensed in the state of Washington. Identification of geologic hazards may be performed by geologists or other geology professionals with experience identifying geologic hazards.
- (3) A qualified professional for preparing critical aquifer recharge reports must be a professional hydrogeologist or geologist, licensed in the state of Washington.

21A.15.948 Reasonable alternative.

In determining what is a "reasonable alternative" to a proposed development, alteration or activity, the department may consider the purpose, effectiveness, engineering feasibility, commercial availability of technology, best management practices, safety and cost of the alternative action or proposal. Reasonable alternatives are those that are capable of being carried out, taking into consideration the overall project purposes, needs and objectives. (Ord. O2005-172 § 2)

21A.15.950 Reasonable use.

"Reasonable use" means a legal concept articulated by federal and state courts in regulatory taking cases. (Ord. O2003-132 § 10)

21A.15.1230 Steep slope hazard areas.

"Steep slope hazard areas" means those landslide hazard areas in the City on slopes 40 percent or steeper within a vertical elevation change of at least 10 feet. A slope is delineated by establishing its toe and top and is measured by averaging the inclination over at least 10 feet of vertical relief. For the purpose of this definition:

- (1) The toe of a slope is a distinct topographic break in slope that separates slopes inclined at

less than 40 percent from slopes 40 percent or steeper. Where no distinct break exists, the toe of a steep slope is the lowermost limit of the area where the ground surface drops 10 feet or more vertically within a horizontal distance of 25 feet; and

- (2) The top of a slope is a distinct, topographic break in slope that separates slopes inclined at less than 40 percent from slopes 40 percent or steeper. Where no distinct break exists, the top of a steep slope is the uppermost limit of the area where the ground surface drops 10 feet or more vertically within a horizontal distance of 25 feet. (Ord. O2003-132 § 10)

21A.15.1240 Streams.

"Streams" means those areas in the City where surface waters produce a defined channel or bed, not including irrigation ditches, canals, storm or stormwater run-off conveyance devices or other entirely artificial watercourses, unless they are used by salmonids or are used to convey streams naturally occurring prior to construction of such watercourses. For the purpose of this definition, a defined channel or bed is an area that demonstrates clear evidence of the passage of water and includes, but is not limited to, bedrock channels, gravel beds, sand and silt beds, and defined-channel swales. The channel or bed need not contain water year-round. For the purpose of defining the following categories of streams, normal rainfall is rainfall that is at or near the mean of the accumulated annual rainfall record, based upon the water year for King County as recorded at the Seattle-Tacoma International Airport.

- (1) Streams shall be classified according to the following criteria:
 - (a) Type S streams are all streams inventoried as "Shorelines of the state" under the City's shoreline master program. No Type S streams have been identified in the City as of September 1, 2005.
 - (b) Type F streams are those streams that are used by salmonids, have the potential to support salmonid uses, or that have been identified as being of special significance. Streams of special significance are those perennial reaches designated by the City based on historic fish presence and/or the probability of restoration of the following:
 - (i) George Davis Creek;
 - (ii) Ebright Creek;
 - (iii) Pine Lake Creek; and
 - (iv) Laughing Jacobs Creek, below Laughing Jacobs Lake.
 - (c) Type Np streams which are Perennial during a year of normal rainfall and do not have the potential to be used by salmonids. Type Np streams include the intermittent dry portions of the perennial channel below the uppermost point of perennial flow. If the uppermost point of perennial flow cannot be identified with simple, nontechnical observations then the point of perennial flow should be determined using the best professional judgment of a qualified professional.
 - (d) Type Ns streams which are Seasonal or ephemeral during a year of normal rainfall and do not have the potential to be used by salmonids.
- (2) For the purposes of this definition, "used by salmonids" and "potential to support salmonid uses" is presumed for:
 - (a) Streams where naturally reoccurring use by salmonid populations has been documented by a government agency;
 - (b) Streams that are fish passable by salmonid populations from Lake Sammamish, as determined by a qualified professional based on review of stream flow, gradient and barriers and criteria for fish passability established by the Washington Department of Fish and Wildlife; and

- (c) Streams that are planned for restoration in a 6-year capital improvement plan adopted by a government agency that will result in a fish passable connection to Lake Sammamish.

(Ord. O2003-132 § 10)

21A.15.1337 Underground storage tanks.

“Underground storage tank” (UST) means a tank and any underground piping connected to the tank that has at least 10 percent of its combined volume underground and is used for the storage of hazardous substances. USTs are generally associated with industrial/commercial land uses and can be found at filling stations, airports, hospitals, automotive repair shops, industrial plants, residential areas and other facilities. The definition of UST does not include underground facilities for the storage or treatment of stormwater or for the storage of nonhazardous substances, such as drinking water.

