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Sensitive Areas
DGA 89-0008

ORDINANCE NO. 1693

AN ORDINANCE OF THE CITY OF REDMOND, WASHINGTON, ADOPTING REGULATIONS TO GOVERN SENSITIVE AREAS, DGA-89-0008, ADDING A NEW CHAPTER 20C.40 TO THE REDMOND MUNICIPAL CODE, AMENDING AND REPEALING CERTAIN SECTIONS OF THE COMMUNITY DEVELOPMENT GUIDE TO PROVIDE CONSISTENCY WITH THE SENSITIVE AREAS REGULATIONS, AND REPEALING ORDINANCE 1649.

WHEREAS, the Growth Management Act (Chapter 36.70A RCW) requires that cities identify and protect their critical areas, including wetlands, aquifer recharge areas, fish and wildlife habitat conservation areas, frequently flooded areas, and geologically hazardous areas, and

WHEREAS, the City desires to fulfill its responsibilities under the Growth Management Act and to future generations by protecting areas in the City that are environmentally sensitive, and

WHEREAS, the City Staff, the Planning Commission, and the City Council have conducted extensive study for the purpose of determining appropriate land use regulations and policies which will provide such protection, and

WHEREAS, the Planning Commission and City Council have each held public hearings concerning proposed amendments to the Redmond Community Development Guide in order to implement those

regulations commonly referred to as the Sensitive Areas Ordinance, DGA-89-0008, and

WHEREAS, the City Council has determined that the adoption of the regulations and policies set forth in this ordinance is appropriate and in the interest of the public health, safety and welfare, NOW, THEREFORE,

THE CITY COUNCIL OF THE CITY OF REDMOND, WASHINGTON, HEREBY ORDAINS AS FOLLOWS:

Section 1. Sensitive Areas Ordinance Adopted. A new Chapter 20C.40 is hereby added to the Redmond Municipal Code and Community Development Guide to read as set forth on Exhibit A, attached hereto and incorporated herein by this reference as if set forth in full.

Section 2. Amendment and Repeal of Existing Development Limitations and Regulations. The Sensitive Areas Ordinance adopted in Section 1 above replaces certain development limitations and regulations currently contained in the Community Development Guide. Those sections of the Redmond Municipal Code and Community Development Guide set forth on Exhibit B attached hereto and incorporated herein by this reference as if set forth in full, are therefore repealed and amended as provided in the said Exhibit.

Section 3. Interim Wetlands Policy Repealed. Ordinance 1649 of the City of Redmond, passed by the City Council on September 24, 1991, provides for an interim wetlands policy which is to be repealed upon adoption of the Sensitive Areas Ordinance. Ordinance 1649 is therefore repealed.

Section 4. Severability. If any section, sentence, clause or phrase of this ordinance should be held to be invalid or unconstitutional by a court of competent jurisdiction, such invalidity or unconstitutionality shall not affect the validity or constitutionality of any other section, sentence, clause or phrase of this ordinance.

Section 5. Effective Date. This ordinance, being an exercise of a power specifically delegated to the City legislative body, is not subject to referendum, and shall take effect five (5) days after passage and publication of the ordinance or a summary thereof consisting of the title.

CITY OF REDMOND

MAYOR ROSEMARIE IVES

ATTEST/AUTHENTICATED:

CITY CLERK, DORIS SCHAIBLE

APPROVED AS TO FORM:
OFFICE OF THE CITY ATTORNEY:

By:

FILED WITH THE CITY CLERK:	June 30, 1992
PASSED BY THE CITY COUNCIL:	July 7, 1992
SIGNED BY THE MAYOR:	July 7, 1992
PUBLISHED:	July 12, 1992
EFFECTIVE DATE:	July 17, 1992
ORDINANCE NO.	1693

EXHIBIT "A"

7/7/92

SECTION 20C.40 SENSITIVE AREAS ORDINANCE

SECTION 20C.40.010 PURPOSE & INTENT

(05) The City finds that Redmond contains certain areas that can be identified and characterized as environmentally sensitive or critical. Such areas within the City include wetlands, streams, wildlife habitat, geologic hazards, aquifer recharge areas, and flood hazards, and their associated buffers.

(10) The City finds that past growth patterns have in some cases resulted in natural disasters which threaten public health and safety, and that by preventing development on certain sensitive areas the City can better maintain public health, safety and welfare by avoiding natural disasters such as slides and flooding that threaten life and property. In addition, by preserving features that provide for clean water, fisheries, and wildlife; the City can help maintain a positive ecological balance that provides for the immediate and long term public welfare. This Ordinance is intended to preserve the City's important environmental features while allowing development to occur if compatible with and in consideration of these sensitive areas.

(15) The classification and designation of these sensitive areas is intended to assure the conservation and protection of sensitive areas from loss or degradation, and to restrict land uses and development which are incompatible with environmentally sensitive areas. It is the intent of this Ordinance to designate and protect sensitive areas.

(20) The City finds that these essential sensitive areas perform a variety of valuable and beneficial biological and physical functions that benefit the City and its residents. Some types of sensitive areas may also pose a threat to human safety or to public and private property. The City further finds that the functions of sensitive areas include the following:

(a) Wetlands

Wetlands help to maintain water quality; store and convey stormwater and floodwater; recharge groundwater; provide important fish and wildlife habitat; and serve as areas for recreation, education and scientific study and aesthetic appreciation. The City's overall goal shall be to achieve no net loss of wetlands. This goal shall be implemented through retention of the function, value and acreage of wetlands within the City. Wetland buffers serve to moderate runoff volume and flow rates; reduce sediment, chemical nutrient and toxic pollutants; provide shading to maintain desirable water temperatures; provide habitat for wildlife; protect wetland resources from harmful intrusion; and generally preserve the ecological integrity of the wetland area.

The primary purpose of the wetland regulations is to avoid wetland impacts and achieve a goal of no net loss of wetland function, value and acreage; and where possible enhance and restore wetlands.

(b) Streams

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

The primary purpose of the stream regulations is to avoid impacts to streams and associated riparian corridors; and where possible, provide for stream enhancement and rehabilitation.

(c) Wildlife Habitat

Wildlife habitat provides opportunities for food, cover, nesting, breeding and movement for fish and wildlife within the City; maintains and promotes diversity of species and habitat within the City; coordinates habitat protection with elements of the City's open space system wherever possible; helps to maintain air and water quality; controls erosion; serves as areas for recreation, education and scientific study and aesthetic appreciation; and provides neighborhood separation and visual diversity within urban areas.

The primary purpose of wildlife habitat regulation is to avoid impacts to critical habitats and to restore and enhance degraded or lower quality habitat.

(d) Geologic Hazard Areas

Geologic hazard areas include lands that are affected by natural processes that make them susceptible to landslides, seismic activity and severe erosion.

The primary purpose of geologic hazard area regulations is to avoid and minimize potential impacts to life and property from geologic hazards through appropriate levels of study and analysis, application of sound engineering principles, and regulation or limitation of land uses.

(e) Aquifer Recharge Areas

Aquifer recharge areas provide a source of potable water and contribute to stream discharge during periods of low flow. The City finds that certain portions of its planning area are susceptible to contamination of drinking water and water course supplies through rapid infiltration of pollutants through the soil to groundwater aquifers.

The primary purpose of aquifer recharge area regulations is to protect critical aquifer recharge areas by avoiding land use activities that pose potential aquifer contamination; and to minimize impacts to medium and low significance recharge areas through the application of strict performance standards.

(f) Flood Hazard Areas

Floodplains help to store and convey stormwater and flood water; recharge groundwater; provide important areas for riparian habitat; and serve as areas for recreation, and education and scientific study. Development within floodplain areas can be hazardous to those inhabiting such development, and to those living upstream and downstream. Floods also cause substantial damage to public and private property that results in significant costs to the public and individuals.

The primary purpose of flood hazard regulations is to regulate development in the 100 year floodplain to avoid substantial risk and damage to public and private property and loss of life.

The City finds, therefore, that identification, regulation and protection of sensitive areas are necessary to protect the public health, safety and general welfare.

(25) This section of the Redmond Community Development Guide contains standards, guidelines, criteria and requirements intended to identify, analyze, preserve and mitigate potential impacts to the City's sensitive areas and to enhance and restore degraded resources, such as wetlands, streams or habitat, where possible. The intent of these regulations is to avoid impacts to sensitive areas. In appropriate circumstances, impacts to specified sensitive areas resulting from regulated activities may be minimized, rectified, reduced and/or compensated for, consistent with the requirements of this chapter.

It is the further intent of this section to:

(a) Provide standards, guidelines, and criteria to guide application of these sensitive areas goals and policies when considered with other goals and policies of the Redmond Community Development Guide, including those pertaining to natural features and environmental protection;

(b) Serve as a basis for exercise of the City's substantive authority under the State Environmental Policy Act (SEPA) and the City's SEPA rules;

(c) Comply with the requirements of the Growth Management Act (RCW 36.70A) and implementing rules; and

(d) Coordinate environmental review and permitting of proposals to avoid duplication and delay.

SECTION 20C.40.020 DEFINITIONS

For purposes of this chapter, the following definitions shall apply.

(005) **Applicant:** The person, party, firm, corporation, or other entity that proposes any activity that could affect a sensitive area.

(010) **Aquifer**: Generally, any water bearing soil or rock unit. Specifically, a body of soil or rock that contains sufficient saturated permeable material to conduct groundwater and yield economically significant quantities of groundwater to wells and springs.

(015) **Aquifer Recharge Area:** Areas where water infiltrates into the subsurface and travels downward through the soil to a groundwater aquifer. Aquifer recharge areas vary in susceptibility depending on soil and groundwater conditions and are classified according to the following criteria:

(a) Low significance/low susceptibility - upland areas underlain by soils consisting largely of silt, clay or glacial till.
(b) Medium significance/moderate susceptibility - upland areas underlain by soils consisting largely of sand and gravel, and valley floor areas underlain by soils consisting largely of sand, silt, and clay in which there is a significant upward component to groundwater flow within the valley alluvium.
(c) High significance/high susceptibility - valley floor areas underlain by soils consisting largely of sand and gravel in which there is a predominantly downward or lateral component to groundwater flow, and which serve as a source of drinking water.

(020) **Aquifer Susceptibility:** That portion of the potential contamination of an aquifer that results from soil, rock and groundwater characteristics within a recharge area.

(025) Aquifer Vulnerability: The combined effect of aquifer susceptibility and contaminant loading potential; it include hydrogeologic, land use and other factors that affect the potential for groundwater contamination.

(030) **Artificially Created Wetland:** Wetlands created from non-wetland sites through purposeful, legally authorized human action, such as irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities.

(035) **Base Flood:** A flood having a one percent chance of being equaled or exceeded in any given year, also referred to as the 100-year flood which is based upon built-out conditions. The base flood will be determined through hydrologic modeling, and will assume fully developed land use conditions in tributary basins, as defined in the Bear Creek Community Plan. If the City has not modeled the base flood, the applicant shall be responsible for doing so, consistent with the assumptions set forth in this ordinance and the Bear Creek Community Plan.

(040) **Base Flood Elevation:** The water surface elevation of the base flood. It shall be referenced to the National Geodetic Vertical Datum of 1929.

(045) **Buffer or Buffer Area:** A naturally vegetated and undisturbed, enhanced or revegetated zone surrounding a sensitive area that protects the sensitive area from adverse impacts to its integrity and value, or is an integral part of the resource's ecosystem.

(050) **City:** The City of Redmond.

(055) **Clearing:** The removal of timber, brush, grass, ground cover or other vegetative matter from a site which exposes the earth's surface of the site or any actions which disturb the existing ground surface.

(060) **Committee:** The City of Redmond Technical Committee.

(065) **Community Development Guide:** The City of Redmond Community Development Guide as now adopted or hereafter amended.

(070) **Compensatory Storage:** Any new, excavated storage volume equivalent to any flood storage capacity which has been or would be eliminated by filling or grading within the floodplain.

(075) **Contaminant Loading Potential:** The availability within a recharge area of potential contaminants that could degrade groundwater quality.

(080) **Creation of Sensitive Areas:** The purposeful and legally authorized or accidental producing or forming of a wetland or stream from an upland (non-wetland or dry) site through artificial means.

(085) **Critical Aquifer Recharge Areas:** Areas where an aquifer that is a source of drinking water is both highly susceptible and vulnerable to contamination. Unless site-specific information demonstrates little or no contaminant loading potential, high significance/high susceptibility areas are considered to be critical aquifer recharge areas.

(090) **Critical Erosion Hazard Areas:** Lands or areas underlain by soils identified by the U.S. Department of Agriculture Soil Conservation Service (SCS) as having "severe" or "very severe" erosion hazards. This includes, but is not limited to, the following group of soils when they occur on slopes of 15 percent or greater: Alderwood-Kitsap (AkF), Alderwood gravelly sandy loam (AgD), Kitsap silt loam (KpD), Everett (EvD) and Indianola (InD).

(095) **Critical Facilities:** Those facilities necessary to protect the public health, safety and general welfare which are defined under the occupancy categories of Essential Facilities and Special Occupancy Structures in the Uniform Building Code, Table No. 23-K (1988). 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 sites of hazardous waste materials and storage.

(100) **Critical Geologic Hazard Areas:** Lands or areas subject to high or severe risks of geologic hazard.

(105) **Critical Habitat, or Critical Wildlife Habitat:** Habitat areas associated with threatened, endangered, sensitive, monitor or priority species of plants or wildlife and which, if altered, could reduce the likelihood that the species will maintain and reproduce over the long term. Such areas are identified herein with reference to lists, categories and definitions of species promulgated by the Washington State Department of Wildlife (Non-Game Data System Special Animal Species) as identified in WAC 232-12-011; in the Priority Habitat and Species (PHS) program of the Washington State Department of Wildlife; or by rules and regulations adopted currently or hereafter by the U.S. Fish and Wildlife Service.

(110) **Critical Landslide Hazard Areas:** Lands or areas where there is a high (Class III) or very high (Class IV) risk of landslide due to a combination of slope, soil permeability and water.

(115) **Critical Seismic Hazard Areas:** Lands or areas where there is a high risk of seismic events and damage.

(120) **Department:** The City of Redmond Department of Planning and Community Development.

(125) **Earth/Earth Material:** Naturally occurring rock, soil, stone, sediment, or combination thereof.

(130) **Elevated Construction:** A construction technique that employs posts or pilings to raise a structure so that waters can flow freely beneath the structure.

(135) **Enhancement:** The improvement of an existing viable wetland, stream or habitat area or the buffers established for such areas, such as by increasing plant diversity, increasing wildlife habitat, installing environmentally-compatible erosion controls, or removing non-indigenous plant or animal species. Enhancement also includes actions performed to improve the quality of an existing degraded wetland, stream or habitat area or buffer.

(140) **Erosion:** A process whereby wind, rain, water and other natural agents mobilize and transport soil particles.

(145) **Erosion Hazard Areas:** Lands or areas that, based on a combination of slope inclination and the characteristics of the underlying soils, are susceptible to varying degrees of risk of erosion. Erosion hazard areas are classified as "low" (areas sloping less than 15 percent) or "high" (areas sloping 15 percent or more on the following SCS soil types: AkF, AgD, KpD, EvD and InD).

(150) **Excavation:** The mechanical removal of earth material.

(155) **Existing and Ongoing Agricultural Activities:** "Existing and ongoing agricultural activities" includes those activities conducted on lands defined in RCW 84.34. 020(2), and those activities involved in the production of crops and livestock, including but not limited to operation and maintenance of farm and stock ponds or drainage ditches, irrigation systems, changes between agricultural activities, and normal operation, maintenance or repair of existing serviceable structures, facilities or improved areas. Activities which bring an area into agricultural use are not part of an ongoing activity. An operation ceases to be ongoing when the area on which it was conducted is legally converted to a non-agricultural use. Idle land registered in a federal or state soils conservation program or zoned for agricultural use by the City is considered existing and on-going. Forest practices are not included in this definition.

(160) **Exotic**: Any species of plant or animal that is foreign to the Puget Sound region.

(165) **Federal Manual, or Federal Methodology:** The field methodology for identifying wetlands in the field as described in the Federal Manual for Identifying and Delineating Jurisdictional Wetlands (January, 1989).

(170) **Fill/Fill Material**: A deposit of earth material placed by human or mechanical (machine) means.

(175) **Filling:** The act of transporting or placing (by any manner or mechanism) fill material from, to, or on any soil surface, sediment surface, or other fill material.

(180) **Flood Hazard Areas**: Those areas subject to inundation by the base flood. These areas may include, but are not limited to streams, lakes, wetlands and closed depressions. A flood hazard area consists of the following components, as determined by the City of Redmond.

(a) Floodplain. The total area subject to inundation by the base flood.

(b) Flood Fringe. That portion of the floodplain outside of the floodway which is generally covered by floodwaters during the base flood; it is generally associated with standing water rather than rapidly flowing water.

(c) Zero-rise Floodway. 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. The zero-rise floodway will always include the FEMA floodway.

(d) FEMA (Federal Emergency Management Association) Floodway. The channel of the stream and that portion of the adjoining floodplain which is necessary to contain and discharge the FEMA base flood flow without increasing the FEMA base flood elevation more than one foot.

(185) **Flood Insurance Rate Map.** The official map on which the Federal Insurance Administration has delineated some areas of flood hazard.

(190) **Flood Protection Elevation.** The elevation that is one foot above the base flood elevation.

(195) **Geologic Hazard Areas:** Lands or areas characterized by geologic, hydrologic and topographic conditions that render them susceptible to potentially significant or severe risk of landslides, erosion, or seismic activity.

(200) **Grading:** Any excavating, filling, clearing, leveling, or contouring of the ground surface by human or mechanical means.

(205) **Habitat Management**: Management of land to maintain species in suitable habitats within their natural geographic distribution so that isolated subpopulations are not created. This does not imply maintaining all habitat or individuals of all species in all cases.

(210) **High Impact Land Use:** Land uses which are likely to have a significant adverse impact on wetlands because of the intensity of the use, levels of human activity, use of machinery or chemicals, site design or arrangement of building and structures, and other factors identified in this chapter.

(215) **In-Kind Mitigation:** Replacement of wetlands with substitute wetlands whose characteristics closely approximate those destroyed or degraded by a regulated activity.

(220) **Intentionally Created Streams:** Streams created through purposeful human action, such as irrigation and drainage ditches, grass-lined swales, and canals.

(225) **Landslide**: Episodic downslope movement of a mass of soil or rock and includes snow avalanches.

(230) **Landslide Hazard Areas:** Areas that, due to a combination of slope inclination and relative soil permeability, are susceptible to varying degrees of risk of landsliding. Landslide hazard areas are classified as Classes I-IV based on the degree of risk as follows:

(a) Class I/Low Hazard. Areas with slopes of less than 15 percent.
(b) Class II/Moderate Hazard. Areas with slopes of between 15 percent and 40 percent and that are underlain by soils that consist largely of sand, gravel or glacial till.
(c) Class III/High Hazard. Areas with slopes between 15 percent and 40 percent that are underlain by soils consisting largely of silt and clay.
(d) Class IV/Very High Hazard. Areas with slopes steeper than 15 percent with mappable zones of emergent water (e.g. springs or ground water seepage), areas of known (mappable) landslide deposits regardless of slope, and all areas sloping 40 percent or greater.

(235) **Low Impact Land Use:** Land uses which are not likely to have a significant adverse impact on wetlands because of the intensity of the use, levels of human activity, use of machinery or chemicals, site design or arrangement of building and structures, incorporation of mitigation measures, and other factors identified in this chapter.

(240) **Mitigation:** "Mitigation" includes:
(a) Avoiding the impact altogether by not taking a certain action or parts of actions.

(b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
(c) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
(d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
(e) Compensating for the impact by replacing or providing substitute resources or environments.
While monitoring without additional actions is not considered mitigation for the purposes of these regulations, it may be part of a comprehensive mitigation program.

(245) **Native Vegetation:** Plant species which are indigenous to the Puget Sound region.

(250) **Out-of-Kind Mitigation:** Replacement of wetlands with substitute wetlands whose characteristics do not closely approximate those destroyed or degraded by a regulated activity.

(255) **Permanent Erosion Control:** Continuous on-site and off-site control measures that are needed to control conveyance or deposition of earth, turbidity or pollutants after development, construction, or restoration.

(260) **Plant Association of Infrequent Occurrence:** One or more plant species on a landform type which because of the rarity of the habitat, the species involved, or both, or for other botanical or environmental reasons, do not often occur in the Puget Sound region. Examples include but are not limited to:

(a) Wetlands with a coniferous forested class or subclass consisting of trees such as western red cedar, Sitka spruce or lodge pole pine growing on organic soils;

(b) Bogs with a predominance of sphagnum moss, or those containing sphagnum moss, and typically including one or more species such as Labrador tea, sundew, bog laurel or cranberry;

(265) **Priority Habitat/Species, or Priority Wildlife Habitat/Species:** Habitats and species of local importance and concern in urban areas, as identified by the Washington Department of Wildlife Priority Habitat & Species (PHS) program. "Priority species" are wildlife species of concern due to their population status and their sensitivity to habitat alteration. "Priority habitats" are areas with one or more of the following attributes: comparatively high wildlife density; high wildlife species richness; significant wildlife breeding habitat; significant wildlife seasonal ranges; significant movement corridors for wildlife; limited availability; or high vulnerability. General types of priority habitat identified in the PHS program potentially found in Redmond include meadows, oak woodlands, old-growth/mature forests, riparian areas, snag-rich areas, urban natural open space, and wetlands.

