

CRITICAL AREAS REGULATIONS

Explanation of Appendix B

The City of Mountlake Terrace Critical Areas regulations, as codified in Chapter 16.15 MTMC (Ord. 2370, 2004), are herein adopted as a part of the Shoreline Master Program, less the exceptions identified in Section 4.1.2 Critical Areas of the Master Program. Those exceptions are indicated in strikeout in the Chapter below. The provisions of the City of Mountlake Terrace Critical Areas Ordinance, less the noted exceptions, shall apply to any use, alteration, or development within shoreline jurisdiction whether or not a shoreline permit or written statement of exemption is required. Refer to the Shoreline Master Program for applicability.

Note: For clarify, references to Attachments 1-5 have been inserted into the text, in italics, where appropriate, although references to specific attachments by number are not in the codified code. See the end of this Appendix for the attachments.

**Chapter 16.15
CRITICAL AREAS**

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16.15.010 Purpose and intent.

A. The City of Mountlake Terrace contains numerous areas that can be identified and characterized as critical or environmentally sensitive. Such areas within the City include wetlands, streams, wildlife habitat, geologic hazards, and flood hazards. The City contains no known aquifer recharge areas.

B. The City finds that these critical areas perform a variety of valuable and beneficial biological and physical functions that benefit the City and its residents. Alteration of certain critical areas may also pose a threat to public safety or to public and private property or the environment. The City finds, therefore, that identification, regulation and protection of critical areas is necessary to

protect the public health, safety and general welfare. The City further finds that the functions of critical areas, and the purpose of these regulations, include the following:

1. Wetlands. Wetlands perform a variety of functions that include maintaining water quality; storing and conveying storm water and flood water; recharging ground water; providing important fish and wildlife habitat; and as areas for recreation, education and scientific study and aesthetic appreciation.

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; and protect wetland resources from harmful intrusion.

The primary goals of wetland regulation are to avoid and/or otherwise mitigate wetland impacts; to achieve no net loss of wetland function and value; to provide levels of protection that reflect the sensitivity of individual wetlands and the intensity of proposed land uses; and to restore and/or enhance existing wetlands, where possible.

2. Streams. Streams and their associated riparian corridors provide important fish and wildlife habitat, including habitat for threatened and endangered species; help to maintain water quality; store and convey storm water and flood water; recharge ground water; and serve as areas for recreation, education and scientific study and aesthetic appreciation. Stream 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; and protect stream resources from harmful intrusion.

The primary goals of stream regulation are to avoid and/or otherwise mitigate impacts to streams and associated riparian corridors; to protect threatened and endangered species; to protect water quality through appropriate management techniques; and, where possible, to provide for stream enhancement and rehabilitation.

3. 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; helps to maintain air and water quality; helps control 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 goals of wildlife habitat regulation are to avoid impacts to critical habitats for fish and wildlife; to implement the goals of the Endangered Species Act; to promote connectivity between habitat areas to allow for wildlife movement; to provide multipurpose open space corridors; and where possible to provide for wildlife habitat enhancement and rehabilitation. The City has not identified any specific "species of local concern" on its maps or in this chapter, but protects habitat and open space for a broad range of species that may live in the urban area.

4. Geologic Hazard Areas. Geologic hazard areas include land areas characterized by geologic, hydrologic and topographic conditions that render them susceptible to varying degrees of risk of landslides, erosion, or seismic or volcanic activity.

The primary goals of regulating geologic hazards are to avoid and minimize potential impacts to life and property; to regulate and/or limit land uses where necessary; and to

conduct appropriate levels of analysis and ensure sound engineering and construction practices to address identified hazards.

5. Aquifer Recharge Areas. Aquifer recharge areas provide a source of potable water and contribute to stream discharge/flow during periods of low flow. The City finds that such locations are susceptible to contamination of water supplies through infiltration of pollutants through soil to ground water aquifers.

The primary goals of aquifer recharge regulations are to protect critical aquifer recharge areas and ground water quality by avoiding or limiting land use activities that pose potential risk of aquifer contamination; and to minimize impacts to significant aquifer recharge areas through the application of performance standards.

6. Flood Hazard Areas. Floodplains help to store and convey storm water and flood water; recharge ground water; provide important areas for riparian habitat; and serve as areas for recreation, 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 goals of flood hazard regulations are to limit or condition development within the 100-year floodplain to avoid substantial risk and damage to public and private property, and that results in significant costs to the public and individuals; and to avoid significant increases in peak storm water flows or loss of flood storage capacity.

C. This chapter of the MTMC contains standards, procedures, criteria and requirements intended to identify, analyze and mitigate potential impacts to the City's critical areas and to enhance and restore degraded resources, such as wetlands, streams or habitat, where possible. The general intent of these regulations is to avoid impacts to critical areas. In appropriate circumstances, impacts to specified critical areas resulting from regulated activities may be reduced, minimized, rectified, and/or compensated for, consistent with the requirements of this chapter.

D. It is the further intent of this chapter to:

1. Comply with the requirements of the Growth Management Act (Chapter 36.70A RCW) and implementing rules to identify and protect critical areas, and to use the "best available science" in its development regulations as required by WAC 365-195-900 et seq.;
2. Develop and implement a comprehensive, balanced and fair regulatory program that avoids impacts to critical resources where possible, that requires that mitigation be performed by those affecting critical areas, and that thereby protects the public from injury, loss of life, property or financial losses due to flooding, erosion, landslide, seismic events, soil subsidence or steep slope failure;
3. Implement the goals and policies of the Mountlake Terrace Comprehensive Plan and zoning code, including those pertaining to natural features and environmental protection; as well as goals relating to land use, housing, economic development, transportation, and adequate public facilities;
4. Serve as a basis for exercise of the City's substantive authority under the State Environmental Policy Act (SEPA) where necessary to supplement these regulations, while

also reducing the City's reliance on project-level SEPA review to protect regulated critical areas;

5. Provide consistent standards, criteria and procedures that will enable the City to effectively manage and protect critical areas while accommodating the rights of property owners to use their property in a reasonable manner;

6. Provide greater certainty to property owners regarding uses and activities that are permitted, prohibited and/or regulated due to the presence of critical areas;

7. Coordinate environmental review and permitting of proposals involving critical areas with existing development review and approval processes to avoid duplication and delay pursuant to Chapter 36.70B RCW;

8. Establish conservation and protection measures for threatened and endangered fish species in compliance with the requirements of the Endangered Species Act and WAC 365-195-925;

9. Alert members of the public, including appraisers, assessors, owners, and potential buyers or lessees, to the development limitations or critical areas and their required buffers.

E. Best Available Science. The City has considered and included the best available science in developing these regulations, consistent with the requirements of RCW 36.70A.172 and WAC 365-900 et seq. This has included identification and review of relevant technical sources of information, including "Citations of Recommended Sources of the Best Available Science for Designating and Protecting Critical Areas" (CTED, 2002). In some instances, the City has found conflicts in the scientific information, lack of consensus as to what constitutes the best available science, and/or lack of information or direction from resource agencies.

Preparation of these regulations has also included the use of relevant nonscientific information, including consideration of legal, social, policy, economic and land use issues. This reflects the City's responsibilities under numerous laws and programs, including other provisions of the Growth Management Act, and the need to weigh and balance various factors as part of decision making to accomplish municipal objectives. This may result in some risk to the functions and values of some critical areas. The City will also use its authority under the State Environmental Policy Act (SEPA) to identify, consider and mitigate, where appropriate, significant adverse effects on critical resources not otherwise addressed by the regulations of this chapter. The City intends to review and monitor implementation of its critical areas regulations and to use an adaptive management approach. It will make adjustments to its regulations, as appropriate, in response to changing conditions, new information about best available science, or empirical data indicating the effectiveness of its regulatory program. This will occur in the context of the City's ongoing review and revision of its Comprehensive Plan and development regulations pursuant to the Growth Management Act.

Additional information, both scientific and nonscientific, regarding compliance with WAC 365-195-915(c), including identification of risks to resources, is contained in the findings and conclusions and the overall record supporting adoption of Mountlake Terrace's critical areas regulations. (Ord. 2370 § 3, 2004).

16.15.020 Definitions.

~~For the purposes of this chapter, the following definitions shall apply:~~

~~“Anadromous fish” means fish, such as wild salmon, that migrate up rivers from the sea to breed in fresh water.~~

~~“Applicant” means the person, party, firm, corporation, or other entity that proposes or has performed any activity that affects a critical area.~~

~~“Aquifer” means, generally, any water bearing soil or rock unit. Specifically, a body of soil or rock that contains sufficient saturated permeable material to conduct ground water and yield economically significant quantities of ground water to wells or springs.~~

~~“Aquifer recharge area” means an area where, due to permeable soils, water infiltrates from the surface to ground water aquifers. Recharge areas are classified as “low,” “medium” or “high” based on the soil and ground water conditions and risks depending on the combined effects of hydrogeological susceptibility to contamination and contaminant loading potential, as follows:~~

~~A. Low significance/low susceptibility recharge areas—uplands and sloping areas underlain by soils consisting largely of silt, clay or glacial till.~~

~~B. Medium significance/medium susceptibility—upland areas underlain by soils consisting largely of sand and gravel, and valley floors underlain by soils consisting largely of sand, silt and clay in which there is a significant upward component to ground water flow within the valley alluvium.~~

~~C. High significance/high susceptibility—valley floors, uplands and sloping areas underlain by soils consisting largely of sand and gravel in which there is a predominantly downward or lateral component to ground water flow, and which serve as a source of drinking water.~~

