

APPENDICES

A. Critical Area Regulations (IMC 18.10)

APPENDIX A

Chapter 18.10 **ENVIRONMENTAL PROTECTION***

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Critical Areas Regulations

18.10.340 Purpose.

The purpose of this chapter is to identify environmentally critical areas and to supplement the development requirements contained in the various use classifications in the Issaquah Municipal Code by providing for additional controls without violating any citizen's constitutional rights. (Ord. 2108 § 10.2.1, 1996).

18.10.350 Intent.

It is the intent of the City to balance the community vision which includes:

- A. Environmental protection and preservation;
- B. Diversified economic growth which has been planned and which is compatible with the vision of the community; and
- C. Overall improvement of the quality of life for the residents of Issaquah.

The City shall implement this vision through directing appropriate development to areas of the City in which the development will have the least adverse impact to the environment. High impact land use shall be located in areas that will have the least detrimental adverse effect to environmentally critical areas. In areas that development may have a substantial risk to potentially, adversely impact environmentally critical areas, only low impact land use shall be permitted. (Ord. 2301 § 3, 2001; Ord. 2233 § 17, 1999; Ord. 2108 § 10.2.2, 1996).

18.10.360 Environmentally critical areas.

Coal mines, streams, wetlands, lakes, steep slopes, protective buffers, watersheds, aquifer recharge areas, as well as areas subject to erosion, flooding, landslides, and seismic hazards, constitute environmentally critical areas that are of special concern to the City. The standards and mechanisms established in this chapter are intended to protect these environmentally critical areas in Issaquah. By regulating development and alterations to critical areas, this chapter seeks to:

- A. Protect members of the public and public resources and facilities from injury, loss of life, property damage or financial losses due to flooding, erosion, landslides and seismic events, soil subsidence and steep slope failures;
- B. Protect unique, fragile and valuable elements of the environment including wildlife and its habitat;
- C. Mitigate unavoidable impacts to environmentally critical areas by regulating alterations in and adjacent to critical areas;

- D. Prevent cumulative adverse environmental impacts to water availability, water quality, wetlands and streams;
- E. Minimize erosion potential;
- F. Avoid alteration to wetland hydrology that causes either short- or long-term changes in native vegetational composition, soils characteristics, nutrient cycling or water chemistry;
- G. Protect the public trust as to navigable waters and aquatic resources;
- H. Meet the requirements of the National Flood Insurance Program and maintain Issaquah as an eligible community for federal flood insurance benefits;
- I. Alert members of the public including, but not limited to, appraisers, owners, potential buyers or lessees to the development limitations of critical areas;
- J. Provide City officials with sufficient information to protect critical areas;
- K. Implement the policies of the State Environmental Policy Act, Chapter 43.21C RCW, the Issaquah Municipal Code, the City of Issaquah Comprehensive Plan and the Shoreline Master Program; and
- L. Educate the public about the long-term care of critical areas. (Ord. 2500 § 5, 2007; Ord. 2301 § 3, 2001; Ord. 2108 § 10.2.3, 1996).

18.10.370 Applicability.

- A. The regulations and standards of the Issaquah Municipal Code and the Land Use Code pertaining to the several use classifications shall be subject to the general provisions, requirements, and conditions contained in this chapter. When any provision of any chapter of the Issaquah Municipal Code, Shoreline Master Program or the Land Use Code conflicts with this chapter, that provision which provides more protection to the critical areas shall apply unless specifically provided otherwise in this chapter. The provisions of this Code shall prevail over any inconsistent ordinance that has not been reviewed for compliance with the City's GMA Comprehensive Plan. Streams and wetlands classified under the City of Issaquah Shoreline Master Program shall be governed by the rules and regulations pertaining to setbacks and buffer requirements under that ordinance only when a critical area study documents that the smaller buffer required through the Shoreline Master Program would not cause significant impacts to the stream or wetlands. Development for which the City of Issaquah Shoreline Master Program is applicable will still be governed by and need to conform to regulations, other than buffer and setback requirements, as set forth in this Code, including: flood storage capacity; flood-proofing measures, etc.
- B. The provisions of this Code shall be held to be the minimum requirements in their interpretation in order to serve the purposes of this chapter.

C. The City, prior to fulfilling the requirements of this chapter, shall not grant any approval or permission to alter the condition of any land, water or vegetation, or to construct or alter any structure or improvement including, but not limited to, the following: Commercial or Residential Building Permits or other land use actions; Right-of-Way Construction Permits; Grading and Clearing permits; Right-of-Way Permits; Shoreline Conditional Use Permits; shoreline environmental redesignations; Shoreline Substantial Development Permits; shoreline variances; short subdivisions; subdivisions; utility and other use permits; variances; zone reclassifications; or any subsequently adopted permits or required approvals not expressly exempted by this chapter.

D. The City shall perform a critical areas review for any permit or approval requested for a development proposal on a site which includes or is adjacent to one (1) or more critical areas, unless otherwise provided in this chapter. The critical area review requires, at a minimum, that the following review process occur, as part of all development applications:

1. The City shall review the information submitted by the applicant to:
 - a. Confirm the nature and type of the critical areas and evaluate the critical areas study;
 - b. Determine whether the development proposal is consistent with this chapter;
 - c. Determine whether any proposed alterations to critical areas are necessary;
 - d. 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;
 - e. Determine if the proposed action warrants a biological assessment based on the requirements of the Endangered Species Act.
2. The applicant shall submit an affidavit which:
 - a. Declares that the applicant has no knowledge that critical areas on the proposed development site have been illegally altered; or
 - b. Shall list all known alterations to the critical area.
3. The applicant shall demonstrate that any development proposal submitted conforms to the purposes, standards and protection mechanisms of this chapter.
4. The development proposal shall, if required, contain a critical areas study in accordance with IMC [18.10.400](#).

E. The City may approve, approve with conditions, or deny any development proposal in order to comply with the requirements and carry out the goals, purposes, objectives and requirements of this chapter.

- F. It shall be the responsibility of the Director to implement the policies and objectives of this Code.
- G. All decisions in regards to this chapter shall be made through the appropriate land use permitting process or as noted in this chapter. In the event that the proposal, as it relates to this chapter, does not require any other related or unrelated permits or approvals and this chapter does not specify a review process, it shall be reviewed by the City through the Level 1 Review process.
- H. The Director is authorized to adopt written procedures and establish administrative rules for the purpose of carrying out the provisions of this Code.
- I. The Director shall maintain and make available to the public all available information applicable to any critical area and its buffer.
- J. The Director shall on an annual basis establish a list of qualified professional scientists and technical experts to assist in the implementation of the provisions of this Code.
- K. 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.
- L. The provisions of this chapter shall apply to all forest practices over which the City has jurisdiction pursuant to Chapter 76.09 RCW, WAC Title 222, and any Memorandum of Understanding between the Washington Department of Natural Resources and the City. In addition, this chapter shall apply to all property which has been cleared and/or graded without an approved forest practice application and which is subsequently proposed for development. (Ord. 2301 § 3, 2001; Ord. 2108 § 10.2.4, 1996).

18.10.380 Agency resource maps.

- A. The approximate location and estimated extent of critical areas in the City are displayed on the Issaquah Natural Resources and Critical Areas Map Folios, the National Wetlands Inventory, the Issaquah Shoreline Environment Designation Maps and any other pertinent maps the City utilizes as resource material. These maps are to be used as a guide to the general location and extent of critical areas.
- B. It is presumed that critical areas not shown on these maps may exist in the City. These critical areas not currently mapped are protected under all the provisions of this Code.
- C. In the event that any of the critical area designations shown on the maps conflict with the criteria set forth in this chapter, the criteria shall control.
- D. Any areas which are requesting to be annexed to the City shall be required to perform a critical areas inventory as a requirement of annexation. (Ord. 2108 § 10.2.5, 1996).

18.10.390 Definitions.

If any definition in this Chapter conflicts with definitions in the Shoreline Master Program (SMP), the definitions in the SMP shall take precedent where applied to areas inside shoreline jurisdiction.

Adjacent: For the purpose of critical areas, within one hundred (100) feet of a critical area, or more, as decided by the Director, if development of the property may impact the critical area.

Alteration: Any human-induced action which adversely impacts the existing condition of a critical area. Alterations include, but are not limited to, grading; filling; dredging; draining; channeling; cutting, pruning, limbing or topping, clearing, relocating or removing vegetation; applying herbicides or pesticides or any hazardous or toxic substance; discharging pollutants (excluding treated storm water); grazing domestic animals; paving (including construction and application of gravel); modifying for surface water management purposes; or any other human activity that adversely impacts the existing vegetation, hydrology, wildlife or wildlife habitat. Alteration does not include walking, passive recreation, fishing or other similar activities.

Applicant: Any person or business entity which applies for a development proposal, permit or approval subject to review under this chapter.

Appropriate land use permitting process: The permitting process (Level 1, Level 2, Level 3, Level 4, Building Permit, Grading Permit, etc.) in which the proposed project is proceeding through for approval. For instance, if a proposed project requires a Level 3 Review for approval, prior to the Building Permit stage, then the Level 3 process would be considered the "appropriate land use permitting process."

Aquifer: A body of soil or rock that contains sufficient saturated material to conduct groundwater and yield usable quantities of groundwater to springs and/or wells.

Aquifer recharge area: Areas that are determined to have a recharging effect on aquifers used as a source for potable water, and are vulnerable to contamination from recharge.

Base flood: A flood having a one (1) percent chance of being equaled or exceeded in any given year. It is also referred to as the "one hundred (100) year flood." The base flood is determined as defined by the latest FEMA FIRM maps. In areas where the Flood Insurance Study includes detailed base flood calculations, those calculations may be used until projections of future flows are completed and approved by the City.

Base flood elevation: The water surface elevation of the base flood. It shall be referenced to the National Geodetic Vertical Datum of 1929.

Best management practices: The physical, structural, and/or managerial practices that use the best available technologies or techniques, either separately or in combination, to prevent or reduce the degradation of any critical area or natural resources. For example, these conservation practices or systems of practices and management measures would:

- A. Control soil loss and reduce water quality degradation caused by nutrients, animal waste, toxins, and sediment; and
- B. Minimize adverse impacts to surface water and groundwater flow, circulation patterns, and to the chemical, physical, and biological characteristics of critical areas.

Biofiltration swale: A shallow drainage conveyance with relatively gentle side slopes, generally with flow depths less than one (1) foot which are designed to reduce pollutant concentrations in water by filtering the polluted water through biological materials.

Biological assessment (Endangered Species Act): An analysis of a proposed action by a qualified professional in order to determine if the action will result in a “take” of a threatened or endangered species, as listed under the Endangered Species Act.

Biologist: A person who has earned a degree in biological sciences from an accredited college or university, or a person who has equivalent educational training and has experience as a practicing biologist.

Building setback area: The area between the critical area buffer and the building setback line. This area is provided to ensure that the building and associated construction activities do not result in significant adverse impacts to the adjacent critical area, and to provide physical and/or visual separation between the development and the critical area.

Building setback line: A line which establishes a definite point beyond which the foundation of a structure shall not extend.

Canopy: The highest layer of vegetation within a forest community.

Clearing: The destruction or removal of vegetation from a site by physical, mechanical, chemical, or other means. This does not mean landscape maintenance or pruning consistent with accepted horticultural practices which does not impair the health or survival of the trees.

Coal mine hazard areas: Those areas of the City directly underlain by or affected by abandoned coal mine workings such as adits, tunnels, drifts or air shafts.

Compensatory mitigation: Replacing project-induced losses or impacts.

Compensatory storage: New, excavated storage volume equivalent to any flood storage capacity which has been or would be eliminated by filling or grading within the floodplain. Equivalent shall mean that the storage removed shall be replaced by equal volume between corresponding one (1) foot contour intervals that are hydraulically connected to the floodway through their entire depth.

Conservation easement: An easement dedicated to the City to restrict the use of environmentally sensitive property in order to protect, preserve, maintain, improve, restore, and otherwise conserve the property in perpetuity.

Critical aquifer recharge areas (CARAs): Areas that are determined to have a critical recharging effect on aquifers used as a source for potable water, and are vulnerable to contamination from recharge.

Critical area buffer: A designated area adjoining to and a part of a steep slope or landslide hazard area which protects slope stability, attenuation of surface water flows and landslide hazards reasonably necessary to minimize risk, or a designated area adjacent to and a part of a stream or wetland that is an integral part of the stream or wetland ecosystem. Critical area buffers are essential to maintenance and protection of the critical area. Buffer areas protect critical areas from degradation in various ways, including the following: stabilizing slopes and preventing erosion; filtering suspended solids, nutrients and harmful toxic substances; moderating the impacts of storm water runoff; moderating microclimate; supporting and protecting plant and animal species and biotic communities associated with the critical area; and reducing disturbances to the resources to the critical area typically caused by the activities of humans and domestic animals.

Critical areas: Any of those areas which are subject to natural hazards or those land features which support unique, fragile, or valuable natural resources including fish, wildlife and other organisms and their habitat and such resources which, in their natural state, carry, hold or purify water. Critical areas include the following landform features: erosion hazard areas, flood hazard areas, coal mine hazard areas, landslide hazard areas, seismic hazard areas, steep slope areas, streams, wetlands, and aquifer recharge areas. Critical area buffers are integral to the health of the critical area and therefore for functional purposes are considered a part of the critical area. However, unless indicated otherwise, measurements from critical areas are made from the outside edge of the protected landform feature (e.g., wetland, stream, etc.) and not from the outside edge of the buffer.

Critical Areas Mitigation Fund: The special fund created for the purpose of creating, restoring or purchasing critical areas, including wetlands and/or wetland buffers. All funds received from civil penalties resulting from violations of this Code are deposited into the fund, and administered by the City Director of Finance.

Critical areas review: The evaluation performed by the City as part of its review of an application for a permit or approval to ensure that impacts to critical areas have been addressed where appropriate.

Critical areas study: A study prepared by a qualified professional on any of the following elements of a critical area: existing conditions, potential impacts and mitigation measures. The study is typically prepared in conjunction with a development proposal.

Critical areas tract: A separate tract that is created to protect the critical area and its buffer, whose ownership is assured, as provided in IMC [18.10.515](#).

Critical drainage area: An area which has been formally determined by the Public Works Department to require more restrictive regulation than City-wide standards afford, in order to mitigate severe flooding, drainage, erosion or sedimentation problems, which have resulted or will result from the cumulative impacts of development and urbanization.

Critical facilities: Those facilities necessary to protect the public health, safety or welfare which are defined under the occupancy categories of Essential Facilities, Hazardous Facilities and Special Occupancy Structures in the Uniform Building Code as adopted. These facilities include but are not limited to schools, hospitals, police stations, fire departments and other emergency response facilities, and nursing homes. Critical facilities also include hazardous material storage or production-sites.

Deleterious substances: Include, but are not limited to, chemical and microbial substances that are not classified as hazardous materials per this chapter, whether the substances are in usable or waste condition, that have the potential to pose a significant groundwater hazard, or for which monitoring requirements or treatment-based standards are enforced under Chapter 246-290 WAC.

Density credits: A system/formula used to transfer a portion of the allowed development density for critical areas onto another area of the proposal site/property.

Developable site area: Developable site area is the gross site area minus deductions for critical areas and associated buffers as required by this chapter.

Development activity: Any activity which would require a Land Use Permit or approval from the City or any other local, state or federal jurisdiction. Development activity includes, but is not limited to: clearing or grading activity, building or constructing activity, dredging or filling, etc.

Development Commission: Refers to the City Development Commission.

Development, high impact: See High impact land use.

Development, low impact: See Low impact land use.

Development proposal site: The legal boundaries of the parcel or parcels of land for which an applicant has applied for authority from the City to carry out a development proposal.

Director: The Director of the Planning Department of the City or his/her designees unless otherwise noted. In the absence of a Director, the Planning Manager shall assume the responsibilities of the Director as set forth in this Code.

Ditch: A long, narrow human-built excavation that conveys storm water, agricultural runoff or irrigation water that is not identified as a classified or unclassified stream in the Issaquah Creek Final Basin and Nonpoint Action Plan (1996). Also see definition of “streams.”

Economic Growth: Residential, commercial and industrial development which provides housing, jobs, services and other community needs. It also includes community facilities and utilities such as parks, trails, and sewer, water and transportation systems.

Emergent wetland: A regulated wetland with at least thirty (30) percent of the surface area covered by erect, rooted, herbaceous vegetation as the uppermost vegetative strata.

Enhancement: Actions performed to increase the functions and values of a stream, wetland or other areas.