(270) **Qualified Consultant:** For purposes of these regulations, qualified consultant shall mean a person who has attained a degree from an accredited college or university in the subject matter necessary to evaluate the sensitive area in question (e.g. biology or ecology for , wetlands, streams and wildlife habitat; geology and/or civil engineering for geologic hazards and aquifer recharge areas), and who is professionally trained and/or certified or licensed to practice in the scientific disciplines necessary to identify, evaluate, manage and mitigate impacts to the sensitive area in question.

(275) **Regulated Activity**: Activities that have a potential to significantly impact a sensitive area that is subject to the provisions of this chapter. Regulated activities generally include but are not limited to any filling, dredging, dumping or stockpiling, draining, excavation, flooding, clearing or grading, construction or reconstruction, driving pilings, obstructing, shading, or harvesting.

(280) **Rehabilitation:** The reestablishment of a viable stream or wetland from a previously filled or degraded stream reach or wetland.

(285) **Restoration:** Efforts performed to reestablish wetland, stream or habitat functional values and characteristics that have been destroyed or degraded by past alterations (e.g. filling or grading).

(290) **Seismic Hazard Areas**: Areas that, due to a combination of soil and ground water conditions, are subject to severe risk of ground shaking, subsidence or liquefaction of soils during earthquakes. These areas are typically underlain by soft or loose saturated soils (such as alluvium), have a shallow ground water table and are typically located on the floors of river valleys.

(295) **Site:** Any parcel or combination of contiguous parcels where the proposed project impacts a sensitive area.

(300) **Slope:** An inclined earth surface, the inclination of which is expressed as the ratio of horizontal distance to vertical distance.

(305) **Stream**: Streams are defined as those areas where surface waters 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. This definition is not meant to include artificially created irrigation ditches, canals, storm or surface water runoff devices or other entirely artificial watercourses unless they are used by salmonid or created for the purposes of stream mitigation.

(310) **Stream Reconnaissance Report:** A report prepared by an applicant's qualified consultant to describe a stream and to characterize its conditions, wildlife, habitat values and water quality.

(315) **Structural Diversity**: The relative degree of diversity or complexity of vegetation in a wildlife habitat area as indicated by the stratification or layering of different plant communities (e.g. ground cover, shrub layer and tree canopy); the variety of plant species; and the spacing or pattern of vegetation.

(320) **Substantial Improvement:** Any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure either, (a) before the improvement or repair is started, or (b) if damaged, the value of the structure to be restored prior to being damaged.

(325) **Substrate:** The soil, sediment, decomposing organic matter or combination of those materials located on the bottom surface of the wetland.

(330) **Temporary Erosion Control:** On-site and off-site control measures that are needed to control conveyance or deposition of earth, turbidity or pollutants during development, construction, or restoration.

(335) **Utility**: Utility includes natural gas, electric, telephone, cable communications, water, sewer, or stormdrainage and their respective facilities, lines, pipes, mains, equipment, and appurtenances.

(340) **Water Dependent Use** A principal use which can only exist when the land/water interface provides biological or physical conditions necessary for the use.

(345) **Wetland:** Areas that are inundated or saturated by surface water or ground water at a frequency and duration sufficient to support and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, shallow open waters, and similar areas. Wetlands do not include those artificial wetlands purposefully and intentionally created from non-wetland sites by human actions, including but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities. However, wetlands include those artificial wetlands intentionally created to mitigate conversion of wetlands.

(350) **Wetland Class:** The U.S. Fish and Wildlife Service wetland classification scheme uses an hierarchy of systems, subsystems, classes and subclasses to describe wetland types (refer to USFWS, December 1979, Classification of Wetlands and Deepwater Habitats of the United States for a complete explanation of the wetland classification scheme). Eleven class names are used to describe wetland and deepwater habitat types. These include the following examples which may be found in Redmond: forested wetland, scrub-shrub wetland, emergent wetland, moss-lichen wetland, unconsolidated shore, and aquatic bed.

(355) **Wetland Determination:** A report prepared by a qualified consultant that identifies, characterizes and analyzes potential impacts to wetlands consistent with applicable provisions of these regulations.

(360) **Wetland Subclass:** Twenty-eight subclass names are used in the USFWS wetland classification scheme to distinguish between different types of wetland classes. Subclass names include, but are not limited to the following: persistent, nonpersistent, broad-leaved deciduous, needle-leaved deciduous, broad-leaved evergreen, and needle-leaved evergreen. The classification system is fully described in USFWS, 1979, Classification of Wetlands and Deepwater Habitats of the United States.

(365) **Wildlife Habitat**: Areas that provide food, protective cover, nesting, breeding or movement for fish and wildlife and with which individual species have a primary association. Wildlife habitat also includes naturally occurring ponds larger than 1.5 acres and smaller than 20 acres in area that are a minimum of 6 feet deep to the extent that such pond(s) otherwise meets the definition of wildlife habitat.

(370) **Wildlife Report**: A report, prepared by a qualified consultant, that evaluates plant communities and wildlife functions and values on a site, consistent with the format and requirements established by this chapter.

SECTION 20C.40.030 APPLICABILITY - REGULATED ACTIVITIES

(05) The provisions of this chapter shall apply to any activity that has a potential to significantly adversely impact a sensitive area or its established buffer unless otherwise exempt. Such activities include but are not limited to:

(a) Removing, excavating, disturbing or dredging soil, sand, gravel, minerals, organic matter or materials of any kind;

(b) Dumping, discharging or filling with any material;

(c) Draining, flooding or disturbing the water level or water table;

(d) Driving pilings or placing obstructions;

(e) Constructing, reconstructing, demolishing or altering the size of any structure or infrastructure that results in disturbance of a sensitive area or the addition of any impervious surface coverage to a site;

(f) Destroying or altering vegetation through clearing, grading, harvesting, shading or planting vegetation that would alter the character of a sensitive area;

(g) Activities that result in significant changes in water temperature, physical or chemical characteristics of water sources, including quantity and pollutants; and

(h) Any other activity that has a potential to significantly adversely impact a sensitive area or established buffer not otherwise exempt for the provisions of this chapter.

With regard to flood hazard areas, the provisions of this chapter shall apply to any activity that would result in change to the flood storage capacity of a floodplain or flood fringe area, or cause an increase in the base flood elevation, unless otherwise exempt.

(10) To avoid duplication, the following permits and approvals shall be subject to and coordinated with the requirements of this chapter: clearing and grading; site plan review; general development permit; special development permit; subdivision or short subdivision; building permit; shoreline substantial development; variance; master plan approval; other permits leading to the development or alteration of land; and rezones if not combined with another development permit.

(15) Non-project actions, including but not limited to rezones, annexations, and the adoption of plans and programs, may at the City's direction, perform any studies or evaluations required by this chapter using methodologies and at a level of detail appropriate to the action proposed.

SECTION 20C.40.040 EXEMPTIONS

(05) The following activities shall be exempt from the provisions of this chapter:

(a) Existing and ongoing agricultural activities, provided no alteration of flood storage capacity or conveyance occurs;

(b) Activities involving artificially created wetlands or streams intentionally created from non-wetland sites, including but not limited to grass-lined swales, irrigation and drainage ditches, detention facilities, and landscape features, except wetlands, streams or swales created as mitigation or that provide critical habitat for salmonid fishes;

(c) Activities affecting Type IV wetlands which are individually smaller than 2,500 square feet and/or cumulatively smaller than 10,000 square feet in size;

(d) Activities occurring in areas of 40% slope or greater with a vertical elevation change of up to 15 feet may be exempted based upon City review of a soils report prepared by a geologist or geotechnical engineer which demonstrates that no significant adverse impact will result from the exemption;

(e) Normal and routine maintenance, operation and reconstruction of existing roads, streets, utilities and associated rights-of-way and structures, provided that reconstruction of any structures may not increase the impervious area or remove flood storage capacity;

(f) Normal maintenance and repair, and reconstruction or remodeling of residential or commercial structures, or legal pre-existing and on-going uses of the site, provided that reconstruction of any structures may not increase the previous approved building footprint (see 20C.40.040 (25) below);

(g) Site investigative work and studies necessary for preparing land use applications, including soils tests, water quality studies, wildlife studies and similar tests and investigations, provided that any disturbance of the sensitive area shall be the minimum necessary to carry out the work or studies;

(h) Educational activities, scientific research, and outdoor recreational activities, including but not limited to interpretive field trips, birdwatching, and trails for horseback riding, bicycling and hiking, that will not have a significant adverse effect on the sensitive area;

(i) Emergency activities necessary to prevent an immediate threat to public health, safety or property;

(j) Normal and routine maintenance and operation of existing landscaping and gardens provided they comply with all other regulations in this chapter;

(k) Construction of trails, according to the following criteria: preferably constructed of permeable materials, designed to minimize impact on the sensitive area, and of a maximum trail corridor width of ten feet;

(l) Minor activities not mentioned above and determined by the Department to have minimal impacts to a sensitive area;

(m) Previously legally filled wetlands or wetlands accidentally created by human actions within 20 years of the date the development application is filed. The latter shall be documented by the applicant through photographs, statements, and/or other evidence;

(n) Installation, construction, replacement, repair or alteration of utilities and their associated facilities, lines, pipes, mains, equipment or appurtenances in improved city road rights-of-way.

(10) Notwithstanding the exemptions provided by this subsection, any otherwise exempt activities occurring in or near a sensitive area should meet the purpose and intent of 20C.40.010 and should consider on-site alternatives that avoid or minimize significant adverse impacts.

(15) Exempt activities occurring in flood hazard areas shall not alter flood storage capacity or conveyance.

(20) With the exception of paragraph (a), (h), (i), (j), and normal maintenance and repair of residential and commercial structures as in (f) above, no property owner or other entity shall undertake exempt activities prior to providing ten days notice to the City. In case of any question as to whether a particular activity is exempt from the provisions of this section, the City's determination shall prevail and shall be confirmed in writing within ten days of receipt of the owner's or applicant's letter. Those activities falling under paragraph (i) above shall provide telephone or written communication with the Department within 48 hours of the activity notifying such emergency activity was taken.

(25) Structures shall be allowed to reconstruct if destroyed more than fifty percent of its assessed or appraised value (whichever is greater) if located in a buffer. Reconstruction of the structure shall not further encroach into the buffer area or increase the building footprint. Structures that are nonconforming solely due to the provisions of this chapter shall not be governed by Section 20F.10.060, Legal Nonconformances.

SECTION 20C.40.050 SENSITIVE AREAS MAPS

(05) Sensitive Areas Generally. The approximate location and extent of sensitive areas within the City's planning area are shown on the sensitive areas maps adopted as part of this chapter. These maps shall be used as a general guide only for the assistance of property owners and other interested parties; boundaries are generalized. The actual type, extent and boundaries of sensitive areas shall be determined in the field by a qualified consultant according to the procedures, definitions and criteria established by this chapter. In the event of any conflict between the sensitive area location or designation shown on the City's maps and the criteria or standards of this section, the criteria and standards shall prevail. These maps are located in Section 20B.10.010, Physical Environment Profile.

(10) Flood Hazard Areas. The City will employ hydrologic models to define the extent of the zero-rise floodway. If the zero-rise floodway has not yet been defined for the property in question, the applicant will be responsible for modeling the base flood elevation and delineating the extent of the zero-rise floodway, consistent with the assumptions in the Bear Creek Basin Plan as adopted by the City. In the absence of a City hydrologic model, FEMA data will be acceptable.

SECTION 20C.40.060 RELATIONSHIP TO OTHER REGULATIONS

(05) These sensitive area regulations shall apply as an overlay and in addition to zoning, land use and other regulations established by the City of Redmond. In the event of any conflict between these regulations and any other regulations of the City, the regulations which provide greater protection to environmentally sensitive areas shall apply.

(10) Areas characterized by particular sensitive areas may also be subject to other regulations established by this chapter due to the overlap or multiple functions of some sensitive or critical areas. Wetlands, for example, may be defined and regulated according to the wetland, habitat and stream management provisions of this chapter. In the event of any conflict between regulations for particular sensitive areas in this chapter, the regulations which provide greater protection to environmentally sensitive areas shall apply.

SECTION 20C.40.070 SENSITIVE AREA PERMIT PROCESS AND APPLICATION REQUIREMENTS

(05) Pre-Application Conference. All applicants are encouraged to meet with the City prior to submitting an application subject to this section. The purpose of this meeting shall be to discuss the City's sensitive area requirements, processes and procedures; to review any conceptual site plans prepared by the applicant; to identify potential impacts to sensitive areas and appropriate mitigation measures; and to generally inform the applicant of any federal or state regulations applicable to the subject sensitive area. Such conference shall be for the convenience of the applicant and any recommendations shall not be binding on the applicant or the City.

(10) Application Requirements.

(a) Timing of Submittals. A sensitive area report must be submitted to the City for review, if applicable. The purpose of the report is to determine the extent, characteristics and functions of any sensitive areas located on or that have a potential to be significantly adversely impacted by activities on a site where regulated activities are proposed. The report will also be used by the City to assist in the determination of the appropriate sensitive area rating and establishment of appropriate buffer requirements in accordance with Section 20C.40.090.

(b) Sensitive Areas Report Contents. Reports and studies required to be submitted by this chapter shall contain the information indicated in the attachments to this ordinance applicable to each sensitive area.

(15) Consultant Qualifications & City Review. All reports and studies required of the applicant by this section shall be prepared by a qualified consultant as that term is defined in these regulations. The City may, at its discretion, retain a qualified consultant to review and confirm the applicant's reports, studies and plans.

(20) Permit Process. This section is not intended to create a separate sensitive areas permit process for development proposals. The City shall consolidate and integrate the review and processing of sensitive areas aspects of proposals with other land use and environmental considerations and approvals.

SECTION 20C.40.080 CLASSIFICATION AND RATING OF SENSITIVE AREAS

To promote consistent application of the standards and requirements of this chapter, sensitive areas within the City of Redmond shall be rated or classified according to their characteristics, function and value, and/or their sensitivity to disturbance.

(05) **Wetland Classification.** Wetlands, as defined by this chapter, shall be designated Type I, Type II, Type III, Type IV and Artificial according to the criteria in this section.

(a) "Type I Wetlands" are those wetlands which meet any of the following criteria:

1. The presence of species proposed or listed by the federal government or State of Washington as endangered, threatened, sensitive or monitor, or the presence of critical or outstanding actual or potential habitat for those species; or

2. Wetlands having 40% to 60% open water in dispersed patches with two or more wetland subclasses of vegetation; or

3. Wetlands equal to or greater than 10 acres in size and having three or more wetland classes, one of which is open water; or

4. High quality examples of a native wetland listed in the Terrestrial and/or Aquatic Ecosystem elements of the Washington Natural Heritage Plan that are presently identified as such or are determined to be of Heritage quality by the Department of Natural Resources; or

5. The presence of plant associations of infrequent occurrence. These include, but are not limited to, plant associations found in bogs and in wetlands with a coniferous forested wetland class or subclass occurring on organic soils.

(b) "Type II Wetlands" are those wetlands which are not Type I wetlands and meet any of the following criteria:

1. Wetlands greater than one acre in size;

2. Wetlands equal to or less than one acre but greater than one-half acre in size and having three or more wetland classes; or

3. Wetlands equal to or less than one acre but greater than one-half acre in size that have a forested wetland class or subclasses.

(c) "Type III Wetlands" are those wetlands that are: equal to or less than one acre in size and that have one or two wetland classes and are not rated as Type IV wetlands; or wetlands less than one-half acre in size having either 3 wetlands classes or a forested wetland class or subclass.

(d) "Type IV Wetlands" are those wetlands that are equal to or less than 2,500 square feet, and that are hydrologically isolated and have only one wetland class which is not forested.

(e) "Artificially Created Wetlands" are those wetlands defined as such in these regulations, and do not include wetlands created as mitigation, and wetlands modified for approved land use activities. Purposeful or accidental creation must be demonstrated to the Committee through documentation, photographs, statements and/or other evidence. Artificial wetlands intentionally created from non-wetland sites for the purposes of wetland mitigation are regulated under this section.

(10) **Stream Classification.** Streams shall be designated Class I, Class II, Class III, and Class IV according to the criteria in this section. When more than one stream class is present in short alternating segments on the property in question it will be classified according to the stream class which is more restrictive.

(a) "Class I Streams" are those streams identified as "Shorelines of the State" under the City of Redmond Shoreline Master Program.

(b) "Class II Streams" are those natural streams that are not Class I streams and are either perennial or intermittent and have one of the following characteristics:

1. Salmonid fish use;

2. Significant potential for salmonid fish use; or

3. Significant recreational value.

(c) "Class III Streams" are those natural streams with perennial (year round) or intermittent flow and are not used by salmonid fish and have no potential to be used by salmonid fish.

(d) "Class IV Streams" are those streams and natural drainage swales with perennial or intermittent flow with channel width less than two feet taken at the ordinary high water mark, that are not used by salmonid fish.

(e) "Intentionally Created Streams" are those manmade streams defined as such in these regulations, and do not include streams created as mitigation. Purposeful creation must be demonstrated to the Committee through documentation, photographs, statements and/or other evidence. Intentionally created streams may include irrigation and drainage ditches, grass-lined swales and canals. Intentionally created streams are excluded from regulation under this section, except manmade streams that provide critical habitat for anadromous fish.

(15) **Wildlife Habitat Classification.** "Critical Habitat" are those habitat areas which meet any of the following criteria:

(a) The documented presence of species proposed or listed by the federal government or State of Washington as endangered, threatened, sensitive, monitor or priority;

(b) The presence of heron rookeries or raptor nesting trees;

(c) Type I wetlands, as defined in these regulations; or

(d) Type I streams, as defined in these regulations.

(20) **Geologic Hazard Classifications.** Geologic hazard areas shall be classified according to the criteria in this section.

(a) Critical Erosion Hazard Areas: Critical erosion hazard areas are lands or areas underlain by soils identified by the U.S. Department of Agriculture Soil Conservation Service (SCS) as having "severe" or "very severe" erosion hazards. This includes, but is not limited to, the following group of soils when they occur on slopes of 15 percent or greater: Alderwood-Kitsap (AkF), Alderwood gravelly sandy loam (AgD), Kitsap silt loam (KpD), Everett (EvD) and Indianola (InD).

(b) Landslide Hazard Areas. Landslide hazard areas are classified as "Class I", "Class II", "Class III" or "Class IV" as follows:

1. Class I/Low Hazard: Areas with slopes of less than 15 percent.

2. Class II/Moderate Hazard: Areas with slopes between 15 percent and 40 percent and that are underlain by soils that consist largely of sand, gravel or glacial till.

3. Class III/High Hazard: Areas with slopes between 15 percent and 40 percent that are underlain by soils consisting largely of silt and clay.

4. Class IV/Very High Hazard: Areas with slopes steeper than 15 percent with zones of emergent water (e.g. springs or ground water seepage), areas of landslide deposits regardless of slope, and all areas sloping 40 percent or steeper.

(c) Seismic Hazard Areas. Seismic hazard areas are lands that, due to a combination of soil and ground water conditions, are subject to severe risk of ground shaking, subsidence or liquefaction of soils during earthquakes. These areas are typically underlain by soft or loose saturated soils (such as alluvium), have a shallow ground water table and are typically located on the floors of river valleys.

(25) **Aquifer Recharge Areas.** Aquifer recharge areas shall be classified as "low," "medium" and "high" significance based on the soil and groundwater conditions and risks to drinking water. Classification depends on the combined effects of hydrogeological susceptibility to contamination and contaminant loading potential, as follows:

(a) Low Significance/Low Susceptibility Recharge Areas: Upland areas underlain by soils consisting largely of silt, clay or glacial till.

(b) Medium Significance/Moderate Susceptibility Recharge Areas: Upland areas underlain by soils consisting largely of sand and gravel, and valley floor areas underlain by soils consisting largely of sand, silt and clay in which there is a significant upward component to groundwater flow within the valley alluvium.

(c) High Significance/High Susceptibility Recharge Areas: Valley floor areas underlain by soils consisting largely of sand and gravel in which there is a predominantly downward or lateral component to groundwater flow, and which serve as a source of drinking water.

(30) **Flood Hazard Classifications**

(a) Floodplain: The total area subject to inundation by the base flood.

(b) Flood Fringe: The portion of the floodplain outside of the floodway which is generally covered by floodwaters during the base flood; it is generally associated with standing water rather than rapidly flowing water.

(c) Zero-rise Floodway: 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. The zero-rise floodway will always include the FEMA floodway.