~~“Aquifer susceptibility” means a contributory factor of potential contamination of an aquifer that results from soil, rock and ground water characteristics within a recharge area.~~

~~“Aquifer vulnerability” means the combined effect of aquifer susceptibility and contaminant loading potential; it includes hydrogeologic, land use and other factors that affect the potential for ground water contamination.~~

~~“Artificially created wetland” means wetlands created from nonwetland sites through purposeful, legally authorized human action, such as irrigation and drainage ditches, grass lined swales, canals, retention or detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities.~~

~~“Base flood” or “100-year flood” means a flood having a one percent chance of being equaled or exceeded in any given year, also referred to as the “100-year flood.” The base flood is determined for existing conditions, and is shown on Flood Insurance Rate Maps (FIRM), current version; unless a more complete basin plan including projected flows under future developed conditions has been completed and adopted by the City of Mountlake Terrace, in which case these future flow projections shall be used. In areas where the flood insurance study for the City includes detailed base flood calculations, those calculations may be used.~~

~~“Buffer” or “buffer area, critical area” means a naturally vegetated and undisturbed, enhanced or revegetated zone surrounding a critical area and which protects the critical area from adverse impacts to its integrity and value and is an integral part of the resource’s ecosystem.~~

~~“Building setback” means an area that is the outermost portion of a critical area buffer and that may provide a transition between the primary portion of the critical area buffer and the potential location of a building.~~

~~“City” means the City of Mountlake Terrace.~~

~~“Clearing” means 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.~~

~~“Comprehensive Plan” means the City of Mountlake Terrace Comprehensive Plan as now adopted or hereafter amended.~~

~~“Contaminant loading potential” means the availability within an aquifer recharge area of any potential physical, chemical, biological, or radiological substance that enters the hydrological cycle and may cause a deleterious effect on ground water resources.~~

~~“Creation of critical areas” means the purposeful and legally authorized construction or forming of a wetland or stream from an upland (nonwetland or dry) site through artificial means.~~

~~“Critical aquifer recharge areas” means areas where an aquifer that is a source of drinking water is both highly susceptible and vulnerable to contamination. High significance/high susceptibility recharge areas—generally uplands and sloping areas underlain predominantly by sand and gravel, and valley floors underlain by relatively coarse alluvium—are considered to be critical recharge areas unless site-specific information demonstrates little or no contaminant loading potential.~~

~~“Critical area” or “environmentally critical area” means areas that possess important natural functions and embody a variety of important natural and community values. Such areas include wetlands, streams, fish and wildlife habitat, geologic hazard areas, aquifer recharge areas, flood hazard areas, and areas with significant trees and vegetation. If not conducted properly, development or alteration of such areas may cause significant impacts to the valuable functions and values of these areas and/or may generate risks to the public health and general welfare, and/or to public and private property.~~

~~“Critical area report” means a report prepared by a “qualified consultant” (as that term is defined in this section) to determine the presence, type, class, size, function and/or value of an area subject to these regulations. Also see “Stream reconnaissance report,” “Wetland impact assessment report,” and “Wildlife report.”~~

~~“Critical erosion hazard areas” means lands or areas underlain by soils identified by the U.S. Department of Agriculture Soil Conservation Service (SCS) (now known as the Natural Resource Conservation Service) 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). Additional soil groups may be identified through site-specific analysis.~~

~~“Critical geologic hazard areas” means lands or areas subject to high or severe risks of geologic hazard, including critical erosion hazard areas, critical landslide hazard areas, and critical seismic hazard areas.~~

~~“Critical habitat,” “critical wildlife habitat,” or “critical fish and wildlife conservation area” means 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 Department of Fish and Wildlife (Nongame Data System Special Animal Species) as identified in WAC 232-12-011 or 232-12-014; in the Priority Habitat and Species (PHS) program of the Department of Fish and~~

~~Wildlife; or by rules and regulations adopted currently or hereafter by the U.S. Fish and Wildlife Service or the National Marine Fisheries Service.~~

~~“Critical landslide hazard areas” means 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.~~

~~“Critical seismic hazard areas” means lands or areas where there is a high risk of seismic events and damage.~~

~~“Department” means the City of Mountlake Terrace Department of Community Development, Planning and Development Services, or successor agency, unless the context indicates a different City department.~~

~~“Development” means any human made change to real estate including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment and materials.~~

~~“Director” means the Director of the City of Mountlake Terrace Department of Community Development, Planning and Development Services, or his/her designee.~~

~~“Earth/earth material” means naturally occurring rock, soil, stone, sediment, or a combination thereof.~~

~~“Enhancement” means the improvement of an existing viable wetland, stream or habitat area or the buffers established for such areas, through such measures as increasing plant diversity, increasing wildlife habitat, installing environmentally compatible erosion controls, increasing structural diversity or removing plant or animal species that are not indigenous to the area. Enhancement also includes actions performed to improve the quality of an existing degraded wetland, stream or habitat area. See also “Restoration.”~~

~~“Erosion” means a process whereby wind, rain, water and other natural agents mobilize and transport soil particles.~~

~~“Erosion hazard areas” means 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 Soil Conservation Service (SCS), now known as the Natural Resource Conservation Service (NRCS), soil types: Alderwood-Kitsap (AkF), Alderwood gravelly sandy loam (AgD), Kitsap silt loam (KpD), Everett (EvD) and Indianola (InD). Additional soil groups may be identified through site specific analysis.~~

~~“Excavation” means the removal or displacement of earth material by human or mechanical means.~~

~~“Exotic” means any species of plant or animal that is foreign and not indigenous to the Mountlake Terrace area.~~

~~“Fill/fill material” means a deposit of earth material placed by human or mechanical means.~~

~~“Filling” means the act of transporting or placing (by any manner or mechanism) fill material from, to, or on any surface water body or wetland, soil surface, sediment surface, or other fill material.~~

~~“Flood hazard areas” means those areas subject to inundation by the base flood. A flood hazard area consists of the following components, as determined by the City:~~

~~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 flood waters during the base flood; it is generally associated with shallow, slower moving water rather than rapidly flowing water.~~

~~C. Floodway. The channel of the stream or river 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. It is generally associated with rapidly flowing water.~~

~~“Flood Insurance Rate Map (FIRM)” means the official map prepared as part of (but published separately from) the Flood Insurance Rate Study on which the Federal Emergency Management Agency has delineated both the areas of special flood hazards and the applicable risk premium zones.~~

~~“Frequently flooded areas” means observed areas of localized flooding.~~

~~“Geologic hazard areas” means lands or areas characterized by geologic, hydrologic and topographic conditions that render them susceptible to varying degrees of potential risk of landslides, erosion, or seismic or volcanic activity; and areas characterized by geologic and hydrologic conditions that make them vulnerable to contamination of ground water supplies through infiltration of contaminants to aquifers.~~

~~“Grading” means any excavating, filling, clearing, leveling, or contouring of the ground surface by human or mechanical means.~~

~~“Habitat management” means management of land and its associated resources/features 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.~~

~~“High impact land use” means land uses which are likely to have significant adverse impacts to critical areas because of the intensity of the use, levels of human activity, use of machinery or chemicals, site design or arrangement of buildings and structures. High impact land uses include, but are not limited to, active recreation, residential, institutional, commercial, and industrial land uses.~~

~~“Hydrologically isolated” means wetlands which: (1) have no surface water connection to a lake, river, or stream during any part of the year; (2) are outside of and not contiguous to any 100-year floodplain of a lake, river, or stream; and (3) have no contiguous hydric soil between the wetland and any lake, river, or stream. May also be a pond excavated from uplands with no surface water connection to a stream, lake, or other wetland.~~

~~“In-kind wetland mitigation” means replacement of wetlands with substitute wetlands whose characteristics closely approximate those destroyed or degraded by a regulated activity.~~

~~“Intentionally created streams” means streams created through purposeful human action, such as irrigation and drainage ditches, grass lined swales, and canals. This definition does not include stream modifications performed pursuant to City authorization, such as changes or redirection of stream channels.~~

~~“Landslide” means episodic downslope movement of a mass of soil or rock.~~

~~“Landslide hazard areas” means areas that, due to a combination of slope inclination, relative soil permeability, and hydrologic conditions are susceptible to varying degrees of risk of landsliding. Landslide hazard areas are classified as Classes I through 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 more steeply than 40 percent.~~

~~The slopes referenced above include only those where the surface drops 10 feet or more vertically within a horizontal distance of 25 feet.~~

~~“Low impact land use” means land uses which are not likely to have significant adverse impacts to critical areas because of the intensity of the use, levels of human activity, use of machinery or chemicals, site design or arrangement of buildings and structures. Depending on the specific context, examples of low impact land uses may include utility facilities and passive recreation.~~

~~“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.~~

~~“Mitigation sequencing” means considering or performing mitigation actions, as defined in the definition of “mitigation,” in a preferred sequence from subsections A through E of the definition. Avoidance is generally preferred and must be considered prior to pursuing other forms of mitigation.~~

~~“Native vegetation” means vegetation existing on a site or plant species which are or were indigenous to the area in question.~~

~~“Off site mitigation” means performance of mitigation actions, pursuant to standards established in this chapter, on a site or in an area other than that proposed for conduct of a regulated activity.~~

~~“Out-of-kind mitigation” means replacement of wetlands or habitat with substitute wetlands or habitat whose characteristics do not closely approximate those adversely affected, destroyed or degraded by a regulated activity.~~

~~“Permanent erosion control” means 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.~~

~~“Plant association of infrequent occurrence” means one or more plant species which because of the rarity of the habitat and/or the species involved, or for other botanical or environmental reasons, do not often occur in the City of Mountlake Terrace. 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.~~