Erosion: The process in which soil particles are mobilized and transported by natural agents such as wind, rain splash, frost action or stream flow.

Erosion hazard areas: Those areas of King County and the City containing soils which, according to the USDA Soil Conservation Service, the 1973 King County Soils Survey and any subsequent revisions or additions thereto, may experience severe to very severe erosion hazard. This group of soils includes, but are not limited to, the following when they occur on slopes of fifteen (15) percent or greater: Alderwood gravelly sandy loam (AgD), Alderwood-Kitsap (Akf), Beausite gravelly sandy loam (BeD and BeF), Kitsap silt loam (Kpd), Oval gravelly sand loam (OvD and OvF), Ragnar fine sandy loam (RaD), Ragnar-Indianola Association (RdE), and any occurrence of River Wash (Rh).

Essential habitat: Habitat necessary for the survival of federally listed threatened, endangered and sensitive species and state-listed priority species.

Excavation: The mechanical removal of earth.

Existing and ongoing agriculture: Those activities conducted on lands defined in RCW 84.34.020(2) and those activities involved in the production of crops or livestock, for example, the operation and maintenance of farm and stock ponds or drainage ditches; operation and maintenance of ditches; irrigation systems including irrigation laterals, canals, or irrigation drainage ditches, changes between agricultural activities; and normal maintenance, repair, or operation of existing serviceable structures, facilities, or improved areas.

Activities which bring a nonagricultural area into agricultural use are not part of an ongoing operation. An operation ceases to be ongoing when the area on which it is conducted is converted to a nonagricultural use or has lain idle for more than two (2) years, unless the idle land is registered in a federal or state soils conservation program, or unless the activity is maintenance of irrigation ditches, laterals, canals, or drainage ditches related to an existing and ongoing agricultural activity. Forest practices are not included in this definition.

Exotic: Any plant or animal that is not native to the Puget Sound region.

FEMA: Federal Emergency Management Agency.

Fill/Fill material: A deposit of material placed by human or mechanical means.

Flood hazard areas: Those areas of the City subject to inundation by the base flood. These include, but are not limited to, streams, lakes, wetlands, closed depressions, floodways and floodplains. A flood hazard area consists of the following components which shall be determined by the City after obtaining, reviewing and utilizing base flood elevation and available floodway data:

A. Floodplain means the total area subject to inundation by the base flood. The floodplain includes both rapidly flowing water and standing water.

B. Floodway means the channel of the stream and that portion of the adjoining floodplain which is necessary to contain and discharge the base flood flow without increasing the base flood elevation more than one (1) foot. The floodway is determined by the latest FEMA FIRM map.

Flood insurance rate map (FIRM): The official map on which the Federal Insurance Administration has delineated flood hazard areas.

Flood protection elevation: An elevation that is one (1) foot above the highest base flood elevation, as defined by FEMA Flood Insurance Rate Map (FIRM) and the Issaquah Creek Basin and Nonpoint Action Plan, whichever is greater.

Floodproofing: Any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate the potential of flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents (from IMC [16.36.030](#), Flood Hazard Ordinance).

Forested wetland: A wetland with at least thirty (30) percent of the surface area covered by woody vegetation greater than twenty (20) feet in height.

Geologist: A practicing, geologist licensed as a professional geologist with the State of Washington.

Geotechnical engineer: A practicing, geotechnical/civil engineer licensed as a professional civil engineer with the State of Washington who has at least four (4) years of professional employment as a geotechnical engineer.

Grading: An act which changes or alters the predevelopment conditions of the site surface.

Grazed wet meadows: Emergent wetlands, typically having up to six (6) inches of standing water during the wet season and dominated under normal conditions by meadow emergents such as reed canary grass, spike rushes, bulrushes, sedges, and rushes. During the growing season, the soil is often saturated but not covered with water. Grazed wet meadows frequently have been or are being used for livestock activities.

Hazardous materials: Any material, either singularly or in combination, that is a physical or health hazard, whether the materials are in usable or waste condition; and any material that may degrade surface water

or groundwater quality when improperly stored, handled, treated, used, produced, recycled, disposed of, or otherwise mismanaged. Hazardous materials shall also include: all materials defined as or designated by rule as a dangerous waste or extremely hazardous waste under Chapter 70.105 RCW and Chapter 173-303 WAC; hazardous materials shall also include petroleum or petroleum products that are in liquid phase at ambient temperatures, including any waste oils or sludges.

Heron rookery: A nesting area for a colony of heron or egrets which is generally located in a grove of tall trees.

High impact land use: A land use which would require substantial environmental mitigation in order to alleviate adverse impacts to the environment or the community's health, safety or welfare. Substantial mitigation would be determined through the SEPA process.

Hydric soil: A soil that is saturated, flooded or ponded long enough during the growing season to develop anaerobic conditions in the upper part. The presence of hydric soil shall be determined following the methods described in the currently followed federal manual for identifying and delineating jurisdictional wetlands.

Hydrophytic vegetation: Macrophytic plant life growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content. The presence of hydrophytic vegetation shall be determined following the methods described in the "1989 Federal Manual for Identifying and Delineating Jurisdictional Wetlands."

In-kind compensation: To replace wetlands with substitute wetlands whose characteristics (vegetative class, function and value) and wetland rating or category closely approximate those destroyed or degraded by a regulated activity. Landslide: The movement of a mass of loosened rocks or earth down a hillside or slope, and includes snow avalanches.

Landslide hazard areas: Those areas of the City subject to a severe risk of landslide. A geotechnical report is required for all relevant projects to determine steepness of slope, permeability of soils, occurrence of springs, and groundwater level. The study shall be performed by a licensed geotechnical engineer. Landslide hazard areas include the following areas:

- A. Slopes greater than forty (40) percent.
- B. Any area with a combination of:
 - 1. Slopes of greater than fifteen (15) percent;
 - 2. Impermeable soils (typically silt and clay) frequently interbedded with granular soils (predominantly sand and gravel); and
 - 3. Springs or ground water seepage.

- C. Any area which has shown movement during the Holocene epoch (from ten thousand (10,000) years ago to present) or which is underlain by mass wastage debris of that epoch.
- D. Any area potentially unstable as a result of rapid stream incision, stream bank erosion, or undercutting by wave action.
- E. Any area which shows evidence of, or is at risk from, snow avalanches.
- F. Any area located on an alluvial fan, presently subject to or potentially subject to, inundation by debris flows or deposition of stream-transported sediments.

Light equipment: Construction equipment including, but not limited to, chain saws, wheelbarrows, post-hole diggers and all hand-held tools.

Low impact land use: Land use which would not require substantial environmental mitigation in order to alleviate adverse impacts to the environment or the community's health, safety or welfare. Substantial mitigation would be determined through the SEPA process.

Lowest floor: The lowest enclosed area, including the basement, of a structure. An area used solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor; provided, that any such enclosed area meets all of the structural requirements of the flood hazard protection and alteration standards.

Maintenance: A procedure intended to assist with the long-term health of critical areas. Aside from the maintenance period relating to a restoration or creation project, activities may include removal of weeds, litter control, etc., not the performance of complex restoration efforts. Maintenance allows for the critical areas to evolve as a natural part of the environment.

Master planned developments: A comprehensive site plan intended to guide the development of a specific parcel of land, including necessary utilities, locations of land uses, and density provisions.

Mitigation banking: A system for providing compensatory mitigation in advance of authorized impacts of development in which credits are generated through restoration, creation, and/or enhancement of the critical area, for example, the restoration, creation, and/or enhancement of wetlands, and in exceptional circumstances, preservation of adjacent wetlands, wetland buffers, and/or other aquatic resources; provided, that no net loss of wetlands occurs.

Mitigation plan: A plan conducted by a qualified professional describing the design and/or implementation of any or all of the actions listed in the definition of "mitigation" in this section.

Mitigation project: Actions necessary to replace project-induced critical areas and buffer losses, including land acquisition, planning, construction plans, monitoring and contingency action.

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

Native Growth Protection Easement (NGPE): An easement granted to the City or other nonprofit entity for the protection of native vegetation within a critical area or critical area buffer.

Native vegetation: Vegetation comprised of plant species which are indigenous to the Puget Sound region and which reasonably could have been expected to naturally occur on the site. Native vegetation does not include noxious weeds.

Nonnative invasive vegetation: Vegetation, plant species and cultivars that are not indigenous to the Puget Sound region in the vicinity of the City of Issaquah and which establish and propagate with such vigor as to outcompete native vegetation and result in the degradation of the natural environment. Nonnative invasive vegetation includes noxious weeds (defined below) such as but not limited to Himalayan blackberry (*Rubus discolor*, *R. procerus*), Evergreen blackberry (*R. laciniatus*), Ivy (*Hedera* spp.), Holly (*Ilex* spp.), and Japanese knotweed (*Polygonum cuspidatum*).

Normal rainfall: That rainfall which is at or near the mean of the accumulated annual rainfall record, based upon the water year for the City as recorded at an official rain gauge in the Issaquah area designated in an administrative rule by the Public Works Director, or if no such designation is made, the official annual rainfall as obtained from information in the Draft Issaquah Valley Groundwater Management Plan.

Noxious weed: Any plant which when established is highly destructive, competitive, or difficult to control by cultural or chemical practices (see Chapter 5.10 RCW). The state noxious weed list in Chapter 16-750 WAC is the officially adopted list of noxious weeds as compiled by the State Noxious Weed Control Board. Also included as noxious weeds are those listed with the King County Noxious Weed List, WAC 16-750-0005.

Off-site compensation: To replace wetlands away from the site on which a wetland has been impacted by a regulated activity.

On-site compensation: To replace wetlands at the site on which a wetland has been impacted by a regulated activity.

Ordinary high water mark: On all lakes, streams, and tidal water is that mark that will be found by examining the bed and banks and ascertaining where the presence and action of waters are so common and usual, and so long continued in all ordinary years, as to mark upon the soil a character distinct from that of the abutting upland, in respect to vegetation as that condition exists on June 1, 1971, as it may naturally change thereafter, or as it may change thereafter in accordance with permits issued by a local government or the department; PROVIDED, That in any area where the ordinary high water mark cannot

be found, the ordinary high water mark adjoining salt water shall be the line of mean higher high tide and the ordinary high water mark adjoining freshwater shall be the line of mean high water.

Out-of-kind compensation: To replace wetlands with substitute wetlands whose characteristics (vegetative class, functions and values) do not closely approximate those destroyed or degraded by a regulated activity. Plant associations of infrequent occurrence: One (1) or more plant species on a landform type which because of the rarity of the habitat or the species involved or both, or for other botanical or environmental reasons, do not often occur in the City or King County.

Practicable alternative: An alternative that is available and capable of being carried out after taking into consideration existing technology, cost and logistics in light of overall project purposes, and having fewer impacts to critical areas. It may include an area not owned by the applicant, which could reasonably have been or be obtained, utilized, expanded, or managed in order to fulfill the basic purpose of the proposed activity.

Public agency: Any agency, political subdivision, or unit of local government of this state including, but not limited to, municipal corporations, special purpose districts, local service districts, any agency of the State of Washington, the United States or any state thereof, or any federally recognized Indian tribe.

Qualified professional: A person or persons who perform studies, field investigations, plans, etc., on critical areas and have an educational background and/or relevant experience in the field in which they are performing the study. (Example: a qualified professional to perform a critical area report on wetlands must have an undergraduate or higher degree, from an accredited university or college, in biology, botany, environmental science or similar field and five (5) years work experience performing wetland studies (and/or professional certification), including field delineations, written reports, mitigation plans, etc.)

Raptor: A bird of prey which is a member of either the Falconiformes or Strigiformes orders.

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

Regional retention/detention facility: A surface water control structure proposed or defined by the City Public Works Department, to provide surface water control for a specific area, which will be determined by the City Public Works Department on a case-by-case basis.

Regional stormwater management facility: A surface water control structure installed in or adjacent to a stream or wetland of a basin or sub-basin by the King County Land and Water Resources Division

(KCLWR) or a project proponent. Such facilities protect downstream areas identified by KCLWR as having previously existing or predicted significant regional basin flooding or erosion problems.

Regulated activities: Any of the following activities which are directly undertaken or originate in a regulated critical area or its buffer:

- A. The removal, excavation, grading, or dredging of soil, sand, gravel, minerals, organic matter, or material of any kind;
- B. The dumping, discharging, or filling with any material;
- C. The draining, flooding, or disturbing of the water level or water table;
- D. The driving of pilings;
- E. The placing of obstructions;
- F. The construction, reconstruction, demolition, or expansion of any structure;
- G. The destruction or alteration of wetlands vegetation through clearing, harvesting, shading, intentional burning, or planting of vegetation that would alter the character of a regulated wetland; provided, that these activities are not part of a forest practice governed under Chapter 76.09 RCW and its rules; or
- H. Activities that result in a significant change of water temperature, a significant change of physical or chemical characteristics of wetlands water sources, including quantity, or the introduction of pollutants.

Repair or maintenance: An activity that restores the character, scope, size, and design of a serviceable area, structure, or land use to its previously authorized and undamaged condition. Activities that change the character, size, or scope of a project beyond the original design and drain, dredge, fill, flood, or otherwise alter additional regulated wetlands are not included in this definition.

Restoration: Actions performed to return a stream, wetland, or other areas to a state in which its stability and functions approach its unaltered state as closely as possible.

Retention/detention facility: A type of drainage facility designed either to hold water for a considerable length of time and then release it by evaporation, plant transpiration and/or infiltration into the ground; or to hold runoff for a short period of time and then release it to the surface and stormwater management system.

Right-of-way: Any road, alley, street, avenue, arterial, bridge, highway, or other publicly owned ground or place used for the free passage of vehicular and pedestrian traffic and other services, including utilities.

Routine stream maintenance: The removal of instream organic and inorganic materials which could exacerbate erosion or flooding.

Salmonid: A member of the fish family salmonidae. In the City these include chinook, coho, chum, sockeye and pink salmon and steelhead.

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

Sediment: Waterborne particles, graded or undefined, occurring by erosive action.

Sedimentation: The action or process of deposition of soil and organic particles displaced, transported and deposited by water or wind.

Seismic hazard areas: Those areas of the City subject to severe risk of earthquake damage as a result of seismically induced settlement or soil liquefaction. These conditions may occur in areas underlain by cohesionless soils of low density usually in association with a shallow groundwater table.

SEPA: State Environmental Policy Act (Chapter 43.21C RCW) or as amended.

Serviceable: Presently usable.

Steep slope hazard areas: Any ground that rises at an inclination of forty (40) percent or more within a vertical elevation change of at least ten (10) feet (a vertical rise of ten (10) feet or more for every twenty-five (25) feet of horizontal distance). 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.

A. The "toe of a slope" is a distinct topographic break in a slope which separates slopes inclined at less than forty (40) percent from slopes equal to or in excess of forty (40) percent. Where no distinct break exists, the toe of a steep slope is the lowermost limit of the area where the ground surface drops ten (10) feet or more vertically within a horizontal distance of twenty-five (25) feet.

B. The "top of a slope" is a distinct, topographic break in a slope which separates slopes inclined at less than forty (40) percent from slopes equal to or in excess of forty (40) percent. Where no distinct break in slope exists, the top of a slope shall be the uppermost limit of the area where the ground surface rises ten (10) feet or more vertically within a horizontal distance of twenty-five (25) feet.

Stormwater facility: A human-built system or structure for the conveyance or control of stormwater runoff.

Streams: Those areas of the City where surface waters from natural sources such as streams, lakes, groundwater, springs or surface flows produce a defined channel or bed. A defined channel or bed is an area which 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. Streams also include constructed or channelized streams used to convey water which flowed in a naturally defined channel prior to construction of such watercourse. This definition is not meant to include excavated or other entirely artificial watercourses, including irrigation ditches, swales, roadside ditches, canals, storm or surface water runoff devices.

Structure: That which is built or constructed, an edifice or building of any kind, or any piece of work artificially built up or composed of parts joined together in some definite manner.

Substantial improvement: Any repair, reconstruction, or improvement of a structure that would displace floodwater.

Unavoidable and necessary impacts: Impacts to regulated critical areas that remain after a person proposing to alter regulated wetlands has demonstrated that no practicable alternative exists for the proposed project.

Utilities: Water, sewer, storm drainage, natural gas, telephone, electric and cable communications, etc.

Utility corridor: Areas identified in the Comprehensive Plan for utility lines, including electric, gas, sewer and water lines, and public right-of-way and other dedicated utility right-of-way on which one (1) or more utility lines are currently located. The term "other dedicated utility right-of-way" means ownership, easements, permits, licenses or other authorizations affording utilities the right to operate and maintain utility facilities on private property.

