ORDINANCE O-4918

AN ORDINANCE OF THE CITY OF KIRKLAND RELATING TO ZONING AND LAND USE TO UPDATE KIRKLAND'S CRITICAL AREAS ORDINANCE THROUGH AMENDMENTS TO CHAPTERS 5, 85, 90, AND 95 OF THE KIRKLAND ZONING CODE, AND ESTABLISHING AN EFFECTIVE DATE; FILE NO. CAM25-00248.

WHEREAS, the Growth Management Act (GMA), specifically RCW 36.70A.130, mandates that the City of Kirkland take legislative action to review, and if needed, revise its Comprehensive Plan and development regulations to ensure continued compliance with the GMA (also known as "periodic review"); and

WHEREAS, on December 10, 2024, the City Council adopted Ordinance O-4896 amending the Comprehensive Plan in compliance with the GMA; and

WHEREAS, the GMA also requires that critical areas be designated, that all functions and values of those critical areas be protected, and that the City must conduct a periodic review and update of its critical areas regulations no later than 12 months after its Comprehensive Plan update; and

WHEREAS, the City Council has received a recommendation from the Planning Commission to amend Chapters 5, 85, 90, and 95 of the Kirkland Zoning Code (KZC) as set forth in the staff report dated October 21, 2025, bearing Kirkland Planning and Building Department File No. CAM25-00248, so as to bring the City's Critical Area Ordinance into compliance with the GMA; and

WHEREAS, prior to making the recommendation to amend the KZC, and following the noticing requirements of KZC 160.40, the Planning Commission held a public hearing on October 23, 2025, on the amendment proposals and considered the comments received at the public hearing; and

WHEREAS, pursuant to the State Environmental Policy Act (SEPA), there has been a SEPA Addendum to the City of Kirkland 2015 Comprehensive Plan Update Draft and Totem Lake Planned Action Ordinance Final Environmental Impact Statement (EIS), the NE 85th Street Station Area Planned Action Final Supplemental EIS, and the 2044 Comprehensive Plan Update Final Supplemental EIS, that was issued by the responsible official pursuance to WAC 197-11-625 on October 22, 2025; and

WHEREAS, in a regular public meeting on December 9, 2025, the City Council considered the SEPA determination made by the City's SEPA Responsible Official, together with the report and recommendation of the Planning Commission; and

WHEREAS, the City Council recognizes that adoption of this ordinance is necessary to comply with the periodic review and update requirements under the GMA, RCW 36.70A.130.

NOW, THEREFORE, the City Council of the City of Kirkland do ordain as follows:

Section 1. A new section entitled "Adaptive Management" is hereby created, to be added to Chapter 5 of the Kirkland Zoning Code (KZC) and codified as KZC 5.10.018, to read as follows:

.018 Adaptive Management
A systematic process to continually evaluate and improve the effectiveness of critical areas policies, regulations and practices by learning from feedback loops and the outcomes of implementation. This circle involves monitoring processes and is applied at different project scales ranging from site restoration, code effectiveness, to meeting goals such as no net loss of critical areas across a watershed.

Section 2. A new section entitled "Anadromous Fish" is hereby created, to be added to Chapter 5 KZC and codified as KZC 5.10.038, to read as follows:

.038 Anadromous Fish – A type of fish including salmon, steelhead, some trout and other fish that are born in freshwater, migrate to the salt water of the ocean to live their lives, and then return to freshwater to spawn. These fish impact many ecosystems throughout their life.

Section 3. KZC 5.10.079 is amended to read as follows, with the new text shown in underline, deletions shown in ~~strikethrough~~, and the intentional omission of unchanged sections or parts of tables indicated with three asterisks (* * *); all other provisions of these sections remain unchanged and in full force, and these provisions for identifying changes apply throughout this ordinance:

.079 Best Management Practices (BMPs)
Schedules of activities, prohibitions of practices, maintenance procedures and structural or managerial practices developed and vetted as industry guidance that, when used singly or in combination will improve ~~C~~conservation practices or systems of practices and management measures such as practices that:

1. Control soil loss and reduce water quality degradation caused by high concentrations of nutrients, animal waste, toxins, or sediment;

2. Minimize adverse impacts to surface water and ground water flow and circulation patterns and to the chemical, physical and biological characteristics of critical areas;

3. Protect trees, vegetation, and soils designated to be retained during and following site construction and native plant species appropriate to the site for re-vegetation of disturbed areas; ~~and~~

4. Provide standards for proper use of chemical herbicides within critical areas and;~~.~~

5. Prevent or reduce the release of pollutants to waters of the state.

Section 4. A new section entitled "Channel Migration Zone" is hereby created, to be added to Chapter 5 KZC and codified as KZC 5.10.116, to read as follows:

.116 Channel Migration Zone
Areas in a floodplain where a stream channel can move naturally over time changing the location of the stream banks and ordinary high water mark.

Section 5. A new section entitled "Climate-Ready Vegetation" is hereby created, to be added to Chapter 5 KZC and codified as KZC 5.10.127, to the KZC to read as follows:

.127 Climate-Ready Vegetation

Plants, including native and non-native, but not invasive, species that may be adapted or resilient to the impacts of changing urban climatic conditions. This includes native plants from a wider genetic range than just the Puget Sound basin, and plants from nearby regions that may survive with minimal water, have pest and disease resistance, and may survive the expected climate changes in the Puget Sound region.

Section 6. KZC 5.10.178 is hereby amended to read as follows:

.178 Critical Area Buffer

The regulated area contiguous to a critical area that protects ~~maintains~~ the functions and/or structural stability of the critical area.

Section 7. KZC 5.10.178.5 is hereby amended to read as follows:

.178.5 Critical Area Maps

Maps maintained by the Department of Planning and Building~~; specifically Geologically Hazardous Areas Map~~ for Chapter 85 KZC~~,~~ and ~~Wetlands, Streams and Lakes Map for~~ Chapter 90 KZC. These maps are for educational purposes and not to be used for survey purposes.

Section 8. KZC 5.10.179.5 is hereby amended to read as follows:

.179 Critical Area Restoration

Measures taken to restore or repair an altered or damaged natural feature, including:

1. Active steps taken to restore damaged wetlands, streams, protected habitat, or their buffers to the functioning condition that existed prior to an unauthorized alteration; and

2. Actions performed to reestablish structural and functional characteristics of a critical area that have been lost by alteration, past management activities, catastrophic events, or introduction of invasive species.

Section 9. KZC 5.10.179.5 is hereby amended to read as follows:

.179.5 Critical Areas

Critical areas include the following areas: (a) wetlands; (b) critical aquifer recharge areas; (c) fish and wildlife habitat conservation areas, and streams, riparian management zones, and priority habitat areas; (d) frequently flooded areas; and (e) geologically hazardous areas, as defined in Chapter 36.70A RCW and this chapter.

Section 10. A new section entitled "Ecosystem Functions" is hereby created, to be added to Chapter 5 KZC and codified as KZC 5.10.270.5, to read as follows:

.270.5 Ecosystem Functions

The products, physical and biological conditions, and environmental qualities of an ecosystem that result from interactions among ecosystem processes and structures. Ecosystem functions include, but are not limited to, sequestered carbon, attenuated peak streamflow, aquifer water levels, reduced pollutant concentrations in surface and ground waters, cool summer in-stream water temperatures, and fish and wildlife habitat functions. Ecosystem functions include critical or natural areas as well as urban ecosystem interactions and contributions.

Section 11. A new section entitled "Ecosystem Values" is hereby created, to be added to Chapter 5 KZC and codified as KZC 5.10.270.7, to read as follows:

.270.7 Ecosystem Values
The cultural, social, economic, and ecological benefits that are attributed to ecosystem functions.

Section 12. KZC 5.10.321 is hereby amended to read as follows:

.321 Fish and Wildlife Habitat Conservation Area
Areas that serve a critical role in sustaining needed habitats for priority species and which, if altered, may reduce the likelihood that the species will persist over the long term. These areas may include, but are not limited to: ~~necessary for maintaining species in suitable habitats within their natural geographic distribution so that isolated subpopulations are not created. These areas include~~:

1. Ecological systems, communities and habitats including seasonal ranges, breeding habitat, winter ranges, and movement corridors associated with ~~Areas with which~~ state or federally designated endangered, threatened, and sensitive species have a primary association;

2. "Habitats of local importance" associated with species found to be locally important by the City or King County ~~Areas with which species of local importance have a primary association~~;

3. Naturally occurring ponds under 20 acres and their submerged aquatic beds that provide fish or wildlife habitat, including those artificial ponds intentionally created from dry areas in order to mitigate impacts to ponds;

4. Waters of the state, including lakes, rivers, ponds, streams, inland waters, underground waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington.;

5. These areas do not include such artificial features or improvements such as irrigation delivery systems, infrastructure, or canals, drainage ditches that lie within the boundaries of and are maintained by a port district or an irrigation district or company.

Section 13. A new section entitled "Fish Habitat" is hereby created, to be added to Chapter 5 KZC and codified as KZC 5.10.321.5, to the KZC to read as follows:

.321.5 Fish Habitat
Habitat which is used by any fish species at any life stage at any time of the year, including potential habitat likely to be used by fish, which could reasonably be recovered by restoration or management, as defined in WAC 220-660-030 (52).

Section 14. KZC 5.10.327.10, entitled "Functions and Values," is hereby repealed.

Section 15. A new section entitled "Geotechnical Technician" is hereby created, to be added to Chapter 5 KZC and codified as KZC 5.10.329, to read as follows:

.329 Geotechnical Technician
A non-licensed geotechnical professional working under the supervision of a geologically hazardous area qualified professional.

Section 16. KZC 5.10.346.6 is hereby amended to read as follows:

.346.6 Habitats and Species of Local Importance

1. The priority habitats and priority species present within the City which are identified in the Washington Department of Fish and Wildlife's Priority Habitats and Species (PHS) list and maps; and

2. Any species of local concern designated by the City pursuant to KZC 90.95(8) due to their population status or their sensitivity to habitat manipulation~~, which will be listed here~~.

Section 17. KZC 5.10.442, entitled "Isolated Wetland," is hereby repealed.

Section 18. A new section entitled "Isolated Critical Area Buffers" is hereby created, to be added to Chapter 5 KZC and codified as KZC 5.10.443, to read as follows:

.443 Isolated Critical Area Buffer"

An area located within the regulated buffer where natural drainage, soil connectivity, or habitat corridors have been disconnected from the critical area due to legal development activity.

Section 19. KZC 5.10.536.7 is hereby amended to read as follows:

.536.7 Moderate Landslide Hazard Areas

Areas with slopes between 15 percent and 40 percent over a height of at least 10 feet, which do not meet the definition of high landslide hazard area.

Section 20. KZC 5.10.539 is hereby amended to read as follows:

.539 Monitoring

Evaluating the impacts of ~~development proposals on the biological, hydrological, and geological elements of such systems and assessing the performance of required mitigation measures~~ both development and mitigation projects on critical area functions based on systematic process of observing, measuring and evaluating project success through the collection and analysis of data ~~by various methods~~ to assess if plans align with project goals, and no net loss requirements. Monitoring a project should track against established performance indicators, milestones, or timelines, and identify risks or issues to meeting those ~~for the purpose of understanding and documenting changes in natural ecosystems and features.~~ Monitoring must includes gathering baseline data to assess change.

Section 21. A new section entitled "No Net Loss" is hereby created, to be added to Chapter 5 KZC and codified as KZC 5.10.567, to read as follows:

.567 No Net Loss

A standard established by the Shoreline Management Act and the Growth Management Act in Washington State to protect the ecological functions of critical areas such as wetlands, streams, and shorelines. The objective of the no net loss requirements is to ensure no overall reduction in existing ecosystem functions and values. New development must use mitigation sequencing to avoid further degradation of critical areas functions through protection of existing areas, repair of degraded areas or compensating to offset unavoidable impacts to critical areas through an approved regional approach to maintain critical area functions and values pursuant to WAC 365-196-830 as amended.

Section 22. KZC 5.10.627, entitled Out-of-Kind Wetland Compensation or Mitigation, is hereby repealed.

Section 23. KZC 5.10.651 is hereby amended to read as follows:

.651 Pervious Surface

As opposed to impervious surfaces, these are surfaces that allow, water to infiltrate into the ground. Pervious surfaces include pervious paving, lawn, landscaping, uncompacted bare ground, wood chips, pasture and native vegetation areas. For the purposes of compliance with storm water development regulations, impervious and pervious surfaces are defined pursuant to Chapter 15.52 KMC.

Section 24. A new section entitled "Priority Habitat" is hereby created, to be added to Chapter 5 KZC and codified as KZC 5.10.690, to read as follows:

.690 Priority Habitat

Priority Habitat means a habitat type with unique or significant value to many species. An area identified and mapped as priority habitat has one or more of the following attributes: comparatively high fish and wildlife density, comparatively high fish and wildlife species diversity, important fish and wildlife breeding habitat, important fish and wildlife seasonal ranges, important fish and wildlife movement corridors, limited availability, high vulnerability to habitat alteration, and unique or dependent species. Habitat and Species of Local Importance and Fish and Wildlife Habitat areas may be regulated as priority species habitat.

Section 25. A new section entitled "Priority Species" is hereby created, to be added to Chapter 5 KZC and codified as KZC 5.10.691, to read as follows:

.691 Priority Species

Priority Species means fish and wildlife species requiring protective measures and/or management actions to ensure their survival. A species identified and mapped as a priority species in the WDFW Priority Habitat and Species (PHS) program in Washington fit one or more of the following criteria: State-listed candidate species, vulnerable aggregations, and Species of recreational, commercial, and/or Tribal importance.

Section 26. KZC 5.10.748 is hereby amended to read as follows:

.748 Qualified Critical Area and Shorelines Professional

A qualified professional for critical areas and shorelines projects shall have a minimum of five (5) years of experience in the pertinent scientific discipline and experience in preparing critical area or shoreline reports. A qualified critical area or shorelines professional must have obtained a Bachelor's degree in biology, engineering, geology, environmental studies, fisheries, geomorphology, soil science, ecology, botany,or other ~~a related~~ field related to their expertise. The Planning Official may require professionals to demonstrate the basis for qualifications and shall make the final determination as to qualifications. A qualified professional must meet the following additional ~~specific~~ professional requirements, dependent upon the type of critical area or the type of work required ~~on the subject property or shoreline project that is proposed~~:

1. Wetlands ~~and streams~~ Qualified Professional: Shall be certified as a professional wetland scientist (PWS); through the Society of Wetland Scientists, and

   a. Shall have additional course work beyond their bachelors focused on wetland ecology, wetland delineation or similar; and

b. Have at least five (5) years of full-time work experience as a wetland professional, including delineating wetlands ~~using the state or federal manuals~~, preparing wetland reports, conducting functional assessments, and developing and implementing wetland mitigation plans.

2. Fish and Wildlife and Priority ~~h~~Habitat ~~c~~Conservation ~~a~~Areas Qualified Professional: A professional biologist~~,~~ meeting the requirements below relevant to the project~~. with a degree in biology, or a related degree, with experience preparing reports for the relevant type of species~~.

a. For Priority Habitat Conservation areas: Bachelor's degree in related field and three (3) years Wildlife biology or fisheries experience, with experience preparing reports for the relevant type of species and local expertise in stream verifications;

b. For buffer mitigation planning: At least five (5) years of experience designing, installing, and monitoring restoration or mitigation projects for wetlands, streams or other critical areas and experience preparing restoration plans and monitoring reports, and incorporating adaptive management concepts.

3. Geologically hazardous area qualified professional: A professional engineer, geologist or hydrogeologist, licensed in the state of Washington, with experience analyzing geologic, hydrologic, and groundwater flow systems, and who has experience preparing reports for the relevant type of hazard.

4. Shorelines and Stream Qualified Professional: A professional engineer, geologist or hydrologist, licensed in the state of Washington, and 3 year~~'~~s' experience of shoreline stabilization measures, or riparian design in Pacific Northwest environments. ~~an advanced degree in biology, or a related degree, and including a professional wetland scientist, a certified arborist, or a shoreline designer or other consultant familiar with lakeshore processes and shore stabilization~~.

Section 27. A new section entitled "Riparian Management Zone" is hereby created, to be added to Chapter 5 KZC and codified as KZC 5.10.812, to read as follows:

.812 Riparian Management Zone

The zone of influence surrounding and including a stream that protects riparian ecosystems and may provide or repair riparian functions such as wildlife habitat, stormwater interception and filtration, and stream shade, and cooling. The RMZ is based off of BAS and local influence. The RMZ is measured similarly to riparian buffers from the ordinary high-water mark, or in few cases, from the edge of the Channel migration zone (see WAC 365-190-030).

Section 28. KZC 5.10.898 is hereby amended to read as follows:

.898 Stream Types

Streams shall be typed pursuant to WAC 222-16-030 and 222-16-031.

1. Type F water: means segments of natural waters, other than type S waters, which are within the bankfull widths of defined channels and periodically inundated areas of their associated wetlands, or within lakes, ponds, or impoundments having a surface area of 0.5 acre or greater at seasonal low water and which are known to be used by fish or meet the physical criteria to be potentially used by fish, ~~contain fish habitat~~ or are described by one of the four categories not commonly found in Kirkland pursuant to WAC 222-16-030, as amended~~.~~ Type 2 and 3 waters are considered Type F waters pursuant to WAC 22.16.031.

2. Type Np water: means all segments of natural waters within the bankfull widths of defined channels ~~that are not perennial nonfish habitat streams~~ consisting of, ~~Perennial streams are~~ flowing waters that do not go dry any time of a year of normal rainfall and include the intermittent dry portions of the perennial channel below the uppermost point of perennial flow pursuant to WAC 222-16-030, as amended, or

3. ~~Type Ns: means all segments of natural waters within the bankfull width of the defined channels that are not Type F, or Np waters. These are~~ seasonal, nonfish habitat streams in which surface flow is not present for at least some portion of a year of normal rainfall and are ~~not located downstream from any stream reach that is a Type Np water. Ns waters must be~~ physically connected by an above-ground channel system to Type F, or Np waters pursuant to WAC 222-16-030, as amended. Type N waters do not meet the physical criteria of a Type F stream and have been proven not to contain fish. Type N Waters consist of both Type Np and Ns waters and can be classified as Type 4 and 5 waters pursuant to WAC 22.16.031.

Section 29. A new section entitled "Waters of the State" is hereby created, to be added to Chapter 5 KZC and codified as KZC 5.10.976.1, to read as follows:

.976.1 Waters of the State
All waters defined as "surface waters of the state and "waters of the state" within the State of Washington, including lakes, rivers, ponds, streams, inland waters, underground water courses, and all other waters per RCW 90.48.020.

Section 30. A new section entitled "Watershed Approach" is hereby created, to be added to Chapter 5 KZC and codified as KZC 5.10.978, to read as follows:

.978 Watershed Approach
An analytical process for making compensatory mitigation decisions that support the sustainability or improvement of wetlands in a watershed. It involves consideration of watershed needs, and how locations and types of compensatory mitigation projects address those needs. A landscape perspective is used to identify the types and locations of compensatory mitigation projects that will benefit the watershed and offset losses of wetland functions and services caused by authorized activities. The watershed approach may involve consideration of landscape scale, historic and potential wetland conditions, past and projected wetland impacts in the watershed, and terrestrial connections between wetlands when determining compensatory mitigation requirements.

Section 31. KZC 5.10.988.15 is hereby amended to read as follows:

.988.15 Wetland Mitigation Bank
A site certified under WAC 173-700 where wetlands are restored, created, enhanced, or in exceptional circumstances, preserved, expressly for the purpose of providing compensatory mitigation in advance of unavoidable impacts to wetlands or other aquatic resources that typically are unknown at the time of certification to compensate for future, permitted impacts to similar resources.

Section 32. A new section entitled "Wetland Non-Federally Regulated" is hereby created, to be added to Chapter 5 KZC and codified as KZC 5.10.988.21, to the KZC to read as follows:

.988.21 Wetland Non-Federally Regulated
A wetland that is not jurisdictional under the federal Clean Water Act. Sometimes referred to as "isolated wetlands," these wetlands remain regulated under state and local laws and rules, whether or not they are protected by federal law.

Section 33. KZC 85.10 is hereby amended to read as follows:

85.10 Applicability

1. General – This chapter applies to any property that contains any of the following hazard areas as defined in Chapter 5 KZC: ~~, including those shown on critical areas maps relating to this chapter: entitled "Landslide Susceptibility" and "Liquefaction Potential":~~

   a. ~~An erosion hazard area.~~ Erosion Hazard Areas

   b. ~~A landslide hazard area.~~ Landslide Hazard Areas (including high and moderate landslide hazard areas)

   c. ~~A seismic hazard area.~~ Seismic Hazard Areas (including liquefaction potential)

2. In determining the applicability of this chapter, the Planning Official may request a memorandum prepared by a Qualified Critical Areas Professional which evaluates the applicability of the definitions of Moderate Landslide Hazard and High Landslide Hazard. If the Planning Official concurs with the findings, no further action otherwise required by this chapter will be required. Nothing in this section or in the provided memo obligates the Planning Official to waive any portion of this chapter.

3~~2~~. Conflict with Other Provisions of this Code – The provisions of this chapter supersede any conflicting provisions of this code. The other provisions of this code that do not conflict with the provisions of this chapter apply to property that contains a geologically hazardous area. If more than one (1) provision of this chapter applies to the subject property because of the presence on the subject property of more than one (1) type of geologically hazardous area, then the regulations that provide the greatest protection from the hazardous area shall apply to the area governed by multiple regulations.

4~~3~~. SEPA Compliance – Nothing in this chapter or the decisions made pursuant to this chapter in any way affect the authority of the City to review, approve, condition, and deny projects under SEPA.

Section 34. KZC 85.12 is hereby amended to read as follows:

85.12 Critical Area Maps

The City~~'s~~ maintains critical area maps relating to this chapter ~~are entitled "Landslide Susceptibility" and "Liquefaction Potential." The City also maintains~~ and ~~general mapping of~~ other known critical areas. These maps and other available resources (such as topographic maps, soils maps, and aerial photos) are for reference only. ~~intended only as guides. They depict the approximate location and extent of known critical areas. Some critical areas depicted in these resources may no longer exist and critical areas not shown in these resources may currently be present.~~ The maps show the inferred locations of geologic hazard areas based on regional mapping and may not coincide with geologic hazard areas as defined in Chapter 5 KZC. The maps are intended to be used as a screening tool to identify potential geologic hazard locations. The presence or absence of a geologic hazard area shall be based on a geologic hazard area definition provided in Chapter 5 KZC. The presence and risks of geologic hazards must be determined through site-specific studies such as a geotechnical investigation. The provisions of this chapter and the findings of a geotechnical report and review of the report by the City take precedence over the City's mapping in regard to identification and mitigation of potential geologic hazards. Site-specific geologic hazard studies shall be conducted prior to approval of development, land surface modification, utility installation, or other activities to determine ~~evaluate~~ if a geologic hazard area ~~actually~~ exists, and to assess suitable options for hazard mitigation, if appropriate.

Section 35. KZC 85.20 is recodified within the same chapter as a new section KZC 85.16 with no amendments, so it reads as follows:

85.16 Required Review

1. General – Except as specified in subsection (2) of this section, the Planning Official will review and decide upon any proposed development activity within a geologically hazardous area.

2. Other Approval Required – If the proposed development on the subject property requires approval through Process I, IIA, or IIB, described in Chapters 145, 150, and 152 KZC, respectively, the proposed development activity within the geologically hazardous area will be reviewed and decided upon as part of that other process.

3. The decision on a proposed project shall be to approve, deny or approve with conditions.

4. The City may modify any decision, prior to completion of the project, made under this section when it has been determined that physical circumstances have markedly and demonstrably changed on the subject property or the surrounding areas as a result of natural processes or human activity. This authority does not include requiring removal of structures or additions to structures that have been legally constructed under this decision.

