

**CITY OF KENMORE
WASHINGTON
ORDINANCE NO. 19-0488**

**AN ORDINANCE OF THE CITY OF KENMORE,
WASHINGTON; AMENDING CHAPTER 18.55, CRITICAL
AREAS, OF THE KENMORE MUNICIPAL CODE;
REPEALING DIVISION II OF TITLE 16, FLOOD DAMAGE
PREVENTION, OF THE KENMORE MUNICIPAL CODE;
AMENDING CHAPTER 18.20, DEFINITIONS, OF THE
KENMORE MUNICIPAL CODE; AMENDING SECTIONS
18.30.190 AND 18.40.030 OF THE KENMORE MUNICIPAL
CODE; AND PROVIDING AN EFFECTIVE DATE.**

WHEREAS, the Growth Management Act, Chapter 36.70A RCW (GMA), requires that the City periodically review and revise its development regulations, including its critical areas regulations, to incorporate best available science and conform to State guidelines; and

WHEREAS, RCW 90.58.080 requires local governments to develop or amend Shoreline Master Programs (SMPs) for the regulation and uses of the shorelines of the state consistent with the guidelines adopted by the Washington State Department of Ecology (Ecology); and

WHEREAS, an update to the City's SMP is underway and must be completed by June 30, 2019, and the City desires to achieve general consistency between its critical area regulations within and outside of the jurisdiction of the SMP; and

WHEREAS, in the summer of 2018, the City began its SMP update to its Shoreline Sub-Element of the Comprehensive Plan and shoreline regulations (SMP Update) and review of its critical area regulations, adopted under Chapter 18.55 of the Kenmore Municipal Code (CAR Amendments) with the assistance of grant funding from Ecology; and

WHEREAS, the City retained Shannon & Wilson, Inc., qualified scientific experts, to 1) identify scientific information, 2) determine the best available science and assess its applicability to relevant critical areas, and 3) assist the City in the SMP Update and CAR Amendments; and

WHEREAS, Shannon & Wilson has assisted the City in developing the SMP Update and CAR Amendments by preparing updated GIS maps of streams and wetlands, geologically hazardous areas and areas of groundwater susceptibility; preparing a gap analysis to identify portions of the critical area regulations and Shoreline Master Program needing amendment; and drafting the CAR Amendments; and

WHEREAS, the results of the gap analysis are contained in the document entitled, City of Kenmore Critical Areas Regulations and Shoreline Master Program Gap Analysis and Recommendations, August 30, 2018 (Gap Analysis); and

WHEREAS, consistent with RCW 36.70A.172(1), the City has included the best available science in developing the CAR Amendments to protect the functions and values of critical areas, and the City has given special consideration in the CAR Amendments to conservation or protection measures necessary to preserve or enhance anadromous fisheries; and

WHEREAS, the City has considered the definitions and guidelines adopted in Chapter 365-190 of the Washington Administrative Code (WAC), including WAC 365-195-900 through WAC 365-195-925, “Growth Management Act – Best Available Science”, when preparing the CAR Amendments; and

WHEREAS, the City Council has considered the “Best Available Science Evaluation of the proposed Public Agency and Utility Exception (PAUE),” prepared by Shannon & Wilson, Inc., and BERK (Evaluation), and consistent with WAC 365-195-915, the City Council relies upon the analysis and rationales within the Evaluation for any departure from best available science relating to PAUEs; and

WHEREAS, the City desires to consolidate the regulations in Title 16, Division II, Flood Damage Prevention and Chapter 18.55, Article XIX, Flood Hazard Areas into a single section of the Kenmore Municipal Code; and

WHEREAS, the City Council desires to amend Chapter 18.20, Definitions, of the Kenmore Municipal Code to amend and add certain definitions relating to critical areas within the City to more fully protect the values and functions of critical areas; and

WHEREAS, to aid in implementation of the proposed critical area regulations, the City Council desires to amend Sections 18.30.190 and 18.40.030 of the Kenmore Municipal Code; and

WHEREAS, over the past year, the City's Planning Commission has reviewed and revised the proposed critical area regulations amendments; and

WHEREAS, throughout the update process for the CAR Amendments, the City has complied with the requirements of RCW 36.70A.140, and provided early and continuous public participation in the development of the CAR Amendments, including holding a public open house and two public forums; holding public hearings, creating a comprehensive and regularly-updated web page devoted to the update; and maintaining a large mailing list in order to keep interested parties informed; and

WHEREAS, Ecology completed its initial review of the proposed CAR Amendments and submitted comments to the City, and the City has considered and acted upon said comments; and

WHEREAS, the Federal Emergency Management Agency (FEMA) has reviewed the consolidated flood hazard area regulations to ensure consistency with the National Flood Insurance Program; and

WHEREAS, the Planning Commission held a public hearing on the regulations on March 26, 2019, and two interested parties testified, and three additional written comments were received; and

WHEREAS, on May 13, 2019, the Planning Commission presented their preliminary recommendations for the proposed SMP Update and CAR Amendments to the City Council, and the Council considered those recommendations on May 13, 2019, May 20, 2019 and June 10, 2019; and

WHEREAS, on May 23, 2019, the City's Responsible Official under the State Environmental Policy Act issued a determination of non-significance for the proposed CAR Amendments and SMP Update; and

WHEREAS, on March 14, 2019, the City provided notice to the Washington State Department of Commerce regarding the proposed CAR Amendments and SMP Update pursuant to RCW 36.70A.106; and

WHEREAS, on June 10, 2019, the City Council held a public hearing on the proposed CAR Amendments and SMP Update; and

WHEREAS, the City Council has considered public testimony and comments, Ecology's comments, and staff and consultant input; and

WHEREAS, the City Council has considered and relied upon the scientific expertise of Shannon & Wilson, Inc., and certain documents and information, including: 1) the Gap Analysis; 2) the City of Kenmore Shoreline Master Program draft shoreline regulations; 3) the City of Kenmore draft critical area regulations; 4) Ecology's Critical Areas Checklist; 5) SEPA Determination of Nonsignificance; 6) Best Available Science Evaluation for the PAUE; and 6) Docket Criteria Analysis; and

WHEREAS, pursuant to RCW 36.70A.020, the City Council has been guided by the GMA planning goals in its adoption of this ordinance; and

WHEREAS, the City Council desires to amend the City's critical area regulations and associated definitions and development regulations; now therefore

THE CITY COUNCIL OF THE CITY OF KENMORE, WASHINGTON, DO ORDAIN AS FOLLOWS:

Section 1. Findings Adopted. The City Council adopts the foregoing recitals as findings for this Ordinance, which are incorporated by reference as if set forth in full.

Section 2. Amendment of Chapter 18.55 – Critical Areas. The City Council amends Chapter 18.55 of the Kenmore Municipal Code, "Critical Areas", as set forth in Exhibit 1, attached hereto and incorporated by reference.

Section 3. Repealer. The City Council repeals Division II of Title 16, Chapter 16.90 of the Kenmore Municipal Code, "Flood Damage Prevention".

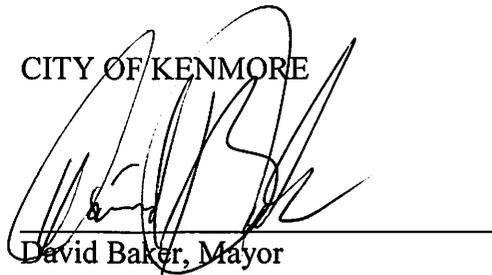
Section 4. Amendments to Chapter 18.20, Definitions. The City Council amends Chapter 18.20 of the Kenmore Municipal Code, "Definitions", as set forth in Exhibit 2, attached hereto and incorporated by reference.

Section 5. Amendments to Sections 18.30.190 and 18.40.030. The City Council amends Sections 18.30.190 and 18.40.030 of the Kenmore Municipal Code, as set forth in Exhibit 3, attached hereto and incorporated by reference.

Section 6. Effective Date. This Ordinance shall be published in the official newspaper of the City, and shall take effect and be in full force five (5) days after the date of publication.