(d) FEMA Floodway: The channel of the stream and that portion of the adjoining floodplain which is necessary to contain and discharge the FEMA base flood flow without increasing the FEMA base flood elevation more than one foot.

(35) Classification of sensitive areas shall be determined by the Committee based on consideration of the following factors:

(a) Maps adopted pursuant to this chapter;

(b) Application of the criteria contained in these regulations; and

(c) Consideration of the technical reports submitted by qualified consultants in connection with applications subject to these regulations.

SECTION 20C.40.090 BUFFER AREAS

(05) The establishment of buffer areas shall be required for all development proposals and activities in or adjacent to sensitive areas. The purpose of the buffer shall be to protect the integrity, function, value and resource of the subject sensitive area, and/or to protect life, property and resources from risks associated with development on unstable or sensitive lands. Buffers shall consist of an undisturbed area of native vegetation established to achieve the purpose of the buffer. If the site has previously been disturbed, the buffer area shall be revegetated pursuant to an approved planting plan. Buffers shall be protected during construction by placement of a temporary barricade, on-site notice for construction crews of the presence of the sensitive area, and implementation of appropriate erosion and sedimentation controls.

(10) Required buffer widths shall reflect the sensitivity of the particular sensitive area and resource or the risks associated with development and, in those circumstances permitted by these regulations, the type and intensity of human activity and site design proposed to be conducted on or near the sensitive area. Buffers or setbacks shall be measured as follows:

(a) Wetland buffers - from the wetland edge as delineated and marked in the field using the 1989 Federal Methodology.

(b) Stream buffers - from the ordinary high water mark.

(c) Critical landslide hazard areas - from the top and toe and along the sides of the slope.

(15) Buffer widths shall be established according to the following standards and criteria:

(a) Wetland Buffers.

1. Wetland buffers shall be established as follows:

Wetland Type	High Impact Land Use (ft)	Low Impact Land Use (ft)
Type I	150	100
Type II	100	50
Type III	50	25
Type IV	0	0

The City may extend the width of the buffer on the basis of site-specific analysis when necessary to achieve the goals of the Ordinance.

A. In applying an appropriate buffer width, the City will use the factors listed below to determine whether a proposed development should be considered to have a high impact or low impact on wetlands. The factors will be applied to the use or activity as proposed by the applicant, not to the general category of use (i.e. multi-family residential, industrial). The factors are intended to recognize the significance of adverse impacts to wetlands resulting from the proposed development.

B. The factors that will be considered to be low intensity development include, but are not limited to:

(i) Site layout with no parking, outdoor storage, or use of machinery between building and buffer;

(ii) Use does not involve usage or storage of chemicals;

(iii) Passive areas located adjacent to buffer; and

(iv) Wetland and buffer incorporated into site design.

2. Wetland buffer widths may be modified by averaging buffer widths or by enhancing buffer quality as set forth herein.

A. Buffer width averaging shall be allowed only where the applicant demonstrates to the Committee that the wetland contains variations in sensitivity due to existing physical characteristics, that lower intensity land uses would be located adjacent to areas where buffer width is reduced, that width averaging will not adversely impact the wetland functional values, and that the total area contained within the buffer after averaging is no less than that contained within the standard buffer prior to averaging.

B. Buffer width may be reduced by up to 25 percent if an applicant undertakes measures approved by the Committee to enhance the buffer, including but not limited to planting of native trees or shrubs, increasing the diversity of plant cover types, or replacement of exotic species with native species.

C. Application of subparagraphs A and B shall not result in buffer width being reduced by more than 25 percent of the required buffer and in no case may the buffer be less than 25 feet in width.

3. Low impact uses and activities which are consistent with the purpose and function of the wetland buffer and do not detract from its integrity may be permitted within the buffer depending on the sensitivity of the wetland. Examples of uses and activities which may be permitted in appropriate cases include preferably pervious trails, viewing platforms, stormwater management facilities such as grass-lined swales, and utility easements, provided that any impacts to the buffer resulting from such permitted activities shall be mitigated. Uses permitted within the buffer shall be located as far from the wetland as possible.

4. A regulated wetland and its associated buffer shall either be placed in a separate tract on which development is prohibited, protected by execution of an easement, dedicated to a conservation organization or land trust, or similarly preserved through a permanent protective mechanism acceptable to the City. The location and limitations associated with the wetland and its buffer shall be shown on the face of the deed or plat applicable to the property and shall be recorded with the King County Department of Records.

(b) Stream Buffers.

1. The following buffers are established for streams:

Stream Class	Minimum Buffer Width (ft)	Maximum Buffer Width (ft)
Class I	100	150
Class II	75	100
Class III	25	50
Class IV	0	0

2. The maximum buffer width will be established unless the applicant implements one or more enhancement measures. Such measures, listed in order of preference, will be considered in reducing buffer requirements. These include but are not limited to:

A. Removal of fish barriers to restore accessibility to anadromous fish.

B. Enhancement of fish habitat using log structures incorporated as part of a fish habitat enhancement plan.

C. Enhancement of wildlife habitat structures that are likely to be used by wildlife, including wood duck houses, bat boxes, nesting platforms, snags, rootwads/stumps, birdhouses, and heron nesting areas.

D. Additional mitigating measures may include:

(i) Landscaping outside the buffer area with native vegetation or a reduction in the amount of clearing outside the buffer area; or

(ii) Planting native vegetation within the buffer area, especially vegetation that would increase value for fish and wildlife, increase stream bank or slope stability, improve water quality, or provide aesthetic/recreational value; or

(iii) Create a surface channel where a stream was previously culverted or piped; or

(iv) Remove or modify existing stream culverts (such as at road crossings) to improve fish passage and flow capabilities; or

(v) Upgrade retention/detention facilities or other drainage facilities beyond required levels.

3. No structures or improvements shall be permitted within the stream buffer area, including buildings, decks, docks, except as otherwise permitted or required under the City's adopted Shoreline Master Program, or under one of the following circumstances:

A. When the improvements are part of an approved rehabilitation or mitigation plan; or

B. For construction of new roads and utilities, and accessory structures, when no feasible alternative location exists; or

C. Construction of trails, according to the following criteria:

(i) Preferably constructed of permeable materials;

(ii) Designed to minimize impact on the stream system;

(iii) Of a maximum trail corridor width of ten (10) feet; and

(iv) Located within the outer half of the buffer, i.e., the portion of the buffer that is farther away from the stream; or

D. Construction of footbridges; or

E. Construction of educational facilities, such as viewing platforms and informational signs.

4. The City may extend the width of the buffer on the basis of site-specific analysis when necessary to comply with a basin plan adopted by the City.

5. Stream buffer widths may be modified by averaging buffer widths or by enhancing buffer quality as set forth herein.

A. Buffer width averaging shall be allowed only where the applicant demonstrates to the Committee that the stream contains variations in sensitivity due to existing physical characteristics, that lower intensity land uses would be located adjacent to areas were buffer width is reduced, and that the total area contained within the buffer after averaging is no less than that contained within the standard buffer prior to averaging.

B. Buffer width may be reduced up to 25 percent if an applicant undertakes measures approved by the Committee to enhance the buffer, including but not limited to planting of native trees and shrubs, increasing the diversity of plant cover types, or replacement of exotic species with native species.

C. Application of subparagraphs A and B shall not result in buffer width being reduced by more than 25% of the required buffer and in no case may the buffer be less than 25 feet in width.

6. A regulated stream and its associated buffer shall be placed either in a separate tract on which development is prohibited, protected by execution of an easement, dedicated to a conservation organization or land trust, or similarly preserved through a permanent protective mechanism acceptable to the City. The location and limitations associated with the stream and its buffer shall be shown on the face of the deed or plat applicable to the property and shall be recorded with the King County Department of Records.

(c) Wildlife Habitat Areas.

1. Buffer widths for critical habitat areas shall be based on consideration of the following factors: species recommendations of the Washington State Department of Wildlife; recommendations contained in the wildlife study submitted by a qualified consultant; and the nature and intensity of land uses and activities occurring on the site and on adjacent sites.

2. Low impact uses and activities which are consistent with the purpose and function of the habitat buffer and do not detract from its integrity may be permitted within the buffer depending on the sensitivity of the habitat area. Examples of uses and activities which may be permitted in appropriate cases include preferably pervious trails, viewing platforms, stormwater management facilities such as grass-lined swales, and utility easements, provided that any impacts to the buffer resulting from permitted facilities shall be mitigated.

3. Critical habitat areas and their associated buffer shall be placed either in a separate tract on which development is prohibited, protected by execution of an easement, dedicated to a conservation organization or land trust, or similarly preserved through a permanent protective mechanism acceptable to the City. The location and limitations associated with the critical habitat and its buffer shall be shown on the face of the deed or plat applicable to the property and shall be recorded with the King County Department of Records and Elections.

(d) Critical Landslide Hazard Areas.

1. Required buffers shall vary between 25 feet and 50 feet in most cases. The width of the buffer shall reflect the sensitivity of the critical landslide hazard area in question and the types and density of uses proposed on or adjacent to the geologic hazard. In determining the appropriate buffer width, the Committee shall consider the recommendations contained in any technical report required by these regulations and prepared by an applicant's qualified consultant.

2. Buffers may be reduced to a minimum of 15 feet when the applicant demonstrates through technical studies that the reduction will adequately protect the proposed and surrounding development from the critical landslide hazard.

(20) Buffer Width Variances. Required buffers shall not deny all reasonable use of property. A variance from buffer width requirements may be granted by the City subject to the variance criteria set forth in 20F.20.190 and upon a showing by the applicant that:

(a) There are special circumstances applicable to the subject property or to the intended use such as shape, topography, location or surroundings that do not apply generally to other properties and which support the granting of a variance from the buffer width requirements; and

(b) Such buffer width variance is necessary for the preservation and enjoyment of a substantial property right or use possessed by other similarly situated property but which because of special circumstances is denied to the property in question; and

(c) The granting of such buffer width variance will not be materially detrimental to the public welfare or injurious to the property or improvement; and

(d) The granting of the buffer width variance will not significantly impact the subject sensitive area.

SECTION 20C.40.100 ALTERATION OR DEVELOPMENT OF SENSITIVE AREAS - STANDARDS AND CRITERIA

(05) General Mitigation Standard. All significant adverse impacts to sensitive areas functions and values shall be mitigated. Mitigation actions by an applicant or property owner shall occur in the following sequence:

(a) Avoiding the impact altogether by not taking a certain action or parts of actions;

(b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation;

(c) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;

(d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and/or

(e) Compensating for the impact by replacing or providing substitute resources or environments.

(10) Where impacts cannot be avoided, and the applicant has exhausted feasible design alternatives, the applicant or property owner shall seek to implement other appropriate mitigation actions in compliance with the intent, standards and criteria of this chapter. In an individual case, these actions may include consideration of alternative site plans and layouts, reductions in the density or scope of the proposal, and/or implementation of the performance standards listed in 20C.40.100 and 20C.40.120.

(15) Alteration of sensitive areas or their established buffers may only be permitted subject to the following criteria:

(a) Wetlands:

1. Type I Wetlands: Alterations of Type I wetlands shall be prohibited subject to the reasonable use provisions of this chapter.

2. Type II Wetlands:

A. Any proposed alteration and mitigation shall comply with the mitigation performance standards and requirements of these regulations; and

B. No net loss of wetland function and value may occur.

3. Type III Wetlands:

A. The proposed mitigation complies with the mitigation performance standards and requirements of these regulations; and

B. Where enhancement or replacement is proposed, ratios shall comply with the requirements of 20C.40.110(15)(b).

(b) Streams:

1. Relocation of a Class I, II, or III stream in order to facilitate general site design will not be allowed. Relocation of these classes of streams may take place only when it is part of an approved mitigation or rehabilitation plan, and will result in equal or better habitat and water quality, and will not diminish the flow capacity of the stream.

2. Bridges shall be used to cross Class I streams.

3. Culverts are allowable only under the following circumstances:

A. Only in Class II, III, and IV streams;

B. When fish passage will not be impaired;

C. When the following design criteria are met:

(i) Oversized culverts will be installed;

(ii) Culverts will include gradient controls and creation of pools within the culvert for Class II streams where appropriate; and

(iii) Gravel substrate will be placed in the bottom of the culvert to a minimum depth of one foot for Class II streams.

D. The applicant or successors shall, at all times, keep any culvert free of debris and sediment to allow free passage of water and, if applicable, fish.

4. The City may require that a stream be removed from a culvert as a condition of approval, unless the culvert is not detrimental to fish habitat or water quality, or removal would be detrimental to fish or wildlife habitat or water quality.

(c) Wildlife Habitat:

1. Critical Habitat: Alterations of critical habitat shall be avoided, subject to Section 20C.40.150, Reasonable Use Provision.

(d) Geologic Hazard Areas:

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

2. Class IV Landslide Hazard Areas: Development shall be prohibited in Class IV (very high) landslide hazard areas.

3. Critical Seismic Hazard Areas:

A. For one-story and two-story residential structures, the applicant shall conduct an evaluation of site response and liquefaction potential based on the performance of similar structures under similar foundation conditions; and

B. For all other proposals, the applicant shall conduct an evaluation of site response and liquefaction potential including sufficient subsurface exploration to provide a site coefficient (S) for use in the static lateral force procedure described in the Uniform Building Code.

4. When development is permitted in geologic hazard areas by these regulations, an applicant and/or its qualified consultant shall provide assurances which include the following:

A. A letter from the geotechnical engineer and/or geologist who prepared the studies required by these regulations that risks of damage from the proposal, both on-site and off-site, are minimal subject to the conditions set forth in the report, that the proposal will not increase the risk of occurrence of the potential geologic hazard, and that measures to eliminate or reduce risks have been incorporated into its recommendations;

B. A legal statement which shall be recorded and noted on the face of the deed or plat, and executed in a form satisfactory to the City, characterizing the site as being located in a geologic hazard area and

that there may or may not be risks associated with development of such site; and

C. Posting of a bond, guarantee or other assurance device approved by the City, to cover the cost of monitoring, maintenance and any necessary corrective actions.

(e) Aquifer Recharge Areas:

1. The following land uses and activities shall be prohibited in critical (high significance) aquifer recharge areas:

A. Land uses and activities that involve the use, storage, transport or disposal of significant quantities of chemicals, substances or materials that are toxic, dangerous or hazardous, as those terms are defined by state and federal regulations;

B. On-site community sewage disposal systems;

C. Underground storage of chemicals;

D. Petroleum pipelines; and

E. Solid waste landfills.

2. Medium or Low Significance Recharge Areas: Development within medium or low significance aquifer recharge areas, as those terms are defined in these regulations, shall implement the mitigation standards contained in Sections 20C.40.110 and 20C.40.120.

(f) Flood Hazard Areas - Development Standards:

1. Flood Hazard Areas Generally. For all new structures or substantial improvements, the applicant must provide certification by a qualified consultant of the actual as-built elevation of the lowest floor, including basement, and, if applicable, the actual as-built elevation to which the structure is flood-proofed. If the structure has a basement, this must be indicated.

2. The Floodfringe Outside the Zero-Rise Floodway.

A. Except in Urban Shoreline designation areas, development shall not reduce the effective base flood storage volume of the floodplain. Grading or other activity which would reduce the effective storage volume must be mitigated by creating compensatory storage on the site. Off-site compensatory storage may be permitted if binding legal arrangements assure that the effective compensatory storage volume will be preserved over time.

B. No structure shall be allowed which would be at risk due to stream bank destabilization including that associated with channel relocation or meandering.

C. All elevated construction must be designed and certified by a professional structural engineer registered in the State of Washington and must be approved by the City prior to construction.

D. Subdivisions, short subdivisions, binding site plans, site plan review, special development permits, and general development permits shall follow the following requirements:

(i) New building lots shall contain 3,600 square feet or more of buildable land outside the zero rise floodway and building setback lines shall be shown on the face of the plat to restrict permanent structures to the area so defined;

(ii) All utilities and facilities such as a sewer, gas, electrical, telephone, cable communications and water systems shall be located and constructed consistent with subparagraph I below;

(iii) Base flood data and flood hazard notes shall be shown on the face of the recorded plat, including, but not limited to, the base flood elevation, required flood protection elevations, and the boundaries of the floodplain and the floodway, if determined; and

(iv) The following note shall be recorded with the King County Department of Records and Elections for all affected lots:

"NOTICE"

"Lots and structures located within flood hazard areas may be inaccessible by emergency vehicles during flood events. Residents and property owners should take appropriate advance precautions."

E. New residential construction and substantial improvement shall meet the following criteria:

(i) The lowest floor shall be elevated to the flood protection elevation.

(ii) Portions of the building that are below the flood protection elevation shall not be fully enclosed. The areas below the lowest floor shall be designed to automatically equalize hydrodynamic flood forces on exterior walls by allowing the entry and exit of floodwaters. Designs for meeting this requirement must meet or exceed the following minimum criteria:

(a) Minimum of two openings on opposite walls having a total open area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided;

(b) The bottom of all openings shall be no higher than one foot above grade;

(iii) Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the unrestricted entry and exit of floodwaters.

F. New non-residential construction and substantial improvement of any existing commercial, industrial, or other non-residential structure shall meet the elevation requirements of residential construction.

G. All new construction shall be anchored to prevent flotation, collapse, or lateral movement of the structure.

H. For all mobile homes, all standards for flood hazard protection for conventional residential construction shall apply. All manufactured and mobile homes must be anchored and shall be installed using methods and practices that minimize flood damage. For new mobile home parks, for expansions to existing mobile home parks, and for existing mobile home parks where the repair/reconstruction of the streets, utilities, and pads equals or exceeds 50 percent of the value of the streets, utilities, and pads before repair/reconstruction has commenced, all standards for flood hazard protection applicable for residential construction shall apply to all mobile homes within the park.

I. Utilities shall meet the following criteria:

(i) All new and replacement utilities, including sewage treatment facilities, shall be flood-proofed to, or elevated above, the flood protection elevation.

(ii) New on-site sewage disposal systems shall be located outside the limits of the 100-year floodplain. The installation of new on-site sewage disposal systems in the floodplain is prohibited.

(iii) Sewage and agricultural waste storage facilities shall be flood-proofed to the base flood elevation plus three feet.

(iv) Above-ground utility transmission lines, other than electrical transmission lines, shall only be allowed for the transport of non-hazardous substances.

(v) Buried utility transmission lines transporting hazardous substances (as defined by the Washington State Hazardous Waste Management Act in RCW 70.105.005) shall be buried at a minimum depth of four feet below the maximum depth of scour for the base flood predicted by a professional civil engineer licensed by the State of Washington and shall achieve sufficient negative buoyancy so that any potential for flotation or upward migration is eliminated.

J. Critical facilities may be allowed within the flood fringe of the floodplain. All such proposed uses shall be evaluated through a

special development permit. Critical facilities constructed within the flood fringe shall have the lowest floor elevated to three or more feet above the base flood elevation. Flood-proofing and sealing measures must be taken to ensure that hazardous or toxic substances will not be displaced by or released into floodwaters. Access routes elevated to the flood protection elevation shall be provided to all critical facilities to the nearest maintained public street or roadway located outside of the floodplain.

K. The Committee shall review all development permits to determine that all necessary permits have been obtained as required by Federal or State law, including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334, as required by Section 60.3(a) (2) of 44 CFR.

L. Storage and containment of hazardous or dangerous chemicals, substances or materials, as those terms are determined by applicable state and federal regulations, shall be prohibited provided that existing uses involving storage, etc., shall conform to the flood protection elevation when applying for any permit.

3. Development in the Zero-Rise Floodway.

A. Activities allowed within the zero-rise floodway must conform to the requirements of this section, as well as the requirements that apply to the flood fringe outside the zero-rise floodway as identified in Section 20C.40.100(15)(f)2.

B. No development activity shall reduce the effective storage volume of the floodplain.

C. No development, including permitted new construction or reconstruction, shall cause any increase in the zero rise base flood elevation.

D. No temporary structures or storage of materials hazardous to public health, safety and welfare shall be permitted in the zero-rise floodway.

E. Construction of new residential or non-residential structures is permitted in the zero-rise floodway only in the following circumstances:

(i) The structure must be on a lot legally in existence at the time this ordinance becomes effective;

(ii) The structure must be on a lot that contains less than 3,600 square feet of buildable land outside the zero-rise floodway; and

(iii) The structure must meet the construction standards set forth in 20C.40.100(15)(f)2 and (f)3 paragraphs B, C, and D.

F. New lots that include part of the zero-rise floodway may be created only if the lots meet the requirements of 20C.40.100(15)(f)2.D and administrative rules, or are declared as non-building lots on the face of the plat.

G. The following circumstances are presumed to produce no increase in base flood elevation and shall not require special studies to establish this fact:

(i) Substantial improvement on existing residential structures outside the zero-rise floodway where the building footprint is not increased.

(ii) Substantial improvement of an existing residential structure shall meet the requirements for new residential construction set forth in 20C.40.100(15)(f)2.E.

H. Reconstruction of an existing residential structure shall meet the requirements for new residential construction set forth in 20C.40.100(15)(f)2.E.