Variance: An adjustment in the application of a zoning regulation to a particular piece of property in a situation where the property, because of special circumstances found to exist on the land, is deprived, as a result of imposition of the zoning regulations, of privileges commonly enjoyed by other properties in the same vicinity and zone. The adjustment in the application of the regulations shall remedy the disparity in privilege. A variance shall not be used to convey special privileges not enjoyed by other properties in the same vicinity and zone and subject to the same Land Use Code restrictions.

Vegetation: Any and all organic plant life growing at, below, or above the soil surface.

Vegetative classes: Descriptive classes of the wetlands taxonomic classification system of the U.S. Fish and Wildlife Service ("Classification of Wetlands and Deepwater Habitats of the United States," Cowardin, et al., 1979, FWS/OBS-79/31).

Violation: The violation of: any provision of this chapter; the administrative rules promulgated thereunder; or any permit, approval or stop work order; or any other order issued pursuant thereto.

Water dependent use: A principal use which can only exist when the land/water interface provides biological or physical conditions necessary for the use.

Wellhead protection area (WHPA): The surface and subsurface area surrounding a well or well field that supplies a public water system through which contaminants are likely to pass and eventually reach the water well(s) as designated under the Federal Clean Water Act.

Wetlands: "Wetlands" means areas that are inundated or saturated by surface water or groundwater 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 conversion of wetlands.

Wetland buffers: A parcel or strip of land that is designated to remain permanently vegetated to provide protection to an adjacent wetland from impact.

Wetland classes, classes of wetlands or wetland types: Descriptive classes of the wetlands taxonomic classification system of the United States Fish and Wildlife Service (Cowardin, et al., 1979). See also definition of "vegetative classes."

Wetland creation: Actions performed to intentionally establish a wetland at a site where one did not formerly exist.

Wetland delineation: The field identification and survey of a wetland edge, conducted by a qualified wetland professional, based on the procedures provided in the currently approved federal manual and applicable supplements and WAC 173-22-035.

Wetland functions, beneficial functions, or functions and values: The beneficial roles served by wetlands including, but not limited to, water quality protection and enhancement, fish and wildlife habitat, food chain support, flood storage, conveyance and attenuation, groundwater recharge and discharge, erosion control, wave attenuation, historical and archaeological and aesthetic value protection, and recreation. These beneficial roles are not listed in order of priority.

Wetland mitigation (compensatory): The compensation stage of the mitigation sequence where impacts to the functions and values of wetlands are replaced through creation or re-establishment, rehabilitation, or enhancement of other wetlands. Types of compensatory mitigation include:

- Creation (Establishment). The manipulation of the physical, chemical, or biological characteristics present to develop a wetland on an upland or deepwater site, where a wetland did not previously exist. Activities typically involve excavation of upland soils to elevations that will produce a wetland hydroperiod, create hydric soils, and support the growth of hydrophytic plant species. Establishment results

in a gain in wetland acres.

- Re-establishment. The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural or historic functions to a former wetland. Activities could include removing fill material, plugging ditches or breaking drain tiles. Re-establishment results in a gain in wetland acres and functions.
- Rehabilitation. The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural or historic functions and processes of a degraded wetland. Activities could involve breaching a dike to reconnect wetlands to a floodplain, restoring tidal influence to a wetland, or breaking drain tiles and plugging drainage ditches. Rehabilitation results in a gain in wetland function but does not result in a gain in wetland acres.
- Enhancement. The manipulation of the physical, chemical, or biological characteristics of a wetland site to heighten, intensify or improve specific function(s) or to change the growth stage or composition of the vegetation present. Enhancement is undertaken for specified purposes such as water quality improvement, flood water retention or wildlife habitat. Activities typically consist of planting vegetation, controlling non-native or invasive species, modifying site elevations or the proportion of open water to influence hydroperiods, or some combination of these. Enhancement results in a change in some wetland functions and can lead to a decline in other wetland functions, but does not result in a gain in wetland acres.

Wetland professional: A professional scientist or technical expert who by training and/or experience is qualified to provide expertise in matters related to wetlands.

Wetpond: An artificial body of water dug as a part of a surface water management system. (Ord. 2525 §§ 4, 7, 2008; Ord. 2500 § 6, 2007; Ord. 2497 § 6, 2007; Ord. 2491 § 4, 2007; Ord. 2455 § 2, 2006; Ord. 2314 § 1, 2001; Ord. 2301 § 3, 2001; Ord. 2164 § 10, 1997; Ord. 2108 § 10.2.6, 1996).

18.10.400 Exemptions.

~~The following are general exemptions to the provisions of this chapter and the administrative rules; however, provisions of this section are not exempt from the City of Issaquah Shoreline Master Program when applicable. These exemptions are not subject to any review or approval process, except where noted.~~

~~A.—Emergencies that threaten the public health, safety and welfare as determined by the Director are exempt and shall not be subject to any review and approval process.~~

~~B.—Structures which are in existence on the date the ordinance codified in this chapter becomes effective and which do not meet the setback or buffer requirements of this chapter for wetlands, streams, or steep slope hazard areas are exempt. These structures may be remodelled, reconstructed or replaced (through the appropriate land use permitting process or if none is required, then through Level 1 Review); provided, that the new construction or related activity does not further intrude into a stream, wetland, or steep slope buffer; and provided, that the remodel, reconstruction or replacement is still subject to the restrictions (of the critical areas regulations) set forth in this chapter. Structures undergoing reconstruction or replacement shall not develop outside of the original building footprint in size or location. Further provided, that no portion of a remodeled structure is located closer to the stream, wetland or steep slope than the existing structure. Except that single family structures may remodel, reconstruct or replace an existing single family structure (through Level 1 Review) that further intrudes into a buffer, or is outside of the original building footprint in size or location, provided a critical area study is performed and the Director determines that the following criteria have been met:~~

- ~~1.— There will be no increased adverse impacts as a result of the remodel, reconstruction or replacement of the single family structure, based on the results of a critical area study; and~~
- ~~2.— That the granting of an approval to remodel, reconstruct or replace the single family structure will not be materially detrimental to the public welfare or injurious to the property or improvements in the vicinity and zone in which the subject property is situated; and~~
- ~~3.— That alternative development concepts for remodelled, reconstructing or replacing a single family structure that does not further intrude into a buffer, or is not outside of the original building footprint in size or location, have been evaluated and that undue hardship would result if the strict adherence to the Code provisions is required.~~

~~C.—The following agricultural activities in existence on the date that the ordinance codified in this chapter becomes effective, and performed not less than once every five (5) years thereafter, are exempt and not subject to any review and approval process:~~

- ~~1.— Grazing of livestock;~~
- ~~2.— Mowing of hay, grass or grain crops;~~
- ~~3.— Tilling, disking, planting, seeding, harvesting and related activities for pasture, food crops, grass seed or sod; provided, that such activities shall not involve the conversion of any Class 1 or 2 wetland or buffer or Class 1 or 2 stream or buffer not currently under agricultural use and shall not take place on steep slopes;~~
- ~~4.— Normal and routine maintenance of farm ponds, fish ponds, manure lagoons, and livestock watering ponds; provided, that such activities shall not involve conversion of any wetland not currently being used for such activity.~~

~~D.— Normal and routine maintenance of existing irrigation and drainage ditches, including, but not limited to, vegetation control, and removal of sediment and debris, is exempt from this chapter and not subject to any review or approval process as an isolated action, except that the City shall be notified prior to such activities occurring; provided, however, that this exception shall not apply to any ditches used by salmonids unless the Washington State Department of Fisheries will grant hydraulic approval concurrently with or following City approval.~~

~~E.— 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:~~

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

~~2.— Relocation, repair, replacement, modification, operation and upgrading of facilities (i.e., lines, mains, pipes, equipment and/or appurtenances, and electric facilities, not including substations) within rights-of-way or utility corridors; provided, that such activities shall be undertaken in accordance with City-approved best management practices, which shall include restoration;~~

~~3.— The relocation and upgrading of utilities within established easements and dedicated tracts shall include prior notification of the Director.~~

~~This does not exempt projects from other City permit review processes or SEPA review if required by the City's codes and regulations.~~

~~F.— Maintenance, operation, repair, modification or replacement of publicly improved roadways or recreation areas. Any alteration involving the expansion of improvements into previously unimproved areas shall include approval of the Director.~~

~~G.— Public agency development proposals whose construction contract was awarded before the effective date of the ordinance codified in this chapter are exempt; provided, that any regulation in effect at the time of such award shall apply to such proposal, except for the provisions established in IMC [18.10.420](#) (Public Agency and Utility Exemption).~~

~~H.— Routine stream maintenance by a public entity which has been approved through the SEPA review process and by the Washington State Department of Fish and Wildlife.~~

~~I.— Master planned developments, where these developments are subject to binding development requirements approved by the City, including protection of the critical areas. Approved critical areas requirements shall meet or exceed the intent of the City's adopted critical areas regulations. Master planned developments which do not contain critical areas regulations within their binding development requirements will be subject to the requirements of the City's adopted critical areas regulations.~~

The following are exemptions to various sections in this chapter and listed only for reference to those applicable sections:

1.—IMC [18.10.410](#) (Critical Areas Studies) lists provisions in which a critical area study may not be required and where certain development proposals, due to their nature, may not require a critical areas study based on City field investigations. See IMC [18.10.410](#)(B) for the specifics.

2.—IMC [18.10.515](#) (Critical Area Tracts, Buffer Areas and Building Setback Areas) lists when street trees are allowed in and along the roadway rights-of-way portion of a critical area buffer. See IMC [18.10.515](#)(C) for the specifics.

J.—IMC [18.10.580](#) (Steep Slope Hazards) lists provisions in which an exception from the requirements of that chapter may be approved by the Director. See IMC [18.10.580](#)(D) for the specifics.

K.—Alterations to erosion, landslide and steep slope critical areas may be allowed for mineral resource and extraction activities, processing, facilities, and related uses in existence prior to August 2, 1999, and performed not less than once every twelve (12) months thereafter.

L.—Removal of Nonnative Invasive Vegetation: Removal of nonnative invasive vegetation from critical areas and associated buffers is encouraged within the City of Issaquah. Removal shall be accomplished through the use of hand labor and/or hand-held light equipment and without the use of herbicides unless alternative methods are approved by the Planning Department.

1.—Maintenance: Maintenance includes the removal of nonnative invasive vegetation within a total area extent of less than one hundred (100) square feet. Maintenance removal of nonnative invasive vegetation does not require City approval.

2.—Enhancement: Enhancement includes the removal of nonnative invasive vegetation within a total area extent of one hundred (100) square feet or more. Enhancement requires Planning Department approval and additional supporting documentation may be required depending on the scale, scope and complexity of the proposal. Supporting documentation may include but is not limited to erosion control measures, plans for revegetation with native plant species and future monitoring/maintenance. (Ord. 2491 § 5, 2007; Ord. 2301 § 3, 2001; Ord. 2233 § 18, 1999; Ord. 2408 § 10.2.7, 1996).

18.10.410 Critical areas studies.

A. Required: An applicant for a development proposal that includes, or is adjacent to, or could have probable significant adverse impacts to critical areas shall submit a critical areas study as required by the Director, for all critical areas defined in this chapter, to adequately evaluate the proposal and all probable impacts. The need for a critical areas study shall be determined through:

1. Agency resource maps or studies; or

2. At the request of the Director after field investigation (by City staff) has been conducted.

B. Waivers: The Director may waive the requirement for a critical areas study if there is a substantial showing that:

1. There will be no alteration of the critical areas or required buffers; and
2. The development proposal will not affect the critical areas in a manner contrary to the goals, purposes, objectives and requirements of this chapter; and
3. The minimum standards required by this chapter are met;
4. When no alteration of or adverse impact to the critical area will occur as a result of a remodel activity or any associated construction for additional parking for a single family residential Building Permit for the remodel of a structure; or
5. A critical areas study was prepared and provided previously for a development which currently requires a single family residential Building Permit and that the previous critical areas study adequately identified the impacts associated with the current development proposal.

C. Contents of Critical Areas Study: At a minimum a critical areas study shall be prepared at the applicant's expense, to identify and characterize any critical area as a part of the larger development proposal site; assess any hazards to the proposed development; assess impacts of the development proposal on any critical areas located on or adjacent to the development proposal site; and assess the impacts of any alteration proposed for a critical area. Studies shall propose adequate mitigation, maintenance and monitoring plans and bonding measures. Critical areas studies shall include among other requirements, a scale map of the development proposal site and a written report. The following criteria are the basic requirements for a critical areas study. Refer to the Permit Center in the Planning Department for more specific requirements.

1. Vicinity Information:
 - a. A description and maps at a scale no smaller than one (1) inch = fifty (50) feet (unless otherwise approved by the Director), showing the entire parcel of land owned by the applicant; adjacent area; and the exact boundary of the critical area on the parcel as determined in compliance with appropriate section of this chapter. Maps can be overlaid on aerial photographs;
 - b. For parcels containing wetlands, the study must include the location and description of the vegetative cover, including dominant species of the regulated wetland and adjacent area.
2. Site Plan:

- a. A site plan for the proposed activity at a scale no smaller than one (1) inch = twenty (20) feet (unless otherwise approved by the Director), showing the location, width, depth and length of all existing and proposed structures, roads, sewage treatment, and installations to be located within the critical area and/or its buffer;
- b. The exact sizes and specifications for all regulated activities including the amounts and methods.

3. Project Description:

- a. The purposes of the project and an explanation why the proposed activity cannot be located at another location on the project site, including an explanation of how the proposed activity is dependent upon the chosen specific location; and
- b. Specific means to mitigate any potential adverse environmental impacts of the applicant's proposal.

4. Additional Information: The Director may at a minimum require the following additional information:

- a. Topographic map, including elevations of the site and adjacent lands within the critical area and its buffer at contour intervals as specified by the Director but in most cases no greater than five (5) feet;
- b. Elevations and cross sections;
- c. Assessment of critical area functional characteristics including but not limited to a discussion of the methodology used and documentation of the ecological, aesthetic, economic, or other values of the critical area;
- d. A study of flood, erosion, coal mine or other hazards at the site and the effect of any protective measures that might be taken to reduce such hazards; and
- e. Any other information deemed necessary to verify compliance with the provisions of this Code or to evaluate the proposed use in terms of the purposes of this Code.

D. The City shall develop a list of qualified critical area specialists to conduct critical areas studies. The applicant shall be responsible for the total cost of the critical areas study.

E. The Director shall circulate the critical areas study to the SEPA Responsible Official, Public Works Department, Planning Department and the River and Streams Board for review and comment.

F. The Director shall make a final decision regarding the adequacy of the critical areas study or wetland reconnaissance based on the information provided and on comments from the City departments, Rivers and Streams Board and if applicable, the specialist selected to review the study.

G. If it is determined that the proposed regulated activity will occur within a critical area or critical area buffer, an approval must be granted through the appropriate land use permitting process prior to any development activity occurring on the site. (Ord. 2108 § 10.2.8, 1996).

18.10.420 Public agency and utility exemption.

A. This section only applies to development proposals not qualifying under IMC [18.10.400](#). If the application of this chapter would prohibit a development proposal by a public agency or public or private utility, the agency or utility may apply for an exception pursuant to this section. The exemption shall be reviewed through the appropriate land use permitting process or if none is required, then through Level 1 Review. The agency or utility shall prepare a report requesting the exemption and submit it to the Permit Center and shall incorporate other required documents such as land use or Building Permit applications, critical areas studies and SEPA documents.

B. The Director shall review the report and applications and make the final decision to approve, approve with conditions or deny the exemption based on the following criteria:

1. There is no other practical alternative to the proposed development with less impact on the critical area; and
2. The proposal minimizes the impact on critical areas; and
3. Mitigation measures are proposed as needed to avoid any significant adverse impacts to the critical area.

C. This exemption shall not allow the use of the following critical areas for regional retention/detention facilities except where there is a clear showing that the facility is required to protect public health and safety or to repair damaged natural resources including:

1. Class 1 streams or buffers covered by the City's Shoreline Management Program;
2. Category 1 or 2 wetlands or their buffers with Federal or State threatened or endangered plant species; and
3. Category 1 or 2 wetlands or their buffers which provide critical or outstanding actual habitat for the following unless the applicant clearly demonstrates that there would be no adverse impact on critical or outstanding actual habitat for:
 - a. Species listed as endangered or threatened by the federal or state government,

- b. Washington Department of Fish and Wildlife Priority Species,
- c. Herons,
- d. Raptors,
- e. Salmonids, salmon habitat. (Ord. 2301 § 3, 2001; Ord. 2108 § 10.2.9, 1996).