~~“Priority habitat/species” or “priority wildlife habitat/species” means habitats and species of local importance and concern in urban areas, as identified by the Washington Department of Fish and Wildlife Priority Habitat and 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; and/or high vulnerability. General types of priority habitat identified in the PHS program—some of which do not occur in the City of Mountlake Terrace—include Aspen stands, cliffs, meadows, oak woodlands, old-growth/ mature forests, riparian areas, shrub steppe, snag-rich areas and wetlands.~~

~~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 critical area in question (e.g., biology, ecology or horticulture/arboriculture for wetlands, streams and wildlife habitat and significant vegetation; geology and/or civil engineering for geologic hazards and aquifer recharge areas), and/or who is professionally trained and/or certified or licensed by the state of Washington to practice in the scientific disciplines necessary to identify, evaluate, manage and mitigate impacts to the critical area in question and who has at least two years of experience in the relevant discipline.~~

~~“Redevelopment” means development of a site that contains or has contained real estate improvements such as buildings or other structures, mining, dredging, filling, grading, paving, or excavation.~~

~~“Regulated activity” means activities that have a potential to significantly impact a critical 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, clearing or harvesting.~~

~~“Restoration” means actions taken to reestablish wetland, stream or habitat functional values and characteristics that have been destroyed or degraded by past alterations (e.g., filling or grading). See also “Enhancement.”~~

~~“Secondary habitat” means areas that offer less diversity of animal and plant species than priority habitat but that are important for performing the essential functions of habitat.~~

~~“Seismic hazard areas” means areas that, due to a combination of soil and ground water conditions, are subject to 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.~~

~~“Site” means the location containing a regulated critical area and on which a regulated activity is proposed. The location may be a parcel or portion thereof, or any combination of contiguous parcels where a proposed activity may impact a critical area.~~

~~“Slope” means an inclined earth surface, the inclination of which is expressed as the ratio of horizontal distance to vertical distance.~~

~~“Stream reconnaissance report” means a type of critical area report prepared by an applicant’s qualified consultant to describe a stream and to characterize its conditions, wildlife, habitat values and water quality.~~

~~“Streams” means 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 intended to include artificially created irrigation ditches, canals, storm or surface water devices or other entirely artificial watercourses unless they are used by salmonids or created for the purposes of stream mitigation.~~

~~“Structural diversity, vegetative” means 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.~~

~~“Substantial improvement” means any repair, reconstruction or improvement the cost of which, during any three-year period, is more than 50 percent of the market value of the structure either (A) before the improvement is started, or (B) before the damage occurred if the structure damaged is being replaced. An improvement occurs when the first alteration of any wall, ceiling, floor or other structural part of the building commences, whether or not the alteration affects the external dimensions of the structure. Substantial improvement does not include (A) an improvement undertaken solely to comply with existing state or local health, sanitary or safety code specifications which are necessary to assure safe conditions; or (B) alteration of a structure listed on the national register of historic places or a state inventory of historic places.~~

~~“Substrate” means the soil, sediment, decomposing organic matter or combination of those located on the bottom surface of the wetland, lake, stream or river.~~

~~“Temporary erosion and sedimentation control” means on-site and off-site control measures to control conveyance or deposition of earth, turbidity or pollutants during development, construction, or restoration.~~

~~“Utility” includes natural gas, electric, telephone and telecommunications, cable communications, water, sewer, or storm drainage and their respective facilities, lines, pipes, mains, equipment and appurtenances.~~

~~“Water dependent use” means a principal use which can only exist when the land/water interface provides biological or physical conditions necessary for the use.~~

~~“Wetland” or “wetlands” means 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, and similar areas. Wetlands do not include those artificial wetlands intentionally created from nonwetland sites, including, but not limited to, irrigation and drainage ditches, grass lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street or highway. However, wetlands include those artificial wetlands intentionally created to mitigate conversion of wetlands.~~

~~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: forested wetland, scrub-shrub wetland, emergent wetland, moss-lichen wetland, unconsolidated shore, aquatic bed, unconsolidated bottom, rock bottom, rocky shore, streambed, and reef.~~

~~"Wetland delineation manual" or "wetland delineation methodology" means the manual and methodology used to identify wetlands in the field, as described in the "Washington State Wetlands Identification and Delineation Manual," adopted by the Department of Ecology in 1997 (pursuant to RCW 36.70A.175 and 90.58.380), and which is based on the U.S. Corps of Engineers Wetlands Delineation Manual (1987). Use of this manual is required by RCW 36.70A.175 and 90.58.380.~~

~~"Wetland impact assessment report" means a report prepared by a "qualified consultant," as that term is defined in this section, that identifies, characterizes and analyzes potential impacts to wetlands consistent with applicable provisions of these regulations. A wetland impact assessment may be combined with and include a formal wetland delineation.~~

~~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, needle-leaved evergreen, dead. The classification system is fully described in Cowardin et al., "Classification of Wetlands and Deepwater Habitats of the United States U.S. Fish and Wildlife Service, Washington, DC, 1979."~~

~~"Wildlife habitat" means areas, including naturally occurring ponds, that provide food, protective cover, nesting, loafing, breeding or movement for fish and wildlife and with which individual species have a primary association.~~

~~"Wildlife report" means 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. (Ord. 2370 § 4, 2004).~~

16.15.030 Applicability – Regulated activities.

A. The provisions of this chapter shall apply to any activity that potentially affects a critical area or its buffer unless otherwise exempt, including but not limited to the following:

1. Removing, excavating, disturbing or dredging soil, sand, gravel, minerals, organic matter or materials of any kind;
2. Dumping, discharging or filling with any material;
3. Draining, flooding or disturbing the water level or water table, or diverting or impeding water flow;
4. Driving pilings or placing obstructions;
5. Constructing, reconstructing, demolishing or altering the size of any structure or infrastructure;
6. Destroying or altering vegetation through clearing, grading, harvesting, shading or planting vegetation that would alter the character of a critical area;

7. Activities that result in significant changes in water temperature, physical or chemical characteristics of water sources, including quantity and pollutants; and
8. Any other activity potentially affecting a critical area or buffer not otherwise exempt from the provisions of this chapter as determined by the Department.

B. To avoid duplication, the following permits and approvals shall be subject to and coordinated with the requirements of this chapter: land clearing; grading; subdivision or short subdivision; temporary erosion and sedimentation control; building permit; planned unit development; shoreline substantial development; variance; conditional use permit and other permits or approvals leading to the development or alteration of land.

C. Nonproject actions, including but not limited to rezones, annexations, and the adoption of plans and programs, shall be subject to the requirements of this chapter. However, the Department may, at its discretion, permit any studies or evaluations required by this chapter to use methodologies and provide a level of detail appropriate to the action proposed and its level of planning. (Ord. 2370 § 5, 2004).

16.15.040 Exemptions.

A. The following activities performed on sites containing critical areas as defined by this chapter shall be exempt from the provisions of this chapter:

1. Activities involving artificially created wetlands or streams intentionally created from nonwetland sites, including but not limited to grass-lined swales, irrigation and drainage ditches, retention or detention facilities, and landscape features, except wetlands or streams created as mitigation or that provide critical habitat for anadromous fish;
2. Normal and routine maintenance, operation and reconstruction of existing roads, streets, utilities and associated structures; provided, that reconstruction of any structures may not increase the impervious area and may not cause further encroachment on the critical area or its buffer;
3. Normal maintenance, repair and reconstruction of residential or commercial structures, facilities and landscaping; provided, that reconstruction of any structures may not increase the previous floor area; and further provided, that the provisions of this chapter and MTMC 19.120.250 are followed;
4. The addition of floor area within an existing building which does not increase the building footprint;
5. Site investigative work and studies that are prerequisite to preparation of an application for development authorization including soils tests, water quality studies, wildlife studies and similar tests and investigations; provided, that any disturbance of the critical area shall be the minimum necessary to carry out the work or studies;
6. Educational activities, scientific research, and outdoor recreational activities, including but not limited to interpretive field trips, bird watching and hiking, that will not have a significant effect on the critical area;
7. Emergency activities necessary to prevent an immediate threat to public health, safety, property or the environment which requires immediate action within a time too short to allow full compliance with this chapter as determined by the Department;

~~8. Previously legally filled wetlands or wetlands accidentally created by human actions prior to January 1, 1990. The latter shall be documented through photographs, statements and/or other conclusive evidence;~~

~~9. Development vested prior to the effective date of the ordinance codified in this chapter; and~~

~~10. Minor activities not mentioned above and determined in advance and in writing by the Department to have minimal impacts to a critical area.~~

B. Notwithstanding the exemptions provided by this section, any otherwise exempt activities occurring in or near a critical area shall comply with the intent of these standards and shall consider on-site alternatives that avoid or minimize significant adverse impacts.

C. With the exception of subsections (A)(1) through (9) of this section, no property owner or other entity shall undertake exempt activities prior to providing 14 days' notice to the City and receiving confirmation in writing that the proposed activity is exempt. 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.

D. Reconstruction of existing structures that intrude into critical area buffers is subject to the nonconformance provisions of MTMC 19.120.250 unless otherwise provided by this chapter and, if permitted, shall not further intrude into the buffer area.

E. Exempt activities occurring in flood hazard areas shall not alter flood storage capacity or conveyance. (Ord. 2370 § 6, 2004).