I. Utilities and roads are permitted in the zero-rise floodway only when no other location is practicable, or when mitigating measures achieve zero-rise floodway elevations, and shall meet the minimum criteria set forth in 20C.40.100(15)(f)2.I and the following requirements:

(i) Construction of sewage treatment facilities shall be prohibited.

(ii) Utility transmission lines transporting hazardous substances shall be buried at a minimum depth of four feet below the maximum depth of scour for the base flood as predicted by a professional civil engineer licensed by the State of Washington and shall achieve sufficient negative buoyancy so that any potential for flotation or upward migration is eliminated.

J. Critical facilities shall not be constructed in the zero-rise floodway.

K. Floodway Dependent Structures: Installations or structures that are floodway dependent may be located in the floodway provided that the development proposal receives approval from all other agencies with jurisdiction and meets all standards in 20C.40.100(15)(a) and (b). Such installations include but are not limited to:

(i) Dams or diversions for water supply, flood control, hydroelectric production, irrigation or fisheries enhancement;

(ii) Flood damage reduction facilities such as levees and pumping stations;

(iii) Stream bank stabilization structures where no feasible alternative exists to protecting public or private property;

(iv) Storm water conveyance facilities subject to the requirements of the development standards for streams and wetlands, and other relevant City of Redmond development standards;

(v) Boat launches, docks and related recreation structures;

(vi) Bridge piers and abutments; and

(vii) Fisheries enhancement or stream restoration projects.

L. Development of the area located downstream of Redmond Way on Bear Creek may be allowed when (a) mitigating measures achieve zero-rise floodway elevations, or (b) when surface water elevations are not increased over 1.0 foot provided no significant unmitigated upstream, downstream, or on-site environmental impacts are created flows.

4. Development in the FEMA Floodway.

A. Construction or placement of new residential or non-residential structures is prohibited within the FEMA floodway. Shoreline protective structures, bridges, roads, trails and railroads are permitted within the FEMA floodway.

B. No development subject to these regulations, including permitted new construction or reconstruction, shall cause any increase in the FEMA base flood elevation.

C. Substantial improvement of an existing residential structure located in the floodway must meet the requirements set out in WAC 173-158-070 as amended. Such substantial improvement is presumed to produce no increase in base flood elevation and shall not require special studies to establish this fact.

(20) Development proposed in sensitive areas shall incorporate and reflect the performance standards contained in Sections 20C.40.110 and 20C.40.120.

SECTION 20C.40.110 MITIGATION STANDARDS, CRITERIA AND PLAN REQUIREMENTS

(05) Mitigation Performance Standards.

(a) Significant adverse impacts to sensitive area functions and values shall be mitigated. Mitigation actions shall be implemented in the preferred sequence identified in 20C.40.100(05). Proposals which include less preferred and/or compensatory mitigation shall demonstrate that:

1. All feasible and reasonable measures will be taken to reduce impacts and losses to the sensitive area, or to avoid impacts where avoidance is required by these regulations; and

2. The restored, created or enhanced sensitive area or buffer will be as viable and persistent as the sensitive area or buffer area it replaces; and

3 In the case of wetlands and streams, no overall net loss will occur in wetland or stream functions and values.

(10) Location and Timing of Mitigation.

(a) Mitigation shall be provided on-site, unless on-site mitigation is not scientifically feasible due to physical features of the property. The burden of proof shall be on the applicant to demonstrate that mitigation cannot be provided on-site.

(b) When mitigation cannot be provided on-site, mitigation shall be provided in the immediate vicinity of the permitted activity on property owned or controlled by the applicant, such as an easement, provided such mitigation is beneficial to the sensitive area and associated resources.

(c) In-kind mitigation shall be provided except when the applicant demonstrates and the City concurs that greater functional and habitat value can be achieved through out-of-kind mitigation.

(d) Only when it is determined by the City that paragraphs (a), (b), and (c) above are inappropriate and impractical, shall off-site, out-of-kind mitigation be considered.

(e) When wetland or stream mitigation is permitted by these regulations on-site or off-site, the mitigation project shall occur near an adequate water supply (river, stream, groundwater) with a hydrologic connection to the sensitive area to ensure successful development or restoration.

(f) Any agreed upon mitigation proposal shall be completed concurrently with project construction, unless a phased schedule, that assures completion prior to occupancy, has been approved by the City.

(g) Wetland acreage replacement ratios shall be as specified in 20C.40.110(15)(b).

(h) Restored or created streams, where permitted by these regulations, shall be an equivalent or higher stream value or function than the altered stream.

(15) Wetland Replacement Ratios.

(a) Where wetland alterations are permitted by the City, the applicant shall restore or create areas of wetlands in order to compensate for wetland losses. Equivalent areas shall be determined according to acreage, function, type, location, timing factors, and projected success of restoration or creation.

(b) When creating or enhancing wetlands, the following acreage replacement ratios shall be used:

Wetland Type	Wetland Creation Replacement Ratio (Area)	Wetland Enhancement Ratio (Area)
Type I	6:1	2:1
Type II	2:1	1:1
Type III	2:1	1:1

The Department shall have discretion to increase these standards where mitigation is to occur off-site or in other appropriate circumstances.

(c) Enhanced wetlands shall have higher wetland values and functions than the altered wetland. The values and functions transferred shall be of equal or greater quality to assure no net loss of wetland values and functions.

(d) Enhanced and created wetlands shall be appropriately classified and buffered.

SECTION 20C.40.120 PERFORMANCE STANDARDS FOR MITIGATION PLANNING

(05) The performance standards in this section, and the standards contained in 20C.40.100, shall be incorporated into mitigation plans submitted to the City for impacts to sensitive areas. Mitigation plans shall contain the information indicated in the Sensitive Areas Ordinance Appendix.

(a) Wetlands and Streams:

1. Use plants indigenous to the region (not introduced or foreign species);

2. Use plants adaptable to a broad range of water depths;

3. Plants should be commercially available or available from local sources;

4. Plant species high in food and cover value for fish and wildlife must be used;

5. Plant mostly perennial species;

6. Avoid committing significant areas of the site to species that have questionable potential for successful establishment;

7. Plant selection must be approved by a qualified consultant;

8. For wetlands:

A. Water depth is not to exceed 6.5 feet (2 meters);

B. The grade or slope that water flows through the wetland is not to exceed 6 percent;

C. Slopes within the wetland basin and the buffer zone may not be steeper than 3:1 (horizontal to vertical); and

D. The wetland (excluding the buffer area) should not contain more than 60 percent open water as measured at the seasonal high water mark;

9. Substrate should consist of a minimum of one foot, in depth, of clean (uncontaminated with chemicals or solid/hazardous wastes) inorganic/organic materials;

10. Planting densities and placement of plants should be determined by a qualified consultant and shown on the design plans;

11. The planting plan must be approved by the City;

12. Stockpiling should be confined to upland areas and contract specifications should limit stockpiling of earthen materials durations in accordance with City clearing and grading standards, unless otherwise approved by the Committee;

13. Planting instructions shall be submitted which describe proper placement, diversity, and spacing of seeds, tubers, bulbs, rhizomes, sprigs, plugs, and transplanted stock;

14. Apply controlled release fertilizer at the time of planting and afterward only as plant conditions warrant (determined during the monitoring process);

15. Install an irrigation system, if necessary, for the initial establishment period;

16. Construction specifications and methods must be approved by a qualified consultant and the Committee; and

17. Construction management should occur by a qualified consultant and be inspected by the Committee.

(b) Wildlife Habitat:

1. Relevant performance standards from 20C.40.120(05)(a), as determined by the Committee, shall be incorporated into mitigation plans.

2. The following additional mitigation measures shall be reflected in mitigation planning:

A. Consider habitat in site planning and design;

B. Locate buildings and structures in a manner that preserves and minimizes adverse impacts to important habitat areas;

C. Integrate retained habitat into open space and landscaping, consistent with the provisions of Section 20C.20.090;

D. Where possible, consolidate habitat and vegetated open space in contiguous blocks;

E. Locate habitat contiguous to other habitat, open space or landscaped areas to contribute to a continuous system or corridor that provides connections to adjacent habitat areas;

F. Use native species in any landscaping of disturbed or undeveloped areas and in any enhancement of habitat or buffers;

G. Emphasize heterogeneity and structural diversity of vegetation in landscaping;

H. Remove and/or control any noxious weeds or animals as defined by the Director of Public Works; and

I. Preserve significant trees, preferably in groups, consistent with Section 20C.20.090(25) and with achieving the objectives of these standards.

3. Landscape plan shall be submitted consistent with the requirements of Section 20C.20.090(15) and with the goals and standards of this chapter. The plan shall reflect the report prepared pursuant to Section 20C.40.070.

(c) Geologic Hazard Areas:

1. Relevant performance standards from 20C.40.120.(05)(a) and (b), as determined by the Committee, shall be incorporated into mitigation plans.

2. The following additional performance standards shall be reflected in proposals within geologic hazard areas:

A. Geotechnical studies shall be prepared by a qualified consultant to identify and evaluate potential hazards and to formulate mitigation measures;

B. Construction methods will reduce or not adversely affect geologic hazards;

C. Site planning should minimize disruption of existing topography and natural vegetation;

D. Impervious surface coverage should be minimized;

E. Disturbed areas should be replanted as soon as feasible pursuant to an approved landscape plan;

F. Clearing and grading regulations as set forth by the City shall be followed;

G. Use of retaining walls that allow maintenance of existing natural slope areas are preferred over graded slopes;

H. Temporary erosion and sedimentation controls, pursuant to an approved plan, shall be implemented during construction;

I. A master drainage plan shall be prepared for large projects as required by the City Engineer;

J. Undevelopable geologic hazard areas larger than one-half acre shall be placed in a separate tract, provided this requirement does not make the lot nonconforming;

K. A monitoring program shall be prepared for construction activities permitted in geologic hazard areas; and

L. Development shall not increase instability or create a hazard to the site or adjacent properties, or result in a significant increase in sedimentation or erosion.

(d) Aquifer Recharge Areas. Any uses or activities locating in a medium or low significance aquifer recharge area which involve the use, storage, transport or disposal of significant quantities of chemicals, substances, or materials that are toxic, dangerous or hazardous, as those terms are defined by state and federal regulations, shall comply with the following additional standards.

1. Development within medium significance aquifer recharge areas, as that term is defined in these regulations, shall implement the following measures:

A. Underground storage of chemicals, substances or materials that are toxic, hazardous or dangerous is discouraged;

B. Any chemicals, substances or materials that are toxic, hazardous or dangerous shall be segregated and stored in receptacles or containers that meet state and federal standards;

C. Storage containers shall be located in a designated, secured area that is paved and able to contain leaks and spills, and surrounded by a dike;

D. Secondary containment devices shall be constructed around storage areas to retard the spread of any spills and a monitoring system should be implemented;

E. A written operations plan shall be developed, including procedures for loading/unloading liquids and for training of employees in proper materials handling;

F. An emergency response/spill clean-up plan shall be prepared and employees properly trained in reacting to accidental spills;

G. Any above ground storage tanks shall be located within a diked area on an impervious surface. The tanks shall include overfill protection systems and positive controls on outlets to prevent uncontrolled discharges;

H. Development should be clustered and impervious surfaces limited where possible;

I. No wastes liquids or chemicals of any kind shall be discharged to storm sewers; and

J. All development shall implement best management practices (BMPs) for water quality, as approved by the Committee, such as biofiltration swales and use of oil-water separators, and BMPs appropriate to the particular use proposed.

2. Development within low significance aquifer recharge areas shall implement best management practices (BMPs) for water quality as approved by the Committee.

(10) On completion of construction, any approved mitigation project must be signed off by the applicant's qualified consultant and approved by the Committee. Signature will indicate that the construction has been completed as planned.

(15) Approved mitigation projects shall implement the monitoring and contingency planning requirements of Section 20C.40.130.

SECTION 20C.40.130 MONITORING PROGRAM AND CONTINGENCY PLAN

(05) A monitoring program shall be implemented by the applicant to determine the success of the mitigation project and any necessary corrective actions. This program shall determine if the original goals and objectives are being met.

(10) A contingency plan shall be established for indemnity in the event that the mitigation project is inadequate or fails. A performance and maintenance bond or other acceptable security device is required to ensure the applicant's compliance with the terms of the mitigation agreement. The amount of the performance and maintenance bond shall equal 125 percent of the cost of the mitigation project for a minimum of 5 years. The bond may be reduced in proportion to work successfully completed over the period of the bond. The bonding period shall coincide with the monitoring period.

(15) Monitoring programs prepared to comply with this chapter shall reflect the following guidelines:

(a) Use scientific procedures for establishing the success or failure of the project;

(b) For vegetation determinations, permanent sampling points shall be established;

(c) Vegetative success equals 100 percent per year survival of planted trees and shrubs and 100 percent per year cover of desirable understory or emergent species;

(d) Submit monitoring reports on the current status of the mitigation project to the Committee. The reports are to be prepared by a qualified consultant and reviewed by the City's consultant and should include monitoring information on wildlife, vegetation, water quality, water flow, stormwater storage and conveyance, and existing or potential degradation, and shall be produced on the following schedule: at the time of construction; 30 days after planting; early in the growing season of the first year; end of the growing season of first year; twice the second year; and annually thereafter;

(e) Monitoring programs shall be established for a minimum of five years;

(f) If necessary, correct for failures in the mitigation project;

(g) Replace dead or undesirable vegetation with appropriate plantings;

(h) Repair damages caused by erosion, settling, or other geomorphological processes;

(i) Redesign mitigation project (if necessary) and implement the new design; and

(j) Correction procedures shall be approved by a qualified consultant and the Committee.

SECTION 20C.40.140 PROCEDURAL PROVISIONS

(05) Interpretation and Conflicts. Any question regarding interpretation of these regulations shall be resolved pursuant to the procedures set forth in Community Development Guide Section 20F.10.020 et seq.

(10) Penalties and Enforcement. Compliance with these regulations and penalties for their violation shall be enforced pursuant to the procedures set forth in Community Development Guide Section 20F.10.050 et seq.

(15) Appeals from Permit Decisions. Appeals from permit decisions shall be governed by the procedures set forth in Community Development Guide Section 20F.20.200 et seq.

SECTION 20C.40.150 REASONABLE USE PROVISION

(05) The standards and regulations of these regulations are not intended, and shall not be construed or applied in a manner, to deny all reasonable economic use of private property. If an applicant demonstrates to the satisfaction of the Hearing Examiner that strict application of these standards would deny all reasonable economic use of its property, development may be permitted subject to appropriate conditions.

(10) An applicant for relief from strict application of these standards shall demonstrate the following:

(a) No reasonable use with less impact on the sensitive area and the buffer is feasible and reasonable; and

(b) There is no feasible and reasonable on-site alternative to the activities

proposed, considering possible changes in site layout, reductions in density and similar factors; and

(c) The proposed activities, as conditioned, will result in the minimum possible impacts to affected sensitive areas; and

(d) All reasonable mitigation measures have been implemented or assured; and

(e) The inability to derive reasonable economic use is not the result of the applicant's actions. The purchase price of the property shall not be construed to be an applicant's action.

SECTION 20C.40.160 SEVERABILITY

If any provision of these regulations or its application to any person or circumstance is held invalid by a court of competent jurisdiction, the remainder of these regulations or the application to other persons or circumstances shall not be affected.

SENSITIVE AREAS ORDINANCE APPENDIX

WETLAND STUDY & REPORTING REQUIRMENTS

1. A wetland report must be submitted to the City for review. The purpose of the report is to determine the extent, characteristics and functions of any wetlands located on a site where regulated activities are proposed. The report will also be used by the City to determine the appropriate wetland rating and to establish appropriate buffer requirements. The information required by this report should be coordinated with the study and reporting requirements for any other sensitive areas located on the site.

2. Wetland boundaries must be staked and flagged in the field by a qualified consultant employing the 1989 Federal Methodology. Field flagging must be distinguishable from other survey flagging on the site. The field flagging must be accompanied by a wetland delineation report.

3. A wetland delineation report shall include the following information:

a. Vicinity map;

b. Site designated on a National Wetland Inventory Map (U.S. Fish and Wildlife Service) and a City of Redmond Wetland Inventory Map;

c. The wetland boundary must be accurately drawn at an appropriate engineering scale such that information shown is not cramped or illegible. Generally, a scale of 1" = 20' or greater (such as 1" = 20') should be used. Existing features must be distinguished from proposed features. The map must show:

i. Site boundary property lines and roads;

ii. Internal property lines, rights-of-way, easements, etc.;

iii. Existing physical features of the site including buildings, fences, and other structures, roads, parking lots, utilities, water bodies, etc.;

iv. Contours at the smallest readily available intervals, but not larger than at 5-foot intervals;

v. Delineated wetland boundary;

vi. Hydrologic mapping showing patterns of water movement into, through, and out of the site area; and

vi. Location of all test holes and vegetation sample sites, numbered to correspond with flagging in the field and field data sheets.

vii. for large and/or complex projects, an air photo with overlays displaying the site boundaries and wetland delineation may be required. Generally, an orthophotograph at a scale of 1" = 400' or greater (such as 1" = 200') should be used. If an orthophotograph is not available, the center of a small scale (e.g., 1" = 2,000') aerial photograph enlarged to 1" = 400' may be used.

d. The report must describe:

i. Locational information including legal description and address;

ii. All natural and man-made features within 150 feet of the site boundary;

iii. Delineation methodology, with special emphasis on whether the approach used was routine, intermediate, or comprehensive, as described in the 1989 Federal Manual;

iv. General site conditions including topography, acreage, and surface areas of wetlands and water bodies;

v. Specific descriptions of plant communities, soils, and hydrology; and

vi. A summary of existing wetland function and value.

e. Field data sheets from the 1989 Federal Manual, numbered to correspond with sample site locations as staked and flagged in the field.

f. A summary of proposed wetland and buffer alterations, impacts, and the need for the alterations as proposed. Potential impacts may include but are not limited to loss of flood storage potential, loss of wildlife habitat, expected decreases in species diversity or quantity, changes in water quality, increases in human intrusion, and impacts on associated wetland or water resources. If alteration of a Type II, or III wetland is proposed, a wetland mitigation plan is required according to the standards of 20C.40.120(05)(a).

STREAM RECONNAISSANCE REPORT REQUIREMENTS

1. A stream reconnaissance report must be submitted to the City for review. The purpose of the report is to determine the physical and biological characteristics and functional values of streams on any site where regulated activities are proposed. The report will also be used by the City to determine the appropriate stream rating designation and to establish appropriate buffer requirements. The information required for this report should be coordinated with the study and reporting requirements established for any other sensitive areas located on the site.

2. The ordinary high water mark should be flagged in the field by a qualified consultant. Field flagging must be distinguishable from other survey flagging on the site. The field flagging must be accompanied by a stream reconnaissance report. The report shall include the following information:

a. Vicinity map;

b. Site designated on a City of Redmond Stream Inventory Map;

c. Streams shall be located on a site map at an appropriate engineering scale such that information shown is not cramped or illegible. Generally, a scale of 1" = 20' should be used. Existing features must be distinguished from proposed features. The map must show:

i. Site boundary property lines and roads;

ii. Internal property lines, rights-of-way, easements, etc.;

iii. Existing physical features of the site including buildings, fences, and other structures, roads, parking lots, utilities, water bodies, etc.;

iv. Contours at the smallest readily available intervals, but not larger than 5-foot intervals;

v. Approximate locations of all streams on the property;

vi. Hydrologic mapping showing patterns of water movement into, through, and out of the site area; and

vii. For large and/or complex projects, an air photo with overlays displaying the site boundaries and stream locations may be required. Generally, an orthophotograph at a scale of 1" = 400' or greater (such as 1" = 200') should be used. If an orthophotograph is not available, the center of a small scale (e.g., 1" = 2,000') aerial photograph enlarged to 1" = 400' may be used.

d. The report must describe:

i. Locational information including legal description and address;

ii. All natural and man-made features within 150 feet of the site boundary;

iii. General site conditions including topography, acreage, and area hydrology;

iv. Specific descriptions of streams, including gradient and flow characteristics, stream bed condition, stream bank and slope stability, presence of fish or habitat for fish, presence of obstructions to fish movement, general water quality, and stream bank vegetation; and

v. A summary of existing stream value for fisheries habitat.

e. A summary of proposed stream and buffer alterations, impacts, and the need for the alterations as proposed. Potential impacts may include but are not limited to vegetation removal, stream bed and stream bank alterations, alteration of fisheries habitat, changes in water quality, and increases in human intrusion. If alteration of a stream is proposed, a stream mitigation plan is required according to the standards of 20C.40.120(05)(b).

WILDLIFE STUDY AND REPORTING REQUIREMENTS

1. Prior to the issuance of a SEPA threshold determination for a proposal, a wildlife habitat report must be submitted to the City for review. The purpose of the report is to determine the extent, function and value of wildlife habitat on any site where regulated activities are proposed. The report will also be used by the City to determine the sensitivity and appropriate classification of the habitat, appropriate wildlife management requirements, and potential impacts of proposed activities. The information required by this report should be coordinated with the study and reporting requirements for any other sensitive area located on the site.