18.10.430 Variances.

A. Applicability – The variance procedures herein apply to all property within the jurisdiction of the Shoreline Master Program. Variances for development on property located outside shoreline jurisdiction shall follow the variance process, standards and criteria listed in 18.10.430 of the Critical Areas Regulations.

B. Purpose: The variance provision is provided to property owners who, due to the strict implementation of this chapter and/or to unusual circumstances regarding the subject property, are deprived of privileges commonly enjoyed by other properties in the same vicinity, zone and under the same land use regulations or have been denied all reasonable use of the property; provided, however, that the fact that surrounding properties have been developed under regulations in force prior to the adoption of this Code shall not be the sole basis for the granting of a variance.

C. Variance Granted: Before any variance may be granted, the applicant must file an application with the Permit Center and must demonstrate to the satisfaction of the Hearing Examiner the ability to meet all of the criteria in IMC [18.10.430\(C\)](#). In the event that the applicant is not able to fulfill all of the criteria in IMC [18.10.430\(C\)](#), a demonstration must be made to the satisfaction of the Hearing Examiner, regarding the ability to successfully meet all of the criteria established in IMC [18.10.430\(D\)](#).

A variance application shall be submitted to the Permit Center along with a critical areas special study, where applicable.

D. Variance Criteria Established:

1. The variance is in harmony with the purpose and intent of the relevant City ordinances and the Comprehensive Plan;
2. The variance shall not constitute a grant of special privilege which would be inconsistent with the permitted uses, or other properties in the vicinity and zone in which the subject property is located;
3. That such variance is necessary, because of special circumstances relating to the size, shape, topography, location or surroundings of the subject property, to provide it with use rights and privileges permitted to other properties in the vicinity, located in the same zone as the subject

property and developed under the same land use regulations as the subject property requesting the variance;

4. That the granting of such variance will not be materially detrimental to the public welfare or injurious to the property or improvements in the vicinity and zone in which the subject property is situated;

5. That alternative development concepts that comply with the Code provisions to which the variance is requested have been evaluated, and that undue hardship would result if the strict adherence to the Code provisions is required;

6. The variance granted is the minimum amount that will comply with the criteria listed above and the minimum necessary to accommodate the permitted uses proposed by the application, and the scale of the use shall be reduced as necessary to meet this requirement; and

7. The need for the variance is not the result of actions of the applicant or property owner.

~~E. Reasonable Use Variance Criteria Established: Only after the determination, by the Hearing Examiner, that the proposal does not meet all of the variance criteria listed above, may the application be reviewed, by the Hearing Examiner at the same public hearing, under the following criteria:~~

~~1. There is no reasonable use of the property left; and~~

~~2. That the granting of this variance will not be materially detrimental to the public welfare or injurious to the property or improvements in the vicinity and zone in which the subject property is situated; and~~

~~3. The variance granted is the minimum amount that will comply with the criteria listed above and the minimum necessary to accommodate the permitted uses proposed by the application, and the scale of the use shall be reduced as necessary to meet this requirement; and~~

~~4. The need for the variance is not the result of actions of the applicant or property owner.~~

F. Wetland buffer variance: The Hearing Examiner may reduce wetland buffer widths beyond requirements of IMC 18.10.650 only through review and approval of a variance application. In addition to the variance requirements the applicant must demonstrate that:

1. No direct or indirect, short-term or long-term, adverse impacts to wetlands would result from the proposed buffer reduction; and

2. The project includes a wetland and/or wetland buffer enhancement plan using native vegetation which demonstrates that an enhanced buffer will improve the functional attributes of the buffer to provide additional protection for wetlands functions and values and that the new buffer will provide

the same level of protection to the wetland as the original buffer. (Ord. 2108 § 10.2.27.13 – 14, 1996).

G. Cumulative Impact of Area Wide Requests: In the granting of variances from this Code, consideration shall be given to the cumulative impact of additional requests for like actions in the area. For example, if variances were granted to other developments in the area where similar circumstances exist, the total of the variances should also remain consistent with the policies and intent set forth in this chapter.

H. Public Hearing: The Hearing Examiner shall hold a public hearing and notice shall be provided under the provisions of the Land Use Code and Issaquah Municipal Code. The applicant or representative(s) shall appear in person at the hearing.

I. Notice of Hearing Examiner's Decision: Copies of the Hearing Examiner's decision shall be mailed to the applicant and to other parties of record not later than three (3) working days following the filing of the decision. "Parties of record" shall include the applicant and all other persons who specifically request notice of the decision by signing a register provided for such purpose at the public hearing.

J. Appeals: Decisions by the Hearing Examiner may be appealed to the City Council in accordance with IMC [18.04.250](#), Administrative appeals. (Ord. 2301 § 3, 2001; Ord. 2108 § 10.2.10, 1996).

18.10.440 Nonconforming activities.

Regulated activities approved prior to the adoption of this chapter but which are not in conformity with the provisions of this chapter are subject to the provisions of Chapter [18.08](#) IMC. (Ord. 2108 § 10.2.11, 1996).

18.10.450 Density calculation in critical areas.

A. The following formula for density calculations is designed to provide incentives for the preservation of critical areas and critical area buffers, flexibility in design, and consistent treatment of different types of development proposals. The formula shall apply to all properties on which critical areas such as streams, wetlands, steep slopes, and floodways of streams and associated critical area buffers limit land area available for development. The formula lists the maximum density credits that may be transferred on a particular site from the critical area to a developable site area. However, in some cases the maximum density credits may not be attainable due to other site constraints including but not limited to acreage constraints of the developable site area.

B. For development proposals containing critical areas and associated critical area buffers that limit development, the Director shall determine allowable dwelling units for residential and allowable floor area for nonresidential or commercial development proposals based on the formulas below.

1. Residential: The maximum number of dwelling units (DU) for a lot or parcel which contains critical areas and associated critical area buffers that limit development shall be equal to the number of acres in critical area and critical area buffer that limit development, times the number of dwelling units allowed per acre, times the percentage of density credit, plus the number of dwelling

units allowed on the remainder of the site; or: (Max. DU) = (Acres in Critical Area and Critical Area Buffer) (DU/Acre) (Density Credit) + (DU allowed on remaining acreage of site).

2. The density credit figure is derived from the following table:

Density Credits		
Percentage of site in buffers and/or critical areas	translates into	Density Credit
1 – 10%		100%
11 – 20%		90%
21 – 30%		80%
31 – 40%		70%
41 – 50%		60%
51 – 60%		50%
61 – 70%		40%
71 – 80%		30%
81 – 90%		20%
91 – 100%		10%

3. The density credit can only be transferred within the development proposal site. The applicant may reduce lot sizes below the minimum required for that zone to accommodate the transfer of density. The applicant may not propose any uses which are not permitted in the underlying zone.

To the extent that application of the formula may result in lot sizes less than the minimum allowed by the underlying district, they are hereby authorized; provided, that the resultant lot is of sufficient size for an on-site waste disposal system if no sanitary sewer system exists. In any case, all other established setbacks shall be required, pursuant to Chapter [18.07](#) IMC.

4. Nonresidential: The maximum nonresidential or commercial square footage will be determined by the site constraints, including but not limited to: critical areas, associated critical area buffers, impervious surface ratio, height, setbacks, parking requirements, etc. (Ord. 2525 § 7, 2008; Ord. 2447 § 59, 2005; Ord. 2108 § 10.2.12, 1996).

18.10.460 Notice on title.

A. The owner of any property containing critical areas or buffers on which a development proposal is submitted, except for a public right-of-way or the site of a permanent public facility, shall file for record with the Records and Elections Division of King County a notice approved by the City. Such notice shall provide documentation in the public record of the presence of a critical area or buffer, the application of this

chapter to the property, and that limitations on actions in or affecting such areas or buffers may exist. The required contents and form of the notice shall be set forth in administrative rules.

B. The applicant shall submit proof that the notice has been filed for record before the City shall approve any development proposal for such site or, in the case of subdivisions, short subdivisions and binding site plans, at or before recording. The notice shall run with the land and failure to provide such notice to any purchaser prior to transferring any interest in the property shall be a violation of this chapter. (Ord. 2108 § 10.2.13, 1996).

18.10.470 Critical area tracts, buffer areas and building setback areas.

Repealed by Ord. 2301. (Ord. 2108 § 10.2.14, 1996).

18.10.480 Temporary marking – Permanent survey marking – Signs.

A. Temporary Marking: The location of the outer extent of the critical area buffer and building setback line pursuant to an approved Development or Land Use Permit shall be marked in the field with orange construction fencing or other appropriate apparatus, as determined by the Director during critical area review. The location of such marking in the field shall be approved by the Director, prior to the commencement of permitted activities. Such field markings shall be maintained throughout the duration of the construction activities.

B. Survey Markers: Permanent survey stakes using iron or cement markers as established by current survey standards shall be set delineating the boundaries between adjoining properties and the critical areas tracts.

C. Signs: Boundaries between critical area tracts and adjacent lands shall be identified using permanent signs explaining the type and value of the critical area. The signs shall be designed as follows, unless alternative designs are approved by the Director:

1. Size and Height: Minimum eight and one-half (8.5) inches tall by eleven (11) inches wide. The overall sign shall be three (3) to five (5) feet high;
2. Color: White lettering on dark background;
3. Material: Aluminum sign and wood posts;
4. Content: The language content of the sign shall be as determined by the Planning Department (examples available at the Permit Center). The title shall be a minimum one-half (1/2) inch tall letters and the text a minimum one-quarter (1/4) inch tall letters;
5. Installation: The sign shall be secured to a four (4) inch by four (4) inch wood post, long enough to set the post thirty-six (36) inches below grade and back fill with dirt (see Permit Center for sign diagram). (Ord. 2301 § 3, 2001; Ord. 2108 § 10.2.15, 1996).

18.10.490 Mitigation.

- A. Mitigation sequence - Activities and development on sites containing critical areas shall follow the sequence of steps listed below in order of priority to further the goal of no net loss of ecological functions of environmental critical areas,
 - 1. Avoid impacts altogether by not taking a certain action or parts of an action;
 - 2. Minimize impacts by limiting the degree or magnitude of the action and its implementation by using appropriate technology, or by taking affirmative steps to avoid or reduce impacts.
 - 3. Rectify impacts by repairing, rehabilitating or restoring the affected environment;
 - 4. Compensate for the impact by replacing, restoring, creating, enhancing or providing substitute resources or environments.
 - 5. Monitor the impact and the compensation projects and taking appropriate corrective measures.
- B. Prior to development activities, mitigation measures shall be in place to protect critical areas and critical area buffers from alterations occurring on all or portions of the site that are being developed.
- C. A mitigation plan shall be required for the design, implementation, maintenance and monitoring of mitigation.
- D. A financial surety in the form of a performance and maintenance bond shall be required for all critical area mitigation efforts. The bonding amounts shall be listed in the mitigation plan, with the performance amount intended to cover the cost of design, installation, monitoring, and maintenance, and shall be an agreed-upon percentage of the performance bond. The bond shall be one hundred fifty (150) percent of the mitigation cost and the maintenance period shall be for five (5) years. If additional work is required after the five (5) year maintenance period is over, the bonding may be extended per the Director.
- E. Other Agency Review: The Director may consult with and solicit comments from any federal, state, regional, or other local agency, including tribes, having any special expertise with respect to any environmental impact prior to approving a mitigation plan. The project proponents should provide sufficient information on plan design and implementation in order for such agencies to comment on the overall adequacy of the mitigation plan. (Ord. 2301 § 3, 2001; Ord. 2108 § 10.2.16, 1996).

18.10.500 Monitoring.

- A. The City shall require monitoring when mitigation is required for the alteration of a critical area.
- B. Monitoring is required for a minimum of five (5) years.

C. Where monitoring reveals a significant deviation from predicted impacts or a failure of mitigation measures, the applicant shall be responsible for appropriate corrective action as specified by the Director which, when approved, shall be subject to monitoring. (Ord. 2301 § 3, 2001; Ord. 2108 § 10.2.17, 1996).

18.10.510 Critical Areas Mitigation Fund.

There is hereby created a Critical Areas Mitigation Fund which shall be administered by the Finance Department. All funds received from civil penalties resulting from violations of this chapter shall be deposited in the fund which shall be used only for the purpose of paying all or part of the cost and expense of enforcing and implementing this chapter. Monies in said fund not needed for immediate expenditure shall be invested for the benefit of the Critical Areas Mitigation Fund pursuant to RCW 36.29.020. For investment purposes, the Director of Finance is hereby designated the Fund Manager. (Ord. 2108 § 10.2.18, 1996).

18.10.515 Critical area tracts, buffer areas and building setback areas.

A. Critical Area Tracts: Critical area tracts shall be used to protect all landslide and steep slopes hazard areas; mine, flood, erosion and seismic hazard areas; streams; and wetlands in proposals for subdivisions or other development proposals to which they apply, and shall be recorded on all documents of title of record for all affected lots.

1. Critical area tracts are legally created tracts containing critical areas and their buffers that shall remain undeveloped in perpetuity. Critical area tracts are an integral part of the lot in which they are created, are not intended for sale, lease or transfer, and shall be included in the area of the parent lot for purposes of subdivision method and minimum lot size.

2. Permanent survey stakes using iron or cement markers as established by current survey standards shall be set delineating the boundaries between adjoining properties and the critical area tracts.

B. Protection of Critical Area Tracts: The Director shall require, as a condition of any permit issued pursuant to this Code, that the critical area tract or tracts created pursuant to this section be protected by one of the following methods:

1. The permit holder shall convey an irrevocable offer to dedicate to the City or other public or nonprofit entity specified by the Director, a native growth protective easement for the protection of native vegetation within a critical area and/or its buffer; or

2. The permit holder shall establish and record a permanent and irrevocable deed restriction on the property title of all lots containing a critical area tract or tracts created as a condition of this permit. Such deed restriction(s) shall prohibit in perpetuity the development, alteration, or disturbance of vegetation within the critical area tract except for purposes of habitat enhancement

as part of an enhancement project that has received prior written approval from the City, and any other agency with jurisdiction over such activity.

C. Buffer Areas: Buffer areas shall be established from the outer edge of the critical area for wetlands, streams, steep slope hazard areas and landslide hazard areas, as determined by the Director, through review of the critical areas study and based on the minimum buffer requirements set forth in the appropriate section of this Code.

Landscaping, with the exception of street trees, that occurs as a result of new development, shall not intrude into the buffer of any critical area, unless approved by the Director (through a Level 1 Review or through the appropriate land use permitting process). Street trees, consistent with the City "Street Tree Master Program" and approved by the Director, shall be allowed in and along the roadway rights-of-way portion of a critical area buffer. When critical area buffers overlap, the largest buffer width shall be applied to ensure adequate protection for each critical area.

D. Building Setback Areas: A minimum fifteen (15) foot building setback area shall be established from the outer edge of the critical area buffer for wetlands, streams, steep slope hazard areas and landslide hazard areas.

1. Prohibitions on the use of hazardous or toxic substances and pesticides or certain fertilizers in this area shall be imposed for setbacks from streams and wetlands.
2. Minor structural intrusions (e.g., architectural features, patios, decks less than thirty (30) inches above finished grade) may be allowed into the building setback area, if consistent with IMC [18.07.040](#).
3. The building setback area shall be illustrated on all preliminary plats, final plats, land use permits, and building permit site plans containing or adjacent to critical areas. (Ord. 2455 § 3, 2006; Ord. 2301 § 3, 2001).

Development Standards

18.10.520 Mine hazard areas and erosion hazard areas – Protection mechanisms and permitted alterations.

A. Coal Mine Hazard Areas:

1. General Requirements: Alteration of a site containing a coal mine hazard area may be permitted only when all significant risks associated with abandoned mine workings have been eliminated or mitigated. Appropriate mitigation shall be based upon a critical areas study that has been prepared by a qualified professional.

2. Building Setback Lines: Building setback lines to accomplish this objective shall be determined by the Director based on the critical areas study.