16.15.050 Critical areas maps.

The approximate location and extent of critical areas within the City and its Urban Growth Area are shown on the critical areas map adopted as part of this chapter. This map shall be used only for informational purposes and as a general guide for the assistance of property owners and other interested parties. The boundaries and locations shown are generalized and do not delimit or precisely depict the extent of regulated critical areas. The actual presence or absence, type, extent, boundaries, and classification of critical areas on a specific site shall be identified in the field by a qualified consultant and determined by the City, according to the procedures, definitions and criteria established by this chapter. In the event of any conflict between the location, extent, designation or type of critical area shown on the City's maps and the criteria or standards of this section, the criteria and standards of this chapter shall prevail.

16.15.060 Relationship to other regulations.

A. These critical area regulations shall apply as an overlay and in addition to zoning, land use and other regulations established by the City of Mountlake Terrace. In the event of any conflict between these regulations and any other regulations of the City, the regulations which provide greater protection to critical areas and/or require more detailed critical area information shall apply.

B. Areas characterized by a particular critical area may also be subject to other regulations established by this chapter due to the overlap or multiple functions of some 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 critical areas in this chapter, the regulations which provide greater protection to environmentally critical areas shall apply. (Ord. 2370 § 8, 2004).

16.15.070 Critical area review process and application requirements.

A. Preapplication Conference. All applicants proposing development within 200 feet of a wetland, stream, or critical wildlife habitat area are required to meet with the City prior to submitting an application subject to this chapter. The Director may waive this requirement for minor projects that do not involve grading. The purpose of this meeting shall be to discuss the City's critical area requirements, processes and procedures; to review any conceptual site plans prepared by the applicant; to identify potential impacts to critical areas and appropriate mitigation measures; and to the extent it can be determined inform the applicant of any federal or state regulations or approvals applicable to the subject critical area. Such conference shall be for the convenience of the applicant and any recommendations shall not be binding on the applicant or the City.

B. Application Requirements.

1. Timing of Submittals. Concurrent with submittal of a SEPA checklist, or concurrent with submittal of an application for a project that is exempt from SEPA, a critical area report must be submitted to the City for review. The purpose of the report is to determine the extent, characteristics and functions of any critical areas located on or potentially affected by activities on a site where regulated activities are proposed. The report will also be used by the City to determine the appropriate critical area classification and to establish appropriate buffer requirements. Critical area reports shall be required for proposed development within 200 feet of a stream or wetland and for any development containing a critical wildlife habitat area or a critical geologic hazard.

2. Report Contents. Reports and studies to be submitted by this chapter shall contain detailed information, as required by the Department, to analyze impacts and options for development within or adjacent to critical areas. The Department may tailor the information required to reflect the complexity of the proposal and the sensitivity of critical areas that may be present. *(Refer to Attachments 1, 2, 3, 4 and 5 for reporting requirements for Wetland, Streams, Wildlife Habitat, Geologic Hazard, and Mitigation Plan respectively.)*

C. Consultant Qualifications and 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. Such review shall be paid for by the applicant.

D. Review Process. This section is not intended to create a separate critical area review permit process for development proposals. To the extent possible, the City shall consolidate and integrate the review and processing of critical area-related aspects of proposals with other land use and environmental considerations and approvals. Any permits required by separate codes or regulations, such as a flood hazard permit or shoreline substantial development permits, shall continue to be required. (Ord. 2370 § 9, 2004).

16.15.080 Classification and rating of critical areas.

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

B. Classification of critical areas shall be determined by the Department based on consideration of the following factors and in the following order:

1. Consideration of the technical reports submitted by qualified consultants in connection with applications subject to these regulations;
2. Application of the criteria contained in these regulations; and
3. Maps adopted pursuant to this chapter.

~~C. Wetland Classification. Wetlands shall be designated Category I, Category II, Category III, Category IV and Artificial according to the criteria in this section. Wetland classifications incorporate the Washington State Wetlands Rating System for Western Washington (DOE, 1993). (Note: As of this draft, Ecology is in the process of revising its wetland rating system. The City will follow the progress of Ecology's process and may consider modifications to its wetland classification system in the future.) Wetland rating categories shall not be altered to recognize illegal modifications. Categories may be modified in accordance with permitted activities.~~

~~1. "Category I wetlands" are those wetlands which meet any of the following criteria:~~

- ~~a. The documented occurrence, as documented by federal or state agencies, within the wetland of plant, animal or fish species listed by the federal government or state of Washington as "endangered," or "threatened"; or~~
- ~~b. High quality native wetland communities listed in or which qualify for inclusion in Washington Natural Heritage Program maintained by the state Department of Natural Resources; or~~
- ~~c. Documented, by federal or state agencies, as regionally significant waterfowl concentration areas; or~~
- ~~d. Wetlands with irreplaceable ecological attributes per WDFW criteria; or~~
- ~~e. Wetlands of local significance, as now or hereafter designated by the City of Mountlake Terrace, pursuant to criteria in the Washington State Wetland Rating System for Western Washington.~~

~~2. "Category II wetlands" are those wetlands which are not Category I wetlands and which meet any of the following criteria:~~

- ~~a. Wetlands with a documented occurrence within the wetland of a federal or state listed "candidate" or "sensitive" species of plant, animal or fish species; or~~
- ~~b. Wetlands that contain "priority" species or habitats documented by the Washington Department of Wildlife Priority Habitat and Species program; or~~
- ~~c. Wetlands with significant functions, as determined by the wetland report required by these regulations, which may not be adequately replicated through creation or restoration; or~~
- ~~d. Wetlands with significant habitat value (greater than or equal to 22 points using the wetlands rating field form required by these regulations); or~~
- ~~e. Wetlands of local significance, as now or hereafter designated by the City of Mountlake Terrace.~~

~~3. "Category III wetlands" are those wetlands that are not Category I or II wetlands, and which meet any of the following criteria:~~

- ~~a. Wetlands with significant habitat value (where the habitat score is less than or equal to 21 points using the wetlands rating field data form, as required by these regulations); or~~
- ~~b. Wetlands of local significance, as now or hereafter designated by the City of Mountlake Terrace.~~

~~4. “Category IV wetlands” are those wetlands which meet any of the following criteria:~~

- ~~a. Wetlands that are less than one acre, that are hydrologically isolated, and that are comprised of only one vegetated class which is dominated (greater than 80 percent areal cover) by either soft rush, hard hack, buck brush, or cattail; or~~
- ~~b. Wetlands that are less than two acres, that are hydrologically isolated, and that are comprised of one vegetated class, and 90 percent of the areal coverage is any combination of invasive or exotic plants (as listed in Table 3 of the Washington State Wetlands Rating System for Western Washington, 1993).~~

~~5. “Artificially created wetlands” are wetlands as defined in MTMC 16.15.020. Such wetlands, except for those that were created as mitigation or that were previously modified for approved land use activities, are excluded from regulation under this section; provided, that their purposeful creation is demonstrated to the Department through documentation, photographs, statements and/or other evidence.~~

D. 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 on the property in question (e.g., the stream changes character in short alternating segments), it will be classified according to the stream class present along the majority of the length within a given section. The stream class shall change at the point at which the majority of the length receives a different classification.

1. “Class I streams” are those natural streams identified as “shorelines of the state” under the City of Mountlake Terrace Shoreline Master Program.
2. “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:
 - a. Anadromous fish use;
 - b. Significant potential for anadromous fish use; if the fish or its habitat have not been designated or documented by federal or state agencies, the guidance in Appendix 3 of the Recording Requirements shall be used to determine potential for anadromous fish use; or
 - c. Significant recreational value, as determined by the Department.
3. “Class III streams” are those natural streams with perennial (year-round) or intermittent flow and are not used by anadromous fish.
4. “Class IV streams” are those natural streams and drainage swales with channel width less than two feet taken at the ordinary high water mark that are not used by salmonid fish.
5. “Class V streams” are those natural streams that are not Class I, II, III or IV streams, which are seasonal (i.e., surface flow is not present for at least some portion of the year), which do not contain fish, and which are not located downstream of a Class IV stream reach.
6. “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 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,” as designated by federal or state agencies, for anadromous fish.

E. Wildlife Habitat Classification. Wildlife habitat areas shall be classified as critical or secondary according to the criteria in this section.

1. “Critical habitat” are those habitat areas which meet any of the following criteria:
 - a. The documented presence of species or habitat listed by federal or state agencies as “endangered,” “threatened,” “candidate” or “sensitive” or “priority”; or
 - b. The presence of unusual nesting or resting sites such as heron rookeries or raptor nesting trees; or
 - c. “Category I wetlands,” as defined in these regulations; or
 - d. “Class I streams,” as defined in these regulations.
2. “Secondary habitat” is habitat which is valuable to wildlife and support a wide variety of species due to its undisturbed nature, a diversity of plant species and structure, presence of water, or the area’s size, location or seasonal importance.

F. Aquifer Recharge Areas. Aquifer recharge areas, if identified, shall be classified as “low,” “medium” and “high” significance based on the soil and ground water conditions and risks to potable water and to surface water during periods of low hydrology. Classification depends on the combined effects of hydrogeological susceptibility to contamination and contaminant loading potential, as follows:

- a. Low significance recharge areas – uplands and sloping areas underlain by silt, clay or glacial till.
- b. Medium significance – valley floors underlain by relatively fine-grained alluvial soils.
- c. High significance – uplands and sloping areas underlain predominantly by sand and gravel, and valley floors underlain by relatively coarse alluvium.