Section 36. A new section entitled "Exemptions" is hereby created, to be added to Chapter 85 KZC and codified as KZC 85.17, to read as follows:

85.17 Exemptions

The consequences of failure for the following activities, improvements, and uses present a low-level risk to property or persons (based on type of structure proposed, slope height, surrounding structures, and other characteristics) and are exempt from the provisions of KZC 85.16 through 85.25 unless otherwise deemed non-exempt by the Planning Official due to special circumstances.

1. Repair, maintenance, and replacement of existing decks, including the addition and or reconfiguration of footings, that do not increase the previously approved structure footprint.

2. Repair, maintenance, or replacement of existing utilities.

3. Installation of HVAC and similar types of mechanical equipment, including any hardscape surface beneath them, provided the total footprint is less than nine (9) square feet.

4. Installation of fences, including permanent critical area markers, fencing, and signage required under KZC 90.190.

5. Remodels within the footprint of an existing, legally constructed structure, including second story additions, provided that the project does not include any non-exempt, land-disturbing development activity outside of the building footprint.

Section 37. KZC 85.15 is recodified within the same chapter as a new section KZC 85.19 and further amended to read as follows:

85.19 Required Information

The City may require the applicant to submit some or all of the following information, consistent with the nature, ~~and~~ extent, and phase of the proposed development activity~~, for any proposed development activity~~ in a geologically hazardous area:

~~1. A topographic survey of the subject property, or the portion of the subject property specified by the Planning Official, with two (2) foot contour intervals. This mapping shall contain the following information:~~

~~a. Delineation of areas containing slopes 15 percent or greater, and identification of slopes 40 percent of greater.~~

~~b. Wetlands, streams and lakes on or adjacent to the subject property.~~

~~c. The location of storm drainage facilities on the subject property.~~

~~d. Existing vegetation, including size and type of significant trees.~~

~~2.~~1. Geotechnical Investigation – An ~~geotechnical~~ investigation, prepared by a qualified critical area professional ~~geotechnical engineer licensed in Washington State or engineering geologist licensed in Washington State~~, to determine if a landslide hazard area or seismic hazard area exists on the subject property. A topographic survey (see KZC 85.19.3) is required to support the findings of a geotechnical investigation. The topographic survey requirement may be waived if the Planning Official can determine that no areas of the subject property meet the definition of a high or moderate landslide hazard area with the information otherwise provided in the investigation (e.g., there is evidence of erroneously mapped hazards resulting from human-made improvements).

The investigation may be submitted prior to or along with any development permits. If the investigation identifies a geologically hazardous area on the subject property and development is proposed within that area or recommended setback, a geotechnical report shall be required in accordance with KZC 85.19.2 unless exempt under KZC 85.22.3.

~~3.~~2. Geotechnical Report – A ~~geotechnical~~ report, prepared by a geologically hazardous area qualified professional ~~geotechnical engineer licensed in Washington State or engineering geologist licensed in Washington State~~, required for development activity within a geologically hazardous area showing and including the following information:

a. Report Abstract - A summary of the geotechnical report for the property where the development activity is proposed. At a minimum the abstract should confirm the presence of a geologically hazardous area on the subject property; describe the geologic conditions, type, and extent of the hazard; provide a hazard analysis; and identify all materials referenced in the preparation of the report (e.g., geotechnical investigation, development permit materials, etc.).

b. Peer Review Exemption Analysis – Identify if the proposed development complies with any of the exemption criteria (see KZC 85.22.3) and is therefore exempt from third party peer review.

c. Statement of Safety – Provided that risk associated with the project indicates that geologic hazards associated with the project can be mitigated, the report must include the following statement: "The proposed development can be undertaken safely as long as the measures/recommendations of the geotechnical report are incorporated into the project pans.

d. Development Impacts – ~~a.~~ A description of how the proposed development will or will not affect slope stability, surface and subsurface drainage, erosion, and seismic hazards on the subject property and other potentially impacted properties.

e. Slope Movement – ~~b.~~ Evidence, if any, of holocene or recent landsliding, sloughing, or soil creep.

f. Surface Water and Groundwater – ~~c.~~ The location of springs, seeps, or any other surface expression of groundwater, and the location of surface water or evidence of seasonal runoff or groundwater.

g. Fill Areas – ~~d.~~ Identification of existing fill areas.

h. Soil Description – ~~e.~~ Soil description in accordance with the Unified Soil Classification Systems.

i. Groundwater – ~~f.~~ Depth to groundwater and estimates of potential seasonal fluctuations, if applicable to the project.

j. Subsurface Exploration Logs – ~~g.~~ Subsurface exploration logs that assess geologic hazards at the site, meaning that soil descriptions on the logs shall be in accordance with the Unified Soil Classification System. In addition, the logs shall also identify each of the geologic units encountered (e.g., fill, Vashon lodgement till, Vashon advance outwash).

k. LiDAR Map – ~~h.~~ If the subject property is located within 100 feet of a high landslide hazard area, then a current LiDAR-based shaded relief map of the project area and a discussion of the qualified critical area professional ~~licensed geotechnical professional~~ interpretation of this mapping must be provided.

l. Quantitative Slope Stability Analysis – ~~i.~~ Results of a quantitative slope stability analysis for any project involving development within a horizontal distance "H" of a high landslide hazard area where "H" is equal to the height of the slope within the high landslide hazard area or 50 feet, whichever is greater. The evaluation of slope stability under seismic conditions shall be based on a site adjusted peak horizontal ground acceleration (PGAm) with a two percent in 50-year probability of exceedance as defined ~~equal to one-half of the peak horizontal ground acceleration with a two (2) percent in 50-year probability of exceedance as defined~~ in the current version of the International Building Code. The design acceleration used for analysis shall be equal to not less than one-half of the PGAm, unless it can be demonstrated that further reduction can be justified based on slope-specific conditions, such as ground motion incoherence (i.e. wave scattering). Alternatively, a design acceleration based on a site-specific seismic site response analysis may also be used, provided that it is justified by supporting documentation.

m. Historic Landslide Activity – ~~j.~~ A discussion of the presence or absence of site features potentially indicative of historic landslide activity or increased risk of future landslide activity. Such features include, but are not limited to, tree trunk deformation, emergent seepage, landslide scarps, tension cracks, reversed slope benches, hummocky topography, vegetation patterns, and area stormwater management practices.

n. Seismically Induced Settlement – ~~k.~~ Estimate of the magnitude of seismically induced settlement that could occur during a seismic event for any project involving development within a seismic hazard area. Estimation of the magnitude of seismically induced settlement shall be based on a peak horizontal ground acceleration based on a seismic event with two (2) percent in 50-year probability of exceedance as defined in the current version of the International Building Code. This requirement

may be waived if it can be demonstrated that construction methods will mitigate the risk of seismically induced settlement such that there will be no significant impacts to life, health, safety and property.

~~l. A summary or abstract of the geotechnical report for the property where the development activity is proposed. The abstract shall at a minimum include the type of hazard, extent of the hazard, hazard analysis and geologic conditions.~~

~~m. The geotechnical report shall state that the project can be undertaken safely as long as the measures/recommendations of the geotechnical report are incorporated into the project plans.~~

o. Geotechnical reports that include recommendations consistent with the practice of engineering, as defined in RCW 18.43.020, including but not limited to recommended allowable foundation soil bearing pressures, pile capacities, lateral earth pressures, and modular block wall design must be signed and sealed by a professional engineer.

p. ~~4.~~ Geotechnical ~~r~~ Recommendations~~, - prepared by a geotechnical engineer licensed in Washington State or engineering geologist licensed in Washington State,~~ Recommendations for special engineering or other mitigation techniques appropriate for the hazard area, along with an analysis of their impact ~~of how these techniques will affect~~ on the subject property, adjacent properties, and any other potentially impacted properties, including discussions and recommendations on the following:

1) ~~a.~~ The present stability of the subject property, the stability of the subject property during construction, the stability of the subject property after all development activities are completed and a discussion of the relative risks and slide potential relating to adjacent and other potentially impacted properties during each stage of development.

2) ~~b.~~ Location of buildings, roadways, and other improvements consistent with the construction drawings submitted to the City for purposes of the related permit review(s).

3) ~~c.~~ Grading and earthwork, including compaction and fill material requirements, use of site solids as fill or backfill, imported fill or backfill requirements, height and inclination of both cut and fill slopes and erosion control and wet weather construction considerations and/or limitations.

4) ~~d.~~ Foundation and retaining wall design criteria, including bearing layer(s), allowable capacities, minimum width, minimum depth, estimated settlements (total and differential), lateral loads, and other pertinent recommendations.

5) ~~e.~~ Surface and subsurface drainage requirements and drainage material requirements.

6) ~~f.~~ Assessment of seismic ground motion amplification and liquefaction potential.

7) Identify areas of the subject property, if applicable, including structure setbacks from geologically hazardous areas, where development activity could significantly impact the subject property or adjacent properties (e.g., slope stability, increased erosion, sedimentation, etc.) and should therefore be restricted.

8) Vegetation recommendations including required revegetation and/or restrictions on removal of trees or vegetation within the geologically hazardous area.

9) ~~g.~~ Other measures recommended to reduce the risk of slope instability.

10) ~~h.~~ Any additional information believed to be relevant by the geotechnical engineer preparing the recommendations or requested by the Planning Official.

3. A topographic survey of the subject property, or the portion of the subject property specified by the Planning Official, with two (2) foot contour intervals. This mapping shall contain the following information:

a. Delineation of areas containing slopes 15 percent or greater, and identification of slopes 40 percent or greater;

b. Wetlands, streams and lakes on or adjacent to the subject property;

c. The location of storm drainage facilities on the subject property; and

d. Existing vegetation, including size and type of regulated trees.

Section 38. KZC 85.22 is hereby amended to read as follows:

85.22 Peer Review

1. High Landslide Hazard Areas - For projects that would disturb land located in high landslide hazard areas, ~~and including those areas within a horizontal distance "H" equal to the height of the slope or 50 feet, whichever is greater,~~ the City shall require applicant funding of a qualified critical area professional ~~licensed in Washington State geotechnical engineer or licensed in Washington State engineering geologist,~~ selected and retained by the City subject to a third party contract, to review the geotechnical report and recommendations.

2. Moderate Landslide Hazard Areas - For projects that would disturb land located in ~~to which subsection (1) of this section is not applicable but that are located within~~ moderate landslide hazard areas or ~~a~~ seismic hazard areas, the City shall ~~normally~~ require applicant funding of a qualified critical area professional ~~licensed in Washington State geotechnical engineer or licensed in Washington State engineering geologist~~ selected and retained by the City subject to third party contract, to review the geotechnical report and recommendations unless exempt under KZC 85.22.3. ~~The Planning Official may waive the third party review requirement in some cases. Guidance criteria to be considered by the Planning Official when evaluating if third party review will be waived, include, but is not necessarily limited to, any of the following:~~

~~a. City staff have the technical expertise of code requirements and knowledge of best practice to review the submitted geotechnical materials;~~

~~b. The consequences of failure present a low level of risk (e.g., type of structure proposed, slope height, surrounding topography or structures);~~

~~c. There is not any presence of known, recent landslide activity (i.e., anytime after the last continental glaciation, during the Holocene period) that presents a potential heightened landslide hazard risk;~~

~~d. Stormwater infiltration or stormwater facilities that could potentially impact slope stability are not proposed; or~~

~~e. Slopes that are the result of legally permitted grading activity.~~

3. Peer Review Exemptions – The following activities, improvements, and uses are exempt from third party peer review when located within a moderate landslide hazard area and do not utilize a site-specific seismic site analysis as permitted by KZC 85.19.2.l. unless a waiver is granted pursuant to subsection 85.22.3.d:

a. New decks or additions to existing decks;

b. Retaining walls less than 4 feet in height that do not support a surcharge;

c. Structures less than 200 square feet such as a tool shed, greenhouse, or other structure not intended for human occupancy;

d. The Planning Official may also waive third party peer review for development proposals not listed in subsection 3 based on, but not limited to, the following guidance factors:

1) Best practices and code requirements used to review the submitted geotechnical materials;

2) The consequences of failure present a low level risk (e.g., type of structure proposed, slope height, surrounding topography, or structures);

3) There is not any presence of known, recent landslide activity (i.e., anytime after the last continental glaciation, during the Holocene period) that presents a potential heightened landslide hazard risk;

4) Stormwater infiltration or stormwater facilities that could potentially impact slope stability are not proposed; and

5) Slopes that are the result of legally permitted grading activity.

~~3~~4. For projects subject to peer review, the recommendations of the peer review shall be addressed in a revised geotechnical report ~~(~~or supplement to the originally prepared report~~)~~.

Section 39. KZC 85.25 is hereby amended to read as follows:

85.25 Performance Standards
~~(See also Chapter 95 KZC)~~
As part of any approval of development in a landslide hazard area or seismic hazard area, the City may require the following to protect property and persons:

1. Implementation of the geotechnical recommendations to mitigate identified impacts and geologic hazards, including the retention of trees, shrubs, and groundcover, and if applicable, the immediate implementation of a revegetation plan.

2. Written acknowledgment from the qualified critical area professional ~~licensed in Washington State geotechnical engineer or licensed in Washington State engineering geologist~~ who prepared the report required by KZC ~~85.15~~ 85.19 that they have reviewed the project plans and that they conform to their recommendations.

3. That a qualified geotechnical professional, or geotechnical technician, working under the supervision of a qualified critical area professional ~~geotechnical engineer licensed in~~

~~Washington State or engineering geologist licensed in Washington State~~, be present on site during land surface modification and foundation installation activities, and submittal by a qualified critical area professional ~~geotechnical engineer licensed in Washington State or engineering geologist licensed in Washington State~~ of a final report prior to occupancy, certifying substantial compliance with the geotechnical recommendations and geotechnical-related permit requirements.

4. Specifically engineered foundation and retaining wall designs.

5. The review of all access and circulation plans by the Department of Public Works.

6. Limitation or restriction of any development activity that may:

   a. Significantly impact slope stability on the subject property or other properties;

   b. Significantly alter drainage patterns in a manner that would adversely impact the subject property or other properties;

   c. Cause serious erosion hazards, sedimentation problems or landslide hazards on the subject property or other properties; or

   d. Cause property damage or injury to persons on or off the subject property.

7. If a quantitative slope stability analysis is required with the geotechnical report, as specified in KZC ~~85.15~~ 85.19(3)(il), the proposed development shall provide a factor of safety of at least 1.5 for static conditions and at least 1.1 for seismic conditions. The use of a deformation analysis to justify a reduced minimum factor of safety for the seismic case may be considered by the City on a case-by-case basis and will be subject to the peer review provisions of KZC 85.22.

8. Dedication of one (1) or more ~~natural greenbelt protective~~ slope protection easements or tracts.

Section 40. The title of Chapter 90 of the KZC is hereby amended to read as "Critical Areas: Wetlands, Streams, Minor Lakes, Fish and Wildlife Habitat Conservation Areas, Priority Habitat, And Frequently Flooded Areas."

Section 41. KZC 90.05 is hereby amended to read as follows:

90.05 User Guide

The regulations in this chapter apply to activities, uses, alterations, work, and conditions in or near any wetland, stream, minor lake, fish and wildlife habitat conservation areas, or frequently flooded areas, and their associated buffers. These regulations add to and in many cases supersede other City regulations. Anyone interested in conducting any development activity on or near one of these critical areas; wanting to participate in the City's decision on a proposed development under this chapter; or wishing to have a determination made as to the presence of one of these areas on their property, should read these regulations.

For properties within jurisdiction of the Shoreline Management Act, the regulations in Chapter 83 KZC shall be met. Chapter 83 KZC contains wetland, stream and flood hazard reduction regulations for properties located within its jurisdiction. However, regulations contained in this chapter that are not addressed in Chapter 83 KZC continue to apply, such as performance security, dedication and liability

Section 42. KZC 90.15 is hereby amended to read as follows:

90.15 Applicability

1. General – These regulations apply to land within the City of Kirkland that contains any of the following:

a. Wetlands;

b. Streams;

c. Minor lakes;

d. Fish and wildlife habitat conservation areas;

e. Frequently flooded areas; and

f. Vegetative buffers required for the above.

2. Conflicting Provisions – The regulations in this chapter supersede any conflicting regulations in the Kirkland Zoning Code other than applicable regulations in Chapter 83 KZC. For properties within the jurisdiction of the Shoreline Management Act, the regulations in Chapter 83 KZC supersede any conflicting regulation in this chapter. In all instances, if ~~If~~ more than one regulation applies to the subject property, then the regulation that provides the greatest protection to critical areas shall apply.

3. Modifications to Provisions in This Chapter – The regulations in this chapter may not be modified using other provisions in this code, such as but not limited to historic overlay (Chapter 75 KZC), variances (Chapter 120 KZC), or planned unit developments (Chapter 125 KZC), unless as specified in KZC 90.180, Reasonable Use Exception.

4. Other Jurisdictions – Nothing in these regulations eliminates or otherwise affects the responsibility of an applicant or property owner to comply with all other applicable local, state, and federal regulations and permits that may be required.

5. SEPA Compliance – Nothing in these regulations or the decisions made pursuant to these regulations affects the authority of the City to review, condition, and deny projects under the State Environmental Policy Act, Chapter 43.21C RCW.

Section 43. KZC 90.20 is hereby amended to read as follows:

90.20 Critical Areas Maps and Other Resources

The City maintains general mapping of ~~known~~ critical areas. These maps and other available resources (such as topographic maps, soils maps, and aerial photos) are intended only as guides. ~~They depict the approximate location and extent of known critical areas.~~ Some critical areas depicted in these resources may no longer exist and critical areas not shown in these resources may occur. The presence of critical areas on or near a parcel per KZC 90.105 triggers the requirements of this chapter regardless of whether or not a critical area or buffer is depicted on an official map. ~~The provisions of this chapter and the~~ The findings ~~of a~~ from critical areas reports and review of ~~the~~ reports by the City take precedence over any map. ~~the City's mapping~~. It is strongly advised that property owners and project applicants retain a qualified critical area professional to conduct site-specific studies for the presence of critical areas and related buffers. ~~The City's map relating to this chapter is entitled "Wetlands, Streams and Minor Lakes" map.~~

Section 44. KZC 90.30 is hereby amended to read as follows:

90.30 City Review Process

1. Activities regulated by this chapter shall be considered using the following decision processes:

Table 90.30.1 City Review Process

Type of Action	City Review Process	Section
Exemptions	Activities permitted outright with ~~no~~ minimal review process and documentation/notification (or reviewed with underlying development or land surface modification permit) – no review fee~~)~~	KZC 90.35
Permitted Activities, Improvements and Uses Subject to Development Standards	Planning Official Decision	KZC 90.40
Exception – Public Agency and Public Utility	Planning and Building Director Decision	KZC 90.45
Programmatic Permits – Public Agency and Public Utility	Planning Official Decision or Planning and Building Director depending on scope of project	KZC 90.50
Wetland Modification	Planning and Building Director – Process I, Chapter 145 KZC	KZC 90.60
Category IV Wetland Exceptions	Planning Official Decision	KZC 90.60
Stream Modification	Planning and Building Director – Process I, Chapter 145 KZC	KZC 90.70
Daylighting of Streams	Planning Official Decision	KZC 90.75
Stream Channel Stabilization	Planning Official Decision	KZC 90.85
Moorage Facilities and Other Improvements on Minor Lakes	Planning and Building Director – Process I, Chapter 145 KZC	KZC 90.90
Critical Area Determination	Planning Official Decision ~~Determination~~	KZC 90.105
Buffer Averaging	Planning Official Decision	KZC 90.115
Limited Buffer Waiver	Planning Official Decision	KZC 90.120
Reasonable Use Exception	Planning and Building Director – Process I, Chapter 145 KZC	KZC 90.180

2. If a development, use or activity requiring approval through Planning Official or Process I pursuant to this chapter is part of a proposal that requires additional approval through Process IIA or Process IIB, the entire proposal shall be decided upon using that other process.

   a. The decisional criteria for a permit reviewed under a Process I in this chapter shall be used for the Process IIA or Process IIB decision.

   b. The decisional criteria, standards and/or requirements for a decision reviewed under a Planning Official Decision in this chapter shall be used for the Process IIA or Process IIB decision.

Section 45. KZC 90.35 is hereby amended to read as follows:

90.35 Exemptions

The following activities, improvements and uses have little or no environmental impact, are temporary in nature, or are an emergency and are therefore exempt from the provisions of KZC 90.40 through 90.225, unless otherwise determined by the Planning Official.

An exemption does not give permission to degrade a critical area or ignore risk from natural hazards. All exempted activities shall use reasonable methods to avoid impacts to critical areas or their buffers. Any temporary damage to, or alteration of, a critical area or buffer shall be restored, rehabilitated, or replaced to prior condition or better at the responsible party's expense. Revegetation shall occur during the wet season, but no later than 180 days after the damage or alteration of the critical area or buffer occurred. Soil stabilization and erosion control shall be completed immediately after vegetation removal during the wet season. All other restoration or rehabilitation shall be completed within 60 days of the damage or alteration, unless otherwise approved by the Planning Official.

The following activities, improvements, and uses are exempt:

1. Repair and Maintenance of Structures – Repair and maintenance of existing legally established, functioning structures. This provision excludes public streets and utilities.[1]

2. Public Streets – Repair, maintenance, reconstruction and minor expansion of existing public streets, including associated appurtenances, bike lanes, and sidewalks. [2, 5, 6]

3. Utilities – Repair and maintenance of utility structures and conveyance systems and their associated facilities including service lines, pipes, mains, poles, equipment and appurtenances – both above and below ground. Replacement, installation, or construction of new utility structures and conveyance systems and their associated facilities within existing improved rights-of-way, existing legally improved private roadways, utility corridors or the Cross Kirkland Corridor and Eastside Rail Corridor. This provision does not include upgrading electric facilities that exceed 115 KV or replacement of hazardous liquid pipelines that increase existing pipeline circumference, or installation of additional hazardous liquid pipelines. [3, 5, 6]

4. Demolition – Removal of structures in critical area buffers; provided, that all disturbed soils are de-compacted, stabilized and revegetated with appropriate native vegetation and at spacing intervals listed in the City's Critical Area Plant List using the vegetative buffer standards in KZC 90.130 as a guideline for plant diversity and type.

5. Existing Nonmotorized Trails – Repair and maintenance of existing, legally established nonmotorized trails, and their associated structures including the Cross Kirkland Corridor and Eastside Rail Corridor. [1, 5]

6. Existing Landscaping – Landscape maintenance of legally established lawns and gardens; including mowing, pruning, weeding, and planting; provided, that such activities do not expand any further into critical areas or buffers, and excludes removal of ~~significant~~ regulated trees, and the use and application of chemical fertilizers, herbicides and insecticides comply with provisions in KZC 90.195.

7. HVAC Equipment – Addition of HVAC equipment with a footprint of less than nine (9) square feet; provided, that:

a. There is no feasible alternative location available;

b. It does not expand the area beyond legally established landscaping or improvements;

c. It is not located in the critical area and is as far as possible from the critical area;

d. Noise minimization techniques are incorporated per KZC 90.155. HVAC equipment shall be baffled, shielded, and/or enclosed to reduce noise as much as possible. ~~Ensure compliance and except that the receiving property shall also include the upland edge of the critical area buffer; and~~

e. It must meet the setback requirements in KZC 115.115.

8. Site Investigative Work and Studies – Site investigative work and studies necessary for development permits, including geotechnical tests, water quality studies, wildlife studies, and critical area investigations; provided, that any disturbance of the critical area or its buffer shall be the minimum necessary to carry out the work or studies and the area must be restored with native vegetation after testing is done. Use of any mechanized equipment requires prior approval of the Planning Official and must avoid damage to the Critical Root Zone of landmark trees and minimize damage under the canopy of regulated trees.