B. Erosion Hazard Areas: Alteration of a site containing an erosion hazard area shall meet the following requirements:

1. Clearing on erosion hazard areas is allowed only from April 1st to November 1st.
2. Only that clearing necessary to install temporary sedimentation and erosion control measures shall occur prior to clearing for roadways or utilities.
3. Clearing limits for roads, sewer, water and stormwater utilities, and temporary erosion control facilities shall be marked in the field and approved by the Department of Public Works prior to any alteration of existing native vegetation.
4. The authorized clearing for roads and utilities shall be the minimum necessary to accomplish project-specific engineering designs and provide necessary electrical clearances.
5. Clearing of trees permitted pursuant to Chapter [18.12](#) IMC, Landscaping, may occur in conjunction with clearing for roadways and utilities.
6. Retained trees, understory, and stumps may subsequently be cleared only if such clearing is a specific element of residential, multifamily, or commercial structure site plan approval. This shall be carried out as a part of a vegetation management plan developed pursuant to criteria established in the administrative rules.
7. Hydroseeding or other erosion control methods as required in temporary erosion control plans shall be required.
8. All development proposals shall submit an erosion control plan consistent with this section and other adopted requirements prior to receiving approval. (Ord. 2301 § 3, 2001; Ord. 2108 § 10.2.19, 1996).

18.10.530 Areas of special flood hazard – Protection mechanisms and permitted alterations.

A. Application: Development proposals located within areas of special flood hazard shall meet the requirements and definitions of Chapter [16.36](#) IMC, Areas of Special Flood Hazard.

18.10.540 Protection mechanisms and permitted alterations for the one hundred (100) year floodplain.

Repealed by Ord. 2301. (Ord. 2164 § 10, 1997; Ord. 2108 § 10.2.21, 1996).

18.10.550 Floodway – Protection mechanisms and permitted alterations.

Repealed by Ord. 2301. (Ord. 2108 § 10.2.22, 1996).

18.10.560 Landslide hazard areas – Protection mechanisms and permitted alterations.

Development proposals on sites containing landslide hazard areas shall meet the following requirements:

A. Buffers: A minimum buffer of fifty (50) feet shall be established from all edges of landslide hazard areas and from landslide hazard areas with slopes of less than forty (40) percent unless these areas are approved for alteration pursuant to this section. Existing native vegetation within the buffer area shall be maintained, and the buffer shall be extended beyond these limits as required to mitigate steep slope and erosion hazards, or as otherwise necessary to protect the public health, welfare or safety.

B. Building Setback: An additional fifteen (15) foot building setback shall also be established from the outer edge of the buffer as regulated by IMC [18.10.515\(D\)](#), Building Setback Areas.

C. Alterations:

1. A landslide hazard area located on a slope forty (40) percent or steeper shall be altered only as allowed under standards for steep slope hazard areas. A landslide hazard area, located on a slope less than forty (40) percent, may only be altered under the following circumstances:

- a. The development proposal will not decrease slope stability on adjacent properties; and
- b. The landslide hazard area can be modified or the development proposal can be designed so that the landslide hazard to the project and adjacent property is eliminated or mitigated, based on criteria including altering of drainage patterns and subsurface flow, and the development proposal on that site is certified as safe by a licensed geotechnical engineer.

2. Where such alterations are approved, buffers and critical area tracts may also be altered. (Ord. 2301 § 3, 2001; Ord. 2108 § 10.2.23, 1996).

18.10.570 Seismic hazard areas – Protection mechanisms and permitted alterations.

Development proposals on sites containing a seismic hazard area shall meet the requirements of this section.

A. Development proposals on-sites containing mapped seismic hazard areas may make alterations to a seismic hazard area only when the applicant demonstrates and the Director concludes that:

- 1. Evaluation of site specific subsurface conditions show that the site is not located in a seismic hazard area; or
- 2. Mitigation is implemented to the greatest extent feasible, and shall minimize any potential adverse impacts.

B. Development proposals will be subject to two (2) levels of review standards based on occupancy types – critical facilities and standard structures. The review standards for critical facilities will be based on larger earthquake reoccurrence intervals than the earthquakes considered for standard occupancy structures. The review standards will be set forth in the administrative rules. (Ord. 2301 § 3, 2001; Ord. 2108 § 10.2.24, 1996).

18.10.580 Steep slope hazard areas – Protection mechanisms and permitted alterations.

Steep slope hazard areas and associated buffers shall not be altered (see definition of “alteration” IMC 18.10.390) except as expressly authorized below.

Development proposals on sites containing a steep slope hazard area shall meet the requirements of this section.

A. Buffers:

1. A minimum buffer shall be established at a horizontal distance of fifty (50) feet from the top or toe and along all sides of slopes forty (40) percent or steeper. Existing native vegetation within the buffer area shall be maintained and the buffer shall be extended beyond these limits as required to mitigate landslide and erosion hazards, or as otherwise necessary to protect the public health, safety and welfare.
2. The buffer may be reduced to a minimum of ten (10) feet when an applicant demonstrates to the Director, pursuant to a critical areas study, that the reduction will not reduce the level of protection to the proposed development and the critical area as provided by the fifty (50) foot buffer. An occupied building shall not be closer than twenty-five (25) feet (including buffer) to the toe of a steep slope (or altered steep slope).
3. A decision by the Director to reduce the buffer shall be based on a critical area study that includes the following assessment criteria:
 - a. Steep slope development areas shall be subject to site-specific geotechnical studies.
 - b. Steep slope development areas shall be subject to engineering design considerations that ensure the stability of steep slope areas. Engineering design considerations shall include but are not limited to the following:
 - (1) Soil cuts require slope stability analysis to evaluate the change in relative stability. Based on the results of the stability analysis, retaining structures will be required to replace any lateral soil support lost. In no case shall the factor of safety be less than one and one-half (1.5).

(2) Soil fills require slope stability analysis and engineering design measures, including keying the fill, compaction, drainage measures, reinforced earth, and structural retaining walls.

(3) Foundations must be extended to firm, undisturbed native soil, and embedded deep enough to resist lateral loads caused by soil creep (surficial slope movement inherent to all steep slope areas) and other lateral loads which the foundation may be subject to (i.e., seismic and deep seated slope failures).

(4) Provide subgrade (i.e., reinforced compacted subgrade) or retaining wall design (rockeries are not considered retaining walls or engineered structures) that replaces the support of cuts; designed with a factor of safety of at least one and one-half (1.5). Compacted subgrade without reinforcement or retaining structures will not be considered for the support of cuts.

(5) Provide effective, positive drainage for all underground elements of structures or facilities.

(6) All utility connections within steep slope and landslide hazards shall have sufficient flexible connections to avoid utility failure.

c. All geotechnical analyses prepared shall have a third-party independent review by a qualified geotechnical engineer.

4. The decision by the Director to reduce the buffer shall include the following conditions:

a. The applicant shall establish a mechanism that is acceptable to the Director which notifies all future buyers of the lot that the steep slope buffer was reduced and that development has occurred within fifty (50) feet of the steep slope or the steep slope has been eliminated (e.g., notice on title); and

b. The applicant shall execute an agreement on a form approved by the City Attorney, which indemnifies and holds the City harmless for development within fifty (50) feet of the steep slope.

Both conditions shall be met prior to the issuance of a building permit. The Director may attach additional conditions as necessary to achieve the purpose and intent of this section.

B. Building Setback: An additional fifteen (15) foot building setback shall also be established from the outer edge of the buffer as regulated by IMC [18.10.515\(D\)](#), Building Setback Areas.

C. Critical Areas Tracts: Any continuous steep slope hazard area and its buffers one (1) acre or greater in size shall be placed in separate critical areas tracts in development proposals as described in IMC [18.10.515](#).

D. Alterations: Alterations to steep slopes shall be allowed only as follows:

1. Surface Water Management: Steep slopes may be used for approved surface water conveyance as specified in the City's currently adopted Surface Water Design Manual. Installation techniques shall minimize disturbance to the slope and vegetation.
2. Trails: Construction of public and private trails may be allowed on steep slopes, provided they receive site-specific approval by the City as guided by the construction and maintenance standards in the U.S. Forest Service "Trails Management Handbook" (FSH 2309.18, June 1987 as amended) and "Standard Specifications for Construction of Trails" (EM-7720-102, June 1984 as amended); but in no case shall trails be constructed of concrete, asphalt or other impervious surface which would contribute to surface water runoff unless such construction is necessary for soil stabilization or soil erosion prevention.
3. Utilities: Construction of public and private utility corridors may be allowed on steep slopes in accordance with adopted standards. In the event that standards have not been adopted or are not applicable, the activity may be allowed; provided, that a critical areas study indicates that such alteration will not subject the area to the risk of landslide or erosion.
4. View Corridors: The City may allow the limited trimming and limbing of vegetation on steep slopes for the creation and maintenance of views; provided, that the soils are not disturbed, plant health is not compromised, and the activity is subject to the applicable City ordinance.

E. Limited Exemptions:

1. Slopes forty (40) percent and steeper with a vertical elevation change of up to twenty (20) feet may be exempted from the provisions of this section (through Level 1 Review or through the appropriate land use permitting process), based on the City review and acceptance of a soils report prepared by a geologist or licensed geotechnical engineer when no adverse impact will result from the exemption.
2. Any slope which has been created through previous, legal grading activities may be regarded as part of an approved development proposal. Any slope which remains equal to or in excess of forty (40) percent following site development shall be subject to the protection mechanisms for steep slopes.

F. Removal or Introduction of Vegetation on Landslide or Steep Slopes: Unless otherwise specified, the following restrictions apply to vegetation removal or introduction in steep slope hazard areas, landslide hazard areas and their buffers:

1. There shall be no removal of any vegetation from any steep slope hazard area or buffer except for the limited plant removal necessary for surveying purposes and for the removal of hazardous trees determined to be unsafe by the City Horticulturist or a private, qualified arborist.

2. On slopes which have been disturbed by human activity or infested by noxious weeds, replacement with native species or other appropriate vegetation may be required subject to approval by the City of an enhancement plan. (Ord. 2525 § 4, 2008; Ord. 2301 § 3, 2001; Ord. 2108 § 10.2.25, 1996).

18.10.590 Wetlands – General protection mechanisms.

Development activity on sites containing wetlands or wetland buffers shall meet the requirements of this chapter. Wetlands and associated buffers shall not be altered (see definition of “alteration” IMC 18.10.390) except as expressly authorized by this chapter. The applicant is responsible for ensuring that the requirements of all other agencies with jurisdiction have been met. (Ord. 2455 § 4, 2006; Ord. 2108 § 10.2.26.1 – 4, 1996).

18.10.600 Regulated wetland activities.

Project Permit approval through the appropriate land use permitting process, or if none is required, then through Level 1 Review shall be obtained from the City prior to undertaking the following activities in a regulated wetland or its buffer unless authorized by IMC [18.10.610\(A\)](#):

- A. The removal, excavation, grading, or dredging of soil, sand, gravel, minerals, organic matter, or material of any kind;
- B. The dumping, discharging, or filling with any material;
- C. The draining, flooding, or disturbing of the water level or water table;
- D. The driving of pilings;
- E. The placing of obstructions or fences;
- F. The construction, reconstruction, demolition, or expansion of any structure;
- G. The destruction or alteration of wetlands vegetation through clearing, grubbing, harvesting, shading, intentional burning, or planting of vegetation that would alter the character of a regulated wetland; provided, that these activities are not part of a forest practice governed under Chapter 76.09 RCW and its rules;
- H. Activities that result in a significant change of water temperature, a significant change of physical or chemical characteristics of wetlands water sources, including quantity, or the introduction of pollutants;
- I. Any development or construction activity not specifically authorized as an allowed activity in IMC [18.10.610\(A\)](#);
- J. Restoration or enhancement projects; or

K. Introduction into any wetland area or associated buffers of all vegetation or wildlife shall be indigenous to the Issaquah region unless authorized by the state of Washington or a federal license or permit. (Ord. 2455 § 5, 2006; Ord. 2301 § 3, 2001; Ord. 2108 § 10.2.26.5, 1996).

18.10.610 Allowed wetland activities.

A. Activities Not Subject to Review or Approval: The following activities shall be allowed without a wetland reconnaissance or wetland study and without notice to the Director, within a wetland or wetland buffer to the extent that they are not prohibited by any other ordinance or law and provided they are conducted using best management practices, except where such activities result in the conversion of a regulated wetland or wetland buffer to an activity to which it was not previously subjected; and provided further, that forest practices and conversions shall be governed by Chapter 76.09 RCW and its rules. These activities are not subject to any review or approval process.

1. Conservation or preservation of soil, water, vegetation, fish, shellfish, and other wildlife;
2. Outdoor recreational activities, including fishing, bird watching, hiking, hunting, boating, swimming and canoeing. Horseback riding and bicycling are allowed only on designated, established, public trails;
3. The noncommercial harvesting of wild crops in a manner that is not injurious to natural reproduction of such crops and provided the harvesting does not require tilling of soil, planting of crops, or alteration of the wetland by changing existing topography, water conditions or water sources;
4. Existing and ongoing agricultural activities including farming, horticulture, aquaculture, irrigation, ranching or grazing of animals. Activities on areas lying fallow as part of a conventional rotational cycle are part of an ongoing operation. Activities which bring an area into agricultural use are not part of an ongoing operation. An operation ceases to be ongoing when the area on which it was conducted has been converted to another use or has lain idle for twenty-four (24) consecutive months;
5. The maintenance (but not construction) of existing ditches. Maintenance includes clearing the ditch of sediment, debris and/or vegetation, but does not include additional excavation that increases the depth or width of the ditch. Excavation of sediment deposited in the ditch shall not exceed the original construction elevation;
6. Education, scientific research, and use of publicly designated nature trails;
7. Navigation aids and boundary markers;
8. Boat mooring buoys;

9. Normal maintenance, repair, or operation of existing serviceable structures, facilities, or improved areas. Maintenance and repair does not include any modification that changes the character, scope, or size of the original structure, facility, or improved area and does not include the construction of a maintenance road;
10. Minor modification of existing serviceable structures (e.g., utilities, monitoring equipment, etc.) within a buffer where modification does not adversely impact wetland functions;
11. Site investigative work necessary for land use application submittals such as delineations, surveys, soil logs, percolation tests and other related activities; and
12. Removal of exotic, invasive plants in wetlands and buffers as established in IMC [18.10.400\(L\)](#), Removal of Nonnative Invasive Vegetation.

B. Activities Allowed in Wetland Buffers: In wetland buffers, regulated activities which have minimal adverse impacts within the buffers and no adverse impacts on wetlands may be allowed through the Land Use Permit process, provided they are conducted using best management practices and restoration. These activities include:

1. Low impact, passive recreation-related activities such as development of pervious recreation trails, nonpermanent wildlife watching blinds, short-term scientific or educational activities; or
2. Stormwater management facilities having no feasible alternative on-site locations, where appropriate restoration is included, and which would not adversely affect the function or values of the buffer or wetland, may be allowed in buffers associated with Category 2, 3 and 4 wetlands only. Stormwater management facilities shall not encroach into wetland buffers by more than twenty-five (25) percent of the standard wetland buffer width, per IMC 18.10.640, or use more than twenty-five (25) percent of the total buffer area without a variance. Any wetland buffer area displaced by a stormwater management facility shall be compensated for by adding wetland buffer area in accordance with IMC [18.10.650\(D\)\(3\)](#) so that no net loss of wetland buffer area results from the construction of the facility; or
3. Flood conveyance compensatory storage, where there is no other feasible alternative, where appropriate restoration is included, and where wetland hydrology or vegetation will not be significantly impacted; or
4. Surface water discharge to a wetland from a detention facility, presettlement pond or other surface water management activity or facility may be allowed if the discharge enhances the wetland and/or does not increase the rate of flow, change the plant composition in a forested wetland, or decrease the water quality of the wetland; or
5. Trails: Construction of public and private trails may not be allowed in wetland buffers unless a critical areas study per IMC [18.10.410](#) documents no loss of buffer functions and values. Additional

buffer width equal to the width of the trail tread and the cleared trail shoulders shall be required, except where existing development prevents adding buffer width. In this case, other mitigating measures shall be required to ensure no loss of buffer functions and values.

C. Utilities in Wetland Buffers: Sewer utility corridors may be allowed in wetland buffers only if the applicant demonstrates that sewer lines are necessary for gravity flow and no other technologically practical alternative exists, and:

1. 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 of those species, and consider construction timing in areas with heron rookeries or raptor nesting trees;
2. The corridor alignment including, but not limited to, any allowed maintenance roads shall not encroach into the wetland buffer at any location by more than twenty-five (25) percent of the standard wetland buffer width, per IMC 18.10.640: 3. Corridor construction and maintenance protects the wetland and buffer and is aligned to avoid cutting trees greater than twelve (12) inches in diameter at breast height, when practical;
4. An additional, contiguous and undisturbed buffer, equal in width to the proposed nonvegetated areas, including any allowed maintenance roads, is provided to protect the wetland;
5. The corridor is revegetated with appropriate vegetation native to King County at preconstruction densities or greater immediately upon completion of construction or as soon thereafter as possible, and the sewer utility ensures that such vegetation is established for at least five (5) years;
6. Any additional corridor access for maintenance is provided, to the extent possible at specific points rather than by a parallel road; and
7. The width of any necessary parallel road providing access for maintenance is as small as possible, but not greater than fifteen (15) feet, and the location of the road is within the utility corridor on the side away from the wetland.