PASSED BY THE CITY COUNCIL AT A REGULAR MEETING THEREOF ON THE
17 TH DAY OF June, 2019.

CITY OF KENMORE



David Baker, Mayor

ATTEST/AUTHENTICATED:



Kelly Cheljn, City Clerk

Approved as to form:



Dawn Reitan, City Attorney

Filed with the City Clerk: 6/17/19
Passed by the City Council: 6/17/19
Ordinance No.: 19-0488
Date of Publication: 6/20/19
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**Chapter 18.55
CRITICAL AREAS**

Sections:

Article I. Purpose and General Provisions

- 18.55.010 Purpose and goals.**
- 18.55.020 Authority.**
- 18.55.030 Relationship to other regulations.**
- 18.55.040 Administrative procedures.**
- 18.55.050 Fees.**
- 18.55.070 Administrative rules.**
- 18.55.080 Interpretation.**
- 18.55.090 Jurisdiction – Critical areas.**
- 18.55.100 Protection of critical areas.**

Article II. Best Available Science

- 18.55.110 Best available science.**

Article III. Applicability, Exemptions, and Exceptions

- 18.55.120 Applicability.**
- 18.55.130 Mapping.**
- 18.55.140 Signs and fencing of critical areas.**
- 18.55.150 Exemptions.**
- 18.55.160 Exception – Public agency and/or utility.**
- 18.55.170 Variances – Buffer widths and building setbacks.**
- 18.55.180 Exception – Reasonable use.**

Article IV. Critical Areas Report

- 18.55.190 Critical areas reports – Requirements.**
- 18.55.200 Mitigation requirements.**
- 18.55.210 Mitigation sequencing.**
- 18.55.220 Mitigation plan requirements.**

Article V. Unauthorized Alterations and Enforcement

18.55.230 Unauthorized critical area alterations and enforcement.

Article VI. General Critical Area Protective Measures

18.55.250 Notice on title.

18.55.260 Critical area tracts.

18.55.270 Building setbacks.

18.55.280 Bonds to ensure mitigation, maintenance, and monitoring.

18.55.290 Critical area inspections.

Article VII. Wetlands – Designation and Rating

18.55.300 Designation and rating of wetlands.

Article VIII. Wetlands – Additional Report Requirements

18.55.310 Critical areas report.

Article IX. Wetlands – ~~Performance Standards~~ Allowed Uses and Alterations

18.55.320 ~~Performance standards – General requirements~~ Allowed Uses.

18.55.325 Buffer Width Alterations.

18.55.330 Performance standards – Mitigation requirements.

Article X. Streams and Lakes – Designation and Rating

18.55.400 Designation and rating of streams and lakes.

Article XI. Streams and Lakes – Additional Report Requirements

18.55.410 Critical areas report.

Article XII. Streams and Lakes – ~~Performance Standards~~ Allowed Uses and Alterations

18.55.415 Allowed Uses.

18.55.420 ~~Performance standards – General~~ Alterations.

18.55.430 Performance standards – Mitigation requirements.

Article XIII. Fish and Wildlife Habitats of Importance – Designation

18.55.500 Designation of fish and wildlife habitats of importance.

Article XIV. Fish and Wildlife Habitats of Importance – Report Requirements

18.55.510 Critical areas report – Habitat Management Plan.

Article XV. Fish and Wildlife Habitats of Importance – Performance Standards

18.55.520 Performance standards – General requirements.

18.55.530 Performance standards – Specific habitats.

Article XVI. Geologically Hazardous Areas – Designation

18.55.600 Purpose.

18.55.610 Designation of geologically hazardous areas.

18.55.620 Designation of specific hazard areas.

Article XVII. Geologically Hazardous Areas – Report Requirements

18.55.630 Critical areas report.

Article XVIII. Geologically Hazardous Areas – Performance Standards

18.55.640 Performance standards – General requirements.

18.55.650 Performance standards – Specific hazards.

Article XIX. Flood Hazard Areas

Note that this is a complete rewrite of the previous Article XIX

18.55.700 Purpose.

18.55.705 Definitions

18.55.707 Lands to which this article applies.

18.55.710 Basis for establishing flood hazard areas.

18.55.715 Permits.

18.55.720 Final certification by surveyor.

18.55.723 Designation and responsibilities of the local administrator.

18.55.725 Information to be obtained and maintained by the City.

18.55.730 Development standards applicable to all flood hazard areas.

18.55.740 Development standards for specific uses in flood hazard areas.

18.55.750 Development in the floodway.

18.55.760 Habitat assessment.

18.55.770 Warnings and disclaimer of liability.

18.55.780 Variances in flood hazard areas.

18.55.790 Penalties for noncompliance.

18.55.795 Abrogation and greater restrictions.

Article XX. Groundwater Susceptibility and Critical Aquifer Recharge Areas

18.55.800 Designation of groundwater susceptibility and critical aquifer recharge areas.

18.55.810 Critical Areas Report.

Article I. Purpose and General Provisions

18.55.010 Purpose and goals.

A. The purpose of this chapter is to designate and classify ecologically critical and geologic **and flood hazard areas** in order to protect ecologically *critical areas* and protect lives and property from hazards, while also allowing for *reasonable use* of **public or private** property.

B. The *City* finds that *critical areas* provide a variety of valuable and beneficial biological and physical functions that benefit the *City* and its residents, and/or may pose a threat to human safety or to public and *private* property. The beneficial *functions and values* provided by *critical areas* include, but are not limited to, water quality protection and enhancement, fish and wildlife habitat, food chain support, *flood* storage, ground water recharge and discharge, *erosion* control, protection from hazards, historical and archaeological and aesthetic value protection, and recreation. These beneficial functions are not listed in order of priority.

C. By limiting *alteration of critical areas*, this chapter seeks to:

1. Strive to protect lives and public and *private* property from *flooding*;
2. Strive to protect slopes from *erosion* and sliding;
3. Minimize the potential for damage due to liquefaction and seismic hazards;
4. Protect *wetlands* from encroachment and degradation and encourage *wetland restoration*;
5. Protect *streams* from encroachment and degradation and encourage *stream restoration*; **and**
6. Maintain and promote a diversity of *species* and habitat within the *City*; **and**

7. Address critical aquifer recharge areas and protect groundwater.

D. The regulations of this chapter are intended to protect *critical areas* in accordance with the GMA and through the application of *best available science*.

E. This chapter is to be administered with flexibility and attention to site-specific characteristics. It is not the intent of this chapter to make a parcel of property unusable by denying its owner reasonable economic use of the property.

F. The *City's* enactment and enforcement of this chapter shall not be construed for the benefit of any individual person or group of persons other than the general public.

18.55.020 Authority.

A. As provided herein, the *city manager* is given the authority to interpret, apply, and enforce this chapter to accomplish the stated purpose.

B. The *City* may withhold, condition, or deny *development permits* or activity approvals to ensure that the proposed action is consistent with this chapter.

C. In the event that multiple *critical areas* occur on a *site*, it is the authority of the *city manager* to balance the protection of the multiple *critical areas* and provide appropriate *mitigation*.

18.55.030 Relationship to other regulations.

A. These *critical areas* regulations shall be in addition to zoning and other regulations adopted by the *City*. Compliance with other regulations does not exempt the *applicant* from *critical areas* regulations.

B. The *critical area* regulations ~~set forth in KMC 16.05.060(B)~~ shall apply to all *critical areas* located within the jurisdiction of the Kenmore shoreline master program (Title 16 KMC).

C. These *critical areas* regulations shall apply concurrently with review conducted under the State Environmental Policy Act (SEPA) (Chapter 19.35 KMC).

D. Any individual *critical area* adjoined by another type of *critical area* shall have the *buffer* and meet the requirements that provide the most protection to the *critical areas* involved. When any provision of this chapter or any existing regulation, easement, covenant, or deed restriction conflicts with this chapter, that which provides more protection to the *critical areas* shall apply.