9. Public Restoration[6] – Restoration of a critical area and its buffer through the manual and mechanical removal of nonnative invasive plant species, provided a program wide plan or agreement is in place for restoration that includes goals, timelines and proposed areas of work, and site plans are developed for individual sites and all of the following apply:

a. The entire area cleared of plants must be revegetated with appropriate native vegetation and at spacing intervals ~~listed in the City's Critical Area Plant List~~ using the Vegetative Buffer Standards in KZC 90.130 as a guideline for minimum plant diversity and type;

b. Site specific restoration and implementation plans are developed to minimize erosion and steep slope impacts if ~~T~~the subject property is not located in a high landslide hazard area~~;~~, per KZC 85. All plans must minimize soil compaction and comply with erosion control requirements;

c. No grading or filling ~~is required~~ will occur to remove nonnative invasive plants or revegetate with native species;

d. Equipment used for ~~restoration~~ work shall be restricted to:

1) Hand removal equipment includes shovels, tillers, clippers, loppers, weed wrenches, and brush cutters and any handheld gas or electric equipment.

2) Light-tracked or walk-behind mechanical equipment may be used for restoration work provided tree, native plant, and soil protection plan for the site is approved by the Planning Official. All plans must follow mitigation sequencing to minimize impacts to critical areas. ~~; except that~~

3) Other machinery ~~can~~ may be used if the machinery can access the buffer from an abutting paved ~~road~~ surface without encroaching into the buffer~~;~~ or damaging overhanging vegetation.

e. Mitigation for soil erosion must take place immediately, and ~~R~~replanting with native or climate-ready vegetation must ~~take place immediately~~ begin in the fall or winter planting

season and no later than 180 days following removal of invasive species to maximize the potential for plant establishment;

f. Goats may be used to remove invasive species ~~only provided~~ if their use does not adversely affect stream or wetland functions and they are restricted from access to the wetland or stream. Use of goats may be limited or prohibited by the Planning Official in areas where trees and native vegetation ~~is~~ are present and could be damaged;

g. In all cases, nonnative, invasive species removal shall avoid impacts to trees and minimize impacts to other native species; and

h. Community volunteers doing restoration must be under the direct supervision of City staff~~.~~; and

j. Pesticide and fertilizer applications must comply with requirements in KZC 90.195.

10. Voluntary Private Restoration[6] – Restoration of a critical area and its buffer not associated with development permitting. Restoration may include ~~through~~ the removal of regulated and non-regulated, ~~nonnative invasive plant species~~ noxious weeds listed in the King County Noxious Weed List provided a notification to the Planning and Building Department is provided confirming ~~and~~ all of the following apply:

a. The entire area cleared of noxious weeds ~~invasive plants~~ shall be revegetated with appropriate native vegetation and at a spacing interval cover and plant size ~~listed in the City's Critical Area Plant List~~ ~~and~~ using the vegetative buffer standards in KZC 90.130 and the City's Native Plant list as guidelines for plant diversity ~~and type~~, spacing, planting size, and cover;

b. The subject property is not located in a high landslide hazard area;

c. No grading or filling is required to remove nonnative invasive vegetation or revegetate with native species;

d. A planting restoration plan must be submitted to the Planning Official for review and approval prior to any disturbance to the critical area and/or buffer. The plan must include the area to be restored, method of noxious weed removal, protection of existing trees and soil, a detailed native planting plan with a plant list and schedule for commencement and completion of the project;

e. Restoration work shall be restricted to handheld equipment. Handheld equipment includes shovels, ~~tillers,~~ clippers, loppers, weed wrenches, and brush cutters and any handheld gas or electric equipment specified and approved in the plan; machinery such as walk-behind equipment, excavators and bulldozers ~~is~~ are not allowed;

f. ~~Replanting with native vegetation~~ Covering exposed soil with wood chip mulch or other erosion control methods must take place immediately following removal of invasive species, and replanting with native vegetation must take place during the fall or winter planting season within 180 days of invasive removal;

g. ~~All removed plant material shall be taken away from the site; and~~ pPlants that appear on the King County Noxious Weed List must be handled and disposed of according to a noxious weed control plan appropriate to that species; ~~and~~

h. In all cases, vegetation ~~nonnative, invasive species~~ removal shall ~~avoid~~ minimize impacts to native species and protect soil and trees;~~.~~

i. Management of nonnative, invasive species that are not on the King County Noxious weed list may be approved under limited circumstances by the Planning Official; and

j. No pesticide or fertilizer applications are utilized.

11. Storm Water Dispersion Flow Path – Creation or maintenance of a legally non-conforming vegetated flow path from a dispersion device that is located outside the critical area buffer and less than 100 ft from a stream, and that flows into the critical area buffer provided the buffer meets the vegetative buffer standards in KZC 90.130, and the design is part of an approved development permit.

12. Other – Educational activities, scientific research, and passive outdoor recreational activities such as bird watching, fishing, and hiking~~, not including trail building or clearing.~~

13. Emergency Activities – Emergency activities necessary to prevent an immediate threat to public health, safety, or welfare. Alterations shall be reported to the City within seven (7) days and include evidence of threat or imminent danger, including photographs of the threat, the structure and/or area that is being threatened, and close-ups of the temporary alterations. The City may require a permit to be obtained after-the-fact and require the critical area and its buffer to be fully restored in accordance with a critical area report and mitigation/maintenance plan.[4] Any restoration and mitigation actions shall occur within the timeframe established with the underlying permit, but in no case more than one (1) year from the date of the emergency.

14. Beaver Management – Beaver management activities, provided the activity has an approved hydraulic project approval (HPA) from the WA Department of Fish and Wildlife and follows all requirements therein.

15. Private maintenance activities required by the City of Kirkland to mitigate substantial flooding risk to public or private property.

Notes:

[1] Repair and maintenance shall not increase the previously approved structure footprint or impervious or hardscape area, including paving and previously approved private roadways and driveways and parking areas within a critical area or its buffer, and shall not include foundation replacement. Foundation and complete structure replacement is regulated under KZC 90.185.

[2] Public street activities shall not increase the impervious area in the right-of-way, or reduce flood storage capacity in the critical area or critical area buffer. Public street activities in this provision also include expansion of pavement into existing impervious street shoulders.

[3] Utility activities shall not increase the impervious area in the right-of-way or private roadway or utility corridor or the Cross Kirkland and Eastside Rail Corridors (except utility poles), or reduce flood storage capacity in the critical area or critical area buffer. Replaced overhead electric utilities and their associated facilities shall not be exempt if the work results in additional vegetation disturbance of the critical area or its buffer because of ongoing required vegetation maintenance due to wider vegetation clearance requirements. Utility activities in this provision also include expansion of existing structures such as substations into existing impervious areas.

[4] Repealed.~~ All restoration and mitigation actions shall occur within the timeframe established with the underlying permit, but in no case more than one (1) year from the date of the emergency.~~

[5] The construction drawings shall show the edge of the right-of-way, private roadway or utility corridor, and the existing impervious shoulder area. The drawings shall also specify that all affected critical areas and buffers shall be restored to their pre-project condition or better, including soil stabilization and revegetation.

[6] All activities shall be undertaken using best management practices as determined by the Planning Official and adhere to the Washington State Department of fFish and wWildlife seasonal restrictions on construction activities. ~~as determined by the Washington State Department of Fish and Wildlife.~~

Section 46. KZC 90.40 is hereby amended to read as follows:

90.40 Permitted Activities, Improvements or Uses Subject to Development Standards

1. Permitted Activities, Improvements and Uses – Activities, improvements and uses identified in this section are permitted subject to the following approval and development standards. Those activities and uses not identified or not meeting the standards in this section may be proposed under other sections of this chapter.

2. Process – The Planning Official shall review and decide on an application for a permitted activity or use. The general and specific standards in subsections (5) and (6) of this section along with the mitigation plan shall be conditions of approval.

3. Decisional Criteria – The Planning Official may approve a permitted activity or use if it is determined that:

a. There is no practical alternative location with less adverse impact on the critical area or its buffer based on a critical area report and mitigation sequencing pursuant to KZC 90.145;

b. The mitigation plan pursuant to KZC 90.145 sufficiently mitigates impacts; and

c. The project plans meet the general and specific standards in subsections (5) and (6) of this section.

4. Critical Area Determination and Report – The applicant shall submit a critical area determination pursuant to KZC 90.105 and a critical area report pursuant to KZC 90.110.

5. Standards

a. Application for permitted activities, improvements or uses identified in this section shall demonstrate that they meet the following standards except as noted in subsection (6) of this section.

1) General mitigation requirements including mitigation sequencing pursuant to KZC 90.145;

2) If located in a wetland or wetland buffer, requirements for wetland compensatory mitigation, pursuant to KZC 90.150;

3) Implement a mitigation plan pursuant to KZC 90.145 and/or KZC 90.150;

4) If located in a fish or wildlife habitat or a priority species habitat conservation area, requirements of KZC 90.95;

5) Monitoring and maintenance requirements pursuant to KZC 90.160;

6) Financial security requirements pursuant to KZC 90.165;

7) Critical area markers, fencing and signage requirements pursuant to KZC 90.190;

8) Dedication of critical area and buffers requirements pursuant to KZC 90.210;

9) No adverse impact on water quality or conveyance or degradation of critical area functions and values;

10) Structures and improvements located to minimize impacts to and removal of ~~significant~~ regulated trees; and

11) Restoration of temporary disturbance areas associated with the work to pre-project conditions or better shown on construction drawings and expeditiously done.

12) Temporary impacts associated with disturbance in the critical area and buffer should first be avoided to the maximum extent possible and then limited to the minimum extent necessary per mitigation sequencing in KZC 90.145.

b. Except as provided in subsection (5)(a) of this section, the list of permitted activities, improvements or uses are not subject to general standards pursuant to KZC 90.105 through 90.225.

6. List of Permitted Activities, Improvements and Uses – The following activities and uses may be permitted; provided, that the specific standards applicable to each activity or use and the general standards in subsection (5) of this section are met.

a. Private Repair and Maintenance of Culverts

1) Work limited to removing impediments to improve flow conveyance;

2) Work must be done by hand; and

3) Shall comply with Washington State Department of Fish and Wildlife's ~~seasonal restrictions on instream work.~~ in water work window and all applicable conditions established under the Hydraulic Code per WAC 220-660, including obtaining a Hydraulic Project Approval (HPA) if required.

* * *

d. Private and Public Utilities

1) New sewer and storm water lines in critical area buffers where necessary to allow for gravity flow, provided they shall be located as far as possible from the critical area edge and there is no feasible location outside of the critical area buffer;

2) New utilities in critical area buffers, other than addressed in subsection (6)(d)(1) of this section; provided, that:

(a) The facility must ~~shall~~ be ~~only~~ located in the outer 25 percent of the regulated buffer area,

(b) The facility is not a hazardous liquid or gas pipeline; and

(c) The facility is not a substation;

3) New piped storm water outfalls and associated dissipation devices, such as flow spreaders and rock pads, within critical area buffers, provided:

(a) Discharge of storm water outside of the buffer is not feasible as determined by the City; or

(b) If property adjoining the buffer is a high erosion or high landslide hazard area ~~greater than 15 percent slope~~, a specific study by a geotechnical engineer or engineering geologist per KZC 85 must show that discharge outside of the buffer will cause slope instability or excessive erosion, and therefore the discharge needs to be in the buffer; ~~and~~

(c) The outfall is located as far as possible from the critical area; and

(d) LID treatments per KMC 15.52 are integrated to treat all stormwater discharging into any critical area or buffer less than 100 feet wide.

4) Boring for utilities/utility corridor under a critical area, provided:

(a) Not permitted in a Category I Wetland;

(b) Entrance/exit portals must be located as far as possible from the critical area edge and may be allowed in the outer 25 percent of the critical area buffer when there is no feasible location outside of the critical area buffer;

(c) Boring does not interrupt the ground water connection to the wetland or percolation of surface water down through the soil column; and

(d) A specific study by a hydrologist is required to determine whether the ground water connection to the critical area or percolation of surface water down through the soil column will be disturbed;

5) For City utility projects, financial security standards of KZC 90.165 are waived;

6) For public utility projects, dedication of critical area and buffers requirements pursuant to KZC 90.210 may be waived if the Planning Official determines that they are not warranted; and

7) For private and public utility projects, critical area markers, permanent fencing and signage requirements pursuant to KZC 90.190 may be waived if the Planning Official determines that they are not warranted.

e. Private and Public Instream Maintenance

1) Work limited to removing inorganic debris, sediment, invasive vegetation and replanting of streambank with native vegetation to improve instream fish habitat, fish passage and flow conveyance;

2) Work must be done by hand. Hand removal equipment may include shovels, tillers, clippers, loppers, weed wrenches, and brush cutters, and any handheld gas or electric equipment;

3) Public work may include machinery if it can access the buffer from an abutting paved surface ~~roadway~~ without encroaching into the buffer;

4) Maintenance shall comply with Washington State Department of Fish and Wildlife's seasonal restrictions on stream work, and~~including~~ state permit approvals;

5) For public instream maintenance, financial security standards of KZC 90.165 are waived;

6) For public instream maintenance, dedication of critical area and buffers requirements pursuant to KZC 90.210 may be waived if the Planning Official determines that they are not warranted; and

7) For private and public instream maintenance, critical area markers, permanent fencing and signage requirements pursuant to KZC 90.190 may be waived if the Planning Official determines that they are not warranted.

f. Private and Public Restoration – Restoration of a critical area and its buffer when located in high landslide hazard areas and/or where grading is necessary for the removal of nonnative plants, provided:

1) A planting restoration plan must be submitted to the Planning Official for review and approval prior to any disturbance. The plan must include the area to be restored, method of noxious weed removal, protection of existing trees and soil, a detailed native planting plan with a plant list and schedule for commencement and completion of the project. The entire area cleared of invasive plants shall be revegetated with appropriate native vegetation and at spacing intervals listed in the City's Critical Area Plant list, using the vegetative buffer standards in KZC 90.130 as a guideline for plant diversity and type~~;~~

2) The City may ~~shall~~ require a geotechnical ~~investigation~~ report for restoration in a high landslide hazard area~~s~~ pursuant to Chapter 85 KZC, ~~and~~ if determined to be necessary by the Planning Official. The report may be required to include ~~based on the investigation, a geotechnical report~~ with recommendations on special mitigation techniques or measures~~, along with an erosion control plan;~~ slope stabilization and erosion control measures, and additional requirements identified in 90.35.9 and 10 as part of the restoration plan;

3) Removal of invasive plant species and other restoration work shall be restricted to work by ~~hand~~ handheld equipment, including use of shovels, ~~tillers,~~ clippers, loppers, weed wrenches, and brush cutters and any handheld gas or electric equipment specified and approved in the plan.~~;~~ Goats or Machinery such as walk-behind equipment, excavators and bulldozers ~~is~~ are not allowed unless specifically identified in the restoration plan, determined acceptable by a geotechnical investigation, and approved by the planning official;

4) Covering exposed soil with wood chip mulch and implementation of other soil erosion measures must take place immediately following removal of invasive

species, and r~~R~~eplanting with native or climate-ready vegetation must begin in the fall or winter planting season ~~take place~~ within 180 days of invasive species removal ~~immediately following removal of invasive species~~ to maximize the potential for plant establishment;

5) ~~For public restoration, machinery may be used if the use of such equipment is determined acceptable by a the geotechnical investigation and/or report;~~ For all projects, vegetation removal shall avoid and minimize impacts to native species, soils and trees;

6) For public restoration, community volunteers doing restoration must be under the direct supervision of City staff;

7) For private restoration, ~~removed~~ invasive and non-invasive plants ~~material shall be taken off the site; and plants that appear~~ identified on the King County Noxious Weed List must be handled and disposed of according to a noxious weed control plan appropriate to that species. Management of nonnative, invasive species that are not on the King County Noxious weed list may be approved under limited circumstances by the Planning Official; and

8) For public restoration, financial security standards of KZC 90.165 are waived.

* * *

h. Public Streets – Widening of existing public streets in critical area buffers, provided:

~~1) The street shall only be located in the outer 25 percent of the buffer area;~~

1) ~~2)~~ Any necessary culvert modification or extension is designed to meet the Washington Department of Fish and Wildlife's Water Crossing Guidelines;

2) ~~3)~~ Financial security standards of KZC 90.165 and dedication of critical area and buffers requirements pursuant to KZC 90.210 are waived; and

3) ~~4)~~ Critical area markers, permanent fencing and signage requirements pursuant to KZC 90.190 may be waived if the Planning Official determines that they are not warranted.

* * *

~~k. Temporary construction impacts to wetland and stream buffers, provided:~~

~~1) The impact is the minimum necessary for the task;~~

~~2) The construction is for an approved use; and~~

~~3) The buffer area is fully restored to preconstruction conditions immediately following completion of construction.~~

Section 47. KZC 90.45 is hereby amended to read as follows:

90.45 Public Agency and Public Utility Exceptions

If strict application of this chapter would prohibit a development proposal by a public agency or public utility, the agency may apply for an exception pursuant to this section.

1. General – Prior to seeking approval through this section, the Planning Official in conjunction with a public agency or public utility shall first determine that:

a. The project scope cannot be approved under KZC 90.60 for wetland modifications; KZC 90.70 for stream modifications; KZC 90.67 for RMZ requirements, KZC 90.85 for stream channel stabilization; and KZC 90.95 for wildlife habitat conservation areas; and

b. The project cannot meet the requirements under KZC 90.130, Vegetative Buffer Standards; and KZC 90.140, Structure Setback from Critical Area Buffer; or any other provision in this chapter.

c. The project can meet "no net loss" requirements through off -site or compensatory mitigation options pursuant to KZC 145 and 150.

* * *

Section 48. KZC 90.55 is hereby amended to read as follows:

90.55 Wetlands and Associated Buffer Standards

~~Wetlands and associated buffer standards are provided in this section. The table below is a summary of the wetland regulations. More details are provided for some of the regulations elsewhere in this chapter.~~

~~Table 90.55.1 Wetlands and Associated Buffer Standards~~

~~Wetland Classification and Rating~~	~~In accordance with the 2014 Department of Ecology Washington State Wetland Rating System for Western Washington, as revised. Wetland category and rating shall be determined through a survey and field investigation by a qualified critical area professional approved by the City as part of a critical area report in KZC 90.110. Wetland rating categories shall not change due to illegal modification.~~
~~Wetland Delineation~~	~~In accordance with the approved federal delineation manual and applicable regional supplements described in WAC 173-22-035 and based on field investigation and a survey. See KZC 90.110.~~
~~Wetland Determination~~	~~Planning Official makes determination if a wetland and/or a buffer exist on the subject property, and if so, its category, rating, boundaries and buffer width based on a required critical area report pursuant to KZC 90.110. In addition, the Planning Official makes determination if the standard buffer meets the buffer vegetative standards in KZC 90.130.~~
~~Wetland Buffer Width Standard~~	~~Wetland Buffer Widths~~

~~Wetland Category~~	~~Buffer Width Based on Habitat Points~~		
	~~3-5 habitat pts.~~	~~6-7 habitat pts.~~	~~8-9 habitat pts.~~
~~Category I: Bogs and Wetlands of High Conservation Value~~	~~190 feet~~	~~190 feet~~	~~225 feet~~
~~Category I: Others~~	~~75 feet~~	~~110 feet~~	~~225 feet~~
~~Category II~~	~~75 feet~~	~~110 feet~~	~~225 feet~~
~~Category III~~	~~60 feet~~	~~110 feet~~	~~225 feet~~
~~Category IV~~	~~40 feet~~		
	~~See KZC 90.130 for buffer vegetation requirements~~		

~~Wetland Buffer Width Alternative~~	~~Applicant can choose not to comply with the vegetative buffer standards in KZC 90.130 by complying with the following requirements: 1) Increase buffer width listed above in Wetland Buffer Widths by 33% within entire buffer. 2) Remove all structures and improvements within the buffer. 3) Discontinue any maintenance of lawn and nonnative vegetation within the buffer. 4) Cease all activities in the buffer, except those permitted under KZC 90.35(12) and (13). In no case shall a standard and an alternate buffer standard be combined for a development proposal.~~	
~~Other Standards~~	~~▪ Buffer averaging is permitted for both the standard buffer and the alternative buffer if criteria are met. See KZC 90.115.~~ ~~▪ Increased buffer width may be required if wetland or its buffer contains or is adjacent to severe erosion area, habitat of certain species or frequently flooded area based on critical area report. See KZC 90.125.~~ ~~▪ Wetlands that are degraded must be restored if the project is subject to KZC 90.130(3)(a) for the vegetative buffer standard and/or a wetland modification is proposed. A critical area report shall address any needed restoration due to degraded vegetation, habitat, water quality and hydrologic functions.~~ ~~▪ Standard buffers must meet the vegetative buffer standards. See KZC 90.130.~~ ~~▪ Measures to minimize impact to wetlands must be implemented for standard buffers. See KZC 90.155.~~ ~~▪ For wetlands that score 6 or more points for habitat function, the following conditions must be maintained in order to use the standard buffers, as follows:~~ ~~• If an existing, relatively undisturbed vegetated corridor at least 100 feet wide exists between the on-site wetland and other priority habitats, as defined by the Washington State Department of Fish and Wildlife, and the off-site portion of the corridor is already protected via an existing conservation easement, critical areas regulations, or other legal requirement, the portion of the corridor on site must also be protected by a similar legal protection. All other applicable criteria found in this section must also be met. The evaluation of presence or absence of the conditions described above must be completed as part of the critical areas report.~~ ~~• If no such corridor is present to protect, the standard buffers alone may be used with the other applicable criteria contained in KZC 90.65. If an option for protection of a corridor, as defined in this section, exists on the parcel, but is not provided, standard buffer widths must be increased by 33%.~~ ~~▪ Fencing and signage are required along the entire upland edge of buffer both during construction and upon completion of the project. See KZC 90.190.~~ ~~▪ For voluntary restoration, see KZC 90.35 and 90.40.~~ ~~▪ For code enforcement to correct an illegal modification to a wetland or buffer, see KZC 90.295.~~ ~~▪ Wetlands and buffers shall be placed in recorded critical area easements or tracts for perpetual protection and maintenance. See KZC 90.210.~~	
~~Structure Setback from Buffer~~	~~10 foot wide structure setback is required from upland edge of the entire buffer. Improvements listed in KZC 90.140 are permitted in the setback.~~	
~~Activities, Improvements and Uses in Wetlands~~	~~Activities, improvements and uses are prohibited within wetlands and associated buffers, except those exempted or permitted subject to development standards in KZC 90.35 and 90.40, or those approved under a City review process in this chapter.~~	
~~Modification to Wetlands, Related Impacts to Associated Buffers~~	~~▪ Modification to a wetland and related impacts to buffers require approval pursuant to a Process I, Chapter 145 KZC along with a critical area report, mitigation sequencing, and compensatory mitigation plan. See KZC 90.110, 90.145 and 90.150.~~ ~~▪ Buffer standard may be modified for vehicular access to a property that is both a legal building site and a buildable site pursuant to KZC 90.40 and for an interrupted buffer pursuant to KZC 90.120. Also, see nonconformances pursuant to KZC 90.185.~~ ~~▪ Isolated Category IV wetlands less than 4,000 square feet and wetlands less than 1,000 square feet pursuant to KZC 90.60 are not required to meet mitigation sequencing, but compensatory mitigation is required pursuant to KZC 90.150.~~	

1. Wetland Classification and Rating - In accordance with the 2014 Department of Ecology, Washington State Wetland Rating System for Western Washington, Version 2.0, as revised.

Wetland category and rating shall be determined through a survey and field investigation by a qualified critical area professional approved by the City as part of a critical area report in KZC 90.110. Wetland rating categories shall not change due to illegal modification.