D. Temporary Construction Disturbance: Except as otherwise specified, where temporary buffer disturbance has occurred during construction, revegetation with native vegetation is required. (Ord. 2491 § 6, 2007; Ord. 2455 § 6, 2006; Ord. 2314 § 1, 2001; Ord. 2301 § 3, 2001; Ord. 2108 § 10.2.26.6 – 7, 1996).

18.10.615 Wetland delineations

A. A wetland report shall be prepared either prior to or with a development application, where a site inspection or other available information indicates the potential presence of a wetland on any portion of the subject property or within 200 feet of the subject property.

B. A field identification or delineation of the wetland edge shall be conducted by a qualified wetland professional based on the procedures provided in the currently approved federal manual and applicable regional supplements and WAC 173-22-035.

C. Wetland delineations and wetland ratings shall be based on the entire extent of the wetland, irrespective of property lines, ownership patterns, or other factors.

D. The Planning Director/Manager shall approve a wetland delineation and wetland rating prior to approval of development permits. The City may require additional review of a wetland delineation and/or wetland rating by a wetland professional not associated with an applicant. Additional wetland review shall be at the applicant's expense.

E. A final wetland delineation report shall be valid for three (3) years. Additional time may be approved by the Planning Director/Manager if an application is proceeding through the permit process in a timely manner. The Planning Director/Manager may require an updated wetland delineation report whenever physical circumstances have markedly and demonstrably changed on the subject property or the surrounding area as a result of natural processes or human activity.

F. After City approval of the wetland delineation and required wetland buffer, a professional survey of the wetland edge and required wetland buffer shall be shown on the permit application. The survey of the wetland delineation shall be tied to a known monument.

18.10.620 Wetland rating system.

A. To promote consistent application of standards, wetlands within the City of Issaquah shall be classified according to their characteristics, function and value, and/or their sensitivity to disturbance. Wetlands shall be rated and regulated according to the categories defined by the Washington State Department of Ecology Wetland Rating System for Western Washington, (Ecology Publication #04-06-025). This document contains the methods for determining the wetland category.

1. Wetlands, as defined by this chapter, shall be classified into Category I, Category II, Category III, and Category IV, as follows:

a. Category I Wetlands: Category I wetlands are those that (1) represent a unique or rare wetland type; or (2) are more sensitive to disturbance than most wetlands; or (3) are relatively undisturbed and contain ecological attributes that are impossible to replace within a human lifetime; or (4) provide a high level of functions. All wetlands with one (1) or more of the following criteria shall be considered a Category I wetland:

(1) Wetlands that are identified by scientists of the Washington Natural Heritage Program/DNR as high quality, relatively undisturbed wetlands, or wetlands that support State-listed threatened or endangered plants; or

- (2) Bogs; or
 - (3) Mature and old-growth forested wetlands over one (1) acre in size; or
 - (4) Wetlands that provide a very high level of functions as evidenced by a score of seventy (70) points or more on the Western Washington Rating System form.
- b. Category II Wetlands: Category II wetlands are those wetlands that provide high levels of some functions which are difficult to replace. Category II wetlands meet the following criteria:
- (1) Wetlands scoring between fifty-one (51) and sixty-nine (69) points on the Western Washington Rating System form.
- c. Category III Wetlands: Category III wetlands are those wetlands that provide a moderate level of functions. They are typically more disturbed and have less diversity or are more isolated from other natural resources in the landscape than Category II wetlands. Category III wetlands meet the following criteria:
- (1) Wetlands scoring between thirty (30) and fifty (50) points on the Western Washington Rating System form.
- d. Category IV Wetlands Over Two Thousand Five Hundred (2,500) Square Feet: Category IV wetlands are those wetlands that provide the lowest level of functions and are often heavily disturbed. Category IV wetlands meet the following criteria:
- (1) Wetlands scoring less than thirty (30) points on the Western Washington Rating System form. (Ord. 2455 § 7, 2006; Ord. 2301 § 3, 2001; Ord. 2108 § 10.2.27 – 10.2.27.3, 1996).
- e. Category IV Wetlands Less Than Two Thousand Five Hundred – Category IV wetlands less than two thousand five hundred (2,500) square feet in size, that are not part of a wetland complex, do not require wetland buffers and may be altered if mitigation is provided to demonstrate no net loss of functions or values, consistent with IMC 18.10.720.H.3.

18.10.640 Wetland buffer width requirements.

- A. Wetland buffers shall be required for all regulated activities adjacent to wetlands.
- B. Any wetland created, restored or enhanced as mitigation or compensation for approved wetland alterations shall also include the standard wetland buffer required for the category of the created, restored, or enhanced wetland.

C. All wetland buffers shall be measured from the wetland boundary as delineated using the DOE Wetland Manual and surveyed in the field. The width of the wetland buffer shall be determined according to the wetland category, as follows:

Table 18.10.640.C Wetland Buffer Standards

Category	Wetland Characteristic	Buffer
I (Wetlands with a total score of 70 points or more on the DOE Wetland Rating form)	Natural heritage wetlands	190 feet
	Bogs	190 feet
	Forested	Based on score for habitat or water quality functions
	Habitat score of 31 to 36	225 feet
	Habitat score of 26 to 30	150 feet
	Habitat score of 22 to 25	100 feet
	Habitat score of 21 or less	75 feet
II (Wetlands with a total score of 51 to 69 points on the DOE Wetland Rating form)	Habitat score of 31 to 36	225 feet
	Habitat score of 26 to 30	150 feet
	Habitat score of 22 to 25	100 feet
	Habitat score of 21 or less	75 feet
III (Wetlands with a total score of 30 to 50 points on the DOE Wetland Rating form)	Habitat score of 26 to 30	110 feet
	Habitat score of 22 to 25	75 feet
	Habitat score of 21 or less	50 feet
IV over 2,500 square feet (Wetlands scoring less than 30 points on the DOE Wetland Rating form)	Total score for functions less than 30 points	40 feet
IV less than 2,500 square feet		No buffer required

D. Building Setback: An additional fifteen (15) foot building setback shall also be established from the outer edge of the buffer as regulated by IMC [18.10.515\(D\)](#), Building Setback Areas. (Ord. 2455 § 8, 2006; Ord. 2301 § 3, 2001; Ord. 2108 § 10.2.27.5 – 9, 1996).

18.10.650 Exceptions to wetland buffer width requirements.

A. Existing Conditions:

1. **Previously Established Buffers:** Where a wetland buffer has been previously established through City or County development approval 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 fifty (50) percent of the required standard wetland buffer width in Table 18.10.640.C.

2. **Roads or Infrastructure in Wetland Buffers:** Where a legally established road right-of-way or similar infrastructure is located within a wetland buffer, the edge of the improved right-of-way shall be the extent of the buffer, provided it is demonstrated that the buffer area on the opposite side of the right-of-way provides insignificant biological or hydrological functions in relation to the buffer area adjacent to the wetland.

B. Buffer Requirements for Wetlands Adjacent to Steep Slopes: Wetlands within twenty-five (25) feet of the toe of slopes equal to or greater than forty (40) percent shall have the following minimum buffers:

1. Where the horizontal length of the slope including small benches and terraces is within the buffer for that wetland category, the buffer width shall be the greater of:

- a. The minimum for that wetland category; or
- b. Twenty-five (25) feet beyond the toe of the slope.

2. Where the horizontal length of the slope extends beyond the minimum buffer for that wetland category, the buffer shall extend to a point twenty-five (25) feet beyond the minimum buffer for that wetland category.

3. No reduction to wetland buffer standards in IMC 18.10.640 are allowed.

4. The Director may recommend buffer averaging in instances where it will provide additional resource protection; provided, that the total area on-site contained in the buffer remains the same.

C. Increasing Wetland Buffer Requirements: The Director shall require increased buffer widths as necessary to protect wetlands. The additional buffer widths and other issues shall be determined by development application review on a case-by-case basis. This determination shall be supported by appropriate documentation demonstrating that an increased buffer is necessary to:

1. Maintain viable populations of existing species;
2. Protect critical fish and wildlife habitat;
3. Protect critical drainage areas;

4. Protect groundwater recharge or discharge areas;
5. Protect adjacent land from landslides or severe erosion.

D. Reducing Wetland Buffer Requirements:

1. Wetland buffer reduction provisions in this section may be used separately or together; provided that the cumulative, total wetland buffer reduction shall not exceed twenty-five (25) percent of the required wetland buffer area or encroach into the buffer at any location by more than twenty-five (25) percent of the standard wetland buffer width, per IMC 18.10.640,

2. A variance is required for wetland buffer reductions exceeding twenty-five (25) percent of the required buffer area or encroachments exceeding twenty-five (25) percent of the standard wetland buffer width.

2. Wetland Buffer Reduction with Buffer Vegetation Enhancement:

a. Purpose: The standard wetland buffer widths identified in Table 18.10.640.C may be reduced when enhancement of the existing wetland buffer vegetation would demonstratively improve water quality and habitat functions.

b. Applicability – Qualifying Wetland Buffers: A wetland buffer may qualify for a buffer reduction under this section when:

(1) The wetland buffer proposed to be enhanced/reduced meets all of the following characteristics:

(A) More than forty (40) percent of the buffer area is covered by nonnative and/or invasive plant species; or,

(B) Tree and/or shrub vegetation cover less than twenty-five (25) percent of the buffer area; and

(C) The wetland buffer has slopes of less than twenty-five (25) percent.

(2) The proposed development incorporates performance standards to minimize the impacts of the proposed land use, consistent with IMC [18.10.660](#).

c. Critical Area Study Required: A critical area study consistent with the requirements of IMC [18.10.410\(C\)](#) and the following provisions is required in order to evaluate and approve a reduction of the standard buffer width. The critical area study shall:

(1) Evaluate the water quality, habitat, groundwater recharge, stormwater detention, and erosion protection functions of the wetland buffer;

(2) Document whether or not the:

(A) Wetland buffer under consideration meets the criteria established in subsection (D)(1)(b) of this section and qualifies for consideration of a buffer reduction under this section;

(B) Buffer reduction would adversely affect the functions and values of the adjacent wetland; and

(C) Ecological structure and function of the reduced buffer after planting enhancement would improve water quality and habitat functions.

(3) Propose a wetland buffer enhancement plan including:

(A) Removal of all invasive, nonnative vegetation; and

(B) Planting of appropriate native tree and shrub species at a minimum planting density of ten (10) feet on-center for trees and five (5) feet on-center for shrubs; and

(C) A monitoring and maintenance plan for the enhanced buffer for a five (5) year period, consistent with IMC [18.10.760](#) and [18.10.810](#).

d. Allowed Buffer Reduction: Following are the wetland buffer reductions allowed when all of the criteria in subsections B and C of this section are met:

Wetland Category	Maximum Buffer Reduction at Any Location
Category 1 and 2 wetlands	25 percent of the standard buffer width
Category 3 wetlands with habitat scores of 26 points or more	25 percent of the standard buffer width
Category 3 with habitat scores less than 26 points and Category 4 wetlands	15 percent of the standard buffer width

3. Wetland Buffer Reduction with Removal of Impervious Surface Area: The standard wetland buffer area may be reduced at a 1:1 ratio with the removal of existing, legally nonconforming impervious surface area located within the wetland buffer area. For example, if one hundred (100) square feet of existing impervious area is removed, the wetland buffer area may be reduced by one hundred (100) square feet. The removed impervious area shall be located closer toward the wetland than the proposed buffer reduction area. The removed impervious area shall be restored with native vegetation, consistent with the wetland buffer enhancement plan requirements in subsection (D)(1)(c)(3) of this section. Existing site characteristics, including buffer vegetation, slopes, etc., and

the proposed development shall be considered in determining the location of the allowed reduced buffer area.

4. Wetland Buffer Averaging Requirements: Standard wetland buffer widths may be modified by averaging buffer widths after review of a critical area study prepared by a qualified wetland professional for compliance with the following criteria:

- a. The proposed site plan demonstrates efforts to avoid and minimize wetland and wetland buffer impacts;
- b. Buffer width averaging is consistent with the best available science and will not adversely impact functions or values;
- c. The total area within the wetland buffer after averaging is not less than the area within the standard buffer prior to averaging. The location of the replacement buffer area shall be contiguous to the standard buffer to be averaged;
- d. The buffer width shall not be reduced by more than twenty-five (25) percent of the standard buffer width at any location, unless a variance is approved in accordance with IMC [18.10.430](#);
- e. A maximum of fifty (50) percent of the buffer perimeter on a site may be reduced by buffer averaging;
- f. Buffer averaging shall consider physical characteristics on a site, including but not limited to existing wetland and buffer vegetation, slopes, floodplain, hydrology, surface drainage, and association with nearby wetlands and/or streams;
- g. Buffer averaging credit shall not be allowed in areas already protected by the critical area regulations; and
- h. Mitigation, such as revegetation and enhancement of existing vegetation, may be required by the Director.

18.10.660 Performance standards.

Development on sites with a wetland or wetland buffer shall incorporate the following performance standards to minimize the impacts of the proposed land use, as applicable:

- A. Lights shall be directed away from the wetland. Lighting levels shall meet the outdoor lighting standards for spillover into critical areas, per IMC [18.07.107](#).
- B. Activities that generate noise shall be located away from the wetland, or noise impacts shall be minimized through design or insulation techniques.

- C. Toxic runoff from new impervious surface area shall be directed away from wetlands.
- D. Treated stormwater runoff may be allowed into wetland buffers. Channelized flow should be prevented.
- E. Use of pesticides, insecticides and fertilizers within one hundred fifty (150) feet of wetland boundary shall be limited and follow best management practices (BMPs).
- F. The outer edge of the wetland buffer shall be planted with dense vegetation and/or fencing to limit pet and human disturbance. (Ord. 2455 § 10, 2006; Ord. 2301 § 3, 2001; Ord. 2108 § 10.2.27.11, 1996).

18.10.700 Avoiding wetland impacts.

- A. To further the goal of no net loss of wetland functions or values, regulated activities shall not be authorized in a wetland except as provided in IMC [18.10.700](#) or where it can be demonstrated that the impact is both unavoidable and necessary and/or that all reasonable uses are denied through the variance provision established in IMC [18.10.430](#).
- B. With respect to Category 1 and 2 wetlands, an applicant must demonstrate through the variance provision as established in IMC [18.10.430](#), that denial of the proposal would preclude all reasonable use of the subject property on the part of the applicant brought about by circumstances peculiar to the subject property.
- C. With respect to Category 3 and 4 wetlands, the following provisions shall apply:
 - 1. For water-dependent activities, unavoidable and necessary impacts can be authorized by the Director where it is demonstrated that there are no practicable alternatives that would not involve a wetland or which would not have less adverse impact on a wetland, and would not have other significant adverse environmental consequences.
 - 2. Where nonwater-dependent activities are proposed, it shall be presumed that adverse impacts are avoidable. This presumption may be rebutted upon a demonstration to the Director that:
 - a. The basic project purpose cannot reasonably be accomplished using one (1) or more other sites in the general region (outside the hydraulic influence area) that would avoid, or result in less, adverse impact on a regulated wetland;
 - b. The basic purpose of the project cannot be accomplished by reducing the size, scope, configuration, or density of the project, as proposed, and by using any alternative designs of the project, as proposed, that would avoid, or result in less adverse impact on a wetland or its buffer;

c. In cases where the applicant has rejected alternatives to the project, as proposed, due to constraints such as zoning, deficiencies of infrastructure, or parcel size, the applicant has made reasonable attempt to remove or accommodate such constraints.

D. If an applicant for a development proposal which has Category 3 or 4 wetlands can demonstrate to the satisfaction of the Director that application of the standards provided in this chapter will deny all reasonable use of the property, development as conditioned shall be allowed if the applicant also demonstrates all of the following to the satisfaction of the Director. The Director has the option to forward the decision to a Hearing Examiner through the variance provision outlined in IMC [18.10.430](#).