E. Compliance with the provisions of this chapter does not constitute compliance with other federal, State, and local regulations and permit requirements that may be required (for example, shoreline substantial

development or conditional use permits, shoreline variances, the Washington State Department of Fish and Wildlife *hydraulic project approval* (HPA), U.S. Army Corps of Engineers *Section 404 permits*, and National Pollution Discharge Elimination System (NPDES) permits). The *applicant* is responsible for complying with these requirements, apart from the process established in this chapter.

18.55.040 Administrative procedures.

The administrative procedures followed during the *critical area* review process shall conform to the standards and requirements of the *City* development regulations, except that, where *critical areas* are located within the jurisdiction of the Kenmore shoreline master program, administrative procedures shall conform to the standards and requirements of Chapter 16.75 KMC. This shall include, but not be limited to, timing, permits, variances, exemptions, exceptions, appeals, and fees associated with applications covered by this chapter.

18.55.050 Fees.

The *City* by resolution shall establish fees for *critical area* review processing and other services provided by the *City* as required by this chapter.

18.55.070 Administrative rules.

Applicable *departments* within the *City* are authorized to adopt such administrative rules and regulations as necessary and appropriate to implement this chapter and to prepare and require the use of such forms as necessary for its administration.

18.55.080 Interpretation.

In the interpretation and application of this chapter, the provisions of this chapter shall be considered to be the minimum requirements necessary, shall be liberally construed to serve the purpose of this chapter, and shall be deemed to neither limit nor repeal any other provisions under State statute.

18.55.090 Jurisdiction – Critical areas.

A. The *City* shall regulate all *uses*, activities, and *developments* within, adjacent to, or likely to affect one or more *critical areas*, consistent with *best available science* and the provisions herein.

B. *Critical areas* regulated by this chapter include:

1. *Wetlands* as designated in KMC 18.55.300, Designation and rating of *wetlands*;
2. *Streams and lakes* as designated in KMC 18.55.400, Designation and rating of *streams and lakes*;
3. Fish and wildlife habitats of importance as designated in KMC 18.55.500, Designation of fish and wildlife habitats of importance;

4. *Geologically hazardous areas* as designated in KMC [18.55.610](#), Designation of *geologically hazardous areas*; and
5. Frequently flooded areas as designated in KMC [18.55.7007](#), *Frequently flooded areas and Flood damage prevention hazard areas*; and
6. *Critical aquifer recharge areas and groundwater* as designated in KMC [18.55.800](#), Designation of *groundwater susceptibility and critical aquifer recharge areas*.

C. All areas within the *City* meeting the definition of one or more *critical areas*, regardless of any formal identification, are hereby designated *critical areas* and are subject to the provisions of this chapter.

D. Areas Adjacent to *Critical Areas* Subject to Regulation. Areas adjacent to *critical areas* shall be considered to be within the jurisdiction of these requirements and regulations to support the intent of this chapter and ensure protection of the *functions and values* of *critical areas*. "Adjacent" shall mean any activity located:

1. On a *site* immediately adjoining a *critical area*;
2. A distance equal to or less than the required *critical area buffer* width and building *setback*;
3. A distance equal to or less than ~~one-half mile (2,640 feet)~~ **660 feet** from a bald eagle nest;
4. A distance equal to or less than ~~900~~ **656** feet from the closest nest of a ~~great blue~~ heron rookery; or
5. Within the *floodway*, *floodplain* or channel migration zone.

18.55.100 Protection of critical areas.

Any action taken pursuant to this chapter shall result in equivalent or greater *functions and values* of the *critical areas* associated with the proposed action, as determined by the *best available science*. All actions and *developments* shall be designed and constructed in accordance with *mitigation* sequencing (KMC [18.55.210](#)) to avoid, minimize, restore, and compensate for adverse impacts. *Applicants* must first demonstrate an inability to avoid or reduce impacts before *restoration* and compensation of impacts will be allowed. No activity or *use* shall be allowed that results in a net loss of the *functions and values* of *critical areas*.

Article II. Best Available Science

18.55.110 Best available science.

A. Protection for *Functions and Values* and *Anadromous Fish*. *Critical areas* reports and decisions to alter *critical areas* shall rely on the *best available science* to protect the *functions and values* of *critical areas*. The *best available science* is scientific information applicable to the *critical area* prepared by local, State or federal natural resource agencies, a qualified scientific professional or team of qualified scientific professionals, that is consistent with criteria established in WAC 365-195-900 through 365-195-925. Special consideration shall be given to conservation or protection measures necessary to preserve or enhance anadromous fish and their habitat, such as salmon and bull trout, as required by WAC 365-195-900 through 365-195-925.

Article III. Applicability, Exemptions, and Exceptions

18.55.120 Applicability.

A. The provisions of this chapter shall apply to all lands, all land *uses* and development activity, and all *structures* and facilities in the *City* whether or not a permit or authorization is required, and shall apply to every person, firm, partnership, corporation, group, governmental agency, or other entity that owns, leases, or administers land within the *City*. No person, company, agency, or *applicant* shall alter a *critical area* or *buffer* except as consistent with the purposes and requirements of this chapter.

B. The *City* shall not approve any permit or otherwise issue any authorization to alter the condition of any land, water, or *vegetation*, or to construct or alter any *structure* or improvement in, over, or on a *critical area* or associated *buffer*, without first assuring compliance with the requirements of this chapter. For development on lands regulated under the Kenmore shoreline master program, compliance with this chapter includes compliance with the requirements of the shoreline master program as well as with the requirements of this chapter.

C. Approval of a permit or *development proposal* pursuant to the provisions of this chapter does not discharge the obligation of the *applicant* to comply with the provisions of this chapter.

18.55.130 Mapping.

A. The approximate location and extent of *critical areas* are shown on the *City's critical area* maps. These maps are to be used as a guide and may be updated as new *critical areas* are identified. They are a reference and do not provide a final *critical area* designation. The exact location of a *critical area* and its boundary shall be determined on-site through a field investigation by a *qualified professional*.

B. The following is a list of some maps sources that identify known/potential *critical areas* located in the *City*:

1. *Wetlands and Streams*.

- a. City stream and wetland inventory;
- b. ~~King County critical areas map folio.~~ Washington State Department of Fish and Wildlife Priority Habitats and Species online mapping system;
- c. Washington State Department of Fish and Wildlife SalmonScape online mapping system; and
- d. Washington State Department of Natural Resources water type maps.

2. *Fish and Wildlife Habitats of Importance.*

- a. Washington State Department of Fish and Wildlife ~~p~~Priority ~~h~~Habitats and ~~s~~Species map online mapping system;
- b. Washington State Department of Natural Resources official water type reference maps, as amended;
- c. Washington State Department of Fish and Wildlife SalmonScape online mapping system;
- d. Anadromous and resident *salmonid* distribution maps contained in the Habitat Limiting Factors Reports published by the Washington State Conservation Commission; and
- e. Washington State Department of Natural Resources State natural area preserves and natural resource conservation area maps.

3. *Geologically Hazardous Areas.*

- a. City geologically hazardous areas inventory;
- ba. King County's Landslide Hazards Along King County River Corridors interactive, web-based map folio ~~critical areas map folio, as modified by the City;~~
- cb. U.S. Geological Survey landslide hazard and seismic hazard maps Washington State Department of Natural Resources Geologic Information Portal;
- dc. Washington State Department of Natural Resources seismic hazard maps for Western Washington liquefaction susceptibility map for King County; and
- ed. Washington State Department of Natural Resources slope stability maps.

4. *Flood Hazard Areas.*

a. City stream and wetland inventory; and

b. Federal Emergency Management Administration flood insurance rate maps and studies.

5. Critical Aquifer Recharge Areas and Groundwater.

a. City map of aquifer susceptibility.