2. Wetland Delineation- In accordance with the approved federal delineation manual and applicable regional supplements described in WAC 173-22-035 and based on field investigation and a survey. See KZC 90.110.

3. Wetland Determination - Planning Official makes determination if a regulated wetland and/or a buffer exists on the subject property, and if so, its category, rating, boundaries and buffer width based on a required critical area report pursuant to KZC 90.110. In addition, The Planning Official makes the determination if the standard reduced buffer meets the buffer vegetative standards in KZC 90.130.

4. The Reduced Buffer (Table 90.55.1) is equivalent to 75% of the Regulated Wetland Buffer Width (Table 90.55.2). Impacts inside the regulated buffer require mitigation to ensure a no net loss to the function of the protected critical area. See KZC 90.130 for mitigation standards.

Table 90.55.1 Reduced Wetland Buffer Widths

Wetland Category	Reduced Buffer Width Based on Habitat Points		
	3-5 habitat pts.	6-7 habitat pts.	8-9 habitat pts.
Category I: Bogs and Wetlands of High Conservation Value	190 feet	190 feet	225 feet
Category I: Others	75 feet	110 feet	225 feet
Category II	75 feet	110 feet	225 feet
Category III	60 feet	110 feet	225 feet
Category IV	40 feet [1]		

Note 1: Category IV wetlands less than 1000 sq. ft. that meet requirements in KZC.90.60.2.b do not have a buffer

5. Regulated Wetland Buffer Width - Applicant can choose not to comply with the vegetative buffer standards in KZC 90.130 by complying with the following requirements:

a. Apply the regulated buffer width listed in Table 90.55.2 across the entire buffer.

b. Remove all structures and improvements within the regulated buffer and restore all impacted areas to meet minimum vegetative buffer standards in KZC 90.130.

c. Discontinue any maintenance of lawn and other nonnative vegetation within the regulated buffer. Regulated and non-regulated noxious weeds may be managed per KZC 90.35

d. Cease all activities in the buffer, except those permitted under KZC 90.35.

e. In no case shall a reduced buffer and the regulated buffer and their associated requirements be combined for a development proposal; development applications shall propose compliance with a single buffer standard (regulated or reduced) for the entirety of the subject property.

Table 90.55.2 Regulated Buffer Width

Wetland Category	Regulated Buffer Width Based on Habitat Points		
	3-5 habitat pts.	6-7 habitat pts.	8-9 habitat pts.
Category I: Bogs and Wetlands of High Conservation Value	250 feet	250 feet	300 feet
Category I: Others	100 feet	150 feet	300 feet
Category II	100 feet	150 feet	300 feet
Category III	80 feet	150 feet	300 feet
Category IV	50 feet [1]		

Note 1: Category IV wetlands less than 1000 sq. ft. that meet requirements in KZC.90.60.2.b do not have a buffer.

6. Wetland and Buffer Width Modifications

a. KZC 90.145, 90.150, 90.155 apply for all buffer width reductions.

b. Buffer averaging is permitted for both the reduced buffer and the regulated buffer if criteria are met. ~~in~~ See KZC 90.115.

c. Increased buffer width may be required if a wetland or its buffer contains or is adjacent to a severe erosion area, habitat of certain species or frequently flooded area based on critical area report. See KZC 90.125.

d. Modification to a wetland and associated impacts to buffers require approval pursuant to a Process I, Chapter 145 KZC along with a critical area report, a mitigation sequencing analysis and compensatory mitigation plan. See KZC 90.60, 90.110, 90.115, 90.145 and 90.150.

e. Buffer standard may be modified pursuant to KZC 90.40 for vehicular access to a property that is both a legal building site and a buildable site and for an interrupted buffer pursuant to KZC 90.120. Also see nonconformances pursuant to KZC 90.185.

f. A 10-foot wide structure setback is required from the edge of the entire buffer. Improvements listed in KZC 90.140 are permitted in the setback.

7. Other Standards:

a. Activities, improvements and uses are prohibited within wetlands and associated buffers, except those exempted or permitted subject to development standards in KZC 90.35 and 90.40, or those approved under a City review process in this chapter. The provisions of this chapter do not supersede or negate the need for any applicable state or federal permits or their respective requirements.

b. For wetlands that score 6 or more points for habitat function, the following conditions must be maintained in order to use the reduced buffers:

1) If an existing, relatively undisturbed vegetated corridor at least 100 feet wide exists between the on-site wetland and other priority habitats, as defined by the Washington State Department of Fish and Wildlife, and the off-site portion of the corridor is already protected via an existing conservation easement, critical areas regulations, or other legal requirement, the portion of the corridor on site must also be protected by a similar legal protection.

2) If no such corridor is present to protect, the reduced buffers alone may be used with the other applicable criteria contained in KZC 90.55.

3) If an option for protection of a corridor, as defined in this section exists on the parcel but is not provided, the regulated buffer width must be used.

4) The evaluation of the presence or absence of the conditions described above must be completed as part of the critical areas report.

c. Development proposals using reduced buffers must meet the vegetative buffer standards. See KZC 90.130.

d. Wetlands that are degraded must be restored if the project is subject to KZC 90.130(3)(a) for the vegetative buffer standard and/or if a wetland modification is proposed. A critical area report shall address any needed restoration due to degraded vegetation, habitat, water quality and hydrologic functions.

e. Impacts to regulated wetland buffers shall be mitigated at a minimum of a 1:1 ratio (every square foot of permanent disturbance within the regulated buffer boundary must have an equivalent amount of buffer meeting the minimum vegetative requirements in KZC 90.130). If minimum vegetative standard requirements within the reduced buffer are less than the impacts within the regulated buffer boundary, additional mitigation must be provided in accordance with the location of mitigation preferences in KZC 90.145.3.

f. Measures to minimize impacts to wetlands must be implemented for all development using the reduced buffer and occurring inside the regulated buffers. See KZC 90.155.

g. Isolated category IV wetlands less than 4000 square feet and wetlands less than 1000 square feet pursuant to KZC 90.60 are not required to follow mitigation sequencing. Only compensatory mitigation is required pursuant to KZC 90.150.

h. Fencing and signage are required along the entire edge of the determined buffer both during construction and upon completion of the project. See KZC 90.190.

i. Wetlands and buffers shall be placed in recorded critical area easements or tracts for perpetual protection and maintenance. See KZC 90.210.

Section 49. KZC 90.60 is hereby amended to read as follows:

90.60 Wetland and Wetland Buffer Modification

1. Applicability – This section does not apply to wetland modifications and wetland buffer modifications that may be approved in certain circumstances under a reasonable use exception pursuant to KZC 90.180; permitted activities, improvements or uses subject to development standards pursuant to KZC 90.40; public agency and public utility exceptions pursuant to KZC 90.45; or programmatic permit, public agency and public utility pursuant to KZC 90.50.

2. Wetland Modification- Modifications to wetlands shall be prohibited except ~~that the following limited types of~~ those Category IV wetlands identified below that are considered Non-federally regulated. ~~are not required to meet~~ Mitigation sequencing pursuant to KZC 90.145 is required, except for the avoidance and impact minimization criteria. These wetlands ~~and~~ may be filled or modified if the impacts are fully mitigated based on the remaining actions in the mitigation sequence. The applicant shall submit a critical area report pursuant to KZC 90.105 and 90.110 verifying that the following criteria are met.

a. Category IV ~~isolated wetlands~~ Non-federally regulated wetlands less than 4,000 square feet that:

1) Are not associated with streams or their buffers;

2) Are not part of a wetland mosaic;

3) Do not score six (6) or more points for habitat function; and

4) Do not contain a Priority Habitat for a Priority Species identified by the Washington Department of Fish and Wildlife and do not contain a state or federally listed species ~~designated endangered, threatened or sensitive species~~ or their critical habitats ~~or state priority habitats~~, or ~~including~~ species of local importance identified in KZC 90.95.

The Planning Official may approve an application under this exception only if the applicant provides compensatory mitigation for both wetland and buffer loss pursuant to KZC 90.150. Impacts shall be mitigated through an in-lieu fee or mitigation bank program if a program is available. Otherwise, preference for mitigation location shall be pursuant to KZC 90.145.

It is the applicant's responsibility to ~~arrange a jurisdictional~~ provide a determination by a qualified consultant ~~by the U.S. Army Corps of Engineers~~ on whether a wetland is not federally regulated, ~~isolated but~~ and regulated only by the Washington State Department of Ecology for the purposes of filling and mitigating a Category IV ~~isolated~~ wetland.

b. Category IV ~~isolated~~ Non-federally regulated wetlands less than 1,000 square feet that meet subsection (2)(a) of this section do not have a buffer and therefore are exempt from buffer requirements. The Planning Official may approve an application for modification under this exception ~~only~~ if the applicant provides compensatory mitigation based on the remaining actions in the mitigation sequence pursuant to KZC 90.150 for the wetland loss. ~~No compensatory mitigation is required for the buffers loss.~~

3. Wetland Buffer Modification – A wetland buffer may not be modified or otherwise reduced, except if part of an approved wetland or buffer modification in this section.

The following wetland buffer modifications may be proposed:

a. Impacts to associated buffer as part of wetland modification;

b. Buffer averaging permitted pursuant to KZC 90.115; or

c. Interrupted buffer waiver permitted pursuant to KZC 90.120.

4. Process – Unless otherwise specified above or in KZC 90.40, 90.115 or 90.120, any proposal to modify a wetland and its buffer shall be reviewed and approved pursuant to Process I, described in Chapter 145 KZC.

* * *

Section 50. In chapter 90.65, the chapter division of "Streams" is retitled as "Streams and Riparian Management Zones" and KZC 90.65 is hereby amended to read as follows:

90.65 Streams and Associated Buffer Standards

Streams, ~~and~~ associated buffers, ~~standards~~ and Riparian Management Zones (RMZ's) are regulated Fish and Wildlife Habitat Conservation areas as defined in WAC 365-190-030. Regulations for the protection of these areas are provided in this section. ~~The table below is a summary of the stream regulations. More details are provided for some of the regulations elsewhere in this chapter.~~

~~Table 90.65.1 Streams and Associated Buffer Standards~~

<table>
<tr><td>~~Stream Classification~~</td><td colspan="3">~~In accordance with WAC 222-16-030, as amended. The Planning Official makes final determination. Stream classification shall not change due to illegal modifications.~~</td></tr>
<tr><td>~~Stream Determination~~</td><td colspan="3">~~Planning Official makes determination if a stream and/or a buffer exist on the subject property, and if so, a stream's classification and boundary, and width of buffer based on required critical area report pursuant to KZC 90.110. In addition, the Planning Official makes determination if the standard buffer meets the vegetative buffer standards in KZC 90.130.~~</td></tr>
<tr><td>~~Stream Buffer Width Standard~~</td><td colspan="3">~~Stream Buffer Widths~~
<table><tr><th>~~Stream Type~~</th><th>~~Buffer Width~~</th></tr><tr><td>~~F (Fish bearing)~~</td><td>~~100 feet~~</td></tr><tr><td>~~Np (Perennial non-fish bearing)~~</td><td>~~50 feet~~</td></tr><tr><td>~~Ns (Seasonal non-fish bearing)~~</td><td>~~50 feet~~</td></tr><tr><td></td><td>~~See KZC 90.130 for buffer vegetation requirements~~</td></tr></table></td></tr>
<tr><td>~~Stream Buffer Width Alternative~~</td><td colspan="3">~~Applicant may choose not to comply with the vegetative buffer standards in KZC 90.130 by complying with the following requirements: 1) Increase buffer width listed above in stream buffer widths by 33% within entire buffer. 2) Remove all structures and improvements within the buffer. 3) Discontinue any maintenance of lawn and nonnative vegetation within the buffer. 4) Cease all activities in the buffer, except those permitted under KZC 90.35(12) and (13). In no case shall a standard and an alternate buffer standard be combined for a development proposal.~~</td></tr>
<tr><td>~~Other Standards~~</td><td colspan="3">~~▪ Buffer averaging is permitted for both the standard buffer and the alternative buffer if criteria are met. See KZC 90.115. The Planning Official makes decision.~~
~~▪ Increased buffer width may be required if the stream or its buffer contains or is adjacent to a severe erosion area, habitat of certain species or frequently flooded area based on critical area report. See KZC 90.125.~~
~~▪ Streams that are degraded must be restored if the project is subject to KZC 90.130(3)(a) for a vegetative buffer and/or a stream modification is proposed. A critical area report shall address any needed restoration due to degraded vegetation, habitat, water quality and hydrologic functions with specific consideration for anadromous salmon.~~
~~▪ Standard buffers must meet vegetative buffer requirements pursuant to KZC 90.130.~~
~~▪ Buffers shall be provided where a stream abuts an inlet and outlet of culverted streams as shown in Chapter 180 KZC, Plate 16A.~~</td></tr>
</table>

	▪	~~Fencing and signage are required along the entire upland edge of buffer both during construction and upon completion of a project. See KZC 90.190.~~
	▪	~~Voluntary restoration of streams and buffers or instream maintenance, see KZC 90.35 and 90.40.~~
	▪	~~For code enforcement to correct an illegal modification to a stream or buffer, see KZC 90.205.~~
	▪	~~Streams and buffers shall be placed in recorded critical area easements or tracts for perpetual protection and maintenance. See KZC 90.210.~~
~~Structure Setback from Buffer~~	~~10 foot wide structure setback is required from upland edge of the entire buffer. Improvements listed in KZC 90.140 are permitted within the setback.~~	
~~Activities, Improvements and Uses In Streams~~	~~Activities, improvements and uses shall be prohibited within streams and associated buffers, except those exempted or permitted subject to development standards in KZC 90.35 and 90.40, or those approved under another City review process in this chapter.~~	
~~Modifications to Stream and Impacts to Associated Buffer~~	▪	~~Buffer standards may be modified for vehicular access to a property that is both a legal building site and a buildable site pursuant to KZC 90.40, for daylighting a stream pursuant to KZC 90.75, and for limited buffer waivers pursuant to KZC 90.120. Also, see KZC 90.185, Nonconformances.~~
	▪	~~Impacts to stream buffers shall be mitigated at a minimum of a 1:1 ratio.~~
	▪	~~Daylighting of a stream is encouraged. The Planning Official makes decision unless it is part of approval pursuant to Process I, Chapter 145 KZC. See KZC 90.75.~~

1. Stream Classification – Streams shall be typed pursuant to WAC 222-16-030 and WAC 222-16-031, as amended, stream classifications must be determined based on the location of the OHWM or top of bank and an assessment of supporting habitat features. This assessment must be performed by a qualified critical area professional. Stream classification shall not change due to illegal modifications.

2. Stream Determination - Planning Official shall determine the following:

a. If a regulated stream, ~~and/or buffer~~ exists on or within 150 feet of any portion the subject property;

b. The extent of Riparian Management Zone impact on the property pursuant to KZC 90.67;

c. The stream's classification and boundary, width of buffer and interruptions to that buffer based on required critical area report pursuant to KZC 90.110,

d. If the reduced buffer meets the vegetative buffer standards in KZC 90.130; and

e. If the planning official is uncertain if a watercourse on or within 150 feet of the property is classified as a stream, or if the stream has not already been typed, a critical area report shall be required

3. Reduced Stream Buffer Width - A reduced stream buffer (Table 90.65.1) may be allowed if the respective area on the subject property meets the minimum vegetation buffer standards in KZC 90.130. All allowed impacts inside the regulated buffer shall also be mitigated pursuant to KZC 90.145.

Table 90.65.1 Reduced Stream Buffer Widths

Stream Type	Buffer Width
Type F (2 and 3) waters	100 feet
Type N (4 and 5) waters	50 feet

a. No S type streams have been identified in Kirkland. If an S stream is identified, Chapter 83 Shoreline Regulations shall be applied.

b. Piped streams and other disconnected streams not rated as an F or N stream do not require a stream buffer or riparian management zone.

c. All streams have a structure set back requirement (KZC 90.140) in addition to any buffer requirements.

4. Regulated Stream Buffer Width - Applicant may choose not to comply with the vegetative buffer standards in KZC 90.130 by complying with the following requirements:

a. Apply the regulated buffer width shown in Table 90.65.2, across the entire buffer.

b. Remove all structures and improvements within the regulated buffer and restore all impacted areas to meet minimum vegetative buffer standards in KZC 90.130.

c. Discontinue any maintenance of lawn and nonnative vegetation within the regulated buffer. Regulated and non regulated noxious weeds may be managed per KZC 90.35

d. Cease all activities in the buffer, except those permitted under KZC 90.35.

e. In no case shall a standard and an alternate buffer standard be combined for a development proposal; development applications shall propose compliance with a single buffer standard (regulated or reduced) for the entirety of the subject property.

Table 90.65.2 Regulated Stream Buffer Widths

Stream Type	Buffer Width
Type F (2 and 3) waters	133 feet
Type N (4 and 5) waters	75 feet

5. Stream Buffer Width ~~Standards and~~ Modifications

a. Increased buffer widths may be required based on critical area report recommendations (See KZC 90.125) if:

1) The stream or its buffer contains or is adjacent to a severe erosion or landslide area,

2) The stream or buffer contain a priority species with larger habitat requirements per KZC 90.95.

3) The stream is in-a frequently flooded area or channel migration zone

b. Buffer averaging is permitted for both the reduced buffer and the regulated buffer if criteria are met in KZC 90.115.

c. Buffers shall be provided where a stream abuts an inlet and outlet of a piped/culverted stream as shown in Chapter 180 KZC, Plate 16A. When culverts extend into the stream channel from a developed or disturbed area, buffers may be required to include areas around the pipe per the decision of the Planning Official.

d. A 10-foot-wide structure setback is required from edge of the entire buffer. For streams without buffers, such as piped streams, setback shall be from the top of bank or edge of structure. Improvements listed in KZC 90.140 may be permitted within the setback.

e. Buffer standards may be modified for vehicular access to a property that is both a legal building site and a buildable site pursuant to KZC 90.40, for daylighting a stream pursuant to KZC 90.75, and for limited buffer waivers pursuant to KZC 90.120. Also, see KZC 90.185, Nonconformances.

6. Other Stream Buffer Standards

a. Activities, improvements, and uses in streams and stream buffers shall be prohibited within streams and associated buffers, except those exempted or permitted subject to development standards in KZC 90.35 and 90.40, or those approved under another City review process in this chapter. The provisions of this chapter do not supersede or negate the need for any applicable state or federal permits or their respective requirements.

b. Development proposals using reduced buffers must meet vegetative buffer requirements pursuant to KZC 90.130.

c. Daylighting of a stream is encouraged. The Planning Official makes decision unless it is part of approval pursuant to Process I, Chapter 145 KZC. See KZC 90.75.

d. Streams that are degraded must be restored if any stream modification is proposed. A critical area report shall address any HPA permitting requirements, needed restoration due to degraded vegetation, habitat, water quality and hydrologic functions with specific consideration for salmon and other anadromous fish.

e. Impacts to regulated stream buffers shall be mitigated at a minimum of a 1:1 ratio (every square foot of permanent disturbance must have an equivalent amount of buffer meeting the minimum vegetative requirements in KZC 90.130). If minimum vegetative standard requirements within the reduced buffer are less than the impacts on site, additional mitigation must be provided in accordance with the location of mitigation preferences in KZC 90.145.3.

f. Fencing and signage are required along the entire upland edge of buffer both during construction and upon completion of a project. See KZC 90.190.

g. For voluntary restoration of streams and buffers or instream maintenance, see KZC 90.35 and 90.40.

h. Streams and buffers shall be placed in recorded critical area easements or tracts for perpetual protection and maintenance. See KZC 90.210.

i. Buffers for Type F streams identified as anadromous fishery habitat shall also conform to requirements in 90.95.

Section 51. A new section entitled "Riparian Management Zone" is hereby created, to be added to Chapter 90 KZC and codified as KZC 90.67, to the KZC to read as follows:

90.67 Riparian Management Zone

The riparian management zone (RMZ) is equal to 150 feet and is derived from the 200 year Site Potential Tree Height (SPTH) estimates in combination with maximum documented heights for native riparian tree species that do not have 200-year heights modeled. The RMZ is measured similarly to riparian buffers from the ordinary high water mark, or from the edge of the channel migration zone if it exists on site.

1. RMZ Standard Width: This section applies to all areas of the subject property within 150 feet of either Type F or Type N streams. RMZ standards do not independently apply to wetlands.

2. RMZ Tree Retention not associated with Development Activity: All areas within the RMZ shall follow Critical Area tree regulations pursuant to KZC 95.27.

3. When RMZ Standard Applies with Development activity. The RMZ standards shall be required when:

a. The total new net impervious or hardscape area anywhere on the subject property exceeds 1,000 square feet, or

b. The cost of new or replacement improvements exceeds 50 percent of the replacement cost of the existing improvements on the entire subject property. This 50 percent threshold shall not apply to detached dwelling units approved for expansion pursuant to KZC 90.185.

4. RMZ Standards

a. Any improvements within the RMZ shall incorporate the following in the project design:

1) LID requirements to treat water before entering the stream (KMC 15.52); and

2) Measures to minimize impacts to Critical areas Buffers, and Riparian Management Zones pursuant to KZC Table 90.155.1.

b. When the RMZ standards apply, the applicant shall submit documentation of their adherence to the required standards with any and all development permit applications in a form acceptable to the Planning Official.

c. Prior to final inspection of any development permit, the applicant shall record, on the title of the property, a covenant in a form acceptable to the City Attorney that depicts that area of the RMZ and the applicable standards to be maintained in perpetuity.

Section 52. KZC 90.70 is hereby amended to read as follows:

90.70 Stream Modification

1. Applicability – This section does not apply to stream modifications or stream buffer modifications that may be approved in certain circumstances under a reasonable use exception pursuant to KZC 90.180; permitted activities, improvements or uses subject to development standards pursuant to KZC 90.40; public agency and public utility exceptions pursuant to KZC 90.45; or programmatic permit – public agency and public utility pursuant to KZC 90.50.

2. Stream Modification – Modifications to streams and associated impacts to buffers are prohibited, except as approved as part of a stream modification in this section.

The following stream modifications may be considered:

a. Stream crossings for Type F streams (see KZC 90.40 for Type N streams);

b. Culverts and bridges;

c. Change in meandering course of a stream;

d. Relocation of a Type N~~s or Np~~ stream. Relocation of a Type F stream is not permitted; and

e. Impacts to buffers associated with a stream modification.

3. Limited Buffer Modification – A stream buffer may only be modified or otherwise reduced as part of an approved stream or buffer modification in this section or in limited circumstances under permitted activities; improvements or uses subject to development standards pursuant to KZC 90.40; public agency and public utility exceptions pursuant to KZC 90.45; programmatic permits – public agency and public utility pursuant to KZC 90.50; or reasonable use exception pursuant to KZC 90.180.

The following stream buffer modifications may also be proposed in conjunction with the ~~following~~ referenced sections:

a. Impacts to associated buffer as part of stream modification, pursuant to KZC 90.70(2);

b. Change to meandering course of a stream pursuant to KZC 90.80;

c. Daylighting of a stream pursuant to KZC 90.75;

d. Buffer averaging permitted pursuant to KZC 90.115; or

e. Limited buffer waivers permitted pursuant to KZC 90.120.

4. Process – All proposals in subsections (2) and (3)(a) of this section shall be reviewed and decided upon pursuant to Process I, described in Chapter 145 KZC. All proposals in subsections (3)(b) through (3)(e) of this section shall be decided upon by the Planning Official.