2. The report shall include the following information:

   a. Vicinity map;

   b. A map showing:

      i. Site boundary property lines and roads;

      ii. Internal property lines, rights-of-way, easements, etc.;

      iii. Existing physical features of the site including buildings, fences, and other structures, roads, parking lots, utilities, water bodies, etc.;

      iv. Contours at the smallest readily available intervals, but not larger than 5-foot intervals;

      v. For large and/or complex projects, an air photo with overlays displaying the site boundaries and wildlife habitat may be required. Generally, an orthophotograph at a scale of 1" = 400' or greater (such as 1" = 200') should be used. If an orthophotograph is not available, the center of a small scale (e.g., 1" = 2,000') aerial photograph enlarged to 1" = 400' may be used;

      vi. A map of vegetative cover types, reflecting the general boundaries of different plant communities on the site;

      vii. A description of the species typically associated with the cover types, including an identification of any critical wildlife species that might expected to be found;

      viii. The results of searches of DNR's Natural Heritage and Non-Game Data System databases; and

      ix. The result of searches of the Washington Department of Wildlife Priority Habitat and Species database.

   c. The report must describe:

      i. Locational information including legal description and address;

      ii. All natural and man-made features within 150 feet of the site boundary;

      iii. General site conditions including topography, acreage, and water bodies or wetlands;

      iv. Identification of any areas that have previously been disturbed or degraded by human activity or natural processes;

v. The layers, diversity and variety of habitat found on the site;

vi. Identification of edges between habitat types and any species commonly associated with that habitat;

vii. The location of any migration or movement corridors; and

viii. A narrative summary of existing habitat functions and values. The analysis shall use a habitat evaluation procedure or methodology approved by the City.

d. A summary of proposed habitat alterations and impacts and proposed habitat management program. Potential impacts may include but are not limited to clearing of vegetation, fragmentation of wildlife habitat, expected decreases in species diversity or quantity, changes in water quality, increases in human intrusion, and impacts on wetlands or water resources.

e. The level of detail contained in the report shall generally reflect the size and complexity of the proposal and the function and value of the habitat. The Committee may require field studies in appropriate cases.

GEOLOGIC HAZARD AND AQUIFER RECHARGE AREA REPORTING REQUIREMENTS

1. Applicants for activities within geologic hazard areas and/or aquifer recharge areas shall conduct technical studies to: evaluate the actual presence of geologic conditions giving rise to geologic hazards; determine the appropriate class of hazard, according to the classification of potential hazards contained in these regulations; evaluate the safety and appropriateness of proposed activities; and recommend appropriate construction practices, monitoring programs and other mitigation measures required to ensure achievement of the purpose and intent of these regulations. The format of any required reports shall be determined by the City. The information required by this report should be coordinated with the study and reporting requirements for any other sensitive areas located on the site.

2. The approach of the City of Redmond sensitive area regulations is to require a level of study and analysis commensurate with potential risks associated with geologic hazards on particular sites and for particular proposals. Depending on the particular geologic hazard, geologic, hydrologic and/or topographic studies may be required. At a minimum, all applicants shall review the history of the site and conduct a surface reconnaissance. The appropriate report(s) and level of analysis shall be determined using the following guidelines:

a. Class 2 Landslide Hazard Areas:

i. Review site history and available information;

ii. Conduct a surface reconnaissance of the site and adjacent areas;

iii. Conduct subsurface exploration if indicated by i. and ii. as determined by the applicant's qualified consultant and the City.

b. Class 3 Landslide Hazard Areas:

i. Review site history and available information;

ii. Conduct a surface reconnaissance of the site and adjacent areas;

iii. Conduct subsurface exploration suitable to the site and proposal to assess geohydrologic conditions;

iv. Establish recommended surface water management controls during construction and operation; and

vi. Submit a proposed construction schedule.

c. Class 4 Landslide Hazard Areas:

i. Review site history and available information;

ii. Conduct a surface reconnaissance of the site and adjacent areas;

iii. Conduct subsurface exploration suitable to site and proposal to assess geohydrologic conditions;

iv. Conduct detailed slope stability analysis;

v. Recommend detailed surface water management controls during construction and operation;

vi. Submit a proposed construction schedule; and

vii. Establish recommendations for site monitoring and inspection during construction.

d. Critical Erosion Hazard Areas:

i. Review site history and available information;

ii. Conduct a surface reconnaissance of the site and adjacent areas; and

iii. Identify surface water management, erosion and sediment controls appropriate to the site and proposal.

e. Seismic Hazard Areas:

i. For one and two story single-family structures, conduct an evaluation of site response and liquefaction potential based on the performance of similar structures under similar foundation conditions;

ii. For all other proposals, conduct an evaluation of site response and liquefaction potential including sufficient subsurface exploration to provide a site coefficient (S) for use in the static lateral force procedure described in the Uniform Building Code.

f. Aquifer Recharge Areas:

i. A characterization of the affected aquifer system and a description of subsurface soil types (between the surface and the uppermost significant aquifer);

ii. Description of proposed uses and activities;

iii. Identification of the type and quantities of any dangerous or hazardous chemicals or substances that will be used, stored, transported or disposed of on the site;

iv. Proposed methods of storing any of the above substances, including containment methods;

v. An emergency response plan for dealing with any spills; and

vi. Proposed Best Management Practices (BMPs) for controlling surface water runoff.

g. All Critical Geologic Hazard Areas and:

i. Vicinity map;

ii. A map showing:

(a) Site boundary property lines and roads;

(b) Internal property lines, rights-of-way, easements, etc.;

(c) Existing physical features of the site including buildings, fences, and other structures, roads, parking lots, utilities, water bodies, etc.; and

(d) Contours at the smallest readily available intervals, but not larger than 5-foot intervals.

iii. The report must describe:

(a) Locational information including legal description and address;

(b) All natural and man-made features within 150 feet of the site boundary;

(c) General site conditions including topography, acreage, and water bodies or wetlands;

(d) Identification of any areas that have previously been disturbed or degraded by human activity or natural processes;

(e) A characterization of soils, geology and drainage; and

(f) A characterization of groundwater conditions including the presence of any public or private wells within one-quarter mile of the site.

iv. An analysis of proposed clearing, grading and construction activities, including construction scheduling; potential direct and indirect, on-site and off-site impacts from development; and proposed mitigation measures, including any special construction techniques, monitoring or inspection program, erosion or sedimentation programs (during and after construction), and surface water management controls.

STREAM AND WETLAND MITIGATION PLAN REQUIREMENTS

1. Where it is determined by the City that compensatory mitigation is required or appropriate, a mitigation plan shall be prepared. The purpose of the plan is to prescribe mitigation to compensate for impacts to the affected wetland or stream functions, values and acreage as a result of the proposed action. This plan shall consider the chemical, physical, and biological impacts on the wetland or stream system using a recognized assessment or evaluation methodology and/or best professional judgement.

2. The mitigation plan shall be prepared in two phases -- a conceptual phase and a detailed phase.

a. Conceptual Plan - Standards and Criteria. The applicant shall prepare a conceptual mitigation plan for submission to the Committee at a pre-mitigation conference. The conceptual mitigation plan shall include:

i. General goals of the mitigation plan;

ii. A review of alternative actions that would avoid or lessen the impacts on the wetland/stream;

iii. A review of literature or experience to date in restoring or creating the type of wetland/stream proposed;

iv. Approximate site topography following construction;

v. Location of proposed wetland/stream compensation area;

vi. General hydrologic patterns on the site prior to and following construction;

vii. Nature of compensation, including wetland/stream or habitat types (in-kind and out-of-kind), general plant selection and justification, approximate project sequencing and schedule, and approximate size of the new sensitive area buffer;

viii. A conceptual maintenance plan; and

ix. Conceptual monitoring and contingency plan.

b. Detailed Plan - Standards and Criteria. Following acceptance of the conceptual mitigation plan by the Committee, the applicant shall submit a detailed mitigation plan prepared by a qualified consultant. Each detailed plan shall contain, at a minimum, the following seven components, and shall be consistent with applicable mitigation standards:

i. A clear statement of the objectives of the mitigation. The goals of the mitigation plan should be stated in terms of the new wetland/stream functions and values compared to the functions and values of the original wetland/stream. Objectives should include:

(a) Qualitative and quantitative standards for success of the project, including hydrologic characteristics (water depths, water quality, hydroperiod/hydrocycle characteristics, flood storage capacity); vegetative characteristics (community types, species composition, density, and spacing); faunal characteristics, and final topographic elevations.

(b) An ecological assessment of the wetland's/stream's values and wetland/stream buffers that will be lost as a result of the activities, and of the

replacement wetlands/streams and their associated buffers, including but not limited to the following:

(i) Acreage of project;

(ii) Existing functions and values;

(iii) Sizes of wetlands/streams, wetland/stream buffers, and areas to be altered;

(iv) Vegetative characteristics, including community type, areal coverage, species composition, and density;

(v) Habitat type(s) to be enhanced, restored, or created; and

(vi) Dates for beginning and completion of mitigation project, and sequence of construction activities.

(c) A statement of the location, elevation, and hydrology of the new site, including:

(i) Relationship of the project to the watershed and existing water bodies;

(ii) Topography of site using intervals not larger than five foot contours;

(iii) Water level data, including depth and duration of seasonally high water table;

(iv) Water flow patterns;

(v) Grading, filling and excavation, including a description of imported soils;

(vi) Irrigation requirements, if any;

(vii) Water pollution mitigation measures during construction;

(viii) Aerial coverage of planted areas to open water areas (if any open water is to be present); and

(ix) Appropriate buffers.

(d) A planting plan, describing what will be planted where and when, including:

(i) Soils and substrate characteristics;

(ii) Specify substrate stockpiling techniques; and

(iii) Planting instructions, including species, stock type and size, density or spacing of plants, and water and nutrient requirements.

(e) A monitoring and maintenance plan, consistent with applicable requirements of Section 20C.40.

(i) Specify procedures for monitoring and site maintenance; and

(ii) Submittal of periodic monitoring reports to the Department.

(f) A contingency plan, which addresses the potential need and responsibility to modify the mitigation program over time to achieve a functioning system that requires minimal maintenance, and is consistent with requirements of this Section 20C.40.

(g) A detailed budget for implementation of the mitigation plan, including monitoring, maintenance and contingency phases.

(h) A guarantee, in the form of a bond or other security device in a form and amount acceptable to the City, assuring that the work will be performed as planned and approved, consistent with the requirements of this Section 20C.40.

24-hour period and could include a public or private school.

20A.60.220 DAY-CARE OPERATION is the temporary care of children between the ages of 6 weeks to 12 years in a residence or structure other than the parent's home on a regular reoccurring basis for pay or other valuable consideration, including but not limited to the furnishing of shelter, sustenance, supervision, education and other supportive services. The term is not intended to include babysitting services of a casual, non-reoccurring nature. Preschools are considered day care operations for City land use regulation purposes.

20A.60.222 DEDICATION is the deliberate appropriation of land by an owner for any general and public uses, reserving to himself no other rights than such as are compatible with the full exercise and enjoyment of the public uses to which the property has been devoted. The intention to dedicate shall be evidenced by the owner by the presentment for filing of a final plan or short plat showing the dedication thereon; and, the acceptance by the public shall be evidenced by the approval of such plat.

20A.60.225 DRIVEWAY is a vehicle entrance which serves a lot, structure or parking area.

20A.60.230 DWELLING UNIT is a single unit providing complete, independent living facilities for one or more persons including permanent provisions for living, sleeping, eating, cooking and sanitation. A mobile home, apartment, condominium, townhouse, or single-family house, or single-family detached house is considered to be a dwelling unit.

20A.60.240 DWELLING, SINGLE FAMILY (detached) is a building containing but one kitchen, designed for and occupied exclusively by one family and the household employees of that family. No more than one single family dwelling may occupy a lot except where otherwise provided by this code. The building is set back from the lot lines at distances determined by the zoning code. This definition applies to modular housing but not to mobile homes.

20A.60.245 DWELLING UNIT, SINGLE FAMILY (attached) is a building designed for occupancy by one family on an individually owned lot where the building abuts one or more lot lines and shares a common wall with adjacent dwelling units. Also known as a "rowhouse", or "townhouse".

20A.60.250 FACADE is the architectural elevation view of the front, side or back surface of a structure to include doors, windows, and rooftop screening that is an extension of the facade but excluding any roof area and rooftop equipment or structures.

20A.60.260 FAMILY is an individual or two or more persons related by blood or marriage or a group of not more than five persons (including servants) who need not be related by blood or marriage living together in a dwelling unit.

20A.60.270 FAMILY DAY CARE is a day care operation involving no more than six (6) children in any 24-hour period, except that additional (part-time) children involving three hours or less per child may also be allowed so long as the total number at any given time does not exceed ten. Educational functions that are secondary to the day care operation are allowable for the number of children specified and will not be considered a school.

20A.60.275 FINAL PLAT is the final drawing of the subdivision and dedication prepared for filing for record with the King County Department of Records and Elections, and containing all elements and requirements set forth in the Development Guide.

20A.60.280 FLOODWAY is the path of storm water runoff which will contain the anticipated flow computed by using the 100-year frequency storm and the runoff characteristics of the tributary area based on the land use designations in Section 208.90.040, "Land Use Plan," and the latest data defining the 1% probability flood (100-year flood plain). The floodway is delineated as that portion of the watercourse channel plus adjacent flood plain areas that must be kept free of encroachment in order that the 100-year flood be carried without causing excessive increases in flood height or velocity. For major watercourses, the flood height shall not be increased more than one foot and the velocity shall not be increased over 10%. For minor watercourses, excessive increases shall be determined by the Director of Public Works.

Repeal (Replaced by 20CA0.020(6)

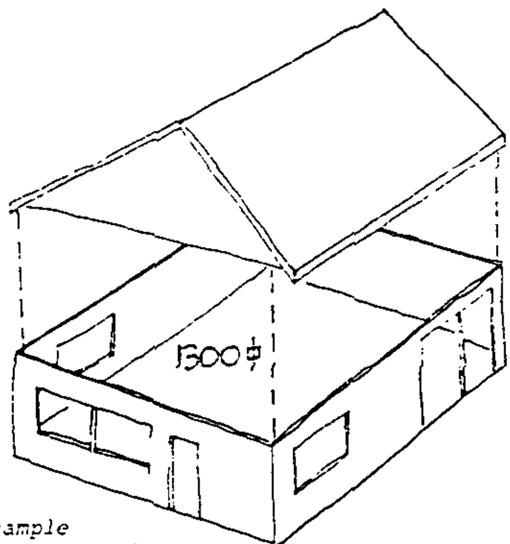
~~20A.60.290 FLOODWAY FRINGE is that area of a flood plain between the floodway and the boundary of the 100-year flood plain.~~

~~20A.60.300 FLOOD PLAIN is that area of land that would be covered by water as a result of a 1% probability flood (100-year flood plain) as based on the latest available data.~~

Repeal
Replaced
by
X.40.
20(165)

20A.60.310 FLOOR AREA (AVERAGE) is determined by dividing the floor area by the number of floors.

20A.60.320 FLOOR AREA (GROSS) is the area included within the surrounding exterior walls of a building or portion thereof, exclusive of vent shafts and courts. The floor area of a building, or portion thereof, not provided with surrounding exterior walls shall be the usable area under the horizontal projection of the roof or floor above.



Example of useable floor area.

20A.60.325 FLOOR AREA RATIO (F.A.R.) is a measure of development intensity and is calculated based on gross floor area minus any area devoted to parking or vehicular circulation within the structure divided by gross land area.

20A.60.330 GRADE (EXISTING) is the elevation of the ground or site prior to any work being done or any changes being made to the ground or site.

20A.60.331 HAZARDOUS SUBSTANCE means any liquid, solid, gas, sludge, including any materials, substance, product, commodity, or waste, regardless of quantity, that exhibits any of the physical, chemical, or biological properties described in WAC 173.303.090 through 173.303.103, as presently worded or hereafter amended.

20A.60.332 HAZARDOUS WASTE means and includes all dangerous and extremely hazardous waste as designated in WAC 173.303.070 through 173.303.103 and 173.303.040, as presently worded or hereafter amended.

20A.60.333 HAZARDOUS WASTE TREATMENT AND STORAGE FACILITY means a use which stores or treats hazardous wastes. It may also process hazardous waste by physical, chemical or biological means to make such waste non-hazardous or less hazardous, safer for transport, amenable for energy or material resource recovery, amenable for storage, or reduced in volume. This use includes all land, structures, other appurtenances, waste piles, surface impoundment areas, graded or paved areas, storage areas, tanks or subsurface improvements and improvements of any kind associated with use of the site for storing or treating hazardous wastes. The geographic bounds of the facility shall be measured by the smallest, continuous shape that will enclose the entire perimeter of all improvements associated with use of the site for storing or treating hazardous wastes.

20A.60.334 HAZARDOUS WASTE TREATMENT OR STORAGE FACILITY, OFF-SITE means any hazardous waste treatment or storage facility which treats or stores wastes that are generated off-site.

20A.60.335 HAZARDOUS WASTE TREATMENT OR STORAGE FACILITY, ON-SITE means any hazardous waste treatment or storage facility which treats or stores only those wastes that are generated on-site by a permitted use.

20A.60.340 HEIGHT OF BUILDING OR STRUCTURE is the vertical distance above existing grade to the highest point of the coping of a flat roof or to the deck line of a mansard roof or to the average height of the highest gable of a pitched or hipped roof. The measurement may be taken from the highest ground surface within a 5-foot horizontal distance from the exterior wall of the building provided the ground surface is not more than 10 feet above the lowest existing grade within a 5-foot horizontal distance from the building. The height

basements may experience seepage. On slopes over 16%, the combination of soil, water and relative position of the soil (stratigraphy) causes this series to be unstable. Seasonal (usually winter or spring) or seismically induced soil slippage may occur as well as severe erosion.

Alluvium. Alluvium is composed of sediments transported and deposited by streams and rivers. It is typically composed of interfingered beds of clay, silt, muck, peat, sand and gravel. Generally these are eroded from surrounding uplands and deposited in lower valleys or shallow depressions. They can be very thick deposits of up to 340 feet in depth. Alluvial soils are found extensively on the floor of the Sammamish Valley and Evans-Patterson Creek Valley and in isolated depressions scattered around the Plateau. Alluvial soils are typically found in very flat topography and tend to have moderate to poor drainage. Most are seasonally wet, always wet, or subject to flooding. Alluvial soils present moderate to severe development limitations. Due to continuous or seasonal wetness, septic tank failures and basement seepage may occur. Because of the wetness and lack of compaction, the potential of earthquake hazard (in the form of amplified ground shaking and possible ground subsidence) is generally severe. Alluvial soils, being composed of fine, nutrient-rich sediments eroded from uplands, are usually the richest soils for agriculture.

Organic. Organic soils contain decomposing vegetative matter deposited in stagnating lakes or ponds. These are typically found in scattered depressions on glacial till and along streams and rivers.

Organic soils, including peat and muck, are very wet and unconsolidated (spongy or soft). Unless drained, they commonly contain wetlands and standing water (year-round or seasonal). They generally present very severe development limitations. Septic tanks may fail and problems such as seeping in basements and/or the differential settling of foundations can be expected. Due to their wetness and lack of compaction, organic soils present severe earthquake hazards in the form of amplified ground shaking and earth failure.

AGRICULTURE

The soils in the Sammamish Valley/Bear Creek area have been grouped as Class II and Class III soils with regard to agricultural use suitability. These figures are identified on the map entitled, "Agriculture Soils." Class II soils have limitations that reduce the choice of suitable crops or require moderate conservation practices. Class III soils have limitations that further reduce the choice of suitable crops or require conservation practices or both.

TOPOGRAPHY

The Redmond study area contains numerous slopes within the range of 15-25%, 25-40% and greater than 40%, as a result of glacial scouring. These areas are identified on the map entitled, "Steep Slopes." Slopes exceeding 40% are rarely built upon, and development on slopes greater than 25% is usually strictly regulated, engineered and of very low density. In King County most soils on slopes of 15 to 40% have potential erosion and slippage hazards.

LANDSLIDE HAZARD

The occurrence of landslides has long been a problem in the Puget Sound region. In 1972, 82 slides causing over $250,000 in damages were reported in Seattle and portions of west central King County. Factors such as degree of slope, soil type, geologic and groundwater conditions determine the landslide hazard. Most landslides occur on slopes over 15%, on loosely consolidated or clay soils, in a saturated condition.

The map entitled "Landslide Hazard" includes both class 2 and class 3 slide hazard designations.

This map includes an analysis of known slide locations. Recognizing that land subject to landslide hazards cannot be precisely or permanently demarcated, the hazard designations are defined as follows:

A class 2 designation indicates that landslides are a possible risk. These slopes tend to be stable under natural conditions, but minor changes such as excavation or removal of vegetation may affect slope stability. The

Rewrite

apparent stability of these slopes can be deceptive because their potential instability may not be immediately discernible. Costly construction may be necessary to ensure slope stability. Slopes in this category are considered suitable for development, but engineering studies should be made to ensure adequate design of any structures or surface modifications to withstand potential slide and slippage hazards. Class 2 landslides hazard areas are found on slopes of 15% or greater.