~~G. Geologic Hazard Classifications. Geologic hazard areas shall be classified according to the criteria in this section:~~

~~1. 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), now known as the Natural Resource Conservation Service, as having “severe” or “very severe” erosion hazards. This includes 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).~~

~~2. Landslide Hazard Areas. “Landslide hazard areas” are classified as “Class I,” “Class II,” “Class III” or “Class IV” as follows:~~

- ~~a. Class I/Low Hazard. Areas with slopes of 15 percent or less.~~
- ~~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 with slopes 40 percent or greater.~~

~~3. 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. (Ord. 2370 § 10, 2004).~~

16.15.090 Buffer areas and setbacks.

A. General Provisions. The establishment of buffers, buffer areas or setbacks shall be required for all development proposals and activities in or adjacent to critical areas. The purpose of the buffer shall be to protect the integrity, function and value of the subject critical area (wetlands, streams, and wildlife habitat areas), and/or to protect life, property and resources from risks associated with development on unstable or critical lands (geologic hazard areas, flood hazard areas, aquifer recharge). Buffers shall typically consist of an undisturbed area of native vegetation. No buildings or structures shall be allowed unless otherwise permitted by this chapter. If the site has previously been disturbed, the buffer area shall be revegetated pursuant to an approved enhancement plan. Buffers shall be protected during construction by placing a temporary barricade, posting notice of the presence of the critical area, and implementing appropriate erosion and sedimentation controls. Restrictive covenants or conservation easements may be required to provide long-term preservation and protection of buffer areas.

B. Required buffer widths shall reflect the sensitivity of the particular critical area or the risks associated with development. In those circumstances permitted by these regulations, the type and intensity of human activity proposed to be conducted on or near the critical area should also be considered. Buildings shall be set back a minimum of 15 feet from the edge of the buffer. Buffers shall be measured as follows:

~~1. Wetland buffers — the buffer shall be measured perpendicular from the wetland edge as delineated and marked in the field using the 1997 Washington State Wetlands Identification and Delineation Manual;~~

2. Stream buffers – the buffer shall be measured from the ordinary high water mark;

~~3. Geologic hazard area setbacks — buffers shall be measured from the top and toe and along the sides of the hazardous slope.~~

C. Buffer widths shall be established according to the following standards and criteria:

~~1. Wetland Buffers.~~

~~a. Wetland buffers shall be established as follows:~~

Wetland Category	Buffer Width	Building Setback
Category I	300 feet	25 feet
Category II	100 feet	15 feet

Category III	65 feet	15 feet
Category IV	50 feet	15 feet

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

~~i. Buffer width averaging shall be allowed only where the applicant demonstrates to the Department that the wetland contains variations in sensitivity due to existing physical characteristics and/or that lower intensity land uses would be located adjacent to areas where buffer width is reduced; and that averaging will not adversely impact the wetland functional values. In any case, the total area contained within the buffer after averaging shall be no less in area than contained within the standard buffer prior to averaging. The required building setback shall not be included in the area used to calculate buffer averaging.~~

~~ii. Buffer width on a site with existing development that has a legal nonconforming buffer and is proposed for redevelopment, notwithstanding the provisions of MTMC 19.120.250, may be reduced by up to 25 percent if an applicant undertakes measures approved by the Department to enhance or restore the buffer; provided, that best available science indicates such measures are likely to enhance the functions and values of the wetland compared to existing conditions. The restoration or enhancement may include, but is not limited to, planting of native trees or shrubs, increasing the diversity of plant cover types, or replacement of exotic species with native species which approximate in composition a naturally occurring plant community.~~

~~iii. Application of subsection (C)(1)(b)(i) or (ii) of this section shall not result in buffer width being reduced on any part of the parcel by more than 25 percent of the buffer otherwise required under subsection (C)(1)(a) of this section; provided, that buffers for hydrologically isolated Type IV wetlands smaller than 250 square feet may not be reduced by more than 35 percent.~~

~~c. Limited uses and activities which are consistent with the purpose and function of the wetland buffer, are consistent with the sensitivity of the wetland, and do not detract from its integrity may be permitted by the Department within the buffer. Examples of uses and activities with minimal impacts which may be permitted in appropriate cases include permeable pedestrian trails or viewing platforms, and utility easements; provided, that any impacts to the buffer resulting from such permitted activities shall be mitigated.~~

d. Low impact uses may be permitted within the building setback. Examples of such uses include utilities, recreation, and temporary construction staging required for such uses, and permitted accessory uses; provided, that any building or structure shall not be of such size as to require issuance of a building permit.

e. Long-term protection of a regulated wetland and its associated buffer shall be provided by one of the following methods: placing in a separate tract on which development is prohibited; execution of an easement; dedication to a conservation organization or land trust; or preserved through a comparable 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 Snohomish County Department of Records.

2. Stream Buffers.

a. The following minimum buffers are established for streams:

Stream Class	Minimum Buffer Width (ft)	Additional Buffer (ft) for Threatened or Endangered Species	Building Setback (ft)
I	150	75	15
II	100	50	15
III	65	0 (no anadromous fish)	15
IV	50	0 (no anadromous fish)	15
V	Determined based on review of required technical information		

The buffer widths required in this section are minimums, except as provided below, and may be increased by the Department in response to site-specific conditions and based on the information submitted to characterize the functions and values of the stream. (*Refer to Attachment I.*)

b. A buffer width greater than the minimum may be required by the Department based on the findings of site-specific studies.

c. The applicant may propose to implement one or more enhancement measures, listed below, which may be considered in establishing buffer requirements under subsection (C)(2)(b) or (C)(2)(f) of this section:

- i. Removal of fish barriers to restore accessibility to anadromous fish;
- ii. Enhancement of fish habitat using log structures incorporated as part of a fish habitat enhancement plan;
- iii. Landscaping outside the buffer area with native vegetation or a reduction in the amount of clearing outside the buffer area;
- iv. 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;
- v. Creating a surface channel where a stream was previously culverted or piped;
- vi. Removing or modifying existing stream culverts (such as at road crossings) to improve fish passage and flow capabilities which are not detrimental to fish;
- vii. Upgrading retention/detention facilities or other drainage facilities beyond required levels; or
- viii. Similar measures determined applicable by the Department.

d. No structures or improvements shall be permitted within the stream buffer area, including buildings, decks, and docks, except as otherwise permitted under one of the following circumstances:

- i. When the improvements are part of an approved enhancement, restoration or mitigation plan; or

- ii. For construction of new public roads and utilities, and accessory structures, when no feasible alternative location exists; or
 - iii. Construction of foot trails, according to the following criteria:
 - (A) Constructed of permeable materials;
 - (B) Designed to minimize impact on the stream system;
 - (C) Of a maximum width of eight feet;
 - (D) Located within the outer half of the buffer, i.e., the portion of the buffer that is farther away from the stream; or
 - iv. Construction of footbridges; or
 - v. Construction of educational facilities, such as viewing platforms and informational signs.
- e. The Department may permit buffer widths to be averaged for segments of Class II, III, IV or V streams based on the findings of the stream report (*refer to Attachment 2*), subject to the following criteria: stream functions will not be reduced; fish habitat will not be adversely affected; additional enhancement of habitat is provided in conjunction with the reduced buffer; the buffer is not reduced more than 25 percent in any location; and the total buffer area after averaging is not less than what would be contained in the standard buffer. For averaging purposes, stream buffer widths shall be calculated based only on the stream segment located on the parcel being developed.
- f. Buffer width on a site with existing or prior commercial development that has a legal nonconforming buffer and is proposed for redevelopment with improvements that will increase the economic viability of the development, notwithstanding the provisions of MTMC 19.120.250, may be reduced by up to 25 percent if an applicant undertakes measures approved by the Department to enhance or restore the buffer; provided, that best available science indicates such measures are likely to enhance the functions and values of the wetland compared to existing conditions. The restoration or enhancement measures may include, but are not limited to, those measures listed in subsection (C)(2)(c) of this section.
- g. Long-term protection of a regulated stream and its associated buffer shall be provided by one of the following methods: placing 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 Snohomish County.
3. Wildlife Habitat Areas.
- a. Buffer widths for critical habitat areas shall be determined by the Department based on consideration of the following factors: (i) species recommendations of the Washington Department of Fish and Wildlife, based on consideration of published species-specific information and consultation with the Department; (ii) recommendations contained in the wildlife study submitted by a qualified consultant, following the reporting requirements

of these regulations (*refer to Attachment 3*); and (iii) the nature and intensity of land uses and activities occurring on the site and on adjacent sites. Buffers shall not be required for secondary habitat unless such habitat includes another regulated critical area for which a buffer is required by this chapter.

b. Wildlife habitat buffer widths may be modified by averaging buffer widths or by enhancing or restoring buffer quality, pursuant to scientific analysis that the functions and values of the wildlife habitat will be retained or enhanced.

c. Certain 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 by the Department within the buffer depending on the sensitivity of the habitat area. Examples of uses and activities with minimal impact which may be permitted in appropriate cases include permeable pedestrian trails and viewing platforms, and utility easements; provided, that any impacts to the buffer resulting from permitted facilities shall be mitigated. When permitted, such facilities shall be located in the outer 10 feet of the buffer.

d. Long-term protection of critical habitat areas and their associated buffer(s) shall be provided by one of the following methods. It shall 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 Snohomish County.