5. Decisional Criteria – For all proposals in subsections (3)(b) through (3)(e) of this section, refer to the decisional criteria in the applicable section. For proposals in subsections (2) and (3)(a) of this section, in addition to criteria of Process I, the Planning and Building Director shall only approve a modification to a stream and impact to the buffer if:

a. Mitigation sequencing requirements have been met. See KZC 90.145; and

b. The applicant has demonstrated, where applicable, based on information provided by a civil engineer and a qualified critical area professional approved by the City, that:

* * *

13) For relocation of a Type ~~Ns or Np~~ stream, demonstrate that relocation would improve stream functions; and

* * *

Section 53. KZC 90.75 is hereby amended to read as follows:

90.75 Daylighting of Streams

1. Daylighting – The City encourages opening up a stream that is located in a culvert to restore the stream to a more natural and open condition. The purpose is to improve the values and functions of the stream, including maintaining water quality, reducing storm and flooding water flow, and providing wildlife habitat. Development incentives, including reduced dimensional design standards identified in table 90.175.1 may be implemented on a subject property with a daylighted stream.

2. Process – The Planning Official may approve removal of a stream from a pipe or culvert based on a critical area report pursuant to KZC 90.110 and an approved stream daylighting plan prepared by a qualified critical area professional approved by the City.

* * *

Section 54. KZC 90.80 is hereby amended to read as follows:

90.80 Buffer Reduction for Meandering or Daylighting of Stream

1. On-Site Stream Buffer Reduction

a. A reduction to the required stream buffer standard may only be approved as part of approval for:

1) Changing the course to create a meandering stream if the modification improves instream habitat and flow conveyance; or

2) Daylighting a stream.

b. The buffer width reduction shall be the minimum necessary to accommodate existing and proposed improvements and/or site conditions and the complete project shall meet no net loss requirements for ecological function and values; and

c. For any reduction in the buffer, the required vegetative standards in KZC 90.130 shall be ~~increased~~ required and adjusted proportionally ~~to the extent feasible based on an appropriate planting density~~ and adapted to meet site conditions within the reduced buffer ~~to mitigate the impact to the critical area~~.

d. The Planning Official shall make these determinations based on a qualified critical area professionals recommendations.

2. Off-Site Stream Buffer Waiver

a. The buffer standard requirements for adjacent properties shall not increase due to the deliberate change in the meandering course of the stream or daylighting of a stream;

b. The City shall record the buffer waiver on the title of those affected properties with King County Recorder's Office. The City shall contact any affected property owners in writing to notify them of the buffer waiver notice and the applicable survey, and to determine if the property owner chooses to opt out having the notice and survey recorded on their property title;

c. The applicant shall pay for the fees to record the buffer waiver notice and the survey; and

d. There is no waiver to the existing buffer requirement prior to the change in the adjacent stream, or to any future change to the City's buffer standards.

Section 55. KZC 90.90 is hereby amended to read as follows:

90.90 Minor Lakes – Totem Lake and Forbes Lake

~~The majority, if not the entirety, of the perimeters of~~ Totem Lake and Forbes Lake are considered wetlands. All activities in the shallow areas of the lakes ~~relating to contiguous wetlands~~ and contiguous wetlands located above the ordinary high water mark are regulated pursuant to KZC 90.55 and 90.60.

* * *

Section 56. KZC 90.95 is hereby amended to read as follows:

90.95 Fish and Wildlife Habitat and Priority Species Habitat Conservation Areas

1. Location and Regulation of Fish and Wildlife Habitat ~~Areas~~ and other Priority Species Habitat and Conservation areas:

a. ~~Fish and wildlife habitat~~ Priority Species Habitat conservation areas ~~can be found in or near critical areas~~, consisting of large forested areas, streams, lakes, and some shoreline areas on Lake Washington that provide habitat for identified state endangered, threatened, sensitive, and candidate species and other identified vulnerable animal groups. The current Priority Habitat and species lists developed by Washington State Fish and Wildlife identify locations of these areas.

b. Streams identified as Priority Fish habitat ~~is~~ are protected under the provisions of KZC 90.65, Streams and Associated Buffer Standards~~.~~ in addition to ~~Thus, the provisions in~~ subsections (3) through (7) of this section ~~do not apply to fish habitat~~.

c. Additional habitats and species of local importance, as identified in the city sensitive areas map, are also regulated under this chapter.

2. Criteria – Fish and wildlife habitat conservation areas are those that meet one or more of the following species listed and habitat criteria:

a. State or federally designated endangered, threatened, and sensitive species that have a primary association with the habitat area.

b. State priority habitats and habitats with which State priority species have a primary association that are located in the City. Those in Kirkland are deemed to be Habitats and Species of Local Importance.

3. ~~Wildlife Habitat~~ Priority Species Habitat Conservation Area Assessment – As part of a critical area report pursuant to KZC 90.110, a determination shall be made if a ~~wildlife~~ priority habitat conservation area exists on the subject property or near the property by a qualified critical area professional approved by the City with experience preparing reports for the relevant type of habitat. The assessment shall include the following information:

a. Evaluation – Evaluation of the presence or absence of potential wildlife habitat on the subject property or within the vicinity. A wildlife habitat assessment shall include the following information:

1) Identification of state priority species ~~using the or state or federally listed endangered, threatened or sensitive species~~ that have a primary association with habitat on or in the vicinity of the property using the Washington State Department of Fish and Wildlife priority species list and habitat maps and associated City of Kirkland critical areas maps.

2) Extent of wildlife habitat areas, including acreage, and required buffers based on the species;

3) Vegetative, faunal, and hydrologic characteristics recommended for those protected areas;

4) Evaluation of potential direct and indirect ~~potential~~ impacts on habitat by the project, including potential impacts to water quality; and

5) A discussion of any federal, state, or local ~~special~~ management recommendations, including Washington State Department of Fish and Wildlife habitat management recommendations that have been developed for the species or habitats.

b. Maps – The following maps shall be used in the evaluation:

1) Washington State Department of Fish and Wildlife priority habitat and species maps; and

2) Federal and state information and maps related to those species and habitat identified in subsection (2) of this section. and

3) City sensitive or critical areas maps

4. Process – Modification to priority species ~~wildlife~~ habitat conservation areas shall be proposed as part of the required critical area approval under this chapter for a project.

5. Decisional Criteria – Modification to wildlife habitat conservation areas may only be approved if the following criteria are met:

a. Mitigation sequencing is met pursuant to KZC 90.145;

b. It can be demonstrated that required habitat areas can be protected through implementation of protection measures in accordance with a management plan; and

c. It can be demonstrated that the management plan and requirements in subsections (6) and (7) of this section can be met with the proposed project.

6. Wildlife Habitat Management Plan

a. A site specific wildlife habitat management plan shall be prepared by a qualified critical area professional with experience preparing reports for the relevant type of habitat and approved by the City and based on recommendations from the Washington State Department of Fish and Wildlife;

b. The applicant shall fund the cost and implementation of the management plan, and also fund peer review by the City of the management plan;

c. The plan shall establish:

1) Seasonal restriction of construction activities as determined by the Washington State Department of Fish and Wildlife;

2) Duration and timetable for periodic review of mitigation activities;

3) Vegetative buffer widths that reflect the sensitivity of the habitat and the type and intensity of ~~activity or use~~ impact to that habitat by the proposed activity. ~~proposed to be conducted nearby.~~ The buffer widths shall be consistent with the management recommendations issued by the Washington State Department of Fish and Wildlife and U.S. Fish and Wildlife Service;

4) Measures to provide an appropriate wildlife corridor for the conservation of the species if a wetland scoring six (6) or greater habitat points is within 300 feet of the habitat area;

5) Specific limitations on pesticide and herbicide use in conservation area; and

6) Monitoring and maintenance program for the mitigating measures. The applicant shall fund the monitoring and maintenance program and also fund peer review by the City. Installation of vegetation shall follow the monitoring and maintenance schedule for a five-year program pursuant to KZC 90.160;

d. Clustering of a development shall be considered in the plan if a project contains more than one (1) dwelling unit or building if it would provide less impact and/or greater protection of the conservation area; and

e. Consultation with the Washington State Department of Fish and Wildlife, affected tribes or other appropriate agency regarding the effectiveness of any proposed mitigating measures shall occur if the Planning Official determines that it is needed.

7. Standard Requirements for Priority ~~Wildlife~~ Habitat Conservation Area – Improvements, structures or activities located in or near wildlife habitat conservation areas shall meet the following standards:

a. Preservation of critically important vegetation and/or habitat features, such as large trees, snags and downed wood;

b. Buffers shall consist of an undisturbed area of native vegetation or areas identified in a management plan for restoration to protect the integrity, functions, and values of the affected habitat;

c. Limitation of access to the wildlife habitat area, including fencing and signage, to deter unauthorized access;

d. Introduction of any plant or wildlife not indigenous to the region shall be prohibited unless authorized by a state or federal approval;

e. A performance, monitoring and maintenance security shall be submitted pursuant to KZC 90.165 to ensure completion and success of proposed mitigation; and

f. The management plan shall be implemented through the life of the use or activity.

8. Designation of Wildlife Habitats or Species of Local Importance – The City may designate additional habitat or species of local importance as an amendment to the definition in Chapter 5 KZC.

Section 57. KZC 90.100 is hereby amended to read as follows:

90.100 Frequently Flooded Areas

No disturbance or land surface modification may take place and no improvements or activities may be located in frequently flooded areas that are areas of special flood hazard, except as specifically provided in Chapter 21.56 KMC, Flood Damage Prevention. See Federal Emergency Management Agency (FEMA) for current flood maps.

Section 58. KZC 90.105 is hereby amended to read as follows:

90.105 Critical Area Determination

1. Initial Determination – Either prior to or during review of a development application, the Planning Official shall make an initial assessment based on a site inspection and other information as to whether:

a. A wetland is present on any portion of the subject property or surrounding area within 300 feet of the subject property. If a site inspection does not indicate the presence of a wetland on the subject property or within 300 feet of the subject property, no additional wetland assessment will be required.

~~b. If the initial determination indicates that a wetland exists or may exist on the subject property or within 300 feet of the subject property and/or a stream exists on the subject property or within 125 feet of the subject property, or, then the applicant shall have a critical area report prepared pursuant to KZC 90.110.~~

b. A Priority Habitat Area is identified anywhere on the property based on the Washington Department of Fish and Wildlife Priority Habitat Map.

c. A stream is present on any portion of the subject property or surrounding area within ~~125~~ 150 feet of the subject property. If a site inspection does not indicate a stream on or within ~~125~~150 feet of the subject property, no additional stream assessment will be required.

d. If the initial determination indicates that a wetland exists or may exist on the subject property or within 300 feet of the subject property and/or a stream exists on the subject property or within 150 feet of the subject property, or if the property contains a Priority Habitat Area, then the applicant shall have a critical area report prepared pursuant to KZC 90.110.

~~d. If the Planning Official is not able to determine the classification of a stream or is uncertain if a watercourse is classified as a stream, a critical area report shall include a recommendation on a stream determination as to whether the site does contain a stream, and if so, its classification. If the critical area report determines that no stream exists on or within 125 feet of the subject property, no further assessment is needed.~~

e. For projects on public property, the edge of the footprint of the proposed improvement project shall be considered the subject property. Wetland determinations shall be conducted 300 feet and stream determinations shall be conducted 150 feet from the edges of the proposed impact.

2. Final Determination – The Planning Official shall make a final determination based on the critical area report. As part of the critical area determination, the Planning Official shall determine:

a. The critical area boundaries, wetland category and rating and/or stream classification;

b. The location of the buffer and buffer width standards for the critical area;

c. Whether the wetland or stream needs to be restored due to degraded vegetation, wildlife habitat, water quality and hydrologic functions, and if so, what measures are needed;

d. Whether the required buffer meets the vegetative standards found in KZC 90.130. If not, what changes need to be made to the buffer to meet the standard;

e. Whether the subject property contains ~~or is within the vicinity of~~ a ~~known~~ Priority Hhabitat requiring preservation or management ~~for species that are federally or state listed~~ pursuant to KZC 90.95; and

f. Whether the standard buffer width must be increased due to severe erosion ~~area~~, or high landslide hazard area pursuant to KZC Chapter 85 ~~fish and wildlife habitat conservation area~~ or a frequently flooded area on or adjacent to the subject property pursuant to KZC 90.125.

3. Development Review – The determination shall apply to any development permit application or request that would modify a site that includes a critical area or associated buffer, other than those exempted pursuant to KZC 90.35.

4. Validity of Determination – The critical area determination is valid for five (5) years from the date of the decision unless the City's standards for critical areas and or critical area buffers have been modified during that time period, in which case a new critical area determination and/or buffer decision may be required. ~~However~~ In addition, the Planning Official may modify the final critical area determination or require a new determination whenever physical circumstances have markedly and demonstrably changed on the subject property or within 300 feet of the subject property for wetlands and 1502~~5~~ feet for streams because of natural processes or ~~authorized~~ human activity.

Section 59. KZC 90.110 is hereby amended to read as follows:

90.110 Critical Area Report

1. General – An application for a development permit that includes a critical area and/or its buffer, except those exempted pursuant to KZC 90.35, shall provide a critical area report that uses the best available science to evaluate the proposal and all probable impacts.

2. Preparation of Report

a. The critical area report shall be prepared by a qualified critical area professional.

b. The applicant shall either:

1) Fund a report prepared by the City or the City's consultant; or

2) Submit a report prepared by a qualified critical area professional approved by the City. In addition, fund a peer review of the critical area report by the City or the City's consultant.

3. Report Format – The critical area report shall be provided in electronic form. The City may establish specific administrative requirements for the format of the report.

4. Report Content – General – A critical area report shall evaluate the subject property and critical areas within 300 feet of the subject property for wetlands and ~~125~~150 feet for streams and any on-site Priority Species Habitats. A critical area report shall include the following information:

a. The name and contact information of the applicant; the name, qualifications, and contact information of the primary author(s) of the report;

b. Documentation of any fieldwork performed on the site, including field data sheets for wetland delineation and rating system forms, stream classification, baseline hydrologic data;

c. A description of the methodologies used to conduct the wetland delineations and rating system forms, stream classification, if done as part of the critical area report, and impact analyses, including references;

d. Identification, characterization and boundaries of all critical areas, and buffers on or adjacent to the subject property. For areas off site of the subject property, estimated conditions within 300 feet of the subject property boundaries for a wetland and 150 ~~125~~ feet of a stream using the best available information;

e. A vicinity map and a site plan of the property, drawn to scale, with existing improvements and site features, including ~~significant~~ regulated trees;

f. Project narrative describing the proposal; anticipated temporary and permanent impacts to critical area or its buffer, construction activities and sequencing of construction, potential off-site surface water impacts and other relevant information;

g. A description of existing native, ornamental or invasive vegetation, fauna, and hydrologic characteristics found in the critical area and its buffer both on site and on adjacent properties;

h. An assessment of existing vegetation in the required buffer and:

1) Wwhether it meets the vegetative buffer standards found in KZC 90.130(2);~~.~~

2) lif the development threshold of KZC 90.130 is met or if any 1:1 mitigation is required for existing nonconformance within the reduced buffer;~~.~~

3) lif the vegetation in the buffer does not meet the vegetative standards, a ~~detailed~~ preliminary revegetation plan meeting KZC 90.130~~(2) is required~~ within the timeframe established in KZC 90.130(6); and~~.~~

4) A detailed restoration plan ~~If~~ for revegetation of buffer impacts associated with ~~the buffer is part of~~ a stream or wetland modification proposal (KZC 90.60 or 90.70), a public agency exception (KZC 90.45), daylighting of a stream (KZC 90.75), meandering a stream (KZC 90.80) or stream channel stabilization (KZC 90.85), a detailed final revegetation plan must be submitted with ~~those~~ these applications;

i. An assessment of whether the wetland or stream should ~~needs to~~ be restored due to degraded vegetation, wildlife habitat, water quality and hydrologic functions, and if so, identify thresholds for success and what measures would be required to meet those. ~~needed~~;

j. An assessment of whether the reduced or regulated ~~standard~~ buffer width must be increased due to severe erosion or, high landslide area, ~~fish and wildlife habitat conservation area~~ or frequently flooded area on or adjacent to the subject property pursuant to KZC 90.125;

k. An assessment of mapped ~~any existing habitat for~~ Priority Habitats ~~that are federally or state listed or priority species, and including~~ species of local importance pursuant to KZC 90.95 on the subject property and recommended protection buffer widths ~~or in the vicinity~~;

l. A professional survey as specified in subsection (7) of this section;

m. A statement specifying the accuracy of the report and all assumptions made and relied upon; and

n. Any other information deemed necessary by the Planning Official.

5. Additional Report Content – Wetlands – In addition to the requirements for the general report content pursuant to subsection (4) of this section, the critical area report shall include:

a. Identification of wetlands and delineation of their boundaries in accordance with the current approved federal delineation manual and applicable regional supplements described in WAC 173-22-035, as amended. All determinations and delineations of wetlands shall be based on the entire extent of the wetland, irrespective of property lines, ownership patterns, existing improvements or features;

b. Wetland rating and category including the rationale for the proposed rating and the required buffer based on the regulations in this code;

c. A completed Army Corps of Engineers Wetland Field Data Form;

d. Existing wetland acreage that may be approximated if the wetland extends onto adjacent properties;

e. Soil and substrate conditions;

f. A description of historical hydrologic, vegetative, habitat, topographic, and soil modifications, if any; and

g. Description of the water sources entering and leaving the wetland and documentation of hydrologic regime (locations of inlet and outlet features, water depths throughout the wetland, evidence of recharge or discharge, evidence of water depths throughout the year – drift lines, algal layers, water marks, and sediment deposits).

6. Additional Report Content – Streams – In addition to the requirements for the general report content pursuant to subsection (4) of this section, the critical area report shall include the stream classification and rationale, based on WAC 222-16-030, as amended. Best available information shall be used to determine ~~if~~ fish habitat ~~are present~~ in the stream given known natural fish barriers and other unusual conditions.

7. Professional Survey and Measuring Buffer Boundary

a. The survey shall be based on the King County Datum (NAVD 88 vertical, NAD 83 /91 horizontal) and shall indicate the temporary or permanent benchmark used in the survey depicting:

1) The approved delineation marking of a wetland and/or buffer boundary on the subject property and an estimate of the location of off-site wetlands and buffers within 300 feet of the subject property, based on the determined wetland category and rating, and the buffer standards in this chapter; and/or

2) The ordinary high water mark (OHWM) of any stream or the channel migration zone if one is present, or the opening of a pipe where any stream enters or exits a pipe and~~/or~~ any buffer surveyed on the subject property and ~~an estimate of~~ the location of any off-site stream, and buffer and riparian management zone within ~~125~~ 150 feet of the subject property based on the stream classification determination and the buffer standards in this chapter.

b. For wetlands, buffer widths shall be measured from ~~along~~ the outer edge of the entire wetland, perpendicular to the wetland edge. Surveys must depict both the regulated and reduced buffer boundaries.

c. For streams, buffer widths shall be measured outward in each direction on the horizontal plane from the OHWM or from the top of the bank if the OHWM cannot be identified (see Chapter 180 KZC, Plate 16). Where a stream enters or exits a pipe, the buffer shall be measured either perpendicular at the pipe opening or, perpendicular to where the pipe exits the fill when pipes extend into a stream channel (see Chapter 180 KZC, Plate 16A). Surveys must depict the regulated and reduced buffer boundaries and the Riparian Management Zone.

d. For public projects that do not require King County recording and do not impact private property, delineations may be documented on a ground verified map using professional surveying methods and be projected in the NAD 83 State Plane Washington North coordinate system. The "subject property" for public projects shall be the extent of the proposed improvement and potential areas of permanent and temporary impacts.

8. Site and Construction Plans – For a site proposed to be developed, the critical area report shall include general plans showing the following:

a. Site plan-view cross-sectional drawings;

b. Slope gradients, and existing and final grade elevations at two-foot intervals;

c. The type and extent of all critical areas, ~~and~~ buffers, and priority species habitats on the subject property and an estimate of any off-site critical areas and buffer within 300 feet of any wetland and 150 ~~25~~ feet of any stream measured from the subject property;

d. An approximate location of springs, seeps, surface water runoff features, or other surface expressions of groundwater on or within 300 feet of a wetland and 150 ~~25~~ feet of a stream from the subject property;

e. Proposed development, including the location of existing and proposed structures, fill, grading clearing limits with dimensions indicating distances to the critical area, areas of proposed impacts to the critical areas and/or buffers (include square footage estimates), and storage of construction materials and equipment if available;

f. An analysis of surface water runoff, including a depiction of the proposed storm water management facility and outlets for the project, and including estimated areas of permanent and temporary intrusion into the critical area buffer;

g. Other drawings to demonstrate construction techniques; and

h. Any other information deemed necessary by the Planning Official.

9. Waiver – The Planning Official may waive the requirement of certain information for the report if it is determined that:

a. The information is not needed to evaluate a critical area or requirement of this chapter; or

b. If the development proposal will affect only a part of the subject property, the Planning Official may limit the scope of the required report to include only that part of the site that would be affected by the development.

10. If the applicant's consultant prepares the critical area report, the applicant shall also fund peer review of the report by the City's consultant.

Section 60. KZC 90.115 is hereby amended to read as follows:

90.115 Buffer Averaging

1. Applicability – Buffer averaging may be applied to wetland and stream buffers. Both the reduced ~~standard~~ buffer and the regulated ~~alternative~~ buffer may use buffer averaging pursuant to this section, however, a single buffer standard (reduced or regulated) must be applied to the entire property.

2. Standards – Averaging of buffer widths for either the reduced ~~standard~~ buffer or regulated ~~alternative~~ buffer may only be allowed if all of the following criteria are met as demonstrated in a critical area report:

a. The applicable ~~standard~~ buffer ~~or alternative buffer~~ width is not reduced below 75 percent ~~of the required width~~ in any location; and

b. The total area contained in the buffer area after averaging is no less than that which would be contained within the applicable ~~standard~~ buffer ~~or alternative buffer~~ and must be contiguous to the buffer; and

c. Buffer averaging will provide additional protection to the critical area and result in a net improvement of the critical area habitat, functions, and values; and

d. The critical area contains variations in sensitivity due to existing physical characteristics or the character of the buffer varies in slope, soils, or vegetation, and the wetland or stream would benefit from a wider buffer in one area and would not be adversely impacted by a narrower buffer in another area; and

e. Buffer averaging improves connectivity to adjacent property critical area buffer edges in comparison to maintaining the required buffer width to the property edge.

3. Process: –The Planning Official makes the decision based on the standards of subsection (2) of this section, standards in KZC 90.60 and/or KZC 90.70, and review of the critical area report described in KZC 90.110.

Section 61. KZC 90.120 is hereby amended to read as follows:

90.120 Interrupted and Limited Buffer Waivers

1. Interrupted Buffer Waiver

a. The Planning Official may waive the ~~required~~ critical area buffer requirements for ~~in that~~ isolated critical area buffers ~~portion of the buffer isolated from the critical area~~ where an existing legally established and improved public right-of-way or improved easement road interrupts the function of that ~~a~~ portion of the ~~critical area~~ buffer from ~~the portion of the buffer adjacent to~~ the critical area. The Planning Official may require a critical area report be prepared to address the criteria in subsection (1)(d) of this section.

b. The Planning Official may waive the required critical area buffer for ~~in that~~ isolated critical area buffers ~~portions of the buffer isolated from the critical area~~ where an existing legally established building, detached garage, accessory dwelling unit, driveway, commercial parking area or retaining wall or other structure over six feet in height divides the function of that ~~a~~ portion of the critical area buffer from ~~the portion of the buffer adjacent to~~ the critical area. For the buffer waiver to be approved, the applicant must demonstrate conclusively in a critical area report that all of the criteria in subsection (1)(d) of this section are met.

c. A waiver shall not be granted due to minor ~~the presence of~~ improvements such as fences, sheds, patios, decks or other minor structures and impervious or hardscape surfaces.

d. The Planning Official may waive the buffer requirement if the waiver request is found to meet the following criteria (see Chapter 180 KZC, Plate 25):

1) The existing legal improvement creates a substantial barrier to the buffer function;

2) The interrupted buffer does not provide additional protection for ~~of~~ the critical area from the proposed development; ~~and~~

3) The interrupted buffer does not provide significant hydrological, water quality and wildlife buffer functions relating to the portion of the buffer adjacent to the critical area.

e. If the applicant's consultant prepares the critical area report, the applicant shall also fund peer review of the report by the City's consultant.

f. Interrupted stream buffers are still located within the Riparian Management Zone and are subject to regulations per KZC 90.67.