A class 3 designation indicates that landslides are an especially common risk. All slopes in this category are believed to be potentially unstable and ready to slide from sufficient natural or man-made causes, such as excavation or removal of vegetation. Costly construction, including large scale excavation and removal of unstable ground; installation of drains to remove water from the site, or special foundations would probably be necessary to ensure stability. Slopes in this group are considered unsuitable for most forms of development unless specifically engineered to withstand landsliding. Class 3 landslide areas are found on slopes of 40% or greater with Alderwood and Kitsap (AkF), Kitsap Silt Loam (KpD), or Alderwood Gravelly Sand Loam (AgD); or slopes of 25% to 40% with Alderwood and Kitsap (AkF) soil types or Kitsap Gravelly Sand Loam (KpD) soil types.

EROSION HAZARD

The map entitled, "Erosion Hazard" includes extensive regions of potentially severe erosion. The Map was translated from soil information compiled by the Soil Conservation Service Soil Survey of King County. It indicates where, by reason of soil type, degree of slope and local rainfall intensity, severe erosion will occur if protective vegetation is removed or erosion control techniques are not employed during construction. Soils with a severe erosion potential include those of the Alderwood Association, the Everett Association and the Kitsap Series and generally occur on slopes of 15% or greater. In most instances, these soils coincide with those that have class 2 or 3 landslide hazards. They also have earthquake hazards in many areas.

Rewrite

EARTHQUAKE HAZARD

Since 1840 there have been at least 222 earthquakes strong enough to be felt in the Puget Sound Region. Six were strong enough to damage poorly built structures. Because of its geologic structure and history of earthquake activity, the Region has been designated as a Class III seismic risk zone, the highest possible rating given by the United States Geologic Survey. The map entitled "Earthquake Hazard" includes sub-classifications 2 and 3 within Class III.

Rewrite

It is well known that some sites experience more damage than others, depending upon the type of soil, slope, underlying strata and groundwater. Wet and unconsolidated soils, such as the alluvial soils in the Patterson-Evans Creek, Bear Creek, and Sammamish Valleys and organic soils found in the numerous bogs will amplify earthquake waves. Depending upon the type of construction, structures built on these soils are likely to sink, tip, or experience differential settling and the cracking of foundations. A second kind of earthquake hazard occurs on the steep slopes of saturated, unconsolidated material such as the gravelly sandy soils of the Everett Association. Here earthquakes can induce landslides.

A class 2 - designation indicates that before construction is started, further study should be made of the near surface conditions to determine the need for special construction techniques.

Class 2 - hazard areas are composed of Alderwood Gravelly Sandy Loam (AgD), Everett Gravely Sandy Loam (EvB, EvC, or EvD), Kitsap Silt Loam (KpB or KpD), and Indianola Loamy Fine Sand (InC) soils.

A class 3 - designation indicates that, in terms of development the area is one in which structures should be specifically designed to withstand substantial shaking or possible soil failure such as subsidence.

Class 3 - earthquake hazard areas are composed of Tukwila Muck (Tu), Snohomish Silt Loam - Thick Surface Variant (Sr), Indianola Loamy Fine Sand 15-30% slope (Ind), Norma Sandy Loam (No), Alderwood and Kitsap - very steep (AkF), Puget

Silty Clay Loam (Pu), Seattle Muck (Sk), Bellingham Silt Loam (Bl), or Briscot Silt Loam (Br) soil types; Alderwood Gravelly Sand Loam (AgC or AgD), Alderwood and Kitsap (AkF), Arents Alderwood Materials (AmC) Everett (Gravelly Sandy Loam (EvD), or Kitsap Silt Loam (KpC or KpD) soil types.

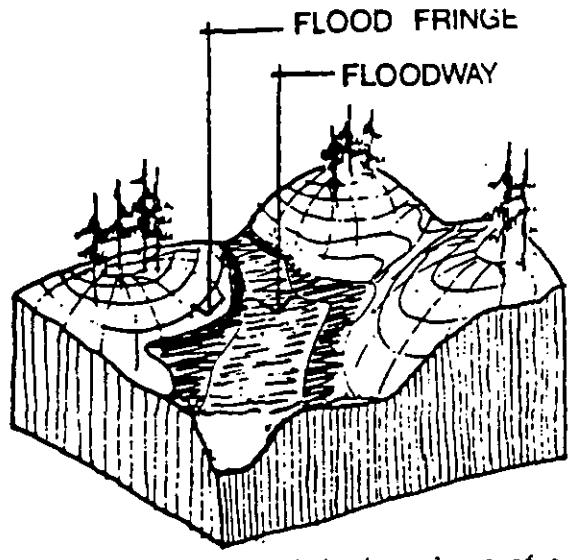
WATER RESOURCES

Surface Water. The Redmond Planning Area includes four major water bodies: Lake Sammamish, the Sammamish River, Bear Creek and Evans Creek. In addition, numerous smaller lakes, streams, marshes and other wetlands and irrigation channels occur in the area. The locations of surface waters and drainage basins are shown on the map entitled, "Surface Water and Drainage."

Surface water quantity varies with the seasonal and annual fluctuations in precipitation and runoff. Fluctuations in surface water quantity affect water quality, irrigation, commercial water supply, recreation and resident and anadromous fish populations in the lakes and streams. Extended periods of low surface water levels may adversely affect groundwater quantity.

Quality of surface water in the Planning Area is designated "Class A, Excellent" by the Washington State Department of Ecology (WAC 173-201-070(6), 1973). There are times during each year when the Class standards for temperature, dissolved oxygen, turbidity, coliform organisms, nitrates and phosphates are violated. Inadequate shading along stream banks and non-point source runoff from paved surfaces and agricultural lands are considered to be the major causes of seasonal water quality violations.

Flooding. Fluctuations in the quantity of annual precipitation affect annual flood levels in the Planning Area. Flooding is a result of rivers and streams overflowing their banks, a rise in local water tables, or inadequate drainage. The map entitled, "Flood Hazard," shows the approximate limits of the 100-year floodplain in the study area. It consists of the "floodway" and the "floodway fringe."



The 100-year flood plain is made up of two areas, the floodway and flood fringe.

One-hundred year flood frequency is defined as a flood of a frequency expected to recur on the average of once every one hundred years, or a flood magnitude which has a one percent chance of occurring in a given year.

The floodway should be maintained free of obstructions in order to have the capacity to pass the estimated flow of a 100-year flood. Land uses within the floodway should be restricted to activities which are not subject to damage by flood waters and which will not obstruct flood water passage. Development within the floodway fringe should be subject to regulatory controls, appropriate flood proofing design measures and density limitations.

Localized flooding as a result of a rise in the water table and/or inadequate drainage occurs in shallow depressions and valleys that contain organic or alluvial soils and in areas where groundwater is perched above basal till. Seasonal wetlands are identified on the map entitled, "Wetlands."

Runoff/Absorption. The predominant soil types in the Redmond Planning Area (Alderwood and Kitsap series and organic and alluvial soils along streams and rivers) are characteristically moderately to poorly drained. Consequently, control of storm water runoff and drainage is of significant concern to the City, as well as to land developers and private property owners. Lakes, streams and rivers in the Planning area

Rewrite

water and creation of drainage problems on adjacent lands.

(b) Policy - Circulation patterns near the shoreline should be designed for slow traffic and should meet high scenic design standards.

(1) Arterials should be located upland.

(c) Policy - Scenic corridors with public roadways should have provision for safe pedestrian and other nonmotorized travel. Also, provision should be made for sufficient view points, rest areas and picnic areas in public shorelines.

(d) Policy - Bridges:

(1) Any proposal to bridge Lake Sammamish should be denied.

(2) Road bridges across the Sammamish River and the creeks should be limited in number.

95.080(90) Piers and Docks - A pier or dock is a structure built or floating upon the water, used as a landing place for marine transport or for recreational purposes. While floating docks generally create less of a visual impact than those on piling, they constitute an impediment to boat traffic and shoreline trolling.

(a) Policy - Construction of new or expanded piers and docks should generally be discouraged.

(b) Policy - The cooperative use of piers and docks should be encouraged.

(c) Policy - Regulations establishing standards governing the design of piers and docks, including criteria for length, width, location, density and floating versus pile construction should be adopted.

95.080(95) Archeological Areas and Historic Sites - Archeological areas, ancient villages, military forts, old settlers' homes, ghost towns, and trails were often located on shorelines because of the proximity of food resources and because water provided an important means of transportation.

(a) Policy - Potentially significant historial and archeological sites and newly discovered sites should remain free of other intrusions until their value for retention is determined and alternatives are explored.

(b) Policy - The existence of a determined significant historical and archeological site need not preclude all other uses of an area, but rather be considered as requiring multiple use of the site area.

95.080(100) Recreation - The policies for recreation use activities are the same as those for the Recreation Element, Section 20B.95.070(40).

20B.95.090 ADDITIONAL PROVISIONS

Community Development Guide Sections 20C.20.040 "Dredging", ~~20C.20.060 "Floodplain Management"~~, 20C.20.080 "Landfills" and 20E.70.200 "Forest Management" are incorporated by this reference as part of the Shoreline Master Program for the City of Redmond, Washington, as if set forth in full, and for all purposes shall be considered a part of such program.

NOTE: Shoreline Use Regulations are defined in Section 20C.20.210

Replace with:
20C.40.100(15)(f) "Flood Hazard Areas - Development Standards"

tion. Where changes in grade have occurred, permanent tree preservation methods, approved by the Technical Committee must be utilized.

- The applicant must install street trees at least 3-1/2" in caliper along all street frontage. Caliper is measured 6" above existing grade. The location and species installed are subject to approval of the Technical Committee.

- The applicant must install interior parking area landscaping equal to at least 10% of the area devoted to parking and circulation. Planting areas must be at least 100 square feet and no more than 1000 square feet. The minimum dimension in any direction is 4'. Each planting area must contain at least one tree combined with shrubs and groundcover which meet the minimum size requirements noted above.

- The provisions of Section 20C.20.090 do not apply in the Evergreen Highlands Design District, except for those requirements contained in Paragraph 20.090(20).

. Other Natural Features

- Watercourse and Water Bodies

.. Perennial watercourses and water bodies as identified on the Evergreen Highland Natural Features Map in the Community Development Guide must be enhanced or protected during development and on a permanent basis.

.. ~~A buffer area, at least 50' wide measured from the centerline of a watercourse, or high water line~~

Insert:
"and the streams map adopted under Section 20C40.050"

~~of a waterbody, must be established on each side of a watercourse, and surrounding a water body. The Technical Committee may require a greater setback based on specific site characteristics. Land alteration within this buffer area must be specifically approved by the Technical Committee, and shall be limited to activities such as maintenance, supplemental landscaping, limited passive recreation and enhancement of the natural feature.~~

Replace with: Buffer areas are determined by stream type and are measured from the ordinary high water mark (refer to Sections 20C.40.080(10) "Stream Classification" and 20C.40.090(5) "Stream Buffers").

.. Where necessary as determined by the Technical Committee, the city shall require channel and habitat restoration in conformance with City standards.

.. In addition to performance guarantees otherwise provided in the Code, the applicant must establish and commit to a permanent program of watercourse or water body maintenance. ~~Performance guarantees not to exceed two years following the completion of a project are required as determined necessary by the Director of Public Works or the appropriate department head.~~

Replace with: Monitoring and contingency programs shall be required in accordance with 20C.40.130 "Monitoring and Contingency Plan."

- Steep Slopes

.. No development is permitted on slopes equal to or exceeding 40%. These areas are to remain naturally vegetated to the maximum extent possible. Supplemental planting may be required where warranted by potential erosion or slope instability.

Insert: "Except as exempted under 20C.40.040(05)(d)."

.. A soils engineering report is required for development on slopes equal to 25% and up to 40%, and may be required for development on other slopes if

determined to be necessary by the Technical Committee. Erosion control and soil stabilization measures may be required.

- Wetlands

Replace with: → Protection of wetlands shall be regulated under 20C.40.

~~- Wetlands necessary for the City's storm management system as determined by the Public Works Director or the appropriate department head or wetlands which constitute a significant habitat area must be maintained.~~

Buffer areas are determined by wetland type and are measured from the wetland edge (refer to sections 20C.40.080(05) "Wetland Classification" and 20C.40.090(15)(a) "Wetland Buffers.") →

~~.. A buffer area 50' wide must be established surrounding a wetland. The Technical Committee may require a greater setback based on specific site characteristics. Land alteration within this buffer area must be specifically approved by the Technical Committee, and shall be limited to activities such as maintenance, supplemental landscaping and ennancement of the natural feature.~~

. Drainage

- The applicant must submit a drainage plan consistent with the development standards of the City of Redmond and the City of Bellevue which produce the more protective drainage system as determined by the Redmond Public Works Director and the Bellevue Storm Drainage Utility Director.

- The plan must emphasize utilization of the natural drainage system, and must permit the coordination of drainage systems among all development in the same drainage basin.

. Open space

- The applicant must provide natural and improved open space which is coordinated with that of other

20C.10.250 SITE REQUIREMENTS

10.250(05) Purpose - The purpose of this section is to establish the basic site design requirements within the zoning districts.

10.250(10) Chart of Site Requirements - The chart entitled, "Site Requirements" and numbered as 20C.10.250(10), is incorporated as a part of this section. The remainder of this section explains the use of the Site Requirements Chart, and includes standards for lots.

10.250(15) Maximum Number of Dwelling Units Permitted Per Net Acre - Dwelling unit densities shall be determined by using the following format:

~~(a) The maximum number of units permitted on a site equals the total site area in acres less any area in acres having very severe development restrictions less the area in acres of streets and access corridors, times the maximum number of dwelling units permitted per net acre.~~

~~Maximum dwelling units = Site acre (ac.) - very severe limitations (ac.) - area of streets, and access corridors (ac) x maximum dwelling units per net acre.~~

~~(b) The reduction in site area brought about by subtracting the area of access corridors in multi-family developments of more than 30 dwelling units shall be limited to a maximum reduction of 5% of the number of dwelling units permitted after the deduction of severe development limitation areas and streets.~~

Replace with:

"The maximum number of dwelling units permitted on a site equals the gross site area less any area in Class IV Landslide Hazards, floodways, and streets and access corridors, times the maximum number of dwelling units per acre."

"Maximum dwelling units = gross site area - Class IV Landslide Hazard areas - floodway areas - areas in streets and access corridors x maximum number of dwelling units per acre."

"The reduction in site area resulting from subtracting the area of access corridors in multi-family developments of more than 30 dwelling units shall be limited to a maximum reduction of 5% of the permitted number of units after the deduction of class IV landslide hazard areas, floodway areas and streets."

20C.10.250(10) SITE REQUIREMENTS

Check the Site Requirements Chart for the Permitted Density in your Area.

SITE STANDARDS	General	Agriculture	Ranch Estate	Residential [illegible]			Suburban Estate		Suburban Residential	
	G	A	RR	R-1	R-2	R-3	R-4	R-5	R-6	R-8
Maximum Number of Dwelling Units Per Net Acre	.05	.05	.20	1	2	3	4	5	6	
Minimum Lot Size Per Dwelling Unit (Sq. Feet Unless Noted)	[illegible] ac.	[illegible] ac.	4.5 ac.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	

Ordinance No. 1693

(c) For purposes of this calculation, fractional values shall be rounded to the nearest whole number (.6 and above up, below .6, down).

(d) Other regulations in the Development Guide may reduce the number of dwelling units otherwise permitted by this subsection.

Add:
"Class IV landslide hazard areas and floodway areas shall not be included in the minimum lot size determination."

10.250(20) Minimum Lot Area Per Dwelling Unit

(a) Lots for Detached Dwelling Units - The chart establishes the minimum lot area per dwelling unit at the densities set in paragraph (15) of this section. The minimum lot sizes have been established to encourage clustering of dwelling units. The reduction of lot sizes to meet the minimum does not permit an increase in the number of dwelling units established by paragraph (15) of this section. Lots existing at the time of adoption of this section may be developed provided that development is in accordance with the applicable standards and procedures of Development Guide, including Section 20F.10.060(15).

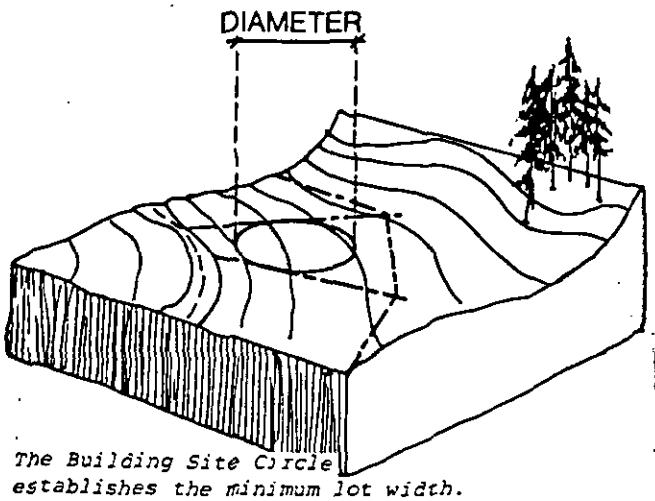
(b) Area of Waterfront Lots - The area of waterfront lots is considered to be the area landward of the line of ordinary high water on Lake Sammamish (elevation 27 feet above mean sea level), regardless of the extent of ownership; or the area landward of the top of the bank or property line ~~along major watercourses; or the area landward of the centerline of minor watercourses.~~

Replace with:
"along streams."

(c) Areas of Lots with Private Street or Access Easement - The area of a lot having access to an improved street by a private street or easement shall not include the area of this corridor.

10.250(25) Reserve.

10.250(30) Minimum Tract Area for Development - Where indicated on the chart, the minimum tract area for development establishes the minimum land area required before a development project can proceed. Unstaffed, ancillary utility facilities are exempt from this requirement.



The Building Site Circle establishes the minimum lot width.

Replace with:
"The site requirements chart identifies a minimum building site circle diameter that shall not include streams floodways, type I wetland's and class IV landslide hazards. The building site circle must fit within every lot created to define the minimum lot dimensions and potential building sites."

10.250(35) Building Site Circle - ~~The chart establishes the diameter of a circle that does not exceed a 25% cross slope, or include any very severe development limitation areas, and that must fit within every lot created to define the minimum lot dimensions and potential building site.~~ Where a structure would overlap a lot line, such as could occur with attached housing units, the diameter shall be increased by 50% to determine the building structure pad. In the West Lake Sammamish area (WLS), the diameter shall be 45 feet.

10.250(40) Reserve.

10.250(45) Minimum Lot Frontage - Minimum lot frontage is the width of the lot which shall adjoin a street or approved access corridor.

10.250(50) Front, Rear, and Side Building Setbacks - All setbacks shall be measured perpendicularly from the nearest property line, or in the case of access corridors for single family residential development, from the interior edge of the easement to the foundation line of the structure. Front, side, and rear directions shall be determined as provided in paragraph (e) of this subsection.

(a) The following features are permitted within front, rear and corner sideyard setback areas: building extremities such as chimneys, satellite receiving systems, decks, porches, or roof structures which extend beyond the building line may project up to 5 feet into the setback area but no closer than 5 feet to

the property line. In interior sideyard setback areas, building extremities are not permitted any closer than 5 feet to a property line except chimneys and roof overhangs which may extend 30 inches into the 5-foot setback.

(b) Projections of the marquee type, including canopies, awnings and covered walkways, whose lowest portion is at least 8 feet high and mounted on commercial and industrial buildings, may project into setback areas adjoining a street a maximum distance of 10 feet.

(c) Setback Exceptions - Upon the presentation of a binding site plan, a recorded site plan or a PUD processed in accordance with Sections 20F.20.150(50), 20F.20.150(55), and 20F.20.160, setbacks may be modified as follows: side setback distances may be modified to permit a zero side setback to accommodate clustering and attached dwelling units; front setbacks may be modified from access corridors within multi-family and commercial/industrial development, provided front setbacks are maintained from all public streets.

(d) Improvements less than 30 inches above grade including decks, patios, walks and driveways and satellite receiving systems are permitted in setbacks. Fences, landscaping flagpoles, and street furniture are permitted in setback areas provided that all other applicable requirements are met. No other structures including accessory structures are permitted in setback areas.

(e) Lot Orientation - For the purpose of applying regulations having a directional relationship to lots, the following shall be applied: the front shall be toward the street or access corridor the lot is addressed from or which provides the primary access; the rear is opposite to the front or as nearly so as the lot shape permits; and the sides are ninety degrees to the front or as nearly so as the lot shape permits.