~~4. Critical Geologic Hazard Areas.~~

~~a. Required buffers for critical geologic hazard areas shall vary between 15 feet and 50 feet in most cases. The width of the buffer shall reflect the sensitivity of the geologic 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 Department shall consider the recommendations contained in any technical report required by these regulations and prepared by an applicant's qualified consultant.~~

~~b. Buildings and structures shall be set back an additional minimum of 15 feet from the edge of the critical area buffer. (Refer to Attachment 4.)~~

~~c. Setbacks may be reduced when the applicant demonstrates through technical studies that the reduction will adequately protect the geologic hazard and the proposed development in view of proposed engineering techniques.~~

~~D. Buffer Width Variances. A "minor critical area buffer width variance," defined as up to and including 10 percent of the standard requirement under subsection (C)(1)(a) or (C)(2)(a) of this section, may be granted by the Hearing Examiner pursuant to the following:~~

~~1. A complete application for a minor critical area buffer width variance, including the appropriate variance fee, has been received by the Department;~~

~~2. Procedural requirements, including those in MTMC 18.05.420, 18.05.500, and 18.05.620, have been met; and~~

~~3. The minor critical area buffer width variance being requested is consistent with the following criteria:~~

- ~~a. There are unique physical conditions peculiar and inherent to the affected property which make it difficult or infeasible to strictly comply with the provisions of this section;~~
- ~~b. The variance is the minimum necessary to accommodate the building footprint and access;~~
- ~~c. The proposed variance would preserve the functions and values of the critical area, and/or the proposal does not create or increase a risk to the public health, safety and general welfare, or to public or private property;~~
- ~~d. The proposed variance would not adversely affect surrounding properties;~~
- ~~e. Adverse impacts to critical areas resulting from the proposal are minimized; and~~
- ~~f. The special circumstances or conditions affecting the property are not a result of the actions of the applicant or previous owner. (Ord. 2370 § 11, 2004).~~

16.15.100 Alteration or development of critical areas – Standards and criteria.

Alteration of critical areas and/or their established buffers may be permitted by the Department subject to the criteria of this section. Standards for mitigation of impacts to critical areas are identified in MTMC 16.15.110.

A. Wetlands.

1. Category I Wetlands. Alterations of Category I wetlands shall be avoided subject to the reasonable use provisions of this chapter.
2. Category II Wetlands.
 - a. Alteration and mitigation shall comply with the mitigation performance standards and requirements of these regulations; and
 - b. No net loss of wetland functions and values may occur.
3. Category III and IV Wetlands.
 - a. Alteration and mitigation shall comply with the mitigation performance standards and requirements of these regulations;
 - b. Where enhancement restoration or creation is proposed, replacement ratios shall comply with the requirements of these regulations; and
 - c. No net loss of wetland functions and values may occur.

B. Streams.

1. Relocation of a Class I stream shall be prohibited. Relocation of other streams may take place only when it is part of an approved mitigation or enhancement or restoration plan, will result in equal or better habitat and water quality, and will not diminish the flow capacity of the stream. Relocation of a Class II, III and IV stream exclusively to facilitate general site design shall not be permitted.
2. Bridges shall be used to cross Class I streams; boring/micro-tunneling may be considered for utility crossings if it would result in the same or lower impacts as bridging.
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;
 - iii. Gravel substrate will be placed in the bottom of the culvert to a minimum depth of one foot for Class II and Class III 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 culvert be removed from a stream as a condition of approval, unless the culvert is not detrimental to fish habitat or water quality, or removal would be a long-term detriment to fish or wildlife habitat or water quality.

C. Wildlife Habitat.

1. Critical Habitat. Alterations of critical habitat shall be avoided, subject to the reasonable use provisions of this chapter.
2. Secondary Habitat. Alterations of secondary habitat may be permitted; provided, that the applicant mitigates adverse impacts consistent with the performance standards of MTMC 16.15.120, and other requirements of this chapter.

~~D. Geologic Hazard Areas.~~

~~1. General Standard. The City may approve, condition or deny proposals for the alteration of geologic hazard areas based on the degree to which significant risks posed by critical hazard areas to public and private property and to public health and safety can be mitigated. 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 or one characterized by a low hazard. In appropriate cases, 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, unless permitted as a reasonable use exception under MTMC 16.15.150.~~

~~2. Class IV Landslide Hazard Areas. Alteration shall be prohibited in Class IV (very high) landslide hazard areas, subject to the reasonable use provisions of this chapter.~~

~~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 International 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, at the City's discretion, may include one or more of 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 letter from the applicant, or the owner of the property if not the applicant, stating an understanding and acceptance of any risk of injury or damage associated with development of the site and agreeing to notify any future purchasers of the site, portions of the site, or structures located on the site of the geologic hazard;~~

~~c. A legally enforceable hold harmless agreement, which shall be recorded as a covenant and noted on the face of the deed or plat, and executed in a form satisfactory to the City, acknowledging that the site is located in a geologic hazard area; the risks associated with development of such site; and a waiver and release of any and all claims of the owner(s), their directors, employees, successors or assigns against the City of Mountlake Terrace for any loss, damage or injury, whether direct or indirect, arising out of issuance of development permits for the proposal; and~~

~~d. 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 avoided in critical (high significance) aquifer recharge areas:

a. Land uses and activities that involve the use, storage, transport or disposal of regulated quantities of chemicals, substances or materials that are toxic, dangerous or hazardous, as those terms are defined by state regulations (per WAC 173-303-070 through 173-303-100, and Chapter 173-342 WAC);

b. On-site sewage disposal systems;

c. Underground or outdoor 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 MTMC 16.15.110 and 16.15.120.

F. Flood Hazard Areas – Development Standards.

1. Flood Hazard Areas Generally. Any development in flood hazard areas is subject to the provisions of Chapters 15.05 and 16.20 MTMC. (Ord. 2370 § 12, 2004).

~~16.15.110 Mitigation standards, criteria and plan requirements.~~

~~A. Mitigation Standards.~~

- ~~1. Adverse impacts to critical area functions and values shall be mitigated. Mitigation actions shall be implemented in the preferred sequence identified in this chapter. Proposals which include less preferred and/or compensatory mitigation shall demonstrate that:
 - ~~a. All feasible and reasonable measures have been taken to reduce impacts and losses to the critical area, or to avoid impacts where avoidance is required by these regulations;~~
 - ~~b. The restored, created or enhanced critical area or buffer will be as viable and enduring as the critical area or buffer area it replaces; and~~
 - ~~c. In the case of wetlands and streams, no overall net loss will occur in wetland or stream functions and values. The mitigation shall be functionally equivalent to the altered wetland or stream in terms of hydrological, biological, physical and chemical functions.~~~~

~~B. Location and Timing of Mitigation.~~

- ~~1. Mitigation shall be provided on-site. Mitigation may be allowed off-site only when it is determined by the Department that on-site mitigation is not scientifically feasible or practical due to physical features of the property, or where the affected site is identified as appropriate for off-site mitigation pursuant to an off-site mitigation program. The burden of proof, based on a preponderance of the evidence, shall be on the applicant to demonstrate that mitigation cannot be provided on-site.~~
- ~~2. When mitigation cannot be provided on-site, mitigation shall be provided in the same drainage basin as the permitted activity on property owned, secured or controlled by the applicant where such mitigation is practical and beneficial to the critical area and associated resources. Mitigation sites shall be located within the City.~~
- ~~3. In-kind mitigation shall be provided except when the applicant demonstrates, based on a preponderance of the evidence, and the Department concurs, that greater functional and habitat value can be achieved through out-of-kind mitigation.~~
- ~~4. When wetland, stream or habitat mitigation is permitted by these regulations on-site or off-site, the mitigation project shall occur near an adequate water supply (river, stream, ground water) with a hydrologic connection to the critical area to ensure a successful mitigation or restoration. A natural hydrologic connection is preferential as compared to one which relies upon manmade features requiring routine maintenance.~~
- ~~5. Any agreed upon mitigation plan shall be completed before initiation of other permitted activities, unless a phased or concurrent schedule that assures completion prior to occupancy has been approved by the Department.~~

~~C. Wetland Replacement Ratios.~~

- ~~1. Where wetland alterations are permitted by the Department, the applicant shall enhance or create areas of wetlands in order to compensate for wetland losses. The compensation shall be determined according to acreage, function, type, location, timing factors, and projected success of enhancement or creation.~~
- ~~2. The following acreage replacement and enhancement ratios shall be implemented. The Department may vary these standards only if the applicant can demonstrate, and the Department agrees, that the variation will be compensated by mitigation that will replace the~~

~~lost functions of the wetland. In no case shall the amount of mitigation be less than the area of affected wetland. The Department may at its discretion increase these standards where mitigation is to occur off-site or in other appropriate circumstances.~~

Wetland Category	Wetland Creation Replacement Ratio	Wetland Enhancement Ratio (Acre)
-	(Acre Created or Enhanced: Acre Impacted)	
Category I	6:1	12:1
Category II	Forested 3:1	6:1
-	Scrub/Shrub 2:1	4:1
-	Emergent 2:1	4:1
Category III	Forested 3:1	6:1
-	Scrub/Shrub 2:1	4:1
-	Emergent 2:1	4:1
Category IV	1.25:1	2.5:1

~~Source: Wetland Mitigation Replacement Ratios: Defining Equivalency, Department of Ecology, 1992. (Ord. 2370 § 13, 2004).~~

16.15.120 Performance standards for mitigation planning.

The performance standards in this section and the standards in MTMC 16.15.110 shall be incorporated into mitigation plans submitted to the Department to address impacts to critical areas. Mitigation plans shall contain detailed critical area information as required by the Department to analyze impacts and alternatives. *(Refer to Attachment 5.)*