2. Type F Stream Limited Buffer Waiver

a. The Planning Official may partially waive the required buffer for a Type F stream if the stream, while meeting the definition of Type F, does not currently support fish use due to the presence of a substantial downstream barrier and fish habitat in the subject area could not reasonably be recovered by restoration or management. The Planning Official shall require a critical area report be prepared to address the criteria in subsection (2)(c) of this section.

b. If, based on analysis of the criteria in subsection (2)(c) of this section the Planning Official approves a waiver of the Type F stream buffer, a Type N stream buffer shall apply to the stream within the subject area.

c. The Planning Official may waive the Type F buffer requirement if the waiver request is found to meet the following criteria:

1) The Type F stream otherwise meets the WAC 222-16-030 definition of Type F but does not currently support fish use due to the presence of a natural or substantial downstream barrier(s) and fish habitat in the subject area could not reasonably be recovered by restoration or management as determined by an analysis of the following characteristics:

a) Length or condition of downstream barrier(s);

b) Infrastructure above and adjacent to downstream barrier;

c) Average gradient of barrier;

d) Area and quality of potential fish habitat upstream of barrier.

d. If the applicant's consultant prepares the critical area report, the applicant shall also fund peer review of the report by the City's consultant.

e. The Planning Official may apply the limited buffer waiver to other properties along the same stream reach in the immediate vicinity of a prior determination where the same conditions exist. In such cases, the Planning Official may waive the required application and reports.

Section 62. KZC 90.125 is hereby amended to read as follows:

90.125 Increase in Buffer Width Standard

1. Criteria to Require Increase in Buffer Width – The Planning Official ~~City~~ shall determine if a critical area buffer must be increased beyond the standards in this chapter based on best available science and the recommendation of a critical area report for a project. The increase in buffer width may be required when a larger buffer is necessary to protect critical area functions and values either on the subject property or on an adjacent property. This determination shall be based on one or more of the following criteria:

a. Severe Erosion Areas – If the critical area buffer abuts land that contains a slope with severe erosion, has minimal vegetative cover and is designated as hazardous in Chapter 85 KZC, and erosion control measures will not effectively prevent adverse impacts on the critical area based on a geotechnical study, a larger buffer shall be required;

b. Fish and Wildlife and Priority Habitat Conservation Areas – If the wetland or stream contains documented habitat for state or federally listed endangered, threatened, and sensitive species or state priority species, including species of local importance, a larger buffer may be required to protect the habitat consistent with the management recommendations issued by the Washington State Department of Fish and Wildlife ~~or the United States Fish and Wildlife Service;~~ or

c. Frequently Flooded Areas – If a site contains a frequently flooded area and the frequently flooded area is wider than the buffer standard required for a wetland or stream, the buffer shall begin from the Ordinary High Water mark or the edge of the Channel Migration Zone ~~increased~~ to incorporate the entire frequently flooded area.

2. Process – The Planning Official shall make a determination if a buffer width must be increased beyond the standard buffer width based on the critical area report as part of the final critical area determination in KZC 90.105.

Section 63. KZC 90.130 is hereby amended to read as follows:

90.130 Vegetative Buffer Standards

1. General – The entire reduced wetland buffer width of KZC Table 90.55.1 and ~~standard~~ reduced stream buffer width of KZC Table 90.65.1, referred to hereafter as the "buffer," shall be vegetated pursuant to the requirements of this section.

2. Vegetative Buffer Standard – The following vegetative buffer standards shall be met:

a. Native cover of at least 80 percent on average throughout the buffer area. Additionally, the first two of the following strata of native plant species each must compose at least 20 percent areal cover, and the third may compose no more than 20 percent areal cover:

1) Multi-age forest canopy (combination of existing and new vegetation);

2) Native, minimally pruned ~~S~~shrubs; and

3) ~~Woody~~ Native, unmowed woody or herbaceous groundcover ~~(such as kinnikinnick, salal and sword fern) or unmowed herbaceous groundcover~~;

b. At least three (3) different native tree and three different native shrub species ~~each making up a minimum of 10 percent coverage (for diversity)~~;

c. Less than 10 percent overall cover of King County regulated or non regulated noxious weeds ~~cover using King County weed list and permanent removal of all knotweed~~ and a weed management plan for all regulated noxious weeds, and all listed knotweeds identified on site; and

d. Removal of lawn and any illegal fill as determined by the City.

3. When Vegetative Buffer Standard Applies

a. The complete vegetative buffer standard shall be required ~~installed either~~ when structures or improvements exist or will be developed inside the regulated buffer, and when:

1) The total new net impervious or hardscape area anywhere on the ~~entire~~ subject property exceeds 1,000 square feet, or

2) The cost of new or replacement improvements exceeds 50 percent of the the replacement cost ~~assessed or appraised value~~ of the existing improvements on the entire subject property ~~whichever is greater~~. This 50 percent threshold shall not apply to detached dwelling units approved for expansion pursuant to KZC 90.185.

b. A partial vegetative buffer shall be required to be installed when improvements exist or will be developed inside the regulated buffer and:

1) The total new net impervious or hardscape area is between ~~50~~ 100 square feet and less than 1,000 square feet on the subject property.

a) The buffer shall be vegetated at a minimum 1:1 ratio (new net impervious or hardscape area is equal to the total square feet of buffer vegetation) meeting the vegetated buffer standard at the proportional rate of the standard;

b) If the new net impervious or hardscape area results in removal of a ~~significant~~ regulated tree in a buffer, the tree shall be replaced per standards in KZC 95.27; ~~with two native trees in the buffer. The replacement trees shall be six feet tall for a conifer and two inch caliper for deciduous or broadleaf. For a removed significant tree in a buffer that is 24 inches in diameter, the tree shall be replaced with three native trees;~~

c) The partial vegetated buffer improvement area shall be located in the buffer abutting or nearest to the critical area or connected to existing vegetated buffers and shall be ~~at~~ a minimum width of 10 feet;

d) The location of the vegetation in the buffer shall be between ~~across from~~ the new structure footprint and the critical area and approved by the Planning Official;

2) When a new net impervious surface on the subject property totals less than ~~50~~ 100 square feet, ~~no vegetation is required to be planted in the buffer~~ additional tree canopy shall be planted at 1 tree per 25 square feet to meet mitigation requirements; and

c. Less than 10 percent overall cover of King County regulated or non regulated noxious weeds ~~cover using King County weed list and permanent removal of all knotweed~~ and a weed management plan for all regulated noxious weeds, and all listed knotweeds identified on site; and

d. Removal of lawn and any illegal fill as determined by the City.

3. When Vegetative Buffer Standard Applies

a. The complete vegetative buffer standard shall be required ~~installed either~~ when structures or improvements exist or will be developed inside the regulated buffer, and when:

1) The total new net impervious or hardscape area anywhere on the ~~entire~~ subject property exceeds 1,000 square feet, or

2) The cost of new or replacement improvements exceeds 50 percent of the the replacement cost ~~assessed or appraised value~~ of the existing improvements on the entire subject property ~~whichever is greater~~. This 50 percent threshold shall not apply to detached dwelling units approved for expansion pursuant to KZC 90.185.

b. A partial vegetative buffer shall be required to be installed when improvements exist or will be developed inside the regulated buffer and:

1) The total new net impervious or hardscape area is between ~~50~~ 100 square feet and less than 1,000 square feet on the subject property.

a) The buffer shall be vegetated at a minimum 1:1 ratio (new net impervious or hardscape area is equal to the total square feet of buffer vegetation) meeting the vegetated buffer standard at the proportional rate of the standard;

b) If the new net impervious or hardscape area results in removal of a ~~significant~~ regulated tree in a buffer, the tree shall be replaced per standards in KZC 95.27; ~~with two native trees in the buffer. The replacement trees shall be six feet tall for a conifer and two inch caliper for deciduous or broadleaf. For a removed significant tree in a buffer that is 24 inches in diameter, the tree shall be replaced with three native trees;~~

c) The partial vegetated buffer improvement area shall be located in the buffer abutting or nearest to the critical area or connected to existing vegetated buffers and shall be ~~at~~ a minimum width of 10 feet;

d) The location of the vegetation in the buffer shall be between ~~across from~~ the new structure footprint and the critical area and approved by the Planning Official;

2) When a new net impervious surface on the subject property totals less than ~~50~~ 100 square feet, ~~no vegetation is required to be planted in the buffer~~ additional tree canopy shall be planted at 1 tree per 25 square feet to meet mitigation requirements; and

3) For new utility poles the buffer shall be calculated based on the combined area of all new utility pole footprints and be vegetated at a minimum 1:1 ratio (net new impervious or hardscape area equals total square feet of buffer vegetation), meeting the vegetated buffer standard at a proportional rate.

c. For public facilities in public parks, for net new impervious or hardscape improvements of any amount, the buffer shall be vegetated at a minimum 1:1 ratio (i.e., net square footage of vegetated buffer area must be planted to meet the standards to match the net new square footage of added impervious or hardscape surfaces) meeting the vegetated buffer standard at the proportional rate of the standard, in a location and of dimensions approved by the Planning Official.

d. For permitted activities, improvements and uses subject to development standards pursuant to KZC 90.40, vegetative buffer requirements will be determined as part of mitigation sequencing.

e. For nonconformances, see KZC 90.185.

4. Additional Standards

a. All existing improvements and structures within ~~a~~ the reduced buffer width must be removed when the vegetative buffer installation is required pursuant to subsection (3)(a) of this section, unless such improvement is permitted to remain pursuant to the provisions in KZC 90.185.

b. All activities in the applicable buffer must cease, except those permitted under KZC 90.35(12) and (13);

c. Native vegetation appropriate for wetlands and streams shall be used based on the City's ~~Critical Areas~~ Native Plant List. Other climate-ready and drought-tolerant vegetation may be proposed if appropriate for the site and approved by the City;

d. Trees and shrubs placement in the buffer ~~shall~~ should be located ~~along the bank of streams~~ to prioritize ~~provide effective~~ shading of the stream to lower water temperature;

e. Existing healthy native vegetation may count towards meeting ~~the~~ mitigation requirements if the overall minimum vegetation standards are met;

f. The City may require amended soil if needed to provide a well-functioning buffer;

g. The City may require supplemental wood chip mulch to meet the site goals of soil stabilization or weed control. ~~Planning and Building Department standards~~;

h. A reliable temporary irrigation source must be available while the vegetation is being established and the source must be indicated on the planting plan;

i. Installation shall be done by hand unless use of mechanical equipment is specifically authorized due to site conditions. By hand includes any handheld equipment that is gas or electric powered;

j. A perpetual landscape maintenance agreement, in a form approved by the City, shall be recorded over the vegetated buffer prior to final inspection; and

k. Buffers shall not be mowed and animals may not be used to remove weeds, except goats may be used to remove invasive species only for public restoration projects pursuant to KZC 90.35 and 90.40.

5. Process – The Planning Official shall determine whether an existing buffer meets the standards in subsection (2) of this section as part of the final critical area determination based on information in the critical area report.

6. Submittal of Vegetative Buffer Plan – Timing and Contents

a. When an existing buffer does not meet the standards in subsection (2) of this section, the applicant shall submit a vegetative buffer plan with the development permit application;

b. The vegetative buffer plan shall be prepared by a qualified critical area professional. The applicant shall also submit funds to the City for peer review of the vegetative buffer plan;

c. The Planning Official shall approve the plan only if it meets the vegetative buffer standard in this section; and

d. If a modification is proposed to a wetland or stream (KZC 90.60 or 90.70), a public agency exception (KZC 90.45), daylighting of a stream (KZC 90.75), meandering a stream (KZC 90.80), or stream channel stabilization (KZC 90.85), then a detailed final planting plan shall be submitted with the development permit application.

e. Description of existing or potential risks to buffer repair such as beaver or other browsing/herbivory activity, invasive species management, high public access, flooding, and unusual irrigation designs. Known risks to successful establishment shall identify design action thresholds, contingency requirements and adaptative management strategies to address potential impacts using best management practices

7. Maintenance, Monitoring and Financial Security – A maintenance and monitoring program pursuant to KZC 90.160 with the building or land surface modification permit application. The financial security pursuant to KZC 90.165 for the vegetative buffer shall be submitted prior to issuance of a building or land surface modification permit or before commencement of an activity. The maintenance/monitoring program shall be prepared by a qualified critical area professional. The applicant shall fund the cost of peer review by the City.

8. Protection and Maintenance of Vegetative Buffer – Critical areas and buffers shall be placed in recorded critical area easements or tracts pursuant to KZC 90.210 and shall be maintained in perpetuity.

Section 64. KZC 90.145 is hereby amended to read as follows:

90.145 Mitigation – General

1. General – If a modification is proposed to a critical area or buffer, as part of the application the applicant must have the proposal evaluated using mitigation sequencing and then submit a mitigation plan that addresses the impacts to the critical area.

2. Mitigation Sequencing – The intent of mitigation sequencing is to evaluate and implement opportunities to avoid, minimize~~, eliminate~~ or compensate for impacts to critical areas while still meeting the objectives of the project as defined in the State Environmental Policy Act rules per

WAC 197-11-768. All projects must provide documentation of sequencing for permit review. When a modification to a critical area and buffer is proposed, the modification shall be mitigated ~~avoided, minimized, or compensated for, as outlined by WAC 197-11-768~~, in the following order ~~of preference~~:

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 by using appropriate technology or by taking affirmative steps to avoid or reduce impacts;

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

d. Reducing or eliminating the impact over time ~~by~~ through preservation and maintenance operations during the life of the action;

e. Compensating for the impact by replacing, enhancing or providing substitute resources or environments; and/or

f. Monitoring the impacts ~~and compensation projects~~ and taking appropriate corrective measures.

3. Location options for ~~of~~ m~~M~~itigation

~~a. Preference – Preference shall be given to the location of the mitigation in the following order unless it can be demonstrated that off-site in-kind mitigation is ecologically preferable:~~

~~1) On-site in-kind;~~

~~2) Off-site in City in-kind;~~

~~3) Off-site in-kind within the Lake Washington/Cedar/Sammamish Watershed.~~

~~b. On-Site versus Off-Site Mitigation~~

a. ~~1)~~ ~~Mitigation shall occur~~ Preference will be given to on-site mitigation except when the City determines that the following criteria have been met as part of a proposal under this chapter:

1)~~b)~~ Off-site mitigation has a greater likelihood of providing equal or improved critical area functions than the impacted critical area as determined by the applicants qualified wetland professional;

2) ~~a)~~ There is limited ~~no~~ opportunity for on-site mitigation or on-site mitigation ~~opportunities~~ does not have a high likelihood of success due to the size, location, or condition of the property, ~~site constraints~~ or the critical area ~~size and quality of the wetland,~~ or buffer. ~~location and quality of the stream~~;

~~b) Off-site mitigation has a greater likelihood of providing equal or improved critical area functions than the impacted critical area; a~~

3) ~~c)~~ Off-site locations ~~shall be~~ are located in the same Water Resource Inventory Area (WRIA) 8 Lake Washington/Cedar/Sammamish Watershed as the impacted critical area; and

4) ~~d)~~ The off-site critical area mitigation will ~~best~~ meet formally established watershed goals for water quality, flood or conveyance, habitat, or other wetland functions that have been established and strongly justify location of mitigation at another site.

b. ~~2)~~ Permittee-responsible compensatory wetland mitigation actions shall be conducted using a watershed approach to prioritize mitigation in the most ecologically effective areas within the same sub-drainage basin except when the applicant can demonstrate that a mitigation site in a different sub-drainage basin is ecologically preferable or meets watershed goals for other critical area functions established by the City.

c. ~~3)~~ ~~When considering~~ For off-site mitigation ~~outside of the City~~, preference should be given to using mitigation banking or an in-lieu fee program pursuant to subsection (4) of this section.

4. Responsible Party for Mitigation ~~Site~~ – Mitigation for lost or diminished critical area functions and values for critical areas and their buffers ~~either wetlands or streams~~ shall use the following options: to identify who holds responsibility for the success of that mitigation to meet the no net loss requirements.

a. Applicant-Responsible Mitigation – The applicant is responsible for the implementation, monitoring and success of the mitigation pursuant to this chapter.

b. Non-Applicant Responsible Mitigation – Mitigation Bank and In-Lieu Fee Mitigation

1) Funds are collected from the applicant by the sponsoring agency, nonprofit, private party or jurisdiction. The sponsor is responsible from that point forward for the completion and success of the mitigation. The applicant's fee is based on the project impact and includes all costs for ~~the~~ mitigation, including design, land acquisition, materials, construction, administration, monitoring, and stewardship.

2) Credits purchased by an applicant from a wetland mitigation bank certified under WAC 173-700 or an approved in-lieu fee program such as the King County Mitigation Reserves Program ~~that is certified under federal and state rules~~ may be used as a method of mitigation if approved by the City to compensate for impacts when all of the following apply:

a) The City determines as part of the critical area approval that the program ~~it~~ will ~~would~~ provide appropriate compensation for the proposed impacts;

b) Projects shall have debits associated with the proposed impacts calculated by the applicant's qualified critical area professional using the credit assessment method or appropriate method for the impact as specified in the approved instrument for the program. The assessment shall be reviewed and approved by the City;

c) For Wetland Mitigation Banks, mitigation ratios are consistent with ratios specified in the mitigation bank instrument;

~~c) The proposed use of credits is consistent with the terms and conditions of the certified mitigation bank or in-lieu fee program~~

d) For In-Lieu Fee (ILF) Mitigation, credits from an approved in-lieu fee program may be used if the impacts are located within the service area specified in the approved program; and

~~d)~~ e) The record of payment for credits shall be provided to the City in advance of the authorized impacts but no later than issuance of the building or land surface modification permit.

c. City-Responsible, ~~Mitigation –~~ Advance Mitigation – The City is responsible for ~~does~~ mitigation on City-owned property as mitigation credit either for City critical area projects or at the discretion of the City official for other public agencies with critical area projects within the City. ~~The~~ Advanced mitigation programs shall be developed and implemented pursuant to federal and state rules, and guidance on advanced mitigation. ~~state water quality regulations~~. Use of Advanced Mitigation Program credits should be prioritized for qualifying projects over other off-site mitigation approaches when credits are available.

5. Timing of Mitigation

a. On-Site Mitigation

1) On-site mitigation planting shall be completed ~~immediately before or~~ following disturbance and prior to use or final inspection of the activity or development. Construction of mitigation projects shall be timed to reduce impacts to existing fisheries, wildlife and flora; and

2) The Planning Official may allow flexibility with respect to seasonal timing of excavation noxious weed control, or planting for mitigation. If on-site mitigation must be completed after final inspection of a building or land surface modification permit or commencement of an activity, a performance financial security shall be required pursuant to KZC 90.165 along with a timeline commitment for completion and adjusted monitoring schedule pursuant to KZC 90.160

* * *

6. Mitigation Plan Standards – All critical area mitigation plans, except mitigation met through mitigation bank or an in-lieu fee program, shall meet the following standards. In addition, for wetlands the standards for wetland compensatory mitigation pursuant to KZC 90.150 shall be followed.

a. A mitigation plan shall be prepared by a qualified critical area professional, approved by the City that:

1) Addresses the impacts to a critical area and buffer based on best available science;

2) Is designed to maintain and enhance ecological functions and values, and to prevent risk from hazards posed to the critical area; ~~and~~

3) Provides a description of the mitigation site, including location and vicinity map, and rationale for selection of the mitigation site~~.~~ ;and

4) Documents environmental factors critical for site success, including but not limited to: availability of temporary water for irrigation, soil conditions, and repair requirements, habitat connectivity, site growing conditions such as sun and shade, and human and wildlife influences that may impact success.

* * *

Section 65. KZC 90.150 is hereby amended to read as follows:

90.150 Wetland Compensatory Mitigation

1. General – Compensatory mitigation for modifications to wetlands and related impacts to buffers shall be used for impacts that cannot be avoided or minimized and shall achieve equivalent or greater wetland functions. Approved modifications to a wetland and related impacts to the buffer require compensatory mitigation based on mitigation ratios in subsection (2) of this section so that the goal of no net loss of wetland functions and values is achieved.

2. Compensatory Wetland Mitigation Ratios

a. Acreage Replacement Ratios – The following ratios shall apply to creation, re-establishment, rehabilitation, and enhancement of wetlands. These ratios do not apply to the use of credits from a state-certified wetland mitigation bank or in-lieu fee program pursuant to KZC 90.145(4). The first ratio number specifies the acreage of replacement wetlands and the second number specifies the acreage of wetlands altered. In the event that unusual wetlands such as bogs, fens, or other category 1 wetlands not included in this table are found, refer to the most up-to-date Mitigation table for wetlands and buffers in Western Washington from the Department of Ecology.

Table 90.150.1 Mitigation Ratios for Wetlands and Buffers

Category of Wetland Impacted	Re-establishment or Creation	~~Re-establishment – Rehabilitation Only~~	~~Creation and Rehabilitation~~	~~Creation and Enhancement~~	Preservation or Enhancement ~~Only~~
Category IV	1.5:1	3:1	~~1:1 C and 1:1 RH~~	~~1:1 C and 2:1 E~~	6:1
Category III	2:1	4:1	~~1:1 C and 2:1 RH~~	~~1:1 C and 4:1 E~~	8:1
Category II	3:1	6:1	~~1:1 C and 4:1 RH~~	~~1:1 C and 8:1 E~~	12:1
Category I: Forested	6:1	12:1	~~1:1 C and 10:1 RH~~	~~1:1 C and 20:1 E~~	24:1
Category I: Based on Total Functions	4:1	8:1	~~1:1 C and 6:1 RH~~	~~1:1 C and 12:1 E~~	16:1
~~Category I: Bog~~	~~Not possible~~	~~6:1 RH of a bog 8:1~~	~~Not possible~~	~~Not possible~~	~~Case-by-case~~
Buffer (see additional requirements in subsection (2)(c) and (7) of this section)	Minimum of 1:1	Minimum of 1:1	~~Minimum of 1:1~~	~~Minimum of 1:1~~	Minimum of 1:1

~~Legend: C = Creation, RH = Rehabilitation, E = Enhancement~~

* * *

4. Preference of Compensation

a. Compensation shall be prioritized ~~occur~~ in the following order ~~of preference based on in-kind mitigation~~ using site selection criteria found in KZC.90.145

1) Restoring wetlands on upland sites that were formerly wetlands. This action includes reestablishment and rehabilitation;

2) Creating/establishing wetlands on disturbed upland sites, such as those with vegetative cover consisting primarily of nonnative species;

3) Preserving/maintaining a wetland to remove a threat or prevent decline, such as purchasing land. Preservation does not result in the gain of wetland acres; or

4) ~~3)~~ Enhancing significantly degraded wetlands.~~; or~~

~~4) Preserving/maintaining a wetland to remove threat or prevent decline, such as purchasing land. Preservation does not result in gain of wetland acres.~~

b. Location of compensatory mitigation shall occur in the order of preference established in KZC 90.145(3).