18.55.140 Signs and fencing of critical areas.

A. Signs.

1. Temporary Markers. The outer perimeter of the *critical area* or *buffer* and the limits of those areas to be disturbed pursuant to an approved permit or authorization shall be marked in the field in such a way as to ensure that no unauthorized intrusion will occur, and verified by the *city manager* prior to the commencement of permitted activities. This temporary marking shall be maintained throughout construction, and shall not be removed until permanent *signs*, if required, are in place.
2. Permanent *Signs*. As a condition of any permit or authorization issued pursuant to this chapter, the *city manager* may require that the *applicant* install permanent *signs* along the boundary of a *critical area* or *buffer*.

Permanent *signs* shall be made of a metal face and attached to a metal post, or another material of equal durability. *Signs* must be posted at an interval of every 50 feet. If the length of the *lot* is 50 feet or less, one *sign* per *lot* is required. The *sign* must be maintained by the property owner in perpetuity. *Signs* must be placed in a visible location and remain visible throughout any future *site development*. The *signs* shall include the *City's* logo and shall be worded as follows or with alternative language approved by the *city manager* based on specifications available from the *City*:

Environmentally Critical Area
Do Not Disturb
Contact the City of Kenmore
425-398-8900
Regarding Uses and Restriction

B. Fencing.

1. The *city manager* shall condition any permit or authorization issued pursuant to this chapter to require the *applicant* to install a permanent *fence* at the edge of the critical area and buffer associated with a stream, lake, wetland, or fish and wildlife habitat of importance, when fencing will prevent future impacts to the habitat conservation area ecological function. When the buffer is in a legally altered state and is permitted to remain in that condition, the fencing may be placed at the

upland edge of any properly functioning portion of the *buffer*. The *city manager* may also waive the requirement for a *fence* if the *applicant* can demonstrate that a *fence* would interfere with current, legal public access or use.

2. A required permanent *fence* may be:

a. The *applicant* shall be required to install a permanent natural Untreated wood, split-rail, or *fence* around the *critical area* and *buffer*.

b. Dense *vegetation* using native material appropriate for the ecoregion. *Vegetation* shall be maintained at a minimum height of 3 feet, with thorny species incorporated to deter intrusion.

3. Fencing installed shall be designed so as to not interfere with *species* migration, including fish runs, and shall be constructed in a manner that minimizes habitat impacts.

4. Fencing is not required for single-family residential *lots* where subdivision is not proposed.

C. Maintenance. To ensure long-term maintenance of signs and fencing, the owner of the property shall file a maintenance agreement as directed by the *City*. This agreement shall be recorded and run with the land.

18.55.150 Exemptions.

Exempt activities shall avoid impacts to *critical areas*. All exempted activities shall use reasonable methods to avoid potential impacts to *critical areas*. To be exempt from this chapter does not give permission to degrade a *critical area* or ignore risk from natural hazards. Any incidental damage to, or alteration of, a *critical area* shall be restored, rehabilitated, or replaced at the responsible party's expense to prior condition or better.

A. Exempt Activities. The following *developments*, activities, and associated *uses* shall be exempt from the provisions of this chapter; provided, that they are otherwise consistent with the provisions of other local, State, and federal laws and requirements:

1. Activities, including routine maintenance, involving artificial drainage features intentionally created from non*wetland* sites, including but not limited to grass-lined swales, irrigation and drainage ditches, detention facilities, and landscape features;
2. Normal and routine maintenance, operation and reconstruction of existing roads, *streets*, utilities and associated rights-of-way and *structures*; provided, that reconstruction of any *structures* may not increase the *impervious surface* area or remove *flood* storage capacity;

3. Normal maintenance and repair, and reconstruction or remodeling of residential or commercial *structures*, or legal preexisting and ongoing *uses* of the *site*; provided, that reconstruction of any *structures* may not increase the previously approved *building* footprint;
 4. *Site* investigative work and studies necessary for preparing *site development or modification plans* *land use applications*, including soils tests, water quality studies, wildlife studies and similar tests and investigations, where such activities do not require construction of new roads or significant amounts of excavation; and provided, that any disturbance of the *critical area* shall be the minimum necessary to carry out the work or studies and disturbed areas shall be immediately restored;
 5. Educational activities, scientific research, and passive outdoor recreational activities, including but not limited to interpretive field trips, *and* birdwatching, *and previous trails for hiking*, that will not have a significant adverse effect on the *critical area*;
 6. *Emergency* activities necessary to prevent an immediate threat to public health, safety, property or welfare; *provided that the critical areas shall be restored, rehabilitated, or replaced at the responsible party's expense to prior condition or better within one year of the activity. The restoration, rehabilitation, and/or replacement of the critical area is limited to that area impacted by the prevention effort; this section does not require the responsible party to restore, rehabilitate or replace critical areas damaged by natural disaster;*
 7. Minor activities not mentioned above and determined by the *city manager* to have minimal impacts to a *critical area*; *and*
 8. *Existing and ongoing agricultural activities, including farm pond maintenance, provided that they implement applicable best management practices (BMPs) and minimize their effects on water quality, riparian ecology, salmonid populations, and wildlife habitat.*
 8. *Installation, construction, replacement, repair or alteration of utilities and their associated facilities, lines, pipes, mains, equipment or appurtenances in improved City street rights-of-way.*
- B. Operation, Maintenance or Repair. Operation, maintenance or repair of existing *structures*, infrastructure improvements, utilities, public or *private* roads, dikes, levees or drainage systems, that do not require construction permits, if the activity does not further alter or increase the impact to, or encroach further within, the *critical area* or *buffer* and there is no increased risk to life or property as a result of the proposed operation, maintenance, or repair.
- C. Modification to Existing *Structures*.

1. Structural modification of, addition to, or replacement of single detached residences in existence before November 27, 1990, which do not meet the building *setback* or *buffer* requirements for *wetlands*, *streams* or *landslide hazard areas* if the modification, addition, replacement or related activity does not increase the existing footprint of the residence lying within the above-described *buffer* or building *setback* area by more than 500 square feet over that existing before November 27, 1990. No portion of the modification, addition or replacement may be located closer than the closest point of the residence to the *critical area* or, if the existing residence is in the *critical area*, no portion may extend farther into the *critical area*.
2. Structural modification of, addition to, or replacement of *structures*, except single detached residences, in existence before November 27, 1990, which do not meet the building *setback* or *buffer* requirements for *wetlands*, *streams* or *landslide hazard areas* if modification, addition, replacement or related activity does not increase the existing footprint of the *structure* lying within the above-described building *setback* area, *critical area* or *buffer*.

D. Activities within the Improved Right-of-Way. Repair, replacement, modification, installation, or construction of utility facilities, lines, pipes, mains, equipment, or appurtenances, not including substations, when such facilities are located within the improved portion of the public right-of-way or a City-authorized private roadway, except those activities that alter a wetland or watercourse, such as culverts or bridges, or result in the transport of sediment or increased stormwater. Improved rights-of-way are those that are maintained out of necessity as a cleared, graded, paved, mowed or otherwise altered surface to allow for access, maintenance, or safety.

E. Select *Vegetation* Removal Activities. The following *vegetation* removal activities; provided, that no *vegetation* shall be removed from a *critical area* or its *buffer* without approval from the *city manager*:

1. The removal of *vegetation* listed in King County's *noxious weed* list.
2. The removal of *trees* that are hazardous, posing a threat to public safety, or posing an imminent risk of damage to *private* property, from *critical areas* and *buffers*; provided, that the *city manager* determines that the disturbance to the *critical area* is minimal. Topping or limbing the tree to eliminate the hazard should be considered before removal. When removal is necessary, place the hazard tree in the critical area or buffer to provide habitat as downed wood unless doing so would pose a safety risk or increase a geologic hazard. Replacement trees at a 3:1 ratio are required.
3. Measures to control a fire or halt the spread of disease or damaging insects consistent with the State Forest Practices Act, Chapter 76.09 RCW; provided, that the removed *vegetation* shall be

replaced *in-kind* or with similar native species within one year in accordance with an approved *restoration* plan.