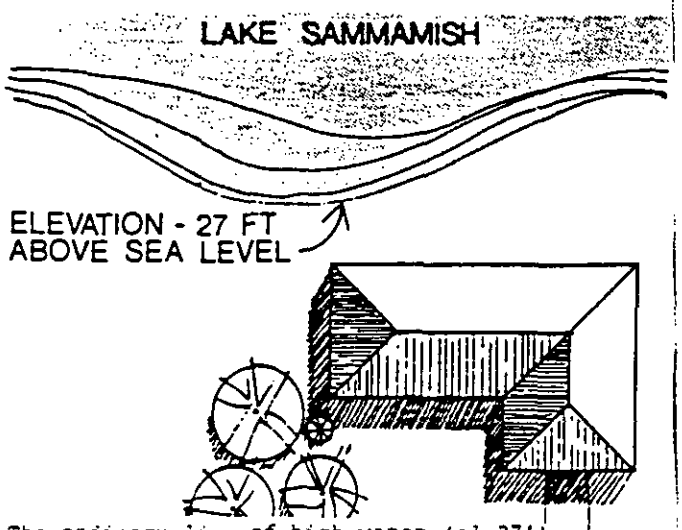
(f) Front setbacks shall apply whenever a lot abuts a street or access corridor except where provided by part (c), Setback Exceptions, of this Section. Setbacks from private streets and access easements must be met when the private access corridor or easement serves two or more separate *lots, except as provided by Section* 20C.10.250(90)(h).

Replace with:
"Waterfront building setbacks/buffers"

10.250(55) Waterfront Building Setbacks/Buffers - ~~Waterfront building setbacks~~ shall be a distance measured from the line of ordinary

high water (elevation 27 feet) on Lake Sammamish and the ordinary high water along ~~major watercourses (rivers, streams, creeks) or the centerline of the stream along minor watercourses.~~ Within waterfront building setbacks no non-water or recreation dependent structures or impervious surfaces such as paved parking areas are

Replace with: "all stream types."



The ordinary line of high water (el.27') is the lot line for building purposes.

permitted with the exception of access roads that cross the setback area. ~~Major watercourses are the Sammamish River and Bear, Cottage and Evans Creeks. Minor watercourses include annual streams, creeks, drainage and irrigation ditches other than those that are major watercourses. Structures may be built in the waterfront building setbacks along minor watercourses, subject to approval by the Technical Committee, by applying for a General Development Permit. Review considerations should include vegetation retention, maintenance of the watercourse, the impacts of sedimentation and pollution, and fish habitats.~~

Replace with: "Stream buffers are established by stream class (refer to Sections 20C.40.080(10) "Stream Classification" and 20C.40.090(15)(b) "Stream Buffers."

10.250(60) Building Separation - Buildings, except for accessory structures, shall maintain the required separation.

10.250(65) Maximum Land Coverage - Maximum land coverage indicates the maximum percentage of the land that can be developed and covered with structures (including outdoor storage) and impervious surface. Maximum land coverage may be increased to encourage clustering with smaller lots and with PUD's where open space would be provided elsewhere within the development. Maximum

A Part of Subsection 20C.10.250(10) SITE REQUIREMENTS

SITE STANDARDS	ZONING DISTRICTS																				
	G	A	RE	R-1	R-2	R-3	R-4	R-5	R-6	R-8	R12	R20	R30	PO	NB	CO	CB	GC	BP	LI	HI
Maximum Number of Dwelling Units Per Net Acre	0.05	0.05	0.2	1	2	3	4	5	6	8	12	20	30	20[1]	1	30	30	30			
Minimum Lot Area Per Dwelling Unit (Sq. Feet Unless Noted)	19 ac.	19 ac.	4.5 ac.	35000	18000	12000	9000	7500	6000	3000	3000										
Minimum Tract Area For Development (Sq. Feet Unless Noted)										90000	90000	90000	90000						1.5 ac.		
Minimum Tract Area for Development, Retirement Residences							1.5 ac.	1.5 ac.	1.5 ac.	1.5 ac.	1.5 ac.										
Minimum Building Site Circle (Ft. Diameter)	100	100	100	85	80	75	70 45 WLS	65	60	40	40										
Minimum Lot Frontage (Ft.)	300	300	100	20	20	20	20	20	20	20	30	30	30	30	30	30	30	30	30	30	30
Minimum Building Front and All Street Setbacks (Ft.)	30	30	30	30	30	20	20	20	20	20	20	20	20		1				75[3] 35	30	30
Minimum Building Rear Setbacks (Ft.)	40	40	30	30	10	10	10	10	10	20	25	15	15		1				50[3] 25		10
Minimum Building Setbacks, Retirement Residences							35	35	35												
Minimum Building Side Setbacks (Ft. Each Side)	40 — 40	40 — 40	30 — 30	20 — 20	5 — 10	5 — 10	5 — 10	5 — 10	5 — 10	10 — 10	10 — 10	15 — 15	15 — 15		1				40[3] 20 40 20		10
Minimum Waterfront Building Setbacks - Lake Sammamish ~~and Major Watercourses~~ (Ft.)	50 — ~~100~~	50 — ~~100~~	25 — ~~75~~	25 — ~~75~~	20 — ~~50~~	20 — ~~50~~	20 — ~~50~~	20 — ~~50~~	20 — ~~50~~	25 — ~~50~~	25 — ~~50~~	20 — ~~50~~	50 — ~~50~~	75[1] — ~~75~~		75 — ~~75~~	100 — ~~100~~	100 — ~~100~~	100 — ~~100~~	100 — ~~100~~	100 — ~~100~~
~~Minimum Building Waterfront Setback Minor Watercourses (Ft.)~~	~~25~~	~~25~~	~~25~~	~~25~~	~~25~~	~~25~~	~~25~~	~~25~~	~~25~~	~~25~~	~~25~~	~~25~~	~~25~~	~~25~~	~~25~~	~~25~~	~~25~~	~~25~~	~~25~~	~~25~~	~~25~~
Minimum Building Separation Except for Accessory Structures (Ft.)	20	20	20	20	15	15	15	15	15	15	15	15	15								

LEGEND: 1 - Development that adjoins a residential district shall comply with the site standards of that district; AC - Acres; WLS - Requirement applies to West Lake Sammamish Parkway, Idylwood Park, Lake Sammamish and the south City limits; NS - No Specification; STO -0 Stories; NOTE: Other portions of the Development Guide such as section 20C.10.200, "Development Limitations" and Section 20C.20.000, "General Development Regulations," contain requirements that may affect the extent to which specific areas may be developed or utilized; 2 - Said computation shall include the total area of all structures and outdoor storage area; 3 - See Subsection 20C.10.250(80) Business Park Requirements. 4 - This requirement may be varied by the Technical Committee for two-lot subdivisions with access requirements of less than 20 feet, provided the dimension of the lot facing the easement is greater than 20 feet.

peal

A Part of Subsection 20C.10.250(10) SITE REQUIREMENTS

SITE STANDARDS	ZONING DISTRICTS																			
	G	A	RE	R-1	R-2	R-3	R-4	R-5	R-6	R-8	R12	R20	R30	PO	NB	CO	CB	GC	BP	LI	HI
Maximum Lot Coverage of Structures/Total Impervious Surface (% of Land Area)	2.5 — NS	5 — NS	2.5 — NS	12 — NS	20 — 30	30 — 60	35 — 60	35 — 60	35 — 60	35 — 75	35 — 75	35 — 50	35 — 50	35[1] — NS	1				35 —[3] NS	60[2] — NS	60[2] — NS
Retirement Residence							35 50	35 50	35 50												
Maximum Height (Ft. or in Stories where Noted)	30	50	30	30	30	30	30	30	30	30	30	40	50	30[1]	30	6 sto	4 sto	2 sto	greater of 40 or 3 sto		
Maximum Height in Shoreline Areas (Ft.)	30	30	30	30	30	30	30	30	30	30	30	30	30	30[1]	30	30	30	30	30	30	30
Minimum Required Open Space (% of Net Land Area)										50	50	50	50								
Minimum Required Yard Area (Sq. Ft.)				2 1 2 5	2 0 0 0	1 8 7 5	1 1 1 7 2 5 5 0 WLS	1 6 2 5	1 5 0 0	1 0 0 0	1 0 0 0										

LEGEND: 1 - Development that adjoins a residential district shall comply with the site standards of that district; AC - Acres; WLS - Requirement applies to Wst Lake Sammamish parkway, Idylwood Park, Lake Sammamish and the south City limits; NS - No Specification; STO - Stories; NOTE: Other portions of the Development Guide such as section 20C.10.200, "Development Limitations" and Section 20C.20.000, "General Development Regulations," contain requirements that may affect the extent to which specific areas may be developed or utilized; 2 - Said computation shall include the total area of all structures and outdoor storage areas; 3 - BP-S areas in Willows Neighborhood have total impervious surface maximum of 60%. See Section 20C.20.235(70)(h) Business Park-S zone in Willows Neighborhood.

Add:

Note: See Section 20.C40.090(15)(b), "Stream Buffers" for stream buffers (setbacks)

Repeal (Replaced by 20C.40)

20C.10.260 DEVELOPMENT LIMITATIONS

10.260(05) Purpose - The purpose of this section is to limit development densities and intensity in certain areas of the City based on known physical constraints. Particular tracts of land may not be able to be developed to the density or intensity otherwise indicated on the Land Use Plan or by Article 208, "Land Use Regulations."

10.260(10) Development Limitation Areas Maps - The Development Limitations Areas are delineated on the map entitled, "Development Limitation Areas," and the map entitled "Intensive Aquifer Recharge Areas," which are incorporated as a part of this subsection.

(a) Supporting Data - The Development Limitation Areas Map is based on maps and technical data on file in the Department of Planning and Community Development and contained in Section 208.10, "Natural Features."

(b) Classification Categories - The Development Limitation categories are based on the following combinations of features:

VERY SEVERE DEVELOPMENT LIMITATIONS:

- Slopes 40% and over
- Slopes 25-40%, Class 3 Landslide Hazard, Class 3 Earthquake Hazard, and Severe Erosion Hazard
- Lands within the 100-Year Floodway
- Lands in the intensive aquifer recharge areas.

SEVERE DEVELOPMENT LIMITATIONS:

- Slopes 15-25%, Class 2 Landslide Hazard, Class 3 Earthquake Hazard, and Severe Erosion Hazard
- Slopes 15-25%, Class 3 Landslide Hazard, and Severe Erosion Hazard
- Slopes 25-40%, Class 3 Earthquake Hazard, and Severe Erosion Hazard
- Slope 25-40%, and Severe Erosion Hazard
- Wetlands, and Class 3 Earthquake Hazard

MODERATE DEVELOPMENT LIMITATIONS:

- Slopes 15-25%, Class 3 Earthquake Hazard, and Severe Erosion Hazard
- Slopes 15-25%, Class 2 Landslide Hazard, and Severe Erosion Hazard
- Slopes 15-25%, Class 2 Earthquake Hazard, and Severe Erosion Hazard
- Seasonal Wetlands, and Class 3 Earthquake Hazard
- Lands within the 100-Year Flood Fringe, Class 3 Earthquake Hazard, and Seasonal Wetlands

(c) Determining Precise Location of Development Limitation Areas - To more accurately determine the location of development limitation areas, the City may require additional information with development proposals. Anyone disputing the location of a development limitation area shall have the burden of proving that the areas are incorrectly mapped. The Development Limitation Areas Map shall be modified administratively as new information becomes available to the City.

10.260(15) Restrictions on Density and Lot Coverage -

(a) Development Limitation Area Restrictions -

Development limitation classification:	Very Severe	Severe	Moderate
Maximum Lot Coverage	0%	2.5%	12.0%
Used in Lot Size and Determination	No	Yes	Yes
Used in Buildable Site Area Determination	No	Yes	Yes

(b) Developable Density - This section shall be used with Section 20C.10.250, "Site Requirements," to determine the number of dwelling units permitted on a particular site.

(c) Density Transfer and Clustering - Within the requirements of this section and Section 20C.10.250, "Site Requirements," density may be transferred from development limitation areas to non-limitation areas within the subject property. Clustering of dwelling units is permitted within the constraints of Section 20C.10.250, "Site Requirements."

Repeal (Replaced by 20C.40)

(d) For land in the intensive aquifer recharge area, maximum lot coverage shall be defined to include coverage by structures, surfaces, storage, and/or any activity associated with a land use.

10.260(20) Exceptions -

(a) Very Severe Limitation Areas - The determination of lot area may include very severe classified areas if 50% or less of the proposed lot area is very severe and the lot is in an A, G, RE, or R-1 zone.

(b) Very Severe Limitation Areas - Hazardous Materials - In the case of lands designated very severe development limitations area only because of location in the intensive aquifer recharge areas, full utilization of lot coverage, lot size determination and buildable site area determination requirements as set forth in 20C.10.250(10) SITE REQUIREMENTS, may occur if the applicant can document to the Technical Committee's satisfaction that hazardous materials will not be used on the site, or, if they are to be used, that measures shall be taken through design and construction of the structures, site layout and storage areas, to prevent release of hazardous substances including those resulting from a "worst case" accident. When limitations other than the intensive aquifer recharge area would place an area in the moderate development limitations area, the applicant shall also show that the requirements of Section 20C.10.260(20)(c) have been met.

(c) Moderate Limitation Areas - Moderate areas may utilize the lot coverage requirements of 20C.10.250, "Site Requirements," if the applicant can demonstrate to the Technical Committee's satisfaction that the physical limitations can be overcome through engineering, architecture or site design.

(d) Open Space Requirement - Very severe lands shall be maintained in open space by a method agreeable to the City. Such methods may include dedication, deed restrictions, or ownership held-in-common.

(b) Electric fences shall be posted with permanent signs about every 50 feet apart stating that the fence is electrified.

(c) All electric fences and appliances, equipment, and materials used in connection therewith shall be listed or labeled by a qualified testing agency and shall be installed in accordance with manufacturer's specifications and in compliance with the National Electrical Code, 1981 edition NFPA 70-1981.

(d) Electric fences shall be set back at least two feet from property lines adjacent to public rights-of-way, residential zones of densities greater than R-1, and public facilities, and a second and more substantial fence shall be located along the property line.

20.050(20) Barbed Wire Fences -

(a) Barbed wire fences are permitted in agricultural, general, ranch estate, and residential estate zones but not along property lines adjacent to the other residential and commercial zones.

(b) Commercial storage, industrial sites, utility and public uses may use barbed wire only on top of a fence at least six feet high.

20.050(25) Swimming Pool Fences - Fences a minimum of four feet in height are required around outdoor swimming pools.

Repeal
(Replaced by 20C.40.100(5)(B))

20C.20.060 FLOODPLAIN MANAGEMENT.

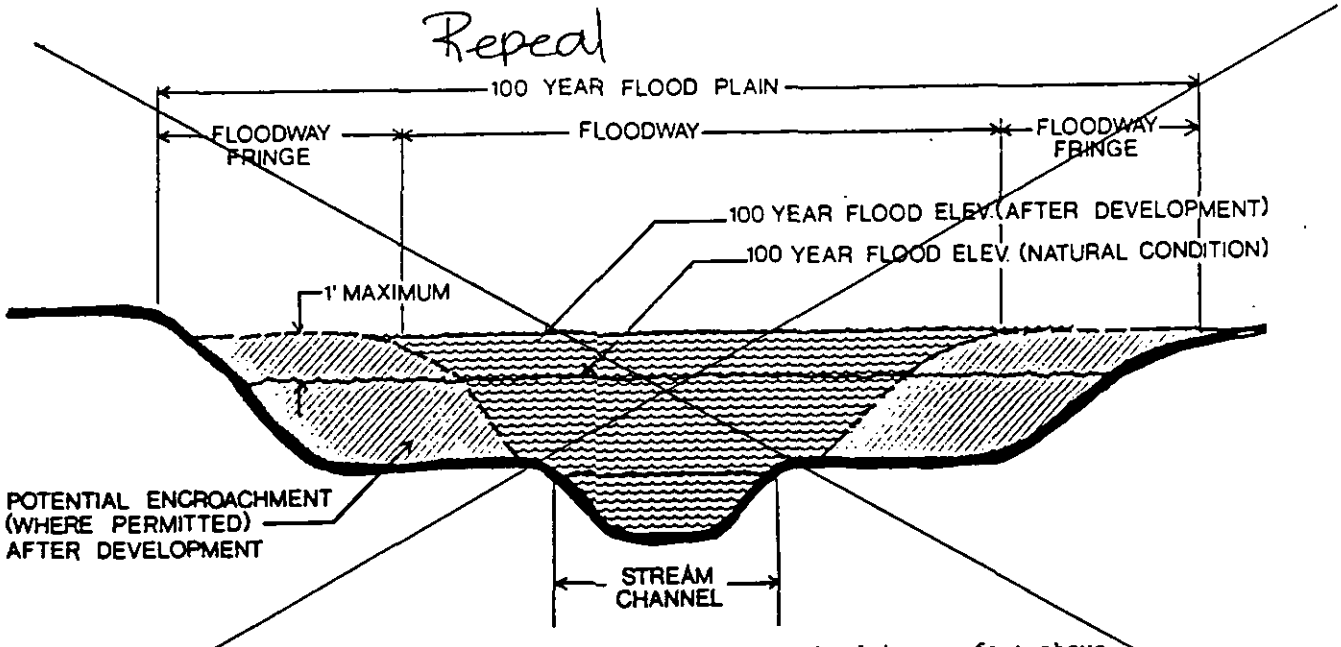
20.060(05) Floodway Restrictions - Structures, developments or landfills, other than for shoreline protective structures, bridges, roads, trails and railroads, are not permitted in the floodway.

20.060(10) Floodway Fringe Restrictions - The following are not permitted in a 100-year floodway fringe:

(a) Except in areas designated "Urban Environment" in Section 208.95.030(20), "Shoreline Environments Map," any structure, development or landfill which would: reduce the natural floodwater storage capacity of the 100-year floodplain; pollute or contribute materially to the turbidity of floodwater at the 100-year stage; significantly change the existing 100-year hydraulic characteristics; or alter the temperature characteristics of the water body unless an improvement in fish habitats would result.

(b) Any structure which is not fully protected from water damage at the 100-year flood stage by having the lowest usable habitable or storage floor or level raised at least one foot above the 100-year flood stage level, and by floodproofing in a manner that complies

Repeal



The Maximum Rise of water during the 100 Year Flood is one foot above the encroachment line. The maximum increase in velocity is 10 per cent.

~~with the requirements of Article 20E, "Building and Construction Codes".~~ Delete

20C.20.065 Hazardous Waste Treatment and Storage Facilities:

All hazardous waste treatment and storage facilities shall comply with the requirements of this section.

1. State siting criteria, pursuant to RCW 70.105 shall be met;

2. Measures shall be taken in the construction of structures and design of storage areas to prevent release of materials including those resulting from a "worst case" accident;

3. The proposed development shall meet all federal, state and local standards;

4. Storage and handling shall be completely enclosed in the CC, PO, NB, CO, CB, GC, and BP zones;

5. In the case of conflict between any of the state siting criteria (RCW 70.105), the criteria in this section and *criteria or regulations elsewhere in the* Community Development Guide, the more restrictive requirement shall apply.

Add:

6. Section 20C.40.100(15)(e), aquifer recharge area development standards and 20C.40.100(15)(f), flood hazard area development standards.

20C.20.070 HOME BUSINESSES

20.070(05) Definition - A "home business" is a business activity which results in a product or service and is conducted in whole or in part on a residential premises and is clearly subordinate to use of the premises as a residence.

20.070(10) Standards - Home businesses, where permitted by Section 20C.10.240, "Permitted Land Uses," shall comply with the following requirements:

(a) No more than one person outside the family group that resides on the premises shall engage in the business and be located on the premises.

(b) The outside storage of equipment or materials used in the business is not permitted.

(c) The business shall be conducted in a manner which will not alter the normal residential character of the premises by construction, the use of color, materials, lighting and signs, or by the emission of sound, vibration, dust, glare, heat, smoke, odors or liquids.

(d) Business traffic shall be limited to eight one-way trips per day and shall not require additional parking spaces.

(e) Vehicles larger than 10,000 lbs. gross weight shall not be operated out of the premises or park on the property or adjacent streets.

(f) Utility demand (water, sewer, electricity, garbage or natural gas) shall not exceed normal residential levels.

(g) A business license is required.

20C.20.080 LANDFILLS

20.080(05) Prohibited Landfilling - Landfilling that will significantly reduce or increase the shoreline of the subject property, create unstable land conditions, cause subsidence, cause land to rise, or create islands or peninsulas is prohibited.

20.080(10) Restoration - Landfills to restore changes to existing natural conditions on Lake Sammamish are permitted only if the changes were caused by manmade events and if the restoration occurs within five years of the change.

20.080(15) Permits - All filling requires a grading and clearing permit; see Section 20E.070.000, "Clearing and Grading Code."

20.080(20) Erosion Control with Filling - Landfills shall be protected against erosion with retaining walls or similar structures or by vegetation established during the first growing season following completion of the landfill.

20.080(25) Landfills in Floodplains - Landfills shall not be permitted in floodways but may be permitted in the floodway fringe in areas designated "Urban Environment", in Section 208.95.030(20), "Shoreline Environments Map," and in other floodway fringes subject to: confirmation that an equal water storage capacity is maintained, and that no significant direct or indirect damage to the watercourse, water quality, stream flow or aquatic life will occur,

Add:
"and compliance with the development standards for flood hazard areas as outlined in 20C.40.100(5)(F)."