5. Compensatory Mitigation Plan – A compensatory mitigation plan shall be prepared by a qualified critical area professional approved by the City using the Washington State Department of Ecology Developing Mitigation Plans Manual 2006 as revised and ~~consistent with state guidelines~~ and submitted with the wetland modification assessment of KZC 90.60 for approval as part of the critical area permit using Process I. The plan shall contain the following:

a. A topographic survey showing existing and proposed topography and improvements. Surveys should be of sufficient quality to determine accurate one-foot minimum contour intervals;

b. Description of the compensatory mitigation site, including location and vicinity map, rationale for selection of site and how it meets the required mitigation ratios of subsection (2) of this section;

c. Description of proposed actions for compensation of wetland and buffer areas affected by the project, overall goals and targets of the proposed mitigation plan, and proposed mitigation timing. Documentation if the compensatory mitigation will be done through a mitigation banking or fee-in-lieu program pursuant to KZC 90.145;

d. Protective construction measures that are necessary, such as siltation prevention measures and scheduling the construction activity to avoid interference with wildlife nesting activities;

e. Description of surface and subsurface hydrologic conditions, including an analysis of existing and proposed hydrologic regimes for enhanced, created or restored compensatory mitigation areas;

f. Schedule of the project for all work;

g. Description of performance standards for post-installation, a monitoring and maintenance schedule based on the time period required in KZC 90.160 along with a financial security estimate for the entire compensatory mitigation project that meet the standards in KZC 90.165;

h. Proof of title ownership for the wetlands and buffers, including the compensatory mitigation areas, when mitigation is done by the applicant~~;~~. ~~i.~~ If the applicant does not hold title ownership to the applicant-responsible mitigation site, proof of perpetual right to locate the mitigation shall be provided; ~~and~~

i. Critical areas shall be placed in recorded critical area easements or tracts pursuant to KZC 90.210.

j. List of all local, state and/or federal wetland-related permits required for the project.

k. Description of existing or potential beaver activity on the mitigation site. If the site is located within or near an area documented by the City as having beaver activity, the mitigation plan shall identify design measures, contingency requirements and adaptative management strategies to address potential impacts from beavers using current, regional best management practices

6. Timing of Compensatory Mitigation – See KZC 90.145(5) for when an applicant must install the compensatory mitigation or document if a nonapplicant responsible mitigation program is used to meet the mitigation requirement.

Section 66. KZC 90.155 is hereby amended to read as follows:

.155 Measures to Minimize Impacts to Wetlands, Buffers, and Riparian Management Zones

The following measures must be incorporated, into the design of a site containing a wetland, stream, ~~and/or~~ buffer, or ~~are located~~ within a Riparian Management Zone, or other Priority Habitat Area. The Planning Official shall determine the applicability of each minimization measure based on the uses, improvements and/or activities on the subject property. Some measures may not apply to the subject development or may not be feasible for the site. Unique activities and disturbances not included in the table may require alternative measures to minimize the identified impacts. New or innovative techniques or solutions to limit disturbances may be approved by the Planning Official.

Table 90.155.1 Measures to Minimize Impact to Wetlands ~~and Associated,~~ Buffers, and Riparian Management Zones

~~Disturbance~~	~~Required Measures to Minimize Impacts~~	
~~Lights~~	–	~~Shield exterior lights that face the wetland or buffer so that they are downcast and directed away from critical area and associated buffer pursuant to Chapter 115 KZC.~~
~~Noise~~	–	~~Activities that generate noise, such as parking lots, drive-thru facilities, generators and HVAC units shall be located away from the wetland or buffer to the maximum extent possible, or noise shall be minimized through use of design measures, insulation techniques and/or additional native vegetation.~~
	–	~~Activities or uses that generate relatively continuous, potentially disruptive exterior noise, such as certain industrial, manufacturing and repair services, shall provide an additional 10 feet in width of heavily vegetated buffer strip immediately adjacent to the outer wetland buffer that meets KZC 95.42, Buffer Standard 1.~~

~~Disturbance~~	~~Required Measures to Minimize Impacts~~	
~~Toxic runoff~~	~~–~~	~~Treat all runoff from pollution generating surfaces prior to discharge to the wetlands.~~
	~~–~~	~~Establish covenants for homeowner's associations and commercial developments where applicable for restriction of pesticide use within 150 feet of wetland.~~
	~~–~~	~~Apply integrated pesticides management pursuant to KZC 90.105.~~
~~Storm water runoff~~	~~–~~	~~As part of redevelopment, replacement or expansion of an existing development, retrofit storm water flow control and treatment for public streets when the value of all improvements, including interior improvements exceed 50% of the assessed value (or replacement value) of the existing site improvements.~~
	~~–~~	~~Control storm water flow and improve water quality from new and redevelopment, including to wetlands, through the requirements of the Western Washington Phase II Municipal Stormwater Permit, National Pollutant Discharge Elimination System (NPDES), administered by the Washington State Department of Ecology.~~
	~~–~~	~~Use low impact development techniques per the City's standards.~~
~~Pets and human disturbance~~	~~–~~	~~Install fence and signage pursuant to KZC 90.190 along the edge of the buffer.~~
	~~–~~	~~Place wetland and buffer in a separate conservation easement or tract pursuant to KZC 90.210.~~
~~Dust~~	~~–~~	~~Use best management practices to control dust.~~

2350

Disturbance	Development activities and uses that cause disturbances	Measures to minimize impacts
Lights	Parking lots Commercial Industrial Residential Recreation (e.g., athletic fields)	• All exterior building-mounted and ground-mounted light fixtures will be directed downward and use "fully shielded cut off" fixtures as defined by the Illuminating Engineering Society of North America (IESNA), or other appropriate measures to conceal the light source from adjoining uses and the critical area and buffer. Manufacturer specification sheets for the lighting fixtures, including photometric data shall be included with lighting plans; and • The maximum mounting height of light fixtures will be 12 feet. • Areas facing a critical area buffer, exterior lighting fixtures shall produce a maximum initial luminance value of 0.6 footcandles (as measured at three (3) feet above grade) at the site or environment boundary. • Exterior lighting installations shall incorporate motion-sensitive lighting and lighting shall be limited to those areas where it is needed for safety, security, and operational purposes. • For businesses, all exterior lighting shall be turned off after business hours or 10:00 p.m., whichever is earlier, leaving necessary lighting for site security. • Outdoor lighting used for security purposes or to illuminate walkways, roadways, equipment yards, parking lots and building entrances may remain on after 10:00 p.m., Site illumination does not exceed a uniformity ratio maximum of 15:1, vertical illumination of 0.25 foot-candles and horizontal luminance of 0.5 foot-candles. • Limit use of blue-white colored lights in favor of red-amber hues
	All lighting requirements follow the intent of regulations in KZC 115 and 83.470	

<table>
<tr><th>Disturbance</th><th>Development activities and uses that cause disturbances</th><th>Measures to minimize impacts</th></tr>
<tr><td rowspan="3">Noise</td><td>Parking lots
Drive-through facilities
Commercial
Industrial
Recreation (e.g., athletic fields, bleachers, etc.)
Residential
Generators and HVAC units</td><td>• Locate activity that generates noise as far away from critical areas as feasible.
• Minimize noise through design measures:
o Construct a fence to reduce noise impacts on the adjacent critical and buffer. Fences must comply with KZC 115.40 regulations.
o Plant a strip of additional dense shrub vegetation adjacent to buffer.
o Install other noise abatement techniques in between the improvement generating noise and the critical area buffer.</td></tr>
<tr><td colspan="2">Activities or uses that generate relatively continuous, potentially disruptive exterior noise, such as industrial, manufacturing and repair services, shall provide an additional 10 feet in width of heavily vegetated buffer strip immediately adjacent to the outer wetland buffer that meets the requirements of KZC 95.42.1, Buffer Standard 1.

Any documented noise pollution associated with Activities and equipment must also comply with Noise Regulations in KMZ115.95</td></tr>
<tr><td rowspan="2">Toxic runoff</td><td>Parking lots
Roads
Commercial/industrial
Residential areas
Application of pesticides
Landscaping</td><td>• Do not install new pollutant generating surfaces as identified in the Surface Water manual for Western Washington, including, but not limited to, artificial turf.
• Route any untreated, contaminated runoff away from wetland while ensuring wetland is not dewatered.
• Treat runoff from pollution-generating surfaces prior to discharge to the wetlands.
• Limit use of pesticides within 150 ft. of critical areas.
• Apply integrated pest management pursuant to KZC 90.195.
These examples are not necessarily adequate for minimizing toxic runoff if threatened or endangered species are present at the site.</td></tr>
<tr><td colspan="2">KMC 15.36.030 regulates prohibited toxic substances. KZC 90.195 regulates Pesticide use in critical areas and critical area buffers.</td></tr>
<tr><td rowspan="2">Stormwater runoff including sediment and soil erosion</td><td>Parking lots
Roads
Residential areas
Commercial/industrial
Recreation
Landscaping/lawns
Other impermeable surfaces, compacted soil, etc.</td><td>• Prevent channelized or sheet flow from lawns from directly entering the buffer.
• Infiltrate or treat, detain, and disperse new runoff from impervious surfaces and lawns.
• Implement LID solutions per KZC 114 and KMZ 15.52 where feasible.</td></tr>
<tr><td colspan="2">Control storm water flow and improve water quality to wetlands, through the requirements of the Western Washington Phase II Municipal Stormwater Permit, National Pollutant Discharge Elimination System (NPDES), administered by the Washington State Department of Ecology.</td></tr>
</table>

Disturbance	Development activities and uses that cause disturbances	Measures to minimize impacts
Pets and human disturbance	Residential areas Recreation Commercial	Install pet enclosure fencing, such as an invisible fence, or similar to limit access that meets requirements per KZC 90.190. Plant dense native vegetation to delineate the buffer edge and to discourage disturbance When planning new subdivisions, locate greenbelts, stormwater facilities, and other lower intensity uses adjacent to critical area buffers or riparian management zones
	Animal Waste regulations pursuant to KZC 8.09.508 apply to all yards adjacent to critical area buffers	
Dust and air pollution	Exposed soil Roads Active Construction sites High traffic Industrial sites	Examples of techniques to reduce dust and air pollution can be found in the SWMMWW BMP C140 for dust control. Install vegetation such as a 10 foot-wide dense hedge between the pollution source and the critical area buffer.
	Dust pollution prevention may be temporarily required during construction (KZC 29.24.010) or may require permanent mitigation depending on the site. Additional regulations can be found in KZC 115.15, KZC 40.20.PU15	

Section 67. KZC 90.160 is hereby amended to read as follows:

90.160 Monitoring and Maintenance

1. Timing

a. After installation and acceptance by the Planning Official of the critical area mitigation or vegetative buffer enhancement, the monitoring and maintenance program shall commence.

b. A monitoring report shall be submitted to the Planning Official within one month after each site visit, pursuant to subsection (3) of this section.

2. Monitoring and Maintenance Program for Vegetative Buffers – Requirements for a monitoring and maintenance program for revegetation of a buffer shall include the following, unless an alternative program is approved by the City.

a. Clear, and measurable site specific ~~The~~ goals and objectives ~~of~~ for the monitoring and maintenance program;

b. The performance standards by which the vegetative buffer mitigation will be assessed. At a minimum, buffer vegetation mitigation shall include the following performance standards:

1) Year-1: 60 percent survival of installed vegetation with replacement of poor or dead vegetation to meet the 100 percent planting requirement. ~~survival of installed vegetation through a combination of survival and replacement~~ In cases with less

than 60% survival in the first year, adaptive management to adjust planting plans, watering or maintenance will be required.

2) Year-2: 80 percent survival of installed vegetation;

3) Year-3: At least 50 percent native vegetation coverage within the enhanced and created buffer for installed vegetation;

4) Year-5:

a) At least 80 percent native vegetation coverage ~~on average~~ throughout the mitigation area. ~~Additionally, two (2) out of three (3) of the following strata of native plant species each must compose at least 20 percent areal cover:~~

~~(1) Trees;~~

~~(2) Shrubs; and~~

~~(3) Woody groundcover (such as kinnikinnick, salal and sword fern);~~

b) At least three (3) native tree and 3 native shrub species ~~making up a minimum of 10 percent coverage~~ each must be represented on the site. Each species must contribute a minimum of 5 percent coverage for the site.

c) Both Trees and Shrubs must each compose at least 20 percent cover

d) All soils must be covered with organic wood chip mulch, or unmowed or unpruned native woody or herbaceous groundcover or shrubs.

5) All years:

a) Less than 10 percent combined ~~noxious~~ weeds ~~cover~~ of regulated and non-regulated class A,B, and C noxious weeds ~~using~~ identified on the King County Noxious weed list, ~~except less than 20 percent cover of reed canarygrass where a pre-existing or proximate monoculture occurred; and~~

~~b) No presence of knotweed at any time during the duration of the program period.~~

b) Less than 3 percent cover of any individual species of regulated or non-regulated Class A, B, or C noxious weeds identified on the King County Noxious weed list.

c). The following weeds may be regulated separately from the above requirements provided a weed management plan is provided and a planting plan is designed to control weeds over the long-term using shading techniques through multi layered canopy cover:

1) Less than 20 percent cover of pre-existing monocultures of reed canary grass

2) Less than 10 percent cover of pre-existing monocultures of Himalayan blackberry.

3) Less than 10 percent cover of preexisting monocultures of invasive Knotweeds

c. Contingency plan identifying adaptative management ~~a course of action~~, corrective measures and a timetable to be taken if monitoring indicates that the performance measures have not been met.

3. Monitoring and Maintenance Program for Critical Area Mitigation or Vegetative Buffer Enhancement – A monitoring and maintenance program shall be established for restoration for a wetland or stream due to prior degradation for an approved modification project as part of the mitigation plan or vegetative buffer enhancement plan. The monitoring and maintenance plan shall address goals and objectives as well as performance standards and a contingency plan.

4. Duration and Schedule of Monitoring and Maintenance Program – Unless otherwise required by the Planning Official, the minimum duration of the program shall be as follows:

a. Three (3) growing seasons for mitigation associated with new structures of less than 1,000 square feet of footprint approved pursuant to KZC 90.130 and for additions to nonconformances pursuant to KZC 90.185.

b. Five (5) growing seasons for mitigation projects and revegetating a buffer to meet the buffer standards in KZC 90.130, except for forested and scrub-shrub wetlands creation, re-establishment, or rehabilitation. Forested and scrub-shrub enhancement mitigation projects shall be monitored for five years

c. Ten growing seasons for forested or scrub-shrub wetland creation, re-establishment, or rehabilitation.

d. The required schedule for site visits and reporting for monitoring and maintenance is as follows:

1) For three-year program: two (2) site visits for each of the first two (2) years and one (1) site inspection for the third year;

2) For five-year program: two (2) site visits for each of the first two (2) years and one (1) site inspection every 12 months for subsequent years; and

3) For 10-year program: visits in growing seasons 1, 2, 3, 5, 7 and 10.

e. The Planning Official may extend the duration of the program and the number of visits at the end of the established monitoring and maintenance period if the program requirements have not been met. The Planning official may reduce the frequency of site visits when all standards in KZC 90.160.2.b 1-5 are exceeded. In no case shall the first year, or final year of monitoring be waived.

f. Annual Monitoring shall occur at the end of a summer growing season and replanting/adaptative management requirements shall be completed before the next spring monitoring.

5. Maintenance Work – Prior to final inspection of the vegetation and any other mitigating measures required in this chapter, the applicant shall submit a signed contract with a landscape

maintenance company to maintain the installed improvements over the period of the monitoring program that includes the required maintenance tasks and schedule, that meets best management practices for natural area care, except for the following:

a. For commercial, multifamily or institutional uses, if a property owner has an existing contract with a landscape maintenance company and desires that company to maintain the installed improvements, a copy of the contract with that company shall be submitted. The contract shall clearly indicate the inclusion of the required maintenance tasks and schedule and process to meet best management practices for natural area care.

b. For single-family residential uses, homeowners may maintain the installed improvements if they sign an agreement that runs with the property to maintain the improvements over the period of the monitoring program. The agreement must be recorded with the King County Recorder's Office with the recording fee paid by the homeowner.

If the improvements are not satisfactorily maintained based on the monitoring report at the end of any growing season, then the homeowner shall submit a copy of a contract with a landscape maintenance company to have the company maintain the improvements. This option is not available to developers and builders where the property will be sold on completion of the construction.

c. A City department may choose to maintain the vegetated buffer and any other improvements and not hire a landscape maintenance company.

6. Options for Monitoring Work – The applicant may choose one of the following methods for who performs the monitoring work:

a. City Does Work – If the City will oversee the maintenance and monitoring through the City's consultant, the monitoring fee will be based on an actual cost estimate of the work. The applicant shall submit a cash prepayment for all work to the City prior to issuance of the development permit. The City's consultant or staff must be a qualified critical area professional

b. Applicant's Consultant Does Work

1) If the City will not perform the monitoring, the applicant shall submit a signed contract to fund a qualified critical area professional, approved by the City, to monitor the maintenance and perform the monitoring over the life of the program. The cost of the work must be included in the performance security under KZC 90.165; and

2) In addition, the applicant shall submit a cash prepayment prior to final inspection of the development permit for the cost of the City to do peer review of the monitoring reports.

c. Public Projects

1) For City projects, City staff meeting the criteria for qualified critical area professionals may perform the monitoring work, or oversee the monitoring work performed by other City staff. Alternatively, the City may use a consulting qualified critical area professional.

2) Peer review of monitoring reports will be conducted by a qualified critical area professional and may be conducted by either city staff or a consultant.

7. Financial Security – A financial security for performance, monitoring and maintenance is required pursuant to KZC 90.165.

Section 68. KZC 90.170 is hereby amended to read as follows:

90.170 Subdivisions and Maximum Development Potential

1. Subdivisions – The subdivision and/or short subdivision of land in a wetland, stream or related buffer is subject to the following criteria and subsections (2) through (4) of this section:

a. Land that is located entirely within a wetland, stream or related buffer may not be subdivided.

b. Land that is located partially within a wetland, stream or related buffer may be subdivided if, as part of the short plat or subdivision application, the applicant demonstrates that:

1) Each lot contains sufficient developable area to accommodate the allowed use(s) in that zone, including required vehicular access, parking, structure setback, and storm water management facilities outside of the critical area and its buffer; and

2) Each lot meets all zoning requirements applicable to that zone, except for reduced dimensional design standards for residential uses pursuant to KZC 90.175.

2. Calculating Allowed Number of Dwelling Units – The maximum potential number of dwelling units for a subject property that contains a critical area ~~wetland, stream, or minor lake~~ ~~their~~ buffers ~~is~~ is reduced from the maximum potential number of dwelling units that otherwise ~~are~~ may be allowed in the underlying zone.

3. Maximum Development Potential Calculation

a. The maximum potential number of dwelling units shall be the buildable area in square feet divided by the minimum lot area per unit or the maximum units per acre as specified by Chapters 15 through 56 KZC, plus the area of the required critical area buffer in square feet divided by the minimum lot area per unit, the maximum units per acre or as specified by Chapters 15 through 56 KZC, multiplied by the development factor derived from subsection 2 of this section as provided in the formula below:

MAXIMUM DWELLING UNIT POTENTIAL = [(BUILDABLE AREA IN SQUARE FEET) / EITHER THE PRESCRIBED MINIMUM LOT AREA PER UNIT **OR** (43,560 SQUARE FEET/ MAXIMUM UNITS PER ACRE)] + [(BUFFER AREA/THE PRESCRIBED MINIMUM LOT AREA PER UNIT OR MAXIMUM UNITS PER ACRE) X (DEVELOPMENT FACTOR)]

b. For purposes of this subsection only, "buildable area" means the total area of the subject property minus critical areas and either the regulated or reduced ~~their~~ buffer.

c. A professional surveyor shall incorporate ~~of~~ the approved regulated and reduced delineation markings and shall determine the area of critical area, ~~and~~ buffers and buildable area associated with each buffer on the subject property pursuant to KZC 90.110.

d. For multifamily development, and single-family development in RSA zones, if application of the maximum development potential formula results in a fraction, the number of permitted dwelling units ~~shall~~ may be rounded up to the next whole number (unit) if the fraction of the whole number is at least 0.50 and integration of Reduced Dimensional Standards (KZC 90.175) allows for no additional buffer impact.

e. For single-family development in low-density zones other than the RSA zones, the number of permitted dwelling units shall be rounded down to the previous whole number (unit), regardless of the fraction of the whole number.

f. For developments providing affordable housing units pursuant to Chapter 112 KZC, or cottage, carriage or two/three unit homes pursuant to Chapter 113 KZC, or low impact development pursuant to Chapter 114 KZC, the maximum dwelling unit potential of this section establishes the base density allowed. The additional density or bonus units allowed by those chapters shall remain in conformance with ~~be in addition to~~ the maximum dwelling unit potential.

* * *

Section 69. KZC 90.175 is hereby amended to read as follows:

90.175 Dimensional Design Standards for Residential Uses

1. Reduced Dimensional Standards for Residential Uses – The following dimensional requirements may be reduced for the noncritical area portion of the site to accommodate the constraints of the buildable area of the site; provided that the applicant shall demonstrate that:

a. The reduction is the minimum necessary to allow avoidance of the critical area, critical area buffer and structure setback; and

b. The resulting development is compatible with other development or potential development in the immediate vicinity of the subject property in the same zone and with similar site constraints.

2. Standards – Common ~~The~~ reduced standards include but are not limited to the following:

Table 90.175.1 Reduced Dimensional Standards for Residential Uses

Reduced Dimensional Standards for Residential Uses	
Minimum Required Yards	• 0' for interior side and rear yards within the proposed development to encourage clustering between dwelling units • 10' for front yards • 5' for side and rear yards that abut properties that are not part of the proposed development
Minimum Parking Pad Dimensions[1]	• width – 8.5 feet per required stall • depth – 18~~.5~~ feet per required stall
Tandem Parking	• allowed where stalls are shared by the same dwelling unit

Notes: 1. Any garage or other structure shall be set back a minimum of 18 feet from the property line to allow on-site parking on the driveway.

Section 70. KZC 90.185 is hereby amended to read as follows:

90.185 Nonconformances

1. General Provisions for Nonconforming Structures and Improvements in Critical Areas, ~~or~~ Buffers, or structure setbacks – The following general provisions apply to properties that contain nonconformances due to the existence of buffers and/or critical areas, until such times as redevelopment of the property is proposed that meets the threshold in KZC 90.130:

a. Legally established structures and improvements may remain and be repaired and maintained. See KZC 90.35 and subsection (3) of this section;

b. New structures or improvements may not be added or expanded in the buffer and/or critical area, including those listed in KZC 90.140;

c. Legally established lawns may be mowed and maintained, but not expanded in the buffer and/or critical area; and

d. Nonnative vegetation may be maintained, but not expanded in the buffer and/or critical area.

2. General Standards for Subsections (3) through (6) of This Section

a. Except for above ground floor expansions, the provisions of subsections (4) through (6) of this section may each be used one time for the subject property and may be used in combination. Any building permit application utilizing these provisions shall clearly document the proposed location and size relative to the specific provision(s) being utilized. Above ground floor expansions may be utilized an unlimited number of times;

b. Any structures or improvements that are nonconforming because of the regulations in this chapter shall be regulated pursuant to the following provisions rather than the provisions of Chapter 162 KZC. However, nonconforming multifamily structures for density pursuant to KZC 162.35(12) and continued uses pursuant to KZC 162.55 shall be regulated under Chapter 162 KZC and shall not be eligible to use the provision in this section;

c. No disturbance to the critical area is permitted. Any approved disturbance to the critical area buffer as a result of development activity shall be the minimum necessary and follow the mitigation sequencing process (90.145.2) and all disturbed areas shall be restored ~~to pre-existing condition;~~ to ensure no net loss of function.

d. Any existing native vegetation removed in the buffer as part of the disturbance shall be replaced with native vegetation at a 1:1 ratio;

e. The limits of disturbance, a ~~and a~~ replanting plan for disturbed areas, if applicable, shall be submitted as part of the building permit application;

f. Temporary construction fencing is required pursuant to KZC 90.190. The Planning Official shall determine the appropriate location of the fencing depending on the location of existing improvements in relationship to the critical area buffer;

g. Lawn and nonnative landscaped areas shall not be expanded in the buffer area; and

h. All costs for review by a qualified critical area professional and the City's review, mitigation and restoration shall be at the expense of the applicant.