1. That the proposed project is water-dependent or requires access to the wetland as a central element of its basic function, or is not water-dependent but has no practicable alternative pursuant to IMC [18.10.700](#);

2. That no reasonable use with less impact on the wetland and its buffer is possible (e.g., agriculture, aquaculture, transfer or sale of development rights or credits, sale of open space easements, etc.);

3. That there is no feasible on-site alternative to the proposed activities, including reduction in density, phasing of project implementation, change in timing of activities, revision of road and lot layout, and/or related site planning considerations, that would allow a reasonable use with less adverse impacts to wetlands and wetland buffers;

4. That the proposed activities will result in minimum feasible alteration or impairment to the wetland's functional characteristics and its existing contours, vegetation, fish and wildlife resources, and hydrological conditions;

5. That disturbance of wetlands has been minimized by locating any necessary alteration in wetland buffers to the extent possible;

6. That the proposed activities will not jeopardize the continued existence of endangered, threatened, rare, sensitive, or monitor species as listed by the federal government or the state of Washington;

7. That the proposed activities will not cause significant degradation of groundwater or surface-water quality;

8. That the proposed activities comply with all state, local and federal laws, including those related to sediment control, pollution control, floodplain restrictions, and on-site wastewater disposal;

9. That any and all alterations to wetlands and wetland buffers will be mitigated as provided in IMC [18.10.750](#);

10. That there will be no damage to nearby public or private property and no threat to the health or safety of people on or off the property; and

11. That the inability to derive reasonable use of the property is not the result of actions by the applicant in segregating or dividing the property and creating the undevelopable condition after the effective date of the ordinance codified in this chapter. (Ord. 2108 § 10.2.27.16 – 19, 1996).

18.10.710 Minimizing wetlands impacts.

A. After it has been determined by either the Hearing Examiner or the Director pursuant to IMC [18.10.700](#) (Avoiding Wetland Impacts) that losses of wetlands are necessary and unavoidable or that all reasonable use has been denied, the applicant shall take deliberate measures to minimize wetland impacts.

B. Minimizing impacts to wetlands shall include but is not limited to:

1. Limiting the degree or magnitude of the regulated activity;
2. Limiting the implementation of the regulated activity;
3. Using appropriate and best available technology;
4. Taking affirmative steps to avoid or reduce impacts;
5. Sensitive site design and siting of facilities and construction staging areas away from regulated wetlands and their buffers;
6. Involving resource agencies early in site planning;
7. Providing protective measures such as siltation curtains, hay bales and other siltation prevention measures, scheduling the regulated activity to avoid interference with wildlife and fisheries rearing, resting, nesting or spawning activities;
8. Prohibiting the intentional introduction of nonnative vegetation, except in conjunction with approved restoration projects; and
9. Providing preventative measures for soil erosion such as inspections and a monitoring plan. (Ord. 2301 § 3, 2001; Ord. 2108 § 10.2.27.20 – 21, 1996).

18.10.720 Mitigating for wetland impacts.

A. Goal: All approved impacts to regulated wetlands require compensatory mitigation so that the goal of no net loss of wetland function, value and acreage is achieved. Mitigation actions shall provide equivalent or greater wetland and buffer functions compared to wetland and buffer conditions existing prior to the proposed alteration.

B. Wetland Mitigation Ratios:

1. The following ratios apply to mitigation which is in-kind, on-site, the same wetland category, timed prior to or concurrent with alteration, and has a high probability of success. The first number specifies the acreage of required wetlands to be created, re-established, rehabilitated or enhanced and the second number specifies the acreage of existing wetlands proposed for alteration.

2. Minimum Replacement Ratio: In order to maintain no net loss of wetland acreage, in all cases the wetland creation or re-establishment ratio shall be a minimum of 1:1.

Category and Type of Wetland Impacts	Creation or Re-establishment	Rehabilitation Only	Creation or Re-establishment (R/C) and Rehabilitation (RH)	Creation or Re-establishment (R/C) and Enhancement (E)
Category IV Greater than 2,500 SF in size	1.5:1	3:1	1:1 R/C and 1:1 RH	1:1 R/C and 2:1 E
All Category III	2:1	4:1	1:1 R/C and 2:1 RH	1:1 R/C and 4:1 E
Category II	3:1	6:1	1:1 R/C and 4:1 RH	1:1 R/C and 8:1 E
Category I Forested	6:1	12:1	1:1 R/C and 10:1 RH	1:1 R/C and 20:1 E
Category I – based on score for functions	4:1	8:1	1:1 R/C and 6:1 RH	1:1 R/C and 12:1 E
Category I Natural Heritage site	Not allowed	6:1 Rehabilitation of a Natural Heritage site	Not allowed	Not allowed
Category I Bog	Not allowed	6:1 Rehabilitation of a bog	Not allowed	Not allowed

3. Category IV Wetlands Less Than Two Thousand Five Hundred – Category IV wetlands less than two thousand five hundred (2,500) square feet in size, that are not part of a wetland complex, may be altered if mitigation is provided to demonstrate no net loss of functions or values. No buffer is required for these wetlands. The following criteria shall apply in preferential order to avoid or mitigate impacts to Category IV wetlands less than two thousand five hundred (2,500) square feet in size:

- a. Preserve the wetland or demonstrate through mitigation sequencing that avoidance or minimization of impacts have been considered; or.
 - b. Relocate the wetland on-site by creating, re-establishing or rehabilitating a new, equal size wetland; or.
 - c. Enhance an equal area of another existing wetland on-site, demonstrating equivalent or greater functions; or
 - d. Protect significant on-site trees. Protect an area of significant trees equal to the wetland area or enhance an equal upland area with native tree planting. This shall not apply to areas already protected as critical area buffers and shall be in addition to the tree retention requirements in IMC 18.12.1385; or
 - e. Off-site mitigation opportunities may be considered.
4. Increased Mitigation Ratio: The Director may increase the ratios under the following circumstances:
- a. Uncertainty as to the probable success of the proposed restoration or creation;
 - b. Significant period of time between destruction and replication of wetland functions;
 - c. Projected losses in functional value; or
 - d. Off-site compensation.
 - e. Mitigation ratios may be increased for remedial actions along with other penalties resulting from illegal, unpermitted wetland alterations.
5. Decreased Mitigation Ratio:
- a. The Director may decrease the replacement ratios specified in IMC [18.10.730\(F\)](#); provided, that findings of critical areas studies coordinated with the participation of agencies having expertise demonstrates that no net loss of wetlands function or value is attained under the decreased ratio.
- C. Wetland Buffer Requirements for Mitigation Wetlands; Wetland buffer impacts are assumed when wetland fill or modification is proposed. A new wetland buffer shall be established around the wetland mitigation area equal in width to the standard wetland buffer width specified in IMC 18.10.640.
- D. Criteria for Approval: Given the uncertainties in scientific knowledge and the need for expertise and monitoring, wetland compensatory projects may be permitted only when the Director finds that the compensation project is associated with an activity or development proposal directly associated with an approved Hearing Examiner's and/or Director's decision (as set forth in IMC 18.10.700) or an approved

variance (IMC 18.10.420), and that the restored, created, or enhanced wetland will be as persistent as the wetland it replaces. A maintenance bond will be required pursuant to IMC [18.10.810](#).

E. Type of Compensation Project: Compensation areas shall be determined according to function, acreage, type, location, time factors, ability to be self sustaining and projected success. Wetland functions and values shall be calculated using the best professional judgement of a qualified wetland professional using the best available techniques. Multiple compensation projects may be proposed for one (1) project in order to best achieve the goal of no net loss.

F. In-Kind Compensation:

1. In-kind compensation shall be provided except where the applicant can demonstrate that:
 - a. Scientific problems such as exotic vegetation and changes in watershed hydrology make implementation of in-kind compensation impossible; or
 - b. Out-of-kind replacement will best meet identified regional goals (e.g., replacement of historically diminished wetland types)

G. Timing:

1. 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.
2. Construction of compensation projects shall be timed to reduce impacts to existing wildlife and flora.

H. Location:

1. On-site compensation shall be provided except where the applicant can demonstrate that:
 - a. The hydrology and ecosystem of the original wetland and those who benefit from the hydrology and ecosystem will not be substantially damaged by the on-site loss; and
 - b. On-site compensation is not scientifically feasible due to problems with hydrology, soils, waves, or other factors; or
 - c. Compensation is not practical due to potentially adverse impact from surrounding land uses; or
 - d. Existing functional values at the site of the proposed restoration are significantly greater than lost wetland functional values; or
 - e. Established regional goals for flood storage, flood conveyance, habitat or other wetland functions have been established and strongly justify location of compensatory measures at another site.
2. Off-site compensation shall occur within the same watershed as the wetland loss occurred.

3. In selecting compensation-sites, applicants shall pursue siting in areas conducive to wetland creation, enhancement, or restoration based on recommendations of a wetland biologist and approved by the City.
- I. Wetland Mitigation Banking: The City may consider and approve replacement or enhancement of unavoidable adverse impacts to wetlands caused by development activities through an approved wetland mitigation bank, in advance of authorized impacts. Criteria governing the creation and use of a mitigation bank shall be established in administrative rules. (Ord. 2108 § 10.2.27.29 – 35, 1996).
 - J. Cooperative Projects:
 1. The Director may encourage, facilitate, and approve cooperative projects wherein a single applicant or other organization with demonstrated capability may undertake a compensation project with funding and/or support from other applicants under the following circumstances:
 - a. Restoration, creation or enhancement at a particular site may be scientifically difficult or impossible; or
 - b. Creation of one (1) or several larger wetlands may be preferable to many small wetlands.
 2. Persons proposing cooperative compensation projects shall:
 - a. Submit a joint permit application;
 - b. Demonstrate compliance with all standards;
 - c. Demonstrate the organizational and fiscal capability to act cooperatively; and
 - d. Demonstrate that long-term management can and will be provided.

18.10.750 Mitigation plan required.

- A. All wetland mitigation required pursuant to this Code either as a permit condition or as the result of an enforcement action shall follow a mitigation plan prepared by qualified wetland professionals and approved by the Director. Any compensation project prepared pursuant to this section and approved by the Director shall become part of the application for the project proposal.
- B. The applicant shall receive written approval of the mitigation plan by the Director prior to commencement of any wetland mitigation activity. (Ord. 2301 § 3, 2001; Ord. 2108 § 10.2.27.22 – 28, 1996).
- C. Demonstration of Competence: Applicants shall meet the following minimum performance requirements to the satisfaction of the Director:
 1. Demonstrate sufficient scientific expertise, supervisory capability, and financial resources to successfully carry out the project;

2. Demonstrate the capability of monitoring the site and make corrections during this period if the project fails to meet projected goals; and
3. Protect and manage or provide for the protection and management of the compensation area to avoid further development or degradation and to provide for long-term persistence of the compensation area. (Ord. 2108 § 10.2.27.40 – 42, 1996).

18.10.760 Mitigation plan information requirements.

A required mitigation plan shall be prepared in consultation with the Director and qualified wetland professionals. The scope and specific requirements of a mitigation plan are dependent on the size and nature of the development proposal, the nature of the impacted wetland, and the degree of cumulative impacts on the wetland from other development proposals. The mitigation plan shall contain at a minimum the following components; however, the Director may request additional information as required for the decision-making process:

- A. Identification of Project Team: A Compensation Project Manager shall be named and the qualifications of each team member involved in preparing the mitigation plan and implementing and supervising the project shall be provided, including educational background and areas of expertise, training and experience with comparable projects.
- B. Baseline Information: A written assessment and accompanying maps of the environmental conditions of the impacted regulated wetland and the mitigation site if different.
- C. Environmental Goals and Objectives: A written report shall be provided identifying goals and objectives of the mitigation plan. The goals and objectives shall be related to the functions and values of the original wetland or if out-of-kind, the type of wetland to be emulated and an analysis of the likelihood of success of the created or restored wetland.
- D. Evaluation Criteria: Specific criteria, including ecological, geological, or hydrological criteria, shall be provided for evaluating whether or not the goals and objectives of the project will be met and whether or not remedial action or contingency measures should be initiated.
- E. Detailed Landscape Construction Plans: Drawings and written specifications describing the mitigation techniques and materials to be used.
- F. Monitoring Program: A program outlining the approach for monitoring construction of the compensation project and for assessing a completed project shall be provided, including a protocol of how the monitoring data will be evaluated by agencies that are tracking the progress of the mitigation project. All mitigated wetlands shall be monitored at least annually for a minimum of five (5) years. Additional monitoring may be required by the Director depending on the recommendations of the first monitoring report.

G. Maintenance Program: All wetlands located adjacent to proposed development shall be maintained by the property owner in perpetuity based on direction from the Director with input from City staff.

H. Contingency Plan: Identification of potential courses of action, and any corrective measures to be taken when monitoring or evaluation indicates project performance standards are not being met. (Ord. 2301 § 3, 2001; Ord. 2108 § 10.2.27.43 – 49, 1996).

18.10.765 Lakes – Lake Sammamish

Development activity within 200 feet of the ordinary high water mark (OHWM) of Lake Sammamish is subject to the Shoreline Master Program (SMP). The SMP contains all policies, standards and regulations for development adjacent to Lake Sammamish.

18.10.770 Streams – General protection mechanisms.

Development activity on sites containing streams or stream buffers shall meet the requirements of this chapter. Streams and associated buffers shall not be altered (see definition of “alteration” IMC 18.10.390) except as expressly authorized by this chapter. The applicant is responsible for ensuring that the requirements of all other agencies with jurisdiction have been met. In addition, the following general protections apply to streams and associated buffers:

A. Development proposals on sites containing streams shall meet the requirements of IMC [18.10.770](#) through [18.10.795](#). Streams and associated buffers shall not be altered except as expressly authorized by this chapter and all approved alterations require mitigation plans. The applicant is responsible for ensuring that the requirements of all other agencies with jurisdiction have been met.

B. The applicant must notify affected communities and native tribes of alteration plans prior to any alteration of a stream, submit evidence of such notification to the Federal Insurance Administration, and any alterations must be consistent with IMC [18.10.520](#) through [18.10.530](#).

C. There shall be no introduction of any vegetation or wildlife which is not indigenous to the Pacific Northwest into any stream critical area or associated buffers unless authorized by the state of Washington or a federal license or permit. (Ord. 2525 § 4, 2008; Ord. 2455 § 12, 2006; Ord. 2108 § 10.2.28, 1996).

18.10.775 Alterations to streams and buffers.

No structures shall be permitted within streams or stream buffers except as outlined in the following subsections:

A. Stream Crossings: Stream crossings may be allowed only if they meet the requirements as follows:

1. All road and utility crossings shall use bridges or other construction techniques which do not disturb the stream bed or bank; however, in the case of Class 2, 3 or 4 streams, appropriate methods demonstrated to provide fisheries protection may be used if the applicant demonstrates

that such methods and their implementation will pose no harm to the stream and will not inhibit migration of fish and will accommodate one hundred (100) year flood flows as established by the City. This shall be accomplished through bridge crossing design and/or appropriate flood control facilities constructed as part of the project design. Any structure spanning a stream shall be designed so the supporting foundation is outside the ordinary high water mark;

2. All crossings shall be constructed during summer low flow and be timed to avoid stream disturbance during periods when use is critical to salmonids;
3. Crossings shall not occur over salmonid spawning areas unless no other possible crossing site exists on the subject property;
4. Crossings shall not diminish the flood carrying capacity of the stream;
5. Underground utility crossings shall be located at a preferred depth of four (4) feet below the maximum depth of scour for the base flood predicted by a Washington State licensed civil engineer and be constructed in a manner approved by the Washington State Department of Fisheries; and
6. Crossings shall be minimized and serve multiple purposes and properties whenever possible.

B. Relocations: The following relocations may be allowed if they meet all requirements and are approved by all agencies with jurisdiction.

1. Class 1 streams shall not be relocated, except for approved restoration projects.
2. Class 2 streams shall not be relocated except for approved restoration projects and public road projects which have been authorized by the exemption process set out in IMC [18.10.400](#).
3. Class 3 and 4 streams may be relocated under a mitigation plan for the purpose of enhancement of in-stream resources. Appropriate floodplain protection measures must be used. The relocation shall occur on-site; provided, that upon demonstration that on-site relocation is impracticable, the City may consider off-site relocation if the location is in the same drainage sub-basin and the applicant obtains all necessary easements and waivers from affected property owners.
4. Prior to any stream relocation, an applicant must demonstrate that the proposed project meets the following criteria, based on information provided by a licensed geotechnical engineer and a biologist. All work performed must also be carried out under the supervision of a licensed geotechnical engineer and a biologist. The criteria includes the following:
 - 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. The biological values of the stream will be maintained or enhanced;
- f. Performance standards as set out in the mitigation plan are met;
- g. The relocation conforms to other applicable laws.