18.55.160 Exception – Public agency and/or utility.

A. If the strict application of this chapter would prohibit a development proposal by a public agency or public utility the following:

1. expansion of an existing facility operated by a public agency that is site-specific and non-linear, including, but not limited to, a school facility, a fire or police facility, a governmental office, a recreational facility, a park, or a stormwater retention/detention facility, or
2. expansion or extension of a linear public transportation facility, such as a street, highway or sidewalk, or
3. expansion or extension of a utility

then the public agency or utility may apply for relief from strict application of this chapter through an exception pursuant to this section, unless the project is located on lands regulated under the Kenmore shoreline master program. Projects on lands regulated under the Kenmore shoreline master program are regulated under the procedures of Chapter 16.75 KMC.

B. Adjustment of critical area standards for new site-specific and non-linear facilities to be operated by a public agency, such as schools, fire or police facilities, governmental offices, recreational facilities, parks or stormwater retention/detention facilities, shall be considered through the variance process (KMC 18.55.170) if adjustments to buffers or building setbacks are required, or as a reasonable use exception if direct impacts to the critical area are proposed (KMC 18.55.180).

BC. Exception Request and Review Process. An application for a public agency and/or utility exception shall be made to the city and shall include a critical areas report, including mitigation plan, if necessary, and any other related project documents, such as permit applications to other agencies, special studies, and environmental documents prepared pursuant to the State Environmental Policy Act (SEPA).

CD. City Manager Review. The city manager shall review the application as a Type 2 land use decision under KMC 19.25.020. The city manager shall approve, approve with conditions, or deny the request based on the proposal's demonstrated ability to comply with all of the public agency and utility exception criteria in subsection DE of this section.

DE. Public Agency and Utility Exception Review Criteria. The criteria for review and approval of a public agency and/or utility exceptions are as follows:

1. There is no other feasible location for the proposed *development* with less adverse impact on the *critical area or buffer*;
2. There is no other *practical alternative* to the proposed *development* with less impact on the *critical areas or buffer*. "*Practical alternatives*" include but are not limited to:
 - a. Location outside of the *critical area* and its *buffer*;
 - b. Pursuit and exhaustion of other administrative code modifications or exceptions including but not limited to: front yard *setback* modifications at KMC 18.30.190; modifications of minimum parking standards in KMC 18.40; and allowances for nonconforming uses in KMC 18.100;
3. The application of this chapter would unreasonably restrict the ability to provide *public agency or utility* services to the public;
4. The proposal does not pose an unreasonable threat to the public health, safety, or welfare;
5. The *development proposal* protects and mitigates impacts to the *critical area functions and values* consistent with *best available science*;
6. The *development proposal* achieves no net loss of *critical area functions and values*;
7. Mitigation sequencing through KMC 18.55.210 has been demonstrated in the *critical areas* report, along with a demonstration of the how the *public agency or utility* will provide *mitigation* using a *watershed* approach;
8. Development activities involve the least intrusion into and disruption of the *critical area* necessary while fulfilling a public purpose and need;
9. The proposal is consistent with a *public agency or utility* system plan, capital facilities plan, *master plan*, program, or policy that has been the subject of a public review process; and
10. The proposal is consistent with the general purpose and intent of the *City's* comprehensive plan and adopted development regulations.

F. Approval conditions. Conditions for approval of a *public agency or utility* exception shall include, at a minimum:

1. Conformance with the development standards and *mitigation* plans identified in the approved *critical areas* report; and
2. Appropriate best management practices, as described in this chapter and in other science-based documents, including but not limited to the Washington State Department of Commerce Critical Areas

Guidebook, as amended, sources of science by State agencies with expertise, and standard conditions of approval published by federal agencies.

18.55.170 Variances – Buffer widths and building setbacks.

A. *Variances* from the *buffer* width and building *setback* standards of this chapter may be authorized by the *City* in accordance with the procedures set forth in the *City's* zoning code, unless the project is located on lands regulated under the Kenmore shoreline master program. Projects on lands regulated under the Kenmore shoreline master program are regulated under the procedures of Chapter 16.75 KMC.

B. No *variance* is allowed in order to create additional *lots*.

C. The *City* may grant a *variance*; provided, that the *applicant* demonstrates that all of the following criteria are met:

1. Special circumstances

a. Private development proposals: There are special circumstances applicable to the subject property or to the intended *use* such as shape, topography, location or surroundings that do not apply generally to other properties and which support the granting of a *variance* from the buffer width or building setback requirements;

b. New public agency development proposals: There is no other *practical alternative* that allows the *public agency* to meet its public service obligations pursuant to applicable laws, rules, or adopted plans. "*Practical alternatives*" include but are not limited to:

i. Location out of the *critical area buffer*;

ii. Pursuit and exhaustion of other code modifications or exceptions; and

2. Necessary for rights or use:

a. Private development proposals: Such *variance* is necessary for the preservation and enjoyment of a substantial property right or use possessed by other similarly situated property but which because of special circumstances is denied to the property in question;

b. New public agency development proposals: Such *variance* is necessary for a *public agency* proposal to fulfil a duty to serve per federal, state, or local laws; or to provide an essential public facility; or to address a public need or demand for service consistent with an adopted capital

facilities plan, system plan, or other *master plan* that has been subject to a public review process which commonly includes an evaluation of alternative sites; and

3. The granting of such buffer width *or building setback variance* will not be materially detrimental to the public welfare or injurious to the property or improvement; and
4. The granting of the buffer width *or building setback variance* will not significantly impact the subject *critical area*; and
5. The decision to grant the *variance* includes the *best available science* and gives special consideration to conservation or protection measures necessary to preserve or enhance *anadromous fish habitat*; and
6. The granting of the *variance* is consistent with the general purpose and intent of the *City's* comprehensive plan and adopted development regulations.

D. Conditions May Be Required. In granting any *variance*, the *City* may prescribe such conditions and safeguards as are necessary to secure adequate protection of *critical areas* from adverse impacts, and to ensure conformity with this chapter.

E. *City Manager* Review. The *city manager* shall review the application. The *city manager* shall approve, approve with conditions, or deny the request based on the proposal's ability to comply with all of the *variance* criteria in this section.

F. Time Limit.

1. Establishment of any development activity authorized pursuant to a *variance* shall occur within four years of the effective date of the decision for such *variance*. This period may be extended for one additional year by the *city manager* if the *applicant* has submitted the applications necessary to authorize the development activity and has provided written justification for the extension.
2. For the purpose of this subsection, "establishment" shall occur upon the issuance of all local permit(s) needed to begin the development activity; provided, that the improvements authorized by such permits are completed within the timeframes of said permits.

G. Burden of Proof. The burden of proof shall be on the *applicant* to bring forth evidence in support of the application and upon which any decision has to be made on the application.

18.55.180 Exception – Reasonable use.

A. If the application of this chapter pertaining to *critical areas* will prevent the *applicant* from making any *reasonable use* of the subject property, the *applicant* may apply for an exception pursuant to this section unless the project is located on lands regulated under the Kenmore shoreline master program. Projects on lands regulated under the Kenmore shoreline master program are regulated under the procedures of Chapter 16.75 KMC. An application for a reasonable use exception must accompany a *development permit* application through the City's review and decision process.

1. Criteria for Granting. The *city manager* shall grant a *reasonable use* allowance only when all of the following criteria are met:

a. Reasonable Use

i. Private proposals: The *applicant* demonstrates that the application of this chapter will deny all *reasonable use* of the subject property otherwise allowed by applicable law;

ii. New public agency development proposals: The *applicant* demonstrates that the application of this chapter would interfere with a *public agency* proposal to fulfill a duty to serve per federal, state, or local laws; or to provide an essential public facility; or to address a public need or demand for service consistent with an adopted capital facilities plan, system plan, or other *master plan* that has been subject to an alternative *site* evaluation and public review process;

b. The development activities involve the least intrusion into and disruption of the *critical area* necessary to allow a *reasonable use* of the subject property by a private applicant or to achieve a public agency responsibility consistent with adopted laws, rules, and plans per criterion "a";

c. The development activities will not cause or result in damage to properties other than the subject property and will not endanger the public health, safety or welfare;

d. The *applicant's* inability to make *reasonable use* of the subject property has not resulted from any of the following:

(1) Prior subdivision or segregation of the subject property, or changes to the boundaries of the subject property through a boundary line adjustment or otherwise; or

(2) Prior actions taken in violation of this chapter or any local, State, or federal law or regulation;

e. No other *reasonable use* of the property has less impact on the *critical area*;

f. The inability of the *applicant* to derive *reasonable use* of the property is not the result of actions by the *applicant* after the effective date of the ordinance codified in this chapter, or its predecessor; and

g. *Mitigation* proposed by the *applicant* is sufficient to protect the *functions and values* of the *critical area* and public health, safety, and welfare concerns consistent with the goals, purposes, objectives, and requirements of this chapter.