A. Wetlands and Streams.

1. Use plants native to the Puget Lowlands; nonnative, introduced plants or plants listed by the Washington State Department of Agriculture as noxious weeds (Chapter 16-750 WAC) shall not be used;
2. Use plants adapted to and appropriate for the proposed habitats and consider the ecological conditions known or expected to be present on the site. For example, plants assigned a facultative wetland (FACW) wetland indicator status should be used for sites with soils that are inundated or saturated for long periods during the growing season. Use nearby reference wetlands or aerial photos to identify plants suitable to the site conditions and hydrologic regimes planned for the mitigation site;
3. Avoid planting significant areas of the site with species that have questionable potential for successful establishment, such as species with a narrow range of habitat tolerances;
4. Specify plants that are commercially available from native-plant nurseries or available from local sources; if collecting some or all native plants from donor sites, collect in accordance with ecologically accepted methods, such as those described in the Washington Native Plant Society’s Policy on Collection and Sale of Native Plants, that do not jeopardize the survival or integrity of donor plant populations;
5. Use perennial plants in preference to annual species;

6. Use plant species high in food and cover value for native fish and wildlife species that are known or likely to use the mitigation site (according to reference wetlands, published information, and professional judgment);
7. Install a temporary irrigation system and specify an irrigation schedule unless a sufficient naturally occurring source of water is demonstrated;
8. For stream substrate or wetland soils, at least one foot of clean inorganic and/or organic materials, such as cobble, gravel, sand, silt, clay, muck, or peat as appropriate shall be ensured. The stream substrate or wetland soils shall be free from solid, dangerous, or hazardous substances as defined by Chapter 70.105 RCW and implementing rules;
9. Confine temporary stockpiling of soils to upland areas. Unless otherwise approved by the Department, comply with all applicable best management practices for clearing, grading, and erosion control to protect any nearby surface waters from sediment and turbidity;
10. Show densities and placement of plants; these should be based on the ecological tolerances of species proposed for planting, as determined by a qualified consultant;
11. Provide sufficient specifications and instructions to ensure proper placement diversity and spacing of seeds, tubers, bulbs, rhizomes, springs, plugs, and transplanted stock and other habitat features, to provide a high probability of success, and to reduce the likelihood of prolonged losses of wetland functions from proposed development. Prepare contingency plans for all mitigation proposals;
12. Do not rely on fertilizers and herbicides to promote establishment of plantings; if fertilizers are used, they must be applied per manufacturer specifications to planting holes in organic or time-release forms, such as Osmocote® or comparable formulations, and never broadcast on the ground surface; if herbicides are used to control invasive species or noxious weeds and to help achieve performance standards, only those approved for use in aquatic ecosystems by the Washington Department of Ecology shall be used; herbicides shall only be used in conformance with all applicable laws and regulations and be applied per manufacturer specifications by an applicator licensed in the state of Washington;
13. Include the applicant's mitigation plan consultant in the construction process to ensure the approved mitigation plan is completed as designed. At a minimum, the consultant's participation will include site visits to inspect completed rough and final grading, installation of in-water or other habitat structures, and to verify the quality and quantity of native plant materials before and after installation; and
14. During construction, place temporary markers, signs and/or fencing around the perimeter of the critical area, where practical and applicable to particular critical areas.

B. Wetlands.

1. Do not exceed a maximum water depth of 6.6 feet (two meters) at mean low water unless approved as part of a planned interspersion of wetland vegetation classes and deep-water habitats;
2. Do not exceed a slope of 25 percent (4H:1V) in the wetland unless it can be clearly demonstrated by supporting documentation that wetland hydrology and hydric soils capable of supporting hydrophytic (wetland) vegetation will be created on steeper slopes;

3. Do not exceed a slope of 25 percent (4H:1V) in the wetland buffer.

C. Wildlife Habitat.

1. Incorporate relevant performance standards from subsections A and B of this section, as determined by the Department;

2. Include the following additional mitigation measures in mitigation planning:

a. Locate buildings and structures in a manner that minimizes adverse impacts on critical habitats used by priority or threatened or endangered species and identified by the Washington State Department of Fish and Wildlife, National Marine Fisheries Services, and U.S. Fish and Wildlife Services. Priority habitats include, but are not limited to, riparian areas, streams, wetlands, caves, snags and logs, talus, and urban natural open space;

b. Integrate retained habitat into open space and landscaping;

c. Wherever possible, consolidate critical habitats into larger, unfragmented, contiguous blocks;

d. Use native plant species for landscaping of disturbed or undeveloped areas and in any habitat enhancement or restoration activities;

e. Create habitat heterogeneity and structural diversity that emulates native plant communities described in Natural Vegetation of Oregon and Washington (Franklin, J.F. and C.T. Dyrness 1988) or other regionally recognized publications on native landscapes;

f. Remove and/or control any noxious weeds or exotic animals which are problematic to the critical habitat area as determined by the Department or consultant hired by the City to review the mitigation plan; and

g. Preserve significant or existing native trees, preferably in stands or groups, consistent with achieving the goals and standards of this chapter; the plan shall reflect the report prepared pursuant to MTMC 16.15.070.

~~D. Geologic Hazard Areas.~~

~~1. Relevant performance standards, as determined by the Department, shall be incorporated into mitigation plans.~~

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

~~a. A geotechnical study shall be prepared 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 shall minimize disruption of existing topography and natural vegetation;~~

~~d. Impervious surface coverage shall be minimized;~~

~~e. Disturbed areas shall be replanted as soon as feasible pursuant to an approved landscape plan;~~

~~f. Clearing and grading shall be limited to the period of May 1st to October 1st unless the geotechnical report specifically addresses measures necessary to perform clearing and grading during other portions of the year;~~

- ~~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. 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.~~

E. Aquifer Recharge Areas.

1. Development within “high and medium significance aquifer recharge areas,” as those terms are defined in these regulations, shall implement the following measures:

- a. Underground storage of chemicals, substances or materials that are toxic, hazardous or dangerous is prohibited;
- b. Any chemicals, substances or materials that are toxic, hazardous or dangerous as defined by state law (per WAC 173-303-070 through 173-303-100 and Chapter 173-342 WAC) should be segregated and stored in receptacles or containers that meet state and federal standards;
- c. Storage containers should 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 should be constructed around storage areas to retard the spread of any spills and a monitoring system should be implemented;
- e. A written operations plan should 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. The tanks should include overflow protection systems and positive controls on outlets to prevent uncontrolled discharges;
- h. Development should be clustered and impervious surfaces limited where possible;
- i. No waste 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 Department, 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 City.

On completion of construction, any approved mitigation project must be signed off by the applicant’s qualified consultant and approved by the Department. Signature will indicate that the construction has been completed as approved. (Ord. 2370 § 14, 2004).

16.15.130 Monitoring program and contingency plan.

A. For all actions requiring a mitigation plan, a monitoring program shall be prepared and

implemented by the applicant to evaluate the success of the mitigation project and to determine necessary corrective actions. This program shall determine if the original goals and objectives are being met. The monitoring program shall be reviewed and approved by the Department prior to implementation.

B. The monitoring program shall include a contingency plan in the event that implementation of the mitigation plan 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 approved mitigation plan. The amount of the performance and maintenance bond shall equal 125 percent of the cost of the mitigation project for the length of the monitoring period; the Department may agree to reduce the bond in proportion to work successfully completed over the period of the bond.

C. Incorporate the following into monitoring programs prepared to comply with this chapter:

1. Appropriate, accepted, and unbiased qualitative or precise and accurate quantitative sampling methods to evaluate the success or failure of the project compared to performance standards approved by the City;
2. Quantitative sampling methods that include permanent photopoints installed at the completion of construction and maintained throughout the monitoring period and shall also include permanent transects, sampling points (e.g., plots or quadrants or water quality or quantity monitoring stations), and wildlife monitoring stations;
3. Clearly stipulated qualitative and quantitative sampling methods that are approved by the City or the consultant selected by the City to review the monitoring plan before implementation by the project proponent;
4. Appropriate qualitative and/or quantitative performance standards that will be used to measure the success or failure of the mitigation. These will include, at a minimum, standards for plant survival and diversity, including structural diversity, the extent of wetland hydrology, hydric soils, and habitat types and requirements as appropriate; all proposed standards are subject to review and approval by the City or the consultant selected by the City to review the monitoring plan;
5. Monitoring programs for an appropriate period of time, usually three to five years, that include, at a minimum: preparation of an as-built plan; biannual monitoring and preparation of annual monitoring reports following implementation; and a maintenance plan. More stringent monitoring requirements may be required on a case-by-case basis for more complex mitigation plans;
6. Monitoring reports shall be submitted to the Department by December 1st of the year in which monitoring is conducted. The reports are to be prepared by a qualified consultant and must contain all qualitative and quantitative monitoring data, photographs, and an evaluation of each of the applicable performance standards. If performance standards are not being met, appropriate corrective or contingency measures must be identified and implemented to ensure that performance standards will be met;
7. Provision for extension of the monitoring period beyond the minimum timeframe if performance standards are not being met at the end of the initial three- or five-year period; and provision for additional financial securities or bonding to ensure that any additional

monitoring and contingencies are completed to ensure the success of the mitigation. (Ord. 2370 § 15, 2004).

16.15.140 Procedural provisions.

A. Interpretation and Conflicts. The Director shall have the authority to administer the provisions of this chapter, to make determinations with regard to the applicability of the regulations, to interpret the intent of unclear provisions, to require additional information, to determine the level of detail and appropriate methodologies for critical area reports and studies, to prepare application and informational materials as required, to promulgate procedures and rules for unique circumstances not anticipated with the standards and procedures contained within this section.