C. Trails: Construction of public and private trails is not allowed in stream buffers unless a critical areas study per IMC [18.10.410](#), Critical areas studies, documents no loss of buffer functions and values. The buffer area used for the trail tread and cleared trail shoulders shall be replaced by adding an equal area to the buffer. Where existing development prevents adding the replacement buffer, other mitigation measures shall be required to ensure no loss of buffer functions and values. Other mitigating measures may include off-site mitigation along the same stream as the trail. The critical areas study shall evaluate and recommend the best location(s) for the replacement buffer and any off-site mitigation.

D. Stream Channel Stabilization: Stream channels may be stabilized when movement of the stream channel threatens existing residential or commercial structures, public improvements, unique natural resources, or the only existing access to property, and when stabilization is done in accordance with the requirements in IMC [18.10.530](#) and the administrative rules.

E. Surface Water Management: The following surface water management actions may be allowed (through the appropriate review and approval process, or Level 1 Review if none is specified) only if they meet the following requirements:

1. Surface water discharges to streams from detention facilities, presettlement ponds, or other surface water management structures may be allowed so long as the discharge complies with the provisions of the City's currently adopted Surface Water Design Manual.
2. Flood conveyance compensatory storage, where there is no other feasible alternative, where appropriate restoration is included, and where wetland hydrology will not be significantly affected.
3. Class 2, 3 and 4 stream buffers may be used for regional retention/detention facilities when:
 - a. Authorized by the exemption process set out in IMC [18.10.400](#); and
 - b. All requirements of the City's currently adopted Surface Water Design Manual are met; and
 - c. The use will not alter the rating or the factors used in rating the stream; and there are no significant adverse impacts to the stream or its resources; and

d. The retention/detention facilities shall not encroach into stream buffers by more than twenty-five (25) percent of the standard stream buffer width, per IMC 18.10.785, or use more than twenty-five (25) percent of the total buffer area without a variance ; and

e. Any stream buffer area displaced by a stormwater management facility shall be compensated for by adding stream buffer area in accordance with IMC [18.10.790\(D\)\(3\)](#) so that no net loss of stream buffer area results from the construction of the facility.

4. Streams and buffers may be altered to remove exotic or invasive vegetation, and for restoration of flood plains and habitat, so long as the project will have no lasting adverse impacts that result from construction on any stream and all requirements of the City's currently adopted Surface Water Design Manual and all other applicable codes are met.

F. Utilities in Stream Buffers:

1. Utility Construction: Construction of utilities shall be permitted in the outermost twenty-five (25) percent of a stream buffer only when it has been determined through Level 1 Review or through the appropriate land use permitting process that:

a. No practical alternative location is available; and

b. The utility corridor meets the criteria set forth in the applicable City ordinance including, but not limited to, requirements for installation, replacement of vegetation, and maintenance; and

c. Impacts to the buffer area are minimized and restoration is implemented to the greatest extent feasible; and

d. The requirements for sewer utility corridors in IMC [18.10.610.C](#) shall also apply to stream buffers.

G. Enhancement Independent of Development Proposals:

1. Enhancement of streams, not associated with any other development proposal, may be allowed when the City, or any state agency with jurisdiction, determines that such enhancement benefits stream functions. Such enhancement shall be performed under a plan for the design, implementation, maintenance and monitoring of the project prepared by a civil engineer and a biologist and shall be carried out under the direct supervision of a biologist.

2. Stream restoration projects for fish habitat enhancement by a public agency unassociated with mitigation of a specific development proposal may be allowed. Such projects are limited to placement of log controls, spawning gravel, and other specific salmonid habitat improvements to be performed under direct supervision of a biologist, within the approved Washington State Department of Fisheries window, if applicable.

3. Removal of exotic or invasive plants within streams and buffers is allowed. A City-approved mitigation plan is required before removal of vegetation commences.

H. Drainage Ditch Maintenance: Drainage ditches must be maintained through use of best management practices developed in consultation with City, state and federal agencies with expertise or jurisdiction.

I. Revegetation shall include only native plant species, except in conjunction with approved restoration projects.

J. Where construction activities occur adjacent to a stream buffer, an erosion control specialist, provided by the applicant, shall visit the site at least once a day during construction, and report daily to the City's inspector, for the purpose of monitoring potential erosion problems and specifying erosion control measures necessary to protect the critical area. (Ord. 2525 § 4, 2008; Ord. 2455 § 13, 2006).

18.10.780 Stream rating system.

A. Class 1 Streams: "Class 1 streams" means those streams identified as "shorelines of the state" under the City Shoreline Master Program, pursuant to Chapter 90.58 RCW.

B. Class 2 Streams with Salmonids: "Class 2 streams with salmonids" means those streams smaller than Class 1 streams that flow year-round during periods of normal rainfall and all streams that are used by salmonids.

C. Class 2 Streams: "Class 2 streams" means those streams smaller than Class 1 streams that flow year-round during years of normal rainfall with no salmonids.

D. Class 3 Streams: "Class 3 streams" means those streams that are intermittent or ephemeral during years of normal rainfall and areas not used by salmonids.

E. Class 4 Streams: "Class 4 streams" are constructed or channelized streams, that are intermittent, are not used by salmonids and do not provide salmonid habitat, and/or are not directly connected to a Class 1, 2, or 3 stream by an above ground channel. (Ord. 2455 § 14, 2006; Ord. 2301 § 3, 2001; Ord. 2164 § 11, 1997; Ord. 2108 § 10.2.29, 1996).

18.10.785 Stream buffer width requirements.

A. Location of Ordinary High Water Mark: All buffers shall be measured from the ordinary high water mark as identified in the field or, if that cannot be determined, from the top of the bank. In braided channels, the ordinary high water mark or top of bank shall be determined so as to include the entire stream feature.

B. Special Exception: For properties on which easements were granted for creek channel improvements constructed by the City to increase conveyance and on the same side of the creek as the improvements, the ordinary high water mark (OHWM) existing prior to the construction of the improvements by the City

shall govern the establishment of building setbacks for the properties. The buffer area established using the OHWM identified at the time the channel improvements are constructed shall be surveyed and recorded as a covenant running with the land. Buildings on these parcels of land shall adhere to the fifteen (15) foot building setback to the stream buffer. The establishment of the OHWM under this exception does not establish the OHWM used for building setbacks under the City's Shoreline Master Program. (Note: Both OHWM standards, Critical Areas – Stream buffer and the Shoreline Master Program, shall be used in determining the appropriate building setback lines for development of these properties.)

C. Stream Buffer Width Standards: The following buffers on each side of the ordinary high water mark are minimum requirements:

1. Class 1 streams – one hundred (100) foot buffer.
2. Class 2 streams used by salmonids – one hundred (100) foot buffer.
3. Class 2 streams – seventy-five (75) foot buffer.
4. Class 3 streams – fifty (50) foot buffer.
5. Class 4 streams – twenty-five (25) foot buffer.

D. Any stream restored, relocated, replaced or enhanced because of alterations should have at least the minimum buffer required for the class of stream involved.

E. Building Setback: An additional fifteen (15) foot building setback shall also be established from the outer edge of the buffer as regulated by IMC [18.10.515\(D\)](#), Building Setback Areas. (Ord. 2455 § 15, 2006).

18.10.790 Exceptions to stream buffer width requirements.

A. Buffer Requirements for Streams Adjacent to Steep Slopes: When the ordinary high water mark of any stream is within twenty-five (25) feet of the toe of slopes equal to or greater forty (40) percent the following minimum buffers shall be provided:

1. Where the horizontal length of the slope including small benches and terraces is within the buffer for that stream class, the buffer shall be the greater of:
 - a. The minimum buffer for that stream class; or
 - b. Twenty-five (25) feet beyond the top of the slope.
2. Where the horizontal length of the slope extends beyond the minimum buffer for that stream class, the buffer shall extend to a point twenty-five (25) feet beyond the minimum buffer for that stream class.

3. No reduction to stream buffer standards in IMC 18.10.785.C are allowed.

B. Buffer Requirements for Streams Adjacent to Other Critical Areas: Any stream adjoined by riparian wetland or other adjacent critical area shall have the buffer which applies to the wetland or other adjacent critical area, unless the stream buffer requirements are more expansive.

C. Increasing Stream Buffer Requirements: Issaquah shall require increased buffer widths as necessary to protect streams. The additional buffer widths and other issues shall be determined during project review and will be based on the results of a critical area study with consideration of and including, but not limited to:

1. Critical drainage areas;
2. Location of hazardous materials;
3. Critical fish and wildlife habitat;
4. Landslide or erosion hazard areas;
5. Groundwater recharge and discharge; and
6. The location of trail or utility corridors.

D. Reducing Stream Buffer Requirements:

1. Stream buffer reduction provisions in this section may be used separately or together; provided that the cumulative, total stream buffer reduction shall not exceed twenty-five (25) percent of the required stream buffer area or encroach into the buffer at any location by more than twenty-five (25) percent of the standard stream buffer width, per IMC 18.10.785.C,

2. A variance is required for stream buffer reductions exceeding twenty-five (25) percent of the required buffer area or encroachments exceeding twenty-five (25) percent of the standard stream buffer width.

3. Stream Buffer Reduction for Class 1 and Class 2 Streams with Salmonids: Prior to the City's approval of a stream buffer reduction, an applicant shall first demonstrate the proposed site plan avoids and minimizes the amount of buffer reduction, consistent with IMC [18.10.490](#).

4. Stream Buffer Reduction with Buffer Vegetation Enhancement:

a. Purpose: The standard stream buffer widths identified in IMC [18.10.785\(C\)](#) may be reduced when enhancement of the existing stream buffer vegetation would demonstratively improve water quality and habitat functions.

b. Applicability – Qualifying Stream Buffers: A stream buffer may qualify for a buffer reduction under this section when:

(1) The stream buffer proposed to be enhanced/reduced meets all of the following characteristics:

(A) More than forty (40) percent of the buffer area is covered by nonnative and/or invasive plant species; or

(B) Tree and/or shrub vegetation cover less than twenty-five (25) percent of the buffer area; and

(C) The stream buffer has slopes of less than twenty-five (25) percent.

(2) The proposed development incorporates performance standards to minimize the impacts of the proposed land use, consistent with IMC [18.10.660](#).

c. Critical Area Study Required: A critical area study consistent with the requirements of IMC [18.10.410](#)(C) and the following provisions is required in order to evaluate and approve a reduction of the standard buffer width. The critical area study shall:

(1) Evaluate the water quality, habitat, groundwater recharge, stormwater detention, and erosion protection functions of the stream buffer;

(2) Document whether or not the:

(A) Stream buffer under consideration meets the criteria established in subsection (D)(1)(b) of this section and qualifies for consideration of a buffer reduction under this section;

(B) Buffer reduction would adversely affect the functions and values of the adjacent stream; and

(C) Ecological structure and function of the reduced buffer after planting enhancement would improve water quality and habitat functions.

(3) Propose a stream buffer enhancement plan including:

(A) Removal of all invasive, nonnative vegetation; and

(B) Planting of appropriate native tree and shrub species at a minimum planting density of ten (10) feet on-center for trees and five (5) feet on-center for shrubs; and

(C) A monitoring and maintenance plan for the enhanced buffer for a five (5) year period, consistent with IMC [18.10.760](#) and [18.10.810](#).

d. Allowed Buffer Reduction: Following are the stream buffer reductions allowed when all of the criteria in subsections B, C and D of this section are met:

Stream Class	Maximum Buffer Reduction at Any Location
Class 2, 3, and 4 streams	25 percent of the standard buffer width
Class 2(S) and Class 1 streams	25 percent of the standard buffer width (see subsection (D)(1)(d) of this section)

5. Stream Buffer Reduction with Removal of Impervious Surface Area: The standard stream buffer area may be reduced at a 1:1 ratio with the removal of existing, legally nonconforming impervious surface area located within the stream buffer area. For example, if one hundred (100) square feet of existing impervious area is removed, the stream buffer may be reduced by one hundred (100) square feet. The removed impervious area shall be located closer toward the stream than the proposed buffer reduction area. The removed impervious area shall be restored with native vegetation, consistent with the stream buffer enhancement plan requirements in subsection (D)(1)(c)(3) of this section. Existing site characteristics, including buffer vegetation, slopes, etc., and proposed development shall be considered in determining the location of the allowed reduced buffer area.

6. Stream Buffer Averaging Requirements: Standard stream buffer widths may be modified by averaging buffer widths after review of a critical area study prepared by a qualified professional for compliance with the following criteria:
 - a. The proposed site plan demonstrates efforts to avoid and minimize stream and stream buffer impacts;
 - b. Buffer width averaging is consistent with the best available science and will not adversely impact functions or values;
 - c. The total area within the stream buffer after averaging is no less than the area within the standard buffer prior to averaging. The location of the replacement buffer area shall be contiguous with the standard buffer to be averaged;
 - d. The buffer width shall not be reduced by more than twenty-five (25) percent of the standard buffer width at any location, unless a variance is approved in accordance with IMC [18.10.430](#);
 - e. A maximum of fifty (50) percent of the buffer perimeter on a site may be reduced by averaging;

- f. Buffer averaging shall consider physical characteristics on a site, including but not limited to existing buffer vegetation, slopes, floodplain, hydrology, surface drainage, and association with nearby streams and wetlands. Buffer averaging shall not be allowed within the designated floodway of streams;
- g. Buffer averaging credit shall not be allowed in areas already protected by the critical area regulations; and
- h. Mitigation, such as revegetation and enhancement of existing vegetation, may be required by the Director.

18.10.795 Mitigation for streams.

A. Mitigation shall be conducted as defined in IMC [18.10.390](#), as provided in IMC [18.10.490](#), and in this section.

B. Standards for Restoration, Enhancement or Replacement:

1. Restoration is required when a stream or its buffer has been altered in violation of this chapter or any other ordinance applying to the treatment of streams, or when an unapproved or unanticipated alteration occurs during the construction of an approved development proposal; provided, that a mitigation plan for the restoration demonstrates that:

- a. The stream is degraded and will not be further degraded by the restoration activity;
- b. The restoration will reliably and demonstrably improve the water quality and fisheries and wildlife habitat of the stream;
- c. The restoration will have no lasting significant adverse impacts on any in-stream resource; and
- d. All work will be carried out under the direct supervision of a biologist.
- e. The following minimum performance standards shall be met for restoration of a stream; provided, that these standards may be modified if the applicant can demonstrate that greater habitat value can be obtained:
 - (1) The natural or channel dimensions existing immediately prior to the development proposal (unless illegally altered), including identical depth, width, length and gradient at the location and the horizontal alignment (meander lengths) should be replaced to replicate the conditions immediately prior to the development proposal (unless illegally altered);
 - (2) The bottom should be restored with identical or similar materials;

- (3) The bank and buffer configuration should be restored to the natural conditions;
- (4) The channel, bank and buffer areas should be replanted with native vegetation which replicates the optimal in species, sizes and densities; and
- (5) The natural habitat value should be restored.

2. Replacement or enhancement is required when the City permits or approves the alteration of a stream or buffer. There will be no net loss of stream functions on a development proposal site and no impact on stream functions above or below the site due to approved alterations.

a. Replacement: When an approved alteration involves the relocation of a stream, the performance standards in subsection (B)(1)(e) of this section are required in order to replicate the structure and function of the original stream, unless the applicant can demonstrate that greater habitat value can be obtained through varying these standards.

b. Enhancement: Enhancement, when allowed, should improve the functions and values of the streams. Surface water management or flood control alterations shall not be considered enhancement unless other functions and values are simultaneously increased.

c. On-Site: Replacement or enhancement for streams shall be accomplished in streams, and shall occur on-site unless the applicant demonstrates that: on-site replacement or enhancement is not possible; the off-site alternative is in the same drainage sub-basin; and greater biological and hydrological values will be derived.

3. Monitoring Program: Stream and stream buffer monitoring shall be required in accordance with IMC [18.10.500](#).

4. Maintenance Program: All streams and stream buffers adjacent to proposed development shall be maintained in perpetuity based on direction from the Director with input from City staff. (Ord. 2301 § 3, 2001; Ord. 2108 § 10.2.31, 1996. Formerly 18.10.800).

18.10.940 Shoreline Master Program adopted.

A. The Issaquah Shoreline Master Program, dated February 2013, is adopted as the City's Shoreline Master Program pursuant to the Washington State Shoreline Management Act of 1971 as amended (RCW 90.58). The Shoreline Master Program is adopted under the authority granted by the Act and WAC Chapter 173-26. (Ord. 2108 § 10.3.1, 1996; Ord. 1863 § 2, 1990).

B. Shoreline exemptions, shoreline substantial development permits, shoreline variances and shoreline conditional use permits shall be subject to all of the applicable procedural requirements of IMC 18.04.