2. Appeals. The *applicant* may appeal a decision of the *city manager* on a *reasonable use* allowance application to the *hearing examiner* pursuant to the provisions of the Kenmore Municipal Code.

B. Exception Request and Review Process. An application for a *reasonable use* exception shall be made to the *City* and shall include a *critical areas* report, including *mitigation* plan, if necessary; and any other related project documents, such as permit applications to other agencies, special studies, and environmental documents prepared pursuant to the State Environmental Policy Act (Chapter 19.35 KMC).

C. *City Manager* Review. The *city manager* shall review the application. The *city manager* shall approve, approve with conditions, or deny the request based on the proposal's ability to comply with all of the criteria in subsection A of this section.

D. Burden of Proof. The burden of proof shall be on the *applicant* to bring forth evidence in support of the application and to provide sufficient information on which any decision has to be made on the application.

E. Time Limit.

1. Establishment of any development activity authorized pursuant to a *reasonable use* exception shall occur within four years of the effective date of the decision for such *reasonable use* exception. This period may be extended for one additional year by the *city manager* if the *applicant* has submitted the applications necessary to authorize the development activity and has provided written justification for the extension.

2. For the purpose of this subsection, "establishment" shall occur upon the issuance of all local permit(s) needed to begin the development activity; provided, that the improvements authorized by such permits are completed within the timeframes of said permits.

Article IV. Critical Areas Report

18.55.190 Critical areas reports – Requirements.

A. Prepared by *Qualified Professional*. The *applicant* shall submit a *critical areas* report prepared by a *qualified professional* as defined herein.

B. Incorporating *Best Available Science*. The *critical areas* report shall use scientifically valid methods and studies in the analysis of *critical area* data and field reconnaissance and reference the source of science used. The *critical areas* report shall evaluate the proposal and all probable impacts to *critical areas* in accordance with the provisions of this chapter.

C. *Critical Areas* Report Contents. Requirements for *critical areas* reports are available from the *city manager*. In addition, the *applicant* shall provide any additional known information pertaining to the *critical area(s)* on the subject property and adjacent properties.

18.55.200 Mitigation requirements.

A. The *applicant* shall avoid all impacts that degrade the *functions and values* of *critical areas* **unless there is no practicable alternative**. Unless otherwise provided in this chapter, if *alteration* to the *critical area* is unavoidable, all adverse impacts to or from *critical areas* and *buffers* resulting from a *development proposal* or *alteration* shall be mitigated in accordance with an approved *critical areas* report and SEPA documents.

B. *Mitigation* shall be *in-kind* and on-site, when possible, and sufficient to maintain the *functions and values* of the *critical area*, or to prevent risk from a hazard posed by a *critical area*.

18.55.210 Mitigation sequencing.

Applicants shall demonstrate that all reasonable efforts have been **examined made to identify and evaluate practicable alternatives** with the intent to avoid and minimize impacts to *critical areas* **while still achieving the overall project purposes**. When an *alteration* to a *critical area* is proposed, such *alteration* shall be 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 preservation and maintenance operations during the life of the action;

- E. Compensating for the impact by replacing or providing substitute resources or environments; and/or
- F. Monitoring the impact and the compensation projects and taking appropriate corrective measures.

Mitigation for individual actions may include a combination of the above measures.

18.55.220 Mitigation plan requirements.

When *mitigation* is required, the *applicant* shall submit for approval by the *City* a *mitigation* plan as part of the *critical areas* report. *Mitigation* plan requirements are available from the *city manager*.

Within 30 days of installation of the approved *mitigation*, the *applicant* shall submit an affidavit **or as-built drawing** signed by the *qualified professional* described in KMC [18.55.190](#) certifying that the *mitigation* has been installed consistent with the approved plan, unless the installed *mitigation* has been inspected and accepted by the *department*.

Article V. Unauthorized Alterations and Enforcement

18.55.230 Unauthorized critical area alterations and enforcement.

A. When a *critical area* or its *buffer* has been altered in violation of this chapter, all ongoing *development* work shall stop and the *critical area* shall be restored. The *City* shall have the authority to issue a stop work order to cease all ongoing *development* work, and order *restoration*, rehabilitation or replacement measures at the owner's or other responsible party's expense to compensate for violation of provisions of this chapter.

B. *Restoration Plan Required*. All *development* work shall remain stopped and the *site* stabilized until a *restoration* plan is prepared and approved by the *City*. Such a plan shall be prepared by a *qualified professional* and shall describe how the actions proposed meet the minimum requirements described in subsection C of this section. The *city manager* shall, at the violator's expense, seek expert advice in determining the adequacy of the plan. Inadequate plans shall be returned to the *applicant* or violator for revision and resubmittal.

C. *Minimum Performance Standards for Restoration*. For *alterations* to *wetlands*, *streams* **and lakes**, **geologically hazardous areas**, **and** fish and wildlife habitats **areas** of importance, **and flood hazard areas**, the following minimum performance standards shall be met for the *restoration* of a *critical area*; provided, that if the violator can demonstrate that greater functional and habitat values can be obtained, these standards may be modified:

1. The historic structural and functional values shall be restored, including water quality and habitat functions;

2. The historic soil types and configuration shall be replicated;
3. The *critical area* and *buffers* shall be replanted with *native vegetation* that replicates the *vegetation* historically found on the *site* in species types, sizes, and densities; and
4. The historic *functions and values* should be replicated at the location of the *alteration*.

D. *Site Investigations*. The *city manager* is authorized to make *site* inspections and take such actions as are necessary to enforce this chapter. The inspector shall present proper credentials and make a reasonable effort to contact any property owner before entering onto *private* property.

E. *Monitoring*. *Monitoring* shall be required for five years unless otherwise determined by the *city manager*. A performance and/or maintenance bond of 125 percent of the estimated cost of restoring the *functions and values* of the *critical area* shall be posted to assure that all work or actions are satisfactorily completed **or and** maintained in accordance with the approved plans, specifications, permit or approval requirements, and applicable regulations, and to **assure** that all work or actions will be completed.

Article VI. General Critical Area Protective Measures

18.55.250 Notice on title.

A. In order to inform subsequent purchasers of real property of the existence of *critical areas*, the owner of any property containing a *critical area* or *buffer* on which a *development proposal* is submitted shall file a notice with the county records and elections division according to the direction of the *City*. The notice shall state the presence of the *critical area* or *buffer* on the property, of the application of this chapter to the property, and the fact that limitations on actions in or affecting the *critical area* or *buffer* may exist. The notice shall run with the land.

B. This notice on title shall not be required for a *development proposal* by a *public agency* or **public or private utility**:

1. Within a recorded easement or right-of-way;
2. Where the agency or *utility* has been adjudicated the right to an easement or right-of-way; or
3. On the *site* of a permanent public facility.

C. The *applicant* shall submit proof that the notice has been filed for public record before the *City* approves any *development proposal* for the property or, in the case of subdivisions, short subdivisions, and binding site plans, at or before recording.

18.55.260 Critical area tracts.

A. *Critical area tracts* shall be used in *development proposals* for subdivisions, short subdivisions, site plan reviews, commercial and multifamily building permits, and binding site plans to delineate and protect those contiguous *critical areas* and *buffers* listed below:

1. All *wetlands* and *their buffers*;
2. All *streams, lakes* and *their buffers*;
3. All fish and wildlife habitats *areas* of importance;
4. *Geologically hazardous areas* and *buffers*, if applicable; and
5. All other lands to be protected from *alterations* as conditioned by project approval.