3. Maintenance and Repair of Nonconforming Structure

a. A legal nonconforming structure may be maintained and repaired as an exemption pursuant to KZC 90.35; provided, that the work does not increase the previously approved structure footprint or impervious or hardscape area.

b. Multifamily structures in multifamily zones that are nonconforming for density may not increase the density as part of the work on the structure. See KZC 162.35(12).

4. Reconstruction of Existing Nonconforming Structures

a. General Standards

1) If there is no increase in the size of the structure footprint or impervious or hardscape area and the reconstructed structure is no closer to the critical area, then the requirements of KZC 90.105 and 90.110 for a critical area determination and report, KZC 90.130 for vegetative buffer, KZC 90.190 for critical area fencing and signage and KZC 90.210 for dedication of critical area and buffer are not required.

2) Existing buffer fencing, native buffer vegetation and dedication of the critical area must be retained.

b. Detached Dwelling Units

1) An existing legally nonconforming building or detached garage may be reconstructed as repair, replacement or due to casualty damage such as a fire; provided, that:

a) There is no expansion of the existing size of the footprint, including decks or patios or other improvements;

b) There is no increase in impervious or hardscape surface;

c) There is no expansion of existing exterior walls, including adding exterior walls below a cantilevered structure; except for new additional upper floors in subsection (4)(b)(4) of this section;

d) There is no increase in the nonconformity in any way; and

e) Reconstruction is built on the existing foundation, except as provided in subsection (4)(b)(2) of this section;

2) With the exception of a casualty damage, if a new foundation is to be built, the new foundation must be relocated outside of the critical area, its buffer and the structure setback to the greatest extent possible given other required yards, configuration of the subject property and existing improvements;

3) For casualty damage, a structure may be reconstructed on the existing foundation, or a new foundation of the same, or smaller footprint may be built in the same location or further ~~away~~ from the critical area, but not closer to the critical area; and

4) Additional upper floors may be added above the ground floor if they do not encroach into the critical area, its buffer or the structure setback any further than the exterior walls of the existing nonconforming structure.

c. All Other Uses

1) An existing legally nonconforming structure may be reconstructed as repair, reconstruction or due to a casualty damage such as a fire; provided, that there is no expansion of the existing footprint or increase of impervious or hardscape area, including decks, patios or other improvements, no expansion of exterior walls, including adding exterior walls below a cantilevered structure, no increase in the nonconformity in any way, and reconstruction is built on the existing foundation;

2) Additional upper floors may be added above the ground floor if they do not encroach into the critical area, its buffer or the structure setback any further than the exterior walls of the existing nonconforming structure; and

3) If the cost of the reconstruction as a repair, replacement or due to a casualty damage, or for any upper floor additions exceeds 50 percent of the assessed or appraised value of that primary structure and all improvements attached to the primary structure, whichever is greater, the structure and improvements shall be brought into conformance.

d. In case of casualty damage, the following is required:

1) A complete building permit application to rebuild a nonconforming structure must be submitted within two (2) years of the date of the damage or the nonconformance shall be considered to be terminated and shall not be replaced in its prior nonconforming location; and

2) Rebuilding of the nonconforming structure shall be substantially complete within four (4) years of the date of the damage or the nonconformance shall be considered to be terminated and shall not be replaced in its prior nonconforming location; and

3) Documentation showing the date of the damage, the location and dimensions of the damaged structure and cause of the damage shall be submitted to the Planning Official for review and confirmation.

5. Expansion of Nonconforming Structure that Does Not Increase the Degree of Nonconformance – An existing, legally established nonconforming structure may be expanded outside of a critical area, buffer and ~~or~~ the ~~building~~ structure setback under the following standards and limitations:

a. Except as disallowed under subsection (3)(b) of this section for multifamily structures that are nonconforming for density, an expansion of a nonconforming structure that increases the footprint, impervious or hardscape area or size of the structure, including

new upper floors, is permitted if the expansion or any other change to the structure is outside of the critical area, critical area buffer, and structure setback.

b. If the size of the new net impervious or hardscape surface or cost of new or replacement improvements meets KZC 90.130(3)(a), then the requirements of KZC 90.105 and 90.110 for a critical area determination and report, KZC 90.130 for vegetative buffer, KZC 90.160 and 90.165 for monitoring and maintenance and financial security, and KZC 90.210 for dedication of critical area and buffer and subsection (6)(a)(11) of this section for fencing and signage shall be met.

c. If the size of new net impervious or hardscape area meets KZC 90.130(3)(b), the requirements of subsections (6)(a)(7) through (12) of this section shall be met.

6. Expansion of Nonconforming Structure that Increases the Nonconformance – An existing, legally established nonconforming structure may be expanded ~~into~~ a critical area buffer or the ~~building~~ structure setback under the following standards and limitations:

a. General Standards for Any Expansion

1) The expansion provisions of KZC 90.185(6)(b), (c), (d) and (e) are only permitted for those ~~structures~~ properties that have not received City approval for a critical area or buffer modification allowed under this or a previous code or not received approval for a reasonable use exception pursuant to KZC 90.180;

2) A one (1) time expansion of each option found in subsections (6)(b) through (e) of this section is permitted on a subject property. No more than one expansion is permitted for each option except for above ground floor expansions per KZC 90.185.2.a. ~~See vegetative buffer standards in KZC 90.130;~~

3) No expansion is permitted in a critical area buffer that is a fish and wildlife or other priority species habitat conservation area without an approved management plan pursuant to KZC 90.95;

4) The following nonconforming improvements are allowed without going through review under subsections (6)(b) through (e) of this section if a new or replacement foundation is not required:

a) Upper floor additions are allowed above the ground floor of an existing nonconforming building if they do not encroach closer to the critical area buffer or structure setback from the buffer beyond the existing exterior walls;

b) Existing carports ~~and decks with roofs~~ may be enclosed if the new exterior walls do not extend beyond the existing foundation or corner supports of the structure; and

c) An interior open courtyard of an existing building may be enclosed if the courtyard is covered entirely with impervious material. See subsection (6)(d) of this section if the material is not entirely impervious;

d) An existing deck may be covered up to 250 sq ft if the deck is not located on a high landslide area

5) Covering an existing deck with a roof or an existing pathway with a breezeway greater than 250 square feet, or similar improvements, may be proposed using the criteria in subsections (6)(b) through (e) of this section;

6) Any commercial parking ~~required~~ for additions shall not be located in the critical area buffer;

7) For any expansions to legally Non-Conforming structures, A critical area determination, report and a survey pursuant to KZC 90.105 and 90.110 are required if the wetland has not been rated and delineated pursuant to KZC 90.55 within the past five (5) years or the stream has not been classified or delineated pursuant to KZC 90.65;

8) ~~Compensatory mitigation~~ Critical area and ~~through~~ buffer ~~restoration~~ impacts associated with expanding building footprints shall ~~be provided as~~ comply with KZC 90.130; 90.145, and 90.150 and 95.27 for mitigation and restoration requirements:

~~a) A native vegetative buffer at a minimum ratio of 1:1 (new footprint area is equal to or less than vegetative buffer area) shall be provided;~~

~~b) If the new or expanded building footprint results in removal of a significant tree in a buffer, the tree shall be replaced with two (2) native trees in the buffer. The replacement tree shall be six (6) feet tall for a conifer and 2-inch caliper for deciduous or broadleaf. For a removed significant tree in a buffer that is 24 inches in diameter, the tree shall be replaced with three (3) native trees~~

~~c) The vegetative buffer shall be located along the edge of the critical area or as close to the critical area as possible if the critical area is located off site;~~

~~d) The vegetative buffer shall be 10 feet in depth and located across from the building expansion area;~~

~~e) he buffer vegetative standards pursuant to KZC 90.130 shall be used as a guideline for the mitigation area; and~~

~~f) The mitigation is in addition to revegetation of any disturbed area;~~

9) A mitigation planting plan~~,~~ shall be prepared by a qualified critical area professional approved by the City, and shall be submitted for approval as part of the building permit. Prior to final inspection, replanting of any disturbed area and the mitigation planting shall be installed by the applicant and inspected by the City;

10) A performance and three-year maintenance and monitoring security shall be submitted with the building permit pursuant to KZC 90.165 for the mitigation plan;

11) Permanent critical area fencing and signage is required. Prior to issuance of a building permit, the Planning Official shall determine the location of the required critical area fencing and signage to be installed pursuant to KZC 90.190.

a) The fencing shall be located at the edge of the buffer across the entire subject property. However, if all or portions of the buffer is covered by legally established lawn, nonnative vegetation and/or improvements, then the fencing shall be located at the boundary of that maintained area;

b) If the critical area is off site and that maintained area extends to the property line, then the fencing shall be located at the property line; and

c) Existing buffer fencing may need to be relocated to meet this provision;

12) A critical area covenant on a form approved by the City shall be recorded along with an as-built site plan showing the location of the approved expansion and mitigation vegetation in the buffer to protect the vegetated portion of the buffer in perpetuity. A critical area dedication pursuant to KZC 90.210 is not required for the vegetated portion of the buffer.

* * *

Section 71. KZC 90.190 is hereby amended to read as follows:

90.190 Critical Area Markers, Fencing and Signage

1. Survey Stakes – Permanent survey stakes delineating the boundary of the critical area buffer per 90.110.7 shall be set, using iron or concrete markers as established by current survey standards. For public projects, alternative survey stakes may be approved by the Planning Official. ~~, such as flexible delineator posts~~.

2. Construction Fencing

a. Prior to commencement of any grading or other development activities on the subject property, a six-foot-high construction chain link fence with silt fencing must be installed along the entire edge of the buffer;

b. The fence may not be located in the critical area or its buffer, except see nonconformance section pursuant to KZC 90.185(2);

c. The Planning Official shall inspect the fence prior to commencement of any work;

d. The fence will ~~must~~ remain in place ~~until completion of the project and not be removed~~ until all exterior project work is completed, heavy equipment is removed from the site, permanent fencing and landscaping are ready to be installed, and removal is ~~at any time other than as~~ authorized by the Planning Official~~;~~ At no time shall the protective fence be adjusted or moved without authorization from the Planning Official.

e. The location of construction fencing for nonconformances shall be on a case-by-case basis as determined by the Planning Official; ~~and~~

f. The location of construction fencing for public agency and utilities activities, improvements or uses shall be determined on a case-by-case basis by the Planning Official~~.~~; and

g. A temporary gap or gate in construction fencing for the purposes of buffer enhancement work prior to project completion may be approved by the Planning Official.

3. Permanent Fencing

a. Except as specified in subsections (3)(b) through (e) of this section, upon completion of the project:

1) A permanent split rail, open slatted with at least 18 inches between each slat, ~~wrought iron, chain link,~~ or similar nonsolid fence between three (3) and six (6) feet in height such as wrought iron, chain link, or similar open design must be installed along the entire edge of the buffer;

2) Solid privacy fencing is not permitted;

3) Except for split rail, a gate is required for pedestrian access to the buffer;

4) The fence may not be located in the critical area buffer, except for properties containing nonconformances pursuant to KZC 90.185(6)(a)(11);

5) The Planning Official shall inspect the fence prior to final inspection; and

6) The fence must be maintained and remain in perpetuity.

b. Except for utility substations, permanent fencing for the purpose of identifying critical area buffers is not required for public or private utility, ~~activities or uses occurring in~~ utility corridors, public rights-of-way, the Cross Kirkland Corridor or the Eastside Rail Corridor.

c. The location of permanent fencing for public properties ~~agency activities, improvements or uses~~ shall be determined on a case-by-case basis by the Planning Official.

d. The location of fencing for nonconformances shall be determined on a case-by-case basis by the Planning Official. See KZC 90.185.

e. The location of fencing on steep slopes, high landslide, or other geohazard areas shall be determined on a case-by-case basis.

4. Permanent Signage

a. Upon completion of the project, permanent signage shall be attached to the fence stating that the protected critical area and buffer must not be disturbed other than necessary for maintenance of vegetation;

b. The signs must be maintained and remain in perpetuity;

c. Signage shall meet the administrative standards of the Planning and Building Department for design, number and location;

d. The location of signage for public agency activities or uses shall be determined by the Planning Official on a case-by-case basis;

e. Signage for nonconformances shall be determined on a case-by-case basis by the Planning Official. See KZC 90.185; and

f. The Planning Official shall inspect the signage prior to final inspection.

Section 72. KZC 90.195 is hereby amended to read as follows:

90.195 Pesticide and Herbicide and Fertilizer Use

~~Application of pesticides, herbicides, or fertilizers and irrigation practices for residential, commercial and institutional uses shall follow best management practices (BMP) for the application of pesticides, herbicides and fertilizers. These practices include:~~

~~1. Never apply pesticides and fertilizers if it is raining or about to rain;~~

~~2. *Repealed by Ord. 4701.*~~

~~3. Determine the proper fertilizer application for the types of soil and vegetation involved. Follow manufacturers' recommendations and label directions;~~

~~4. Clean up after spills immediately;~~

~~5. Use mulch or other erosion control measures when soils are exposed for more than one (1) week during the dry season or two (2) days during the rainy season;~~

~~6. Ensure sprinkler systems do not spray beyond vegetated areas resulting in the excess water discharging into the storm drain system; and~~

~~7. Use of hazardous substances, pesticides and fertilizers in a critical area containing a fish and wildlife habitat conservation area must follow state and City standards.~~

1. Application of pesticides, including herbicides, insecticides, rodenticides or synthetic fertilizers are prohibited in wetlands, streams, and their buffers except as allowed for the following exceptions:

a The State or local Health Department recommends or directs their use to address a threat to public health; and/or

b. A county, state, or federal agency with jurisdiction directs their use for control of a Washington State-regulated noxious weed or plant pest covered by the Washington State Department of Agriculture plant pest program, or King County-regulated or non-regulated noxious weed.

2. Applications shall be approved subject to the following standards:

a. If the use of a pesticide to control invasive plants and plant pests would have less overall adverse environmental impact than other control strategies, and non-chemical alternatives have been evaluated as ineffective;

b. The applicant has developed best management practices or an integrated pest/vegetation management plan consistent with chapter 17.15 RCW standards to minimize chemical applications;

c. Pesticide, herbicide, and synthetic fertilizer applications will be mixed and applied and reported directly by a Washington State licensed applicator with an aquatic endorsement for application near shorelines, wetlands, and streams; and

d. Application of approved pesticide, herbicide, or synthetic fertilizers shall follow best management practices for use near shorelines, wetlands, streams, and their buffers including:

1) All applicators have secondary spill protection or on site clean-up equipment and follow no-contact chemical transfer protocols;

2) At no time shall chemical treatments be applied during a temperature inversion, or be allowed to accumulate or run on soil surfaces;

3) All treated areas must comply with erosion prevention and bare soil and replanting requirements;

4) All treatments must be applied per chemical label requirements; and

5) Public notifications shall comply with current regulations of the Washington State Department of Agriculture.

Section 73. KZC 90.200 is hereby amended to read as follows:

90.200 Critical Area Buffer and Structure Setback from Buffer Under Prior Approvals

1. If the City approved a development permit through Process I, II, IIA, IIB, or a Planning Official decision (excluding critical area determinations and delineations), and/or a subdivision or short subdivision, and that development permit or subdivision or short subdivision approval established critical area buffers and/or structure setbacks on the subject property allowed under the KZC at the time of approval, then those structure setbacks and/or buffers shall apply; provided, that:

a. The development permit or subdivision or short subdivision approval is valid; and

b. The development permit or subdivision or short subdivision has not lapsed pursuant to the applicable lapse of approval standards; and

c. For recorded subdivisions and short subdivisions, a complete building permit application has been submitted for the parcels within the recording time limit for the subdivision or short subdivision as established in KMC 22.16.130 and KMC 22.20.370, respectively.

All further development activity and construction on the subject property shall comply with the provisions of this chapter.

2. All provisions of this chapter that do not conflict with the structure setback and/or buffer requirements set forth in subsection (1) of this section shall fully apply to the subject property.

Section 74. KZC 90. is hereby amended to read as follows:

90.225 Lapse of Approval

Any decision made by the Planning Official and Planning and Building Director authorized by this chapter shall be subject to the lapse of approval provisions of KZC 145.115 unless otherwise specified in this chapter.

Section 75. KZC 95.10 is hereby amended to read as follows:

95.10 Definitions

* * *

17. Trees – A tree or a group of trees may fall under one of the following definitions for purposes of this chapter:

* * *

h. Retention Value – The Planning Official's designation of a tree based on information provided by a qualified professional arborist that is one of the following:

1) High – any of the following trees:

a) Grove.

b) Landmark tree.

c) A viable tree with any portion of the trunk located in a required yard, riparian management zone, land use buffer, and/or common open space.

* * *

Section 76. KZC 95.10 is hereby amended to read as follows

95.21 Private Property – Tree Pruning

* * *

1. Located within natural greenbelt protective easements and wetlands, streams, or their buffers pursuant to 95.27; or

* * *

Section 77. KZC 95.10 is hereby amended to read as follows

95.25 Private Property – Tree Removal, Not Associated with Development Activity

* * *

3. Tree Removal Activity – Permit Required. For removal of regulated trees that does not comply with KZC 95.15 or subsection (1) of this section, the following activities shall require a tree removal permit:

* * *

b. Tree removal activity under any of the following conditions. The City shall only issue a permit if the trees qualify as hazard or nuisance trees pursuant to subsection (6) of this section:

* * *

2) The property owner is requesting to remove trees located within:

a) A public park or adjacent City right-of-way pursuant to KZC 95.20;

b) Wetlands, streams and associated buffers pursuant to 95.27. See Chapter 90 KZC for additional permit requirements;

c) Landslide hazard areas pursuant to 95.28. See Chapter 85 KZC for additional permit requirements.

* * *

Section 78. KZC 90.135 is recodified in chapter 95 KZC as a new section KZC 95.27 and is then further amended to read as follows:

95.27 Trees in Critical Areas, ~~and~~ Critical Area Buffers, and Riparian Management Zones

1. Removal of Trees

~~a.~~ Other than as specifically approved as part of a critical area permit under ~~this chapter~~ Chapter 90 or 85, no trees shall be removed from a critical area, ~~or~~ critical area buffer, riparian management zone, or high landslide hazard area unless determined to be nuisance or hazardous trees. Any removal shall be authorized in advance through a tree removal permit, unless tree removal is an emergency ~~to prevent immediate damage to a structure~~ per KZC 95.15. ~~In case of an emergency, documentation to the City must be provided within seven (7) days of removal that supports that the tree was a nuisance or hazardous;~~

b. If a tree in a critical area, riparian management zone, or critical area ~~its~~ buffer meets the criteria of a nuisance or hazard ~~based on this code~~ at the determination of the Planning Official, then a snag tree shall be created. ~~c.~~ If creation of a snag is not feasible, then the felled tree, stump, and supporting root system shall be left in place unless the Planning Official approves full tree removal in writing.

c. If a regulated tree in a high landslide hazard area is determined by the Planning Official to meet the criteria of a hazard or nuisance tree under this code, only the stump and supporting root system shall be left in place.

d. Any tree approved to be removed, created as a snag, or felled with stump and root system retained must be replaced with ~~one (1) to~~ a minimum of three (3) native or climate ready trees at a minimum size of five (5) gallon or a minimum height of ~~six (6)~~ four (4) feet in size within the buffer or riparian management zone ~~depending on the size, quality and species of removed tree~~. Landmark trees shall be replaced with native or climate-ready trees from the "Kirkland Landmark tree list" and trees in high landslide hazard areas shall have at least two (2) of the tree replacement trees be conifers.

e. The Planning Official shall determine the required number of replacement trees, including additional trees to replace landmark canopy loss, based on the size, species, and viability of the trees removed and proposed for replacement.

2. Pruning of Trees – Pruning or topping of trees in wetlands, streams, or flood plains, critical areas or buffers is prohibited other than for City approved mitigation ~~creation of snags~~ for nuisance or hazard trees.

3. Trees in Riparian Management Zones or in high landslide areas outside the regulated wetland, stream, or flood plain buffer may be pruned according to 95.20 and 95.21 with the additional requirement that no more than 25% of the canopy may be pruned in any year, and all trees shall have a minimum of 40% crown canopy retained. Topping of any tree is prohibited.

Section 79. A new section entitled "Trees and Vegetation in Geologically Hazardous Areas" is hereby created, to be added to Chapter 95 KZC and codified as KZC 95.28, to read as follows:

95.28 Trees and Vegetation in Geologically Hazardous Areas

The provisions below apply to trees and vegetation not associated with development activity unless exempt pursuant to KZC 95.15, KZC 90.35, or otherwise determined by the Planning Official.

1. Where geologically hazardous areas overlap with other critical areas, tree removal shall follow 95.27.
2. Tree Pruning and Removal in Moderate Landslide Hazard Areas – see KZC 95.25
3. Tree Pruning and Removal in High Landslide Hazard Areas – see KZC 95.27
4. Vegetation Removal – Removal of vegetation, including shrubs and groundcover, within a high landslide hazard area is prohibited without prior approval of the City. Slopes must be stabilized for erosion control and vegetation must be replaced within 60 days of removal unless otherwise determined by the Planning Official. Failure to comply may result in code enforcement.
5. Vegetation Pruning – Pruning of shrubs and ground cover is permitted if best management practices are used to prevent erosion.

Section 80. KZC 95.30 is hereby amended to read as follows:

95.30 Tree Retention Associated with Development Activity

* * *

3. Tree Retention Plan Requirements. Tree retention plans shall contain the following information, unless waived by the Planning Official:

* * *

c. Qualified professional arborist report with the following:

* * *

5) If development proposals result in the retention and/or removal of high retention value trees (including riparian management zone trees, landmark trees and groves) provide an explanation of how tree retention was prioritized based on retention feasibility and proposed construction impacts;

* * *

d. A description of additional tree retention, ~~and~~ protection, and replacement requirements that apply to properties with development projects proposed within:

* * *

4. Development of Single-Family Dwellings, Short Plats, Subdivisions, Middle Housing, and Accessory Structures. Tree retention plan review and approval shall be based on compliance with the following provisions:

a. High Retention Value Trees. In order to retain trees located in required yards, land use buffers, riparian management zones, and/or common open spaces, and to retain landmark trees and groves located anywhere on the subject property, the applicant shall consider, and the Planning Official (or Public Works Official, where applicable) is authorized to require, compliance with the following standards:

Section 81. KZC 95.34 is hereby amended to read as follows:

95.34 Tree Replacement Standards Related to Development Activity

* * *

5. Replacement Tree Locations. In designing a development and in meeting the required tree density, the replacement trees shall be planted pursuant to KZC 95.50 in the following order of priority:

a. On Site. The preferred locations, in order of priority, for new trees are:

1) On the subject property;

2) Site perimeter – the area of the subject property that is within 10 feet from the property line;

3) In preserved groves, critical areas or critical area buffers, riparian management zones, or required land use buffers;

4) Adjacent to stormwater facilities as approved by Public Works under KMC 15.52.060;

5) Entrance landscaping, traffic islands, and other common areas within the residential subdivision development.

* * *

Section 82. If any provision of this ordinance or its application to any person or circumstance is held invalid, the remainder of the ordinance or the application of the provision to other persons or circumstances is not affected.

Section 83. This ordinance shall be in force and effect at 5:00 PM on March 31, 2026, after its passage by the Kirkland City Council and publication as required by law, in the summary form attached to the original of this ordinance and by this reference approved by the City Council.

Passed by majority vote of the Kirkland City Council in open meeting this 9th day of December, 2025.

3079 Signed in authentication thereof this 9th day of December, 2025.

Kelli Curtis, Mayor

Attest:

Anastasiya Warhol, City Clerk

Approved as to Form:

Darcey Eilers, City Attorney

Publication Date:
12/12/2025