20.080(30) Reduction of Surface Area - Landfills shall not cause a significant reduction of the normal surface area of a body of water at ordinary high water, they shall improve or maintain public safety, the aesthetic and visual qualities of the shoreline, water quality, access to the waterfront and shall prevent erosion.

20.080(35) Landfill Quality - Landfills must consist of clean materials that will not result in the leaching of chemical or solid contaminants into water bodies.

20.080(40) Filling for Septic Tank Drainage - Filling to provide for septic tank drainfields is prohibited.

20.080(45) Solid Waste Disposal - Landfills for solid waste disposal are prohibited within shoreline areas.

Add: "and critical aquifer recharge areas."

20C.20.090 LANDSCAPING AND NATURAL SCREENING

20.090(05) Purpose - The intent of this section is to provide minimum landscape requirements in order to:

- maintain and protect property values,
- enhance the City's appearance and character,
- visually unify the City and its neighborhoods,
- reduce erosion and stormwater runoff,
- maintain or replace existing vegetation,
- promote proper plan selection and continuous maintenance so that plant materials can flourish,
- reduce visual impacts of uses by screening.

20.090(10) Compliance with Requirements - All land uses shall comply with the requirements of this section, except single-family residential must only comply with the requirements for the preservation of trees, Section 20C.20.090(25).

20.090(15) Landscape Plan Approval - A development application shall include a preliminary and final landscape plan in compliance with the guidelines outlined in the Landscape Standards and be subject to the criteria of Section 20C.30.020, Urban Design Criteria.

20C.20.140 OUTDOOR STORAGE

20.140(05) Purpose - The purpose of this section is to create an attractive and economically healthy community. In Community Business and City Center zones the requirements are designed to: create safe and attractive walkways, promote a concentrated development pattern, restrict outdoor storage to the minimum amount necessary to allow some retail flexibility and to control uses which are typically unattractive or may create a nuisance and would discourage quality development.

20.140(10) Storage of Materials and Products - Unless expressly prohibited, the outdoor storage of any material or product used in production, kept for sale on the premises or awaiting shipment, and any production waste, shall be allowed only when such storage complies with the requirements set forth in the chart entitled "Requirements for Outdoor Storage," which is incorporated herein by this reference as if set forth in full.

20.140(15) Vehicle Storage - Where permitted, the outdoor storage of automobiles, trucks, farm implements, construction and rental equipment, trailers, boats, campers, recreation vehicles, mobile homes and other vehicles for sale, rent or shipment shall comply with this section.

20.140(20) Screening - Screening shall be placed on all sides of storage areas other than *where a building wall would act as a screen.* Screening shall be adequate to provide a solid barrier at least six (6) feet in height. It may include fences, walls, earth berms, vegetation or other materials.

20.140(25) Prohibited Locations for Outdoor Storage - Outdoor storage is prohibited as follows:

- In floodways;
- Lots used as home businesses;
- Within waterfront building setbacks indicated in Section 20C.10.250, "Site Requirements";
- On slopes greater than 15%;

Add:
and stream buffers as identified in Section 20C.40.090(15)(b) "Stream Buffers."

Ecology and Fisheries, and the Federal Environmental Protection Agency.

(d) Disturbance of Natural Areas - Stream bed and lake bottom disturbance shall be minimized. Wildlife and aquatic habitats shall be protected and improved. Fish spawning grounds shall not be harmed. Scenic views shall be maintained. Natural vegetation shall be preserved where possible. Natural site characteristics shall be utilized in proposed development.

(e) Floodplain Management - ~~Floodplain management regulations are defined in Section 20C.20.060~~

(f) Site requirements (setbacks, building height) are defined in Section 20C.10.250(10).

Parking facilities are prohibited in the waterfront building setbacks established in this section. All setbacks shall be measured from the line of ordinary high water.

20.210(15) Agricultural Uses

(a) Structures for feeding, housing and care of hoofed animals shall be set back a minimum of fifty (50) feet from any property line and one hundred (100) feet from the ordinary high water mark of the river. Such operations include the establishment of feeding pens or other confinement lots for livestock of any kind equivalent to ten (10) or more head of mature cattle which concentrate their wastes in an area less than one acre. Equivalency is based upon the estimated equivalent of animal waste.

(b) At least 100 feet of natural or planted ground cover between confinement lots and streams shall be provided.

(c) Where applicable, operational guidelines for livestock waste management found in "Livestock Waste Management Guidelines" (EM 3479), Cooperative Extension Service, W.S.U., June 1971, shall be followed.

20.210(20) Aquaculture - In order to determine all pertinent factors for specific proposals, a special development permit shall be required for aquaculture activities.

Replace with:
"Floodplain development standards are defined in Section 20C40.100(15)(f)."

20.210(25) Commercial Development

(a) Commercial developments should enhance or compliment the environment of the site and shall avoid a gaudy appearance in design or materials.

(b) ~~Setbacks shall be 75 feet from the line of ordinary high water for neighborhood business or commercial office zones. The setback shall be 100 feet in all other commercial and industrial districts.~~

(c) Outdoor storage of materials and outdoor retailing or wholesaling are prohibited uses within one hundred (100) feet of the shoreline, except for small scale retail activities related to pedestrian uses of the waterfront.

(d) Development plans must clearly show what steps are being taken to protect the environmental character of the shoreline area, i.e. retention of natural buffer strips, oil separators in parking lot drainage systems, etc.

(e) Vehicular parking areas shall be permitted only when accessory to a Commercial use.

Parking facilities are prohibited in waterfront building setbacks.

Replace with:
(b) Waterfront building setbacks from Lake Sammamish are identified in 20C.10.250(10), "Site Requirements." Stream buffers are based upon stream class and are identified in 20C.40.090(15)(b) "Stream Buffers."

20.210(30) Landfills - Landfills are regulated in part 20C.20.080 of this section.

20.210(35) Forest Management Regulations - Forest management practices are regulated in Section 20E.70.200 of the Building and Construction Codes.

20.210(40) Marine Structures

(a) Restricted Locations - Piers, floats, marinas, boat ramps, boat launches and manmade channels, are not permitted in the following locations:

- Fish spawning areas and fish and aquatic mammal habitats or nesting areas as determined by the State Departments of Fish and Game;
- within 100 feet of a public swimming beach unless the pier is publicly-owned;
- Areas where beach, shoreline or channel bank erosion is likely to occur or where considerable quantities of beach and bank materials and sediment are likely to be lost to the shoreline system due to the

(c) To prevent visual clutter and confusion, signs shall be limited in number to one per building or business face and shall contain only the name and nature of the business. Multiple signs attached to a single standard or structure are prohibited except where coordinated or designed as a single sign comprising a directory of enterprises for a complex of uses.

(d) Signs shall not exceed twenty-five (25) feet in height above grade.

(e) Signs shall comply with the shoreline building setback requirement.

(f) Public safety, public information and directional signs are exempt from the provision of this section.

20.210(55) Residential Development Regulations

(a) Structures above grade, other than those related to water use (such as docks, piers and boat houses), shall set back a minimum of twenty (20) feet from the line of ordinary high water (elevation 27 feet) on Lake Sammamish, ~~and fifty (50) feet from the top of the bank of watercourses.~~ Structures ~~They~~ shall not project into the one percent probability flood plain unless flood proofed. In no instance may structures prevent access to a utility easement.

Replace with:
Stream buffers are based upon stream class and are identified in 20C.40.090(15)(b) "Stream Buffers". The stream buffers are measured from the ordinary high water mark.

(b) Residential marine accessory structures are regulated in part 20.210(40) of this section.

(c) For purposes of determining the property boundaries and lot area on waterfront property, the following guidelines shall be used:

- If the property description does not include adjoining shoreland, the waterward boundary line shall be construed to be the line of ordinary high water.
- If the property description refers to the low water line as the waterward boundary, the owner shall be construed to have riparian rights in the adjoining shoreland lying between the line of ordinary high water and the low water line.
- The lot area shall include all the area landward of the line of ordinary high water on Lake Sammamish (27 feet elevation) and the area landward of the top of the bank along rivers and streams.

20.235(55) Review Criteria

All Special Development Permits, except special uses that are non-project which must meet criteria defined in Subsection 20.235(50) shall be reviewed under the criteria of Section 20C.30 Design Criteria.

20.235(60) Open Space/Landscaping - All planned unit developments shall satisfy the following requirements:

(a) A minimum of 40% of the gross site area of residential PUD's shall be maintained as permanent open space by one of the methods described in Section 20C.20.130 "Open Space".

(b) Permanent open space shall not include rights-of-way, or parking areas. ~~It shall include areas with very severe development limitations as noted in Section 20C.10.260, "Development Limitations,"~~ and may include common outdoor recreation spaces, natural areas and landscaped areas, including landscaped decks and rooftops that are open to the occupants of PUD.

Replace with "It may include wetlands, streams, floodways and critical landslide hazard areas"

(c) Open space in PUD's shall be connected to the City's open space system as designated in Section 20B.50.050, "Parks, Recreation and Open Space Plan," and to adjacent privately owned open space if possible

(d) The landowner/developer shall provide for the ownership, improvement and maintenance of common open space and facilities in PUD's as provided for in Section 20C.20.130, "Open Space."

(e) All open space and landscaping shall be provided for as designated in Section 20C.20.130, "Open Space."

20.235(65) ~~Utilities, Public Facilities and Services~~

(a) All Special Development Permits shall assure that utility services and other public improvements or services are adequate for the development and will be completed or available by the time the project is completed.

20.235(70) [redacted]

(a) Purpose - The purpose of this section is to establish criteria for the approval of a special development permit for specified uses. Those uses not specified would be required to be consistent with the goals, policies and plans in

2. Automobile sales shall be located a minimum distance of 300 feet from the nearest residential zoned property.

3. Car washing area shall minimally be an open 200 square foot area which drains to the sewer through a METRO approved vault oil separator.

4. Driveway access to principal arterial streets is discouraged; accesss shall be via minor arterial or collector street whenever possible.

5. The perimeter arterial street frontage shall have a landscaped buffer to provide a "Type II" visual screen. (See appendix N, Landscape Standards).

6. Prohibition of all illegal signage including, but not limited to: animated signs, off-premise and portable signs, signs within the right-of-way and streamers and pennants. All signage and display advertising on-site shall comply with the Redmond Community Development Guide, Section 20C.20.230 Signs and Street Graphics.

(j) Hazardous Waste Treatment and Storage Facilities:

All hazardous waste treatment and storage facilities shall comply with the requirements of this section.

1. State siting criteria, pursuant to RCW 70.105 shall be met;

2. Measures shall be taken in the construction of structures and design of storage areas to prevent release of materials including those resulting from a "worst case" accident;

3. The proposed development shall meet all federal, state and local standards;

4. Storage and handling shall be completely enclosed in the CC, PO, NB, CO, CB, GC, and BP zones;

5. In the case of conflict between any of the state siting criteria (RCW 70.105), the criteria in this section and criteria or regulations elsewhere in the Community Development Guide, the more restrictive requirement shall apply.

Add:

6. Section 20C.40.100(15)(e), aquifer recharge area development standards and 20C.40.100(15)(f), flood hazard area development standards.

(d) Storm drainage shall be provided in accordance with Section 20E.75 GROUND AND SURFACE WATER MANAGEMENT of the Development Guide and standards and specifications approved by the Director of Public Works.

(e) Easements shall be dedicated as provided in Subsection 20C.20.242(35).

20.242(55) Watercourses - ~~When required by the City, the developer of a subdivision shall enhance any major or minor watercourse which traverses or abuts the subdivision in accordance with the specifications and standards adopted by the Director of Public Works.~~ Any required watercourse easements shall be dedicated as provided in Subsection 20C.20.242(35) Easements.

Replace with:

When required by the City, the developer of a subdivision shall enhance a stream which traverses or abuts the subdivision in accordance with 20C.40.100(15)(b), stream development standards and 20C.40.120(05)(b) stream performance standards.

20.242(60) Underground Utilities - All permanent utility service to lots shall be provided from underground facilities as set forth in Section 20C.20.250 UNDERGROUND WIRING. The applicant shall be responsible for complying with the requirements of this section, and shall make all necessary arrangements with the utility companies and other persons or corporations affected by installation of such underground facilities in accordance with the rules and regulations of the Public Utility Commissioner of the State of Washington.

20.242(65) Water and Sewer Standards -

(a) Design Standards: All City water and sewer facilities shall be designed in compliance with the "Design Requirements Water and Sewer System Extensions" document available from the Utility Division of the Public Works Department.

(b) Construction Standards: All City water and sewer facilities shall be constructed in compliance with the standards and specifications available from the Utility Division of the Public Works Department.

20.242(70) Street Standards - All street improvements, grades and design shall comply with standard regulations and specifications as set forth in Appendix G CONSTRUCTION SPECIFICATION AND DESIGN STANDARDS FOR STREETS AND ACCESS of the Development Guide.

20.242(75) Street Right-of-Way and Pavement Widths -

the cessation of clearing and/or construction operations so that undue quantities of eroded soil will not leave the site.

70.190(20) Compliance with Section 20C.20.090, "Landscaping and Natural Screening".

20E.70.200 FOREST MANAGEMENT

70.200(05) Logging and Wood-Cutting in Selected Areas - Logging and commercial wood-cutting should be avoided on slopes of such grade that potentially harmful volume of sediment runoff may occur, unless adequate restoration and erosion control can be easily accomplished. A fifty percent increase in sediment over that existing in the natural condition is considered harmful for purposes of this chapter.

70.200(10) Logging Debris in Waterways - The accumulation of slash and other clearing debris in waterways or elsewhere on the cutting sites is prohibited.

70.200(15) Reforestation Practices - Reforestation shall be accomplished to provide stability on slopes greater than twenty-five percent which have been logged and to ensure a regrowth of the area. Replanted vegetation should be of similar type and concentration as existing in the general vicinity of the logged area.

70.200(20) Logging Methods - Logging methods shall be subject to review for compliance with the provisions of the Development Guide, and in no case shall logs be yarded across streams.

20E.70.210 BUFFER STRIPS ALONG WATERWAYS

Buffer strips of vegetation, meeting the following requirements, shall be left between roads or land-clearing areas and streams:

70.210(05) Width - ~~The minimum width of a buffer strip shall be fifty (50) feet from the top of the bank of major watercourses and twenty-five (25) feet from the center line of minor watercourses.~~

Replace With:
The minimum width of a stream buffer shall be determined by stream class and shall be measured from the ordinary high water mark (refer to Sections 20C.40.080(10) "Stream Classification" and 20C.40.090(15)(b) "Stream Buffers."

of a Shoreline Development Permit but shall comply with all other policies, plans, codes and regulations of the City:

(a) Normal maintenance or repair of existing structures and development including damage by accident, fire or elements;

(b) Piers not exceeding two thousand five hundred dollars ($2,500) in total cost;

(c) Emergency construction necessary to protect property from damage by the elements;

(d) Construction on wetlands by an owner, lessee, or contract purchaser of a single family residence for his own use or the use of his family;

(e) Construction of a normal protective bulkhead common to a single family residence;

(f) Construction or modification of navigational aids such as channel markers and anchor buoys;

(g) Construction and practices normal or necessary for farming, irrigation and ranching activities.

Insert: "as defined in the Shoreline Management Act"

20.180(25) Special Requirements -

(a) No final action shall be taken until thirty (30) days after notice of the final action taken by the City is filed with the Department of Ecology.

(b) No construction shall occur until thirty (30) days after notice of the final action taken by the City is filed with the Department of Ecology.

(c) Within thirty (30) days of the date of the second notice of filing by publication, any person may submit written comments on the application.

20.180(30) Shoreline Variance

(a) A shoreline variance may be applied for and issued prior to the commencement of construction of any substantial developments in the shorelines. Applications for a shoreline variance shall follow the procedures for a variance established in Section 20F.20.030, Development Permit Procedures and Responsible Authority.

(b) Relief may be granted from specific provisions of the master program or shoreline use regulations, provided the applicant can demonstrate that the variance will meet the criteria outlined in Section 173-14-150 of the Washington

197-11-936 Lead agency for private projects requiring licenses from more than one state agency.
197-11-938 Lead agencies for specific proposals.
197-11-940 Transfer of lead agency status to a state agency.
197-11-942 Agreements on lead agency status.
197-11-944 Agreements on division of lead agency duties.
197-11-946 DOE resolution of lead agency disputes.
197-11-948 Assumption of lead agency status.

20F.30.280 ENVIRONMENTALLY SENSITIVE AREAS. ~~The DEVELOPMENT LIMITATIONS AREA map for areas designated Very Severe and the SHORELINE ENVIRONMENTS map of the Redmond Community Development Guide~~ designate the location of environmentally sensitive areas within the City and are adopted by reference. For each environmentally sensitive area, the exemptions within WAC 197-11-800 that are inapplicable for that area are (1), (2)(d), (2)(e), (6)(a), (24)(a)-(g), and (25)(f)(i). Unidentified exemptions shall continue to apply within environmentally sensitive areas of the City.

Replace with: "The Shoreline Environments map and the Sensitive Areas maps adopted pursuant to 20C-40".

30.280(05) Lands Covered by Water - Certain exemptions do not apply on lands covered by water, and this remains true regardless of whether or not lands covered by water are mapped.

30.280(10) Treatment - The City shall treat proposals located wholly or partially within an environmentally sensitive area no differently than other proposals under this chapter, making a threshold determination for all such proposals. The City shall not automatically require an EIS for a proposal merely because it is proposed for location in an environmentally sensitive area.

20F.30.290 FORMS - ADOPTION BY REFERENCE. The City adopts the following forms and sections of Chapter 197-11 WAC, as now existing or hereinafter amended, by reference:

197-11-960 Environmental checklist.
197-11-965 Adoption notice.
197-11-970 Determination of nonsignificance (DNS).
197-11-980 Determination of significance and scoping notice (DS).
197-11-985 Notice of assumption of lead agency status.
197-11-990 Notice of action.

January 20, 1992

MEMORANDUM

TO: Cathy Beam

FROM: Richard Weinman

SUBJECT: Development Guide Amendments for Sensitive Areas

LANDSLIDE HAZARDS

Retain first paragraph; replace remainder of section with the following language:

The map entitled "Landslide Hazard Areas" shows the general locations of Classes I (Low Hazard) through IV (Very High Hazard) landslide hazard areas. Landslide hazard areas were identified and mapped based on examination of USGS geologic maps and topographic maps, and on limited field checking.

Landslide hazard areas are classified based on the degree of risk as follows:

(a) Class I/Low Hazard. Areas with slopes of less than 15 percent.

(b) Class II/Moderate Hazard. Areas with slopes of between 15 percent and 40 percent and that are underlain by soils that consist largely of sand, gravel or glacial till.

(c) Class III/High Hazard. Areas with slopes between 15 percent and 40 percent that are underlain by soils consisting largely of silt and clay.

(d) Class IV/Very High Hazard. Areas with slopes steeper than 15 percent with mappable zones of emergent water (e.g. springs or ground water seepage), areas of known (mappable) landslide deposits regardless of slope, and all areas sloping more steeply than 40 percent.

EROSION HAZARD

Replace existing section with the following language:

Erosion is a natural process whereby wind, rain, water and other natural agents mobilize and transport soil particles. Lands are susceptible to varying degrees of risk of erosion based on a combination of slope inclination and the characteristics of the underlying soils.

The map entitled "Critical Erosion Hazard Areas" used SCS Soil Survey data to identify lands having a high or very high risk of erosion. These lands typically slope 15 percent or greater and are characterized by the following types of soils: Alderwood-Kitsap (AkF), Alderwood gravelly sandy loam (AgD), Kitsap silt loam (KpD), Everett (EvD) and Indianola (InD).

SEISMIC HAZARD AREAS

Retain first paragraph, except delete last sentence. Insert the following as a new paragraph:

The map entitled "Seismic Hazard Areas" identifies lands that, due to a combination of soil and groundwater conditions, are subject to severe risk of ground shaking, subsidence or liquefaction of soils during earthquakes. These areas are typically underlain by soft or loose saturated soils (such as alluvium), have a shallow ground water table, and are typically located on the floors of river valleys. The map is based on USGS geologic maps.

Delete remainder of section.

FLOODING

Delete existing section and replace with the following:

The map entitled "Floodplains" identifies the general location of floodway and floodplain according to current data provided by the Federal Emergency Management Administration (FEMA) Flood Insurance Rate Maps.

The following definitions are used to describe areas subject to flooding and flood damage:

Floodplain. The total area subject to inundation by the base flood.

Flood Fringe. That portion of the floodplain outside of the floodway which is generally covered by floodwaters during the base flood; it is generally associated with standing water rather than rapidly flowing water.

Zero-rise Floodway. The channel of the stream and that portion of the adjoining floodplain which is necessary to contain and discharge the base flow without resulting in a measurable increase in the base flood elevation. The zero-rise floodway will always include the FEMA floodway. It will be identified by the City based on hydrologic modelling.

FEMA Floodway. 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 foot.