B. *Critical area tracts* shall be recorded on all documents of title of record for all affected *lots*.

C. *Critical area tracts* shall be designated on the face of the plat, short plat or recorded drawing in a format approved by the *City*. The designation shall include the following restriction:

1. An assurance that *native vegetation* will be preserved for the purpose of preventing harm to property and the environment, including, but not limited to, controlling surface water runoff and *erosion*, maintaining slope stability, buffering, and protecting plants, fish, and animal habitat; and
2. The right of the *City* to enforce the terms of the restriction.

D. The *City* shall determine at the *City's* discretion that any required *critical area tract* be dedicated to the *City*, held in an undivided interest by each owner of a building *lot* within the *development* with the ownership interest passing with the ownership of the *lot*, or held by an incorporated homeowner's association or other legal entity (such as a land trust), which assures the ownership, maintenance, and protection of the tract).

18.55.270 Building setbacks.

Unless otherwise provided *in this Chapter or in Title 16 KMC (Shoreline Management)*, *buildings* and other *structures* shall be set back a distance of 15 feet from the edges of all *critical area buffers* or from the edges of all *critical areas*, if no *buffers* are required. *Structures* that may extend into or be located in the required *setback* are listed in KMC [18.30.230](#).

18.55.280 Bonds to ensure mitigation, maintenance, and monitoring.

A. When *mitigation* required pursuant to a *development proposal* is not completed prior to the *City* final permit approval, such as final plat approval or final building inspection, the *City* shall require the *applicant* to post a performance bond or other security in a form and amount deemed acceptable by the *City*. If the *development proposal* is subject to *mitigation*, the *applicant* shall post a *mitigation* bond or other security in a form and amount deemed acceptable by the *City* to ensure *mitigation* is fully functional.

B. The performance bond shall be in the amount of 125 percent of the estimated cost of the installed *mitigation* project (including *monitoring*) or the estimated cost of restoring the *functions and values* of the *critical area* that are at risk, whichever is greater.

C. The bond shall be in the form of a surety bond, performance bond, assignment of savings account, or an irrevocable letter of credit guaranteed by an acceptable financial institution with terms and conditions acceptable to the *city* attorney.

D. Bonds or other security authorized by this section shall remain in effect until the *City* determines, in writing, that the standards bonded for have been met. Bonds or other security shall be held by the *City* for a minimum of five years to ensure that the required *mitigation* has been fully implemented and demonstrated to function, and may be held for longer periods when necessary.

E. Depletion, failure, or collection of bond funds shall not discharge the obligation of an *applicant* or violator to complete required *mitigation*, maintenance, *monitoring*, or *restoration*.

F. Public *development proposals* shall be relieved from having to comply with the bonding requirements of this section if public funds have previously been committed for *mitigation*, maintenance, *monitoring*, or *restoration*.

G. Any failure to satisfy *critical area* requirements established by law or condition including, but not limited to, the failure to provide a *monitoring* report within 30 days after it is due or comply with other provisions of an approved *mitigation* plan shall constitute a default, and the *City* may demand payment of any *financial guarantees* or require other action authorized by the *City* code or any other law.

H. Any funds recovered pursuant to this section shall be used to complete the required *mitigation*.

18.55.290 Critical area inspections.

Reasonable access to the *site* shall be provided to the *City*, State, and federal agency review staff for the purpose of inspections of the *critical area* during any proposal review, *restoration*, *emergency* action, or *monitoring* period.

Article VII. Wetlands – Designation and Rating

18.55.300 Designation and rating of wetlands.

A. Designating *Wetlands*. All areas within the *City* meeting the *wetland* designation criteria in the *Washington State Identification and Delineation Manual (1997)*, regardless of any formal identification, are hereby designated *critical areas* and are subject to the provisions of this chapter. *Identification of wetlands and delineation of their boundaries shall be done in accordance with the Corps of Engineers wetlands delineation manual (Corps, 1987) and applicable regional supplement (Corps, 2010), as revised or as may be revised in WAC 173-22-035 and 173-22-080.*

B. *Wetland Ratings*. *Wetlands, as defined by this chapter, shall be rated using criteria outlined below: classified and scored using the 2014 Department of Ecology Washington State Wetland Rating System for Western Washington, Publication #14-06-029 (Hruby, 2014 or latest edition), which contains the definitions and methods for determining whether the criteria below are met.*

1. *Wetlands Classification*. *Wetlands, as defined by this chapter, shall be designated Class 1, Class 2, and Class 3 according to the criteria below.*

a. *Class 1 wetlands are those wetlands that meet any of the following criteria:*

- (1) Documented habitat for federal or State listed endangered or threatened fish, animal, or plant species; or*
- (2) Wetlands listed as high quality habitats in the Natural Heritage Information System; or*
- (3) Wetlands with irreplaceable ecological functions, including sphagnum bogs and fens or natural forested swamps; or*
- (4) Wetlands of exceptional local significance, specifically those wetlands proximal to and influenced by the main stem of Swamp Creek, the Sammamish River, or Lake Washington.*

b. *Class 2 wetlands are those wetlands which are not Class 1 wetlands and meet any of the following criteria:*

- (1) Wetlands that have significant functions that may not be adequately replicated through creation or restoration; or*
- (2) Wetlands associated with Type 2 or 3 streams; or*
- (3) Wetlands greater than one acre in size; or*

(4) *Wetlands* equal to or less than one acre having three or more classes of *wetland vegetation* (as defined in *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al., 1979)); or

(5) *Wetlands* containing a *forested wetland* class.

e. Class 3 *wetlands* are those *wetlands* not rated as Class 1 or 2 *wetlands*, but greater than 1,000 square feet in size.

1. Category I. Category I *wetlands* are:

a. *Wetlands* of high conservation value that are identified by scientists of the Washington Natural Heritage Program/DNR;

b. Bogs;

c. Mature and old-growth *forested wetlands* larger than 1 acre; or

d. *Wetlands* that perform many functions well (scoring 23 points or more).

These *wetlands*: (1) represent unique or rare *wetland* types, (2) are more sensitive to disturbance than most *wetlands*, (3) are relatively undisturbed and contain ecological attributes that are impossible to replace within a human lifetime, or (4) provide a high level of functions.

2. Category II. Category II *wetlands* are *wetlands* larger than 1 acre or those found in a mosaic of *wetlands*, or *wetlands* with a moderately high level of functions (scoring between 20 and 22 points).

3. Category III. Category III *wetlands* have a moderate level of functions (scoring between 16 and 19 points) and can often be adequately replaced with a well-planned *mitigation* project. *Wetlands* scoring between 16 and 19 points generally have been disturbed in some ways and are often less diverse or more isolated from other natural resources in the landscape than Category II *wetlands*.

4. Category IV. Category IV *wetlands* have the lowest levels of functions (scoring fewer than 16 points) and are often heavily disturbed. These are *wetlands* that can often be adequately replaced with a well-planned *mitigation* project, or in some cases improved. However, experience has shown that replacement cannot be guaranteed in any specific case. These *wetlands* may provide some important functions, and should be protected to some degree.

C. *Buffer Areas*.

1. The establishment of *buffer* areas shall be required for all development proposals and activities in or adjacent to *wetland* areas. The purpose of the *buffer* shall be to protect the integrity, function, and value of the *critical area*, and/or to protect life, property and resources from risks associated with development on unstable or critical lands.

2. *Buffers* shall be protected during construction by placement of a temporary barricade, on-site notice for construction crews of the presence of the *critical area*, and implementation of appropriate erosion and sedimentation controls.

3. Native vegetation removal or disturbance is not allowed in established *buffers*, unless the removal or disturbance is part of a *restoration* activity or is allowed by other provisions of this chapter. In all cases, the removal or disturbance should be appropriately mitigated consistent with KMC 18.55.200 and 18.55.210.