B. Enforcement.

1. Voluntary Correction. When it has been determined that a violation has occurred or is occurring, the City of Mountlake Terrace may enter into a voluntary correction agreement, which is a contract between the City and the responsible person, under which such person agrees to abate the violation within a specified time and according to specified conditions. The voluntary correction agreement shall include the following:

- a. The name and address of the person responsible for the violation; and
- b. The street address or other description sufficient for identification of the building, structure, premises, or land upon or within which the violation has occurred or is occurring; and
- c. A description of the violation and a reference to the regulation which has been violated; and
- d. The necessary corrective action to be taken, and a date or time by which the correction must be completed; and
- e. An agreement by the person responsible for the violation that the City may inspect the premises as necessary to determine compliance with the voluntary correction agreement; and
- f. A statement of understanding that if the terms of the voluntary correction agreement are not satisfied, that the City may abate the violation and recover its costs and expenses (including attorney fees, expert witness fees, and court costs) from the person responsible for the violation, and/or they may be subject to a monetary penalty; and
- g. A statement of understanding that by entering into the voluntary correction agreement, the person responsible for the violation waives the right to a hearing as to the existence of the violation and stipulates to the same. A statement of understanding that an extension of the time limit for correction or a modification of the required corrective action may be granted if the person responsible for the violation has shown due diligence and/or substantial progress in correcting the violation, but unforeseen circumstances delay correction under the original conditions.

2. Notice of Civil Violation. When it is determined that a violation has occurred or is occurring, and the City is unable to secure voluntary correction or a voluntary agreement is

not applicable, the City may issue a notice of civil violation, or a “notice and order” to the person responsible for the violation. A “notice and order” shall include the following:

- a. The name and address of the person responsible for that violation; and
- b. The street address or description sufficient for identification of the building, structure, premises, or land upon or within which the violation has occurred or is occurring; and
- c. A description of the violation and a reference to the provision(s) of the City regulation(s) which has been violated; and
- d. The required corrective action and a date and time by which the correction must be completed, after which the City may abate the unlawful condition using all legal means; and
- e. A statement that the order may be appealed to the Hearing Examiner upon filing a written request for hearing with the City Manager or designee within 15 days of issuance of the order. Failure to timely file a notice of appeal shall constitute a waiver of the right to appeal the determination of the order. An appeal hearing, timely requested, shall be set before the Hearing Examiner no less than 20 days but no more than 60 days from the date the notice of civil violation is issued, unless such date is continued by the Hearing Examiner for good cause or by agreement of the parties; and
- f. A statement indicating that the hearing will be canceled and no monetary penalty will be assessed, other than City costs and expenses, if the required corrective action is completed and approved by the City prior to the hearing; and
- g. A statement that the costs and expenses of abatement incurred by the City and a monetary penalty in an amount per day or week for each violation may be assessed against the person to whom the notice of civil violation is directed as specified and ordered by the court.

Service of the notice to the person responsible for the violation may be done either personally or by mailing a copy of the notice of civil violation by certified or registered mail, return receipt requested, to such person at their last known address. If the person responsible for the violation cannot be personally served within Snohomish County and if an address for mailed service cannot be ascertained, notice shall be served by posting a copy of the notice of civil violation conspicuously on the affected property or structure. Proof of service shall be made by a written declaration under penalty of perjury executed by the person effecting the service, declaring the time and date of service, the manner by which the service was made and, if by posting, the facts showing the attempts to serve the person personally or by mail.

3. Abatement.

- a. **Urgent Abatement.** Whenever a condition, the continued existence of which constitutes an immediate threat to the public health, safety or welfare or to the environment, is found to exist, the City may summarily and without prior notice abate the condition. Notice of such abatement, including the reason for it, shall be given to the person responsible for the violation as soon as reasonably possible after the abatement.
- b. **Judicial Abatement.** The City may seek judicial process, as it deems necessary to abate a condition which was caused by or continues to be a violation of this chapter and other

methods of remedial action failed to produce compliance. An order of abatement is issued through the appropriate court of jurisdiction.

C. Penalties.

1. Violation of, or failure to comply with, any provision of this chapter is a civil offense except as otherwise provided, and subject to a fine as established by resolution. If the violation has not been corrected pursuant to a notice and order, or the fine is not paid within 15 days of issuance of the notice and order and the notice and order has not been appealed, the violation shall constitute a continued offense subject to the penalties in subsection (C)(3) of this section.
2. Any person or entity cited for violation under subsection B of this section may request an administrative hearing by notifying the Department in writing within 15 days of the issuance of the citation. The requested hearing shall be brought before the Hearing Examiner in accordance with and pursuant to Chapter 2.120 MTMC.
3. A continued offense or subsequent violation of the same or like provision committed within a 24-month period shall constitute a misdemeanor crime and shall be punishable by a fine not to exceed \$1,000 or 90 days in jail, or both such fine and jail time, and shall be in addition to any civil remedy for abatement and collection for the cost and expense thereof.

D. Appeals of Critical Area Review Decisions. Critical area review decisions may be appealed to the Hearing Examiner pursuant to Chapter 2.120 MTMC by a party with standing and shall be governed by the following procedures and standards:

1. Written Appeal. Appeals shall be written and shall state the following:
 - a. The decision being appealed, the name of the project applicant and the date of the decision.
 - b. The name and address of the person appealing, and his or her interest in the matter.
 - c. The reasons why the person appealing believes the decision to be in error under the provisions of this chapter.
2. Filing the Appeal. The person appealing shall file the appeal and applicable fee with the Director of Community Services within 14 calendar days after the date of the decision being appealed.
3. Standards. In deciding the appeal, the Hearing Examiner shall determine whether the critical area decision, pursuant to the appeal, was in error pursuant to the provisions of this chapter. (Ord. 2370 § 16, 2004).

~~16.15.150 Reasonable use provision.~~

~~A. The standards and requirements of these regulations are not intended, and shall not be construed or applied in a manner, to deny all reasonable 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 use of a property, development may be permitted subject to appropriate conditions.~~

~~B. Applications for a reasonable use exception shall be processed for consideration by the Hearing Examiner, pursuant to Chapter 2.120 MTMC.~~

~~C. An applicant for relief from strict application of these standards shall demonstrate that all of the following criteria are met:~~

- ~~1. No reasonable use with less impact on the critical area and its buffer is possible; and~~
- ~~2. No feasible and reasonable on-site alternative is possible to the activities proposed, considering possible changes in site layout, reductions in density and similar factors, that would allow a reasonable economic use with fewer adverse impacts; and~~
- ~~3. The proposed activities, as conditioned, will result in the minimum possible impacts to affected critical areas; and~~
- ~~4. All reasonable mitigation measures have been implemented or assured; and~~
- ~~5. The inability to derive reasonable economic use is not the result of the applicant's actions or that of a previous property owner, such as by segregating or dividing the property and creating an undevelopable condition; and~~
- ~~6. Any alteration of a critical area approved under this section shall be subject to appropriate conditions and will require mitigation under an approved mitigation plan.~~

~~D. Approval of a reasonable use exception shall not eliminate the need for any other permit or approval otherwise required by applicable City codes. (Ord. 2370 § 17, 2004).~~

ATTACHMENTS

1. Wetland Study & Reporting Requirements
2. Stream Reconnaissance Report Requirements
3. Wildlife Study and Report Requirements
4. Geologic Hazard Report Requirements
5. Mitigation Plan Requirements

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Attachments**

WETLAND STUDY & REPORTING REQUIREMENTS

1. Prior to the issuance of a SEPA threshold determination for a proposal within 200 feet of a wetland, as defined in MTMC 16.15.020, 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 or potentially affected by activities 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 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 any city 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" = 40' 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, preferably 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 200 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 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.

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e. Field data sheets from the 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 MTMC 16.15.120.

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STREAM RECONNAISSANCE REPORT REQUIREMENTS

1. Prior to the issuance of a SEPA threshold determination for a proposal, 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 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 buffering requirement for the stream. 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. Stream banks (or stream centerline) 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 Mountlake Terrace stream inventory map;
c. Streams shall be located approximately on a site map at an appropriate engineering scale such that information shown is not cramped or illegible. Generally, a scale of 1" = 40' 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, preferably at 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. 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 Section 12.

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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 buffering 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, preferably at 5-foot intervals;
 - v. 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;
 - 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 be expected to be found;
 - viii. the results of searches of DNR's Natural Heritage and Non-Game Data System databases; and
 - viii. the result of searches of the Washington Department of Fish and 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 Department.

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d. A summary of proposed habitat and buffer alterations, impacts and mitigation. 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 Department may require field studies in appropriate cases.

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GEOLOGIC HAZARD REPORTING REQUIREMENTS

1. Applicants for activities within geologic hazard 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 Mountlake Terrace critical 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. Recommend surface water management controls during construction and operation; and
 - vi. Proposed construction scheduling;
- 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. Proposed construction scheduling;
 - vii. 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

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- 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) is for controlling surface water runoff.
- g. All Critical Geologic Hazard Areas:
 - 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, preferably at 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 in the immediate vicinity.
 - 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.

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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 sensitive area functions, values and acreage as a result of the proposed action. This plan shall consider the chemical, physical, and biological impacts on the critical area system using a recognized assessment or evaluation methodology and/or best professional judgment.

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 Department 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;
- iii. A review of literature or experience to date in restoring or creating the type of wetland proposed;
- iv. Approximate site topography following construction;
- v. Location of proposed wetland compensation area;
- vi. General hydrologic patterns on the site prior to and following construction;
- vii. Nature of compensation, including wetland 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 Department, 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 functions and values compared to the functions and values of the original wetland. 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 wetlands values and wetland buffers that will be lost as a result of the activities, and of the replacement wetlands and buffers, including but not limited to the following:

- (i) Acreage of project;
- (ii) Existing functions and values;
- (iii) Sizes of wetlands, wetland buffers, and areas to be altered;

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- (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 five foot contour intervals;
 - (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 this chapter.
- (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 in response to changes, and consistent with requirements of this chapter.
- (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 chapter.