21A.15.1385 Water dependent use.

"Water dependent use" means a use or portion of a use which cannot exist in a location that is not adjacent to the water and which is dependent on the water by reason of the intrinsic nature of its operations. (Ord. O2003-132 § 10)

21A.15.1386 Water-enjoyment use.

"Water-enjoyment use" means a recreational use or other use that facilitates public access to the shoreline as a primary characteristic of the use; or a use that provides for recreational use or aesthetic enjoyment of the shoreline for a substantial number of people as a general characteristic of the use and which through location, design, and operation ensures the public's ability to enjoy the physical and aesthetic qualities of the shoreline. In order to qualify as a water-enjoyment use, the use must be open to the general public and the shoreline-oriented space within the project must be devoted to the specific aspects of the use that fosters shoreline enjoyment.

21A.15.1387 Water-oriented use.

"Water-oriented use" means a use that is water-dependent, water-related, or water-enjoyment, or a combination of such uses.

21A.15.1388 Water related use.

“Water related use” means a use or portion of a use which is not intrinsically dependent on a waterfront location but whose economic viability is dependent upon a waterfront location because:

- (1) The use has a functional requirement for a waterfront location such as the arrival or shipment of materials by water or the need for large quantities of water; or,
- (2) The use provides a necessary service supportive of the water-dependent uses and the proximity of the use to its customers makes its services less expensive and/or more convenient.

21A.15.1395 Wetland edge.

"Wetland edge" means the line delineating the outer edge of a wetland, consistent with the *Washington State Wetlands and Delineation Manual* (1997 as amended). (Ord. O2003-132 § 10)

21A.15.1410 Wetland, isolated.

“Wetland, isolated” means a wetland that is hydrologically isolated from other wetlands or streams, does not have permanent open water, and is determined to be of low function. (Ord. O2003-132 § 10)

21A.15.1415 Wetlands.

“Wetlands” are those areas in the City of Sammamish designated in accordance with *Washington State Wetlands Identification and Delineation Manual* (1997 as amended). Wetlands are areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. Wetlands do not include those artificial wetlands intentionally created from nonwetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. Wetlands may include those artificial wetlands intentionally created from nonwetland areas to mitigate the conversion of wetlands.

Wetlands shall be rated according to the *Washington State Wetland Rating System for Western Washington* (Department of Ecology 2004, or as revised). This document contains the definitions, methods and a rating form for determining the categorization of wetlands described below:

- Category 1.** Category 1 wetlands include those that receive a score of greater than or equal to 70 based on functions, or those that are rated Category 1 based on Special Characteristics as defined in the rating form.
- Category 2.** Category 2 wetlands include those that receive a score of 51 through 69 based on functions, or those that are rated Category 2 based on Special Characteristics as defined in the rating form.
- Category 3.** Category 3 wetlands include those that receive a score of 30 through 50 based on functions.
- Category 4.** Category 4 wetlands score less than 30 points based on functions.

21A.110.030 Variance.

A variance shall be granted by the City, only if the applicant demonstrates all of the following:

- (1) The strict enforcement of the provisions of this title creates an unnecessary hardship to the property owner;
- (2) The variance is necessary because of the unique size, shape, topography, or location of the subject property;
- (3) The subject property is deprived, by provisions of this title, of rights and privileges enjoyed by other properties in the vicinity and under an identical zone;
- (4) The variance does not create health and safety hazards, is not materially detrimental to the public welfare or is not unduly injurious to property or improvements in the vicinity;
- (5) The variance does not relieve an applicant from any of the procedural provisions of this title;
- (6) The variance does not relieve an applicant from any standard or provision that specifically states that no variance from such standard or provision is permitted;
- (7) The variance does not relieve an applicant from conditions established during prior permit review or from provisions enacted pursuant to SMC 21A.50.225, Erosion hazard areas near sensitive water bodies – Special district overlay; SMC 21A.50.322, Wetland management area – Special district overlay; or SMC 21A.50.355, Lake management

- areas – Special district overlay;;
- (8) The variance does not allow establishment of a use that is not otherwise permitted in the zone in which the proposal is located;
 - (9) The variance does not allow the creation of lots or densities that exceed the base residential density for the zone by more than 10 percent;
 - (10) The variance is the minimum necessary to grant relief to the applicant;
 - (11) The variance from setback or height requirements does not infringe upon or interfere with easement or covenant rights or responsibilities; and
 - (12) The variance does not relieve an applicant from any provisions of Chapter 21A.50 SMC, Environmentally Critical areas, except for the required building setbacks set forth in SMC 21A.50. (Ord. O99-29 § 1)