2. Required buffer widths (KMC 18.55.320(F)) shall reflect the sensitivity of the particular critical area and resource or the risks associated with development and, in those circumstances permitted by these regulations, the type and intensity of human activity and site design proposed to be conducted on or near the critical area.

F. Wetland Buffers.

14. *Wetland buffers* shall be established as follows:

Wetland Type	Buffer Width (Feet) Based on Habitat Score (points)		
	3-5	6-7	8-9
Class 1 Category I	75	150	225
Class 2 Category II	75	100	225
Class 3 Category III	60	60	225
Category IV	40	40	40

5. To minimize the impacts of adjacent land uses, *development proposals* and activities proposed in or adjacent to *wetland* areas must implement the following measures if applicable:

Disturbance	Required Measures to Minimize Impacts
<u>Lights</u>	<ul style="list-style-type: none"> • <u>Direct lights away from wetland</u>
<u>Noise</u>	<ul style="list-style-type: none"> • <u>Locate activity that generates noise away from wetland</u> • <u>If warranted, enhance existing buffer with native vegetation plantings adjacent to noise source</u> • <u>For activities that generate relatively continuous, potentially disruptive noise, such as certain heavy industry or mining, establish an additional 10' heavily vegetated buffer strip immediately adjacent to the outer wetland buffer</u>
<u>Toxic runoff</u>	<ul style="list-style-type: none"> • <u>Route all new, untreated runoff away from wetland while ensuring wetland is not dewatered</u> • <u>Establish covenants limiting use of pesticides within 150 ft of wetland</u> • <u>Apply integrated pest management</u>
<u>Stormwater runoff</u>	<ul style="list-style-type: none"> • <u>Retrofit stormwater detention and treatment for roads and existing adjacent development</u> • <u>Prevent channelized flow from lawns that directly enters the buffer</u> • <u>Use low impact development techniques</u>
<u>Change in water regime</u>	<ul style="list-style-type: none"> • <u>Infiltrate or treat, detain, and disperse into buffer new runoff from impervious surfaces and new lawns</u>
<u>Pets and human disturbance</u>	<ul style="list-style-type: none"> • <u>Use privacy fencing OR plant dense vegetation to delineate buffer edge and to discourage disturbance using vegetation appropriate for the ecoregion</u> • <u>Place wetland and its buffer in a separate tract or protect with a conservation easement</u>
<u>Dust</u>	<ul style="list-style-type: none"> • <u>Use best management practices to control dust</u>

6. For wetlands that score 6 points or more for habitat function, a relatively undisturbed, vegetated corridor at least 100 feet wide shall be protected when feasible between the wetland and any other priority habitats as defined by the Washington State Department of Fish and Wildlife. Presence or absence of a nearby priority habitat must be confirmed by a qualified professional and documented in a critical areas report. The corridor must be protected for the entire distance between the wetland and the priority habitat by some type of legal protection such as a conservation easement or critical area tract.

27. Measurement of Wetland Buffers. Wetland buffers shall be measured from the wetland edge as delineated and marked in the field using the methodology specified in KMC 18.55.300.A, 1987 U.S. Army Corps of Engineers Wetland Delineation Manual and current regional supplements or as may be revised in WAC 173-22-035 and 173-22-080 or the most recent approved federal manual and regional supplements.

38. Increased Wetland Buffer Widths. The city manager shall require increased buffer widths in accordance with the recommendations of a qualified professional biologist and the best available science on a case-by-case basis when a larger buffer is necessary to protect wetland functions and

values based on *site*-specific characteristics. This determination shall be based on one or more of the following criteria:

- a. A larger *buffer* is needed to protect other *critical areas* or their functions;
- b. The *buffer* has a slope greater than 30 percent or is susceptible to *erosion* and standard *erosion*-control measures will not prevent adverse impacts to the *wetland*. In such cases, the *buffer* shall be increased to include the slope or the standard *buffer* shall be drawn from the top of the slope, whichever provides greater protection; or

c. A *degraded wetland buffer* is present. In this case, the standard *buffer* on the entire *site* shall be increased by 33 percent unless new net *impervious surface* between the upland edge of the standard *buffer* and the upland edge of the potentially increased *buffer* equals or is less than 500 square feet or a *buffer* revegetation plan is provided meeting all of the following criteria:

(1) The *buffer* revegetation plan shall be prepared by a *qualified professional* and the *applicant* shall fund a review of the plan by the *City's* wetland consultant. Enhancements shall include revegetation with native species appropriate for the *site*, and may also include installation of special habitat features, such as snags, downed wood, bat boxes, or other wildlife habitats. The *buffer* revegetation plan shall meet the requirements for a mitigation plan as described in KMC Section 18.55.220, including five years of maintenance and monitoring consistent with KMC Section 18.55.280.

(2) The *degraded wetland buffer* shall be enhanced at a 1:1 ratio relative to the total net new *impervious surface* located between the upland edge of the standard *buffer* and the upland edge of the potentially increased *buffer*, up to the total on-site square footage of *degraded wetland buffer* outside of any legal *nonconformances*. When the available *degraded wetland buffer* area is exceeded by the new net *impervious surface* area, the remaining required area of revegetation shall be implemented in *degraded wetland*, if present on the *site*.

(3) If the total new net *impervious surface* area between the upland edge of the standard *buffer* and the upland edge of the potentially increased *buffer* exceeds the area of *degraded wetland buffer* outside of any legal *nonconformances* and *degraded wetland*, the *applicant* should consider opportunities to convert areas of legal *nonconformances* to enhanced *buffer*.

ED. Limited Exemptions. Class 3 wetlands less than 1,000 square feet may be exempted from the provisions of KMC 18.55.300 to 18.55.330 and may be altered by filling or dredging if the City determines that the cumulative impacts do not unduly counteract the purposes of this chapter and are mitigated pursuant to an approved mitigation plan.

1. All isolated Category IV *wetlands* meeting certain criteria that are less than 4,000 square feet may be exempt from the requirement to avoid *wetland* and *buffer* impacts (KMC 18.55.210.A), and they may be altered or filled if the impacts are fully mitigated based on the remaining actions in Chapter 18.55.210.B through F. If available, impacts should be mitigated through the purchase of credits from an in-lieu fee program or *mitigation bank*, consistent with the terms and conditions of the program or bank. A *critical area* report for *wetlands* meeting the requirements in KMC 18.55.310 must be submitted that demonstrates that the *wetland* is eligible for this exemption by confirming that the following criteria are met:

a. The *wetland* is not associated with *riparian* areas or their *buffers*;

b. The *wetland* is not associated with shorelines of the state or their associated *buffers*;

c. The *wetland* is not part of a *wetland* mosaic;

d. The *wetland* does not score 6 or more points for habitat function based on the 2014 update to the *Washington State Wetland Rating System for Western Washington: 2014 Update* (Ecology Publication #14-06-029, or as revised and approved by Ecology); and

e. The *wetland* does not contain a fish and wildlife habitat of importance as identified in 18.55.500.

2. All isolated Category IV *wetlands* meeting certain criteria that are less than 1,000 square feet may be exempt from the *buffer* provisions contained in this Chapter. A *critical area* report for *wetlands* meeting the requirements in KMC 18.55.310 must be submitted that demonstrates that the *wetland* is eligible for this exemption by confirming that the following criteria are met:

a. Criteria 1.a through 1.e of this subsection, and

b. The *wetland* does not contain federally listed species or their critical habitat.

7. *Building Setback.* A building *setback* from the *buffer* edge is required per KMC 18.55.270.

Article VIII. Wetlands – Additional Report Requirements

18.55.310 Critical areas report.

Requirements for *critical areas* reports for *wetlands* are available from the *city manager*.

Article IX. Wetlands – ~~Performance Standards~~ Allowed Uses and Alterations

18.55.320 ~~Performance standards – General requirements~~ Allowed Uses.

BA. Activities and *uses* shall be prohibited from *wetlands* and *wetland buffers*, except as provided for in this chapter.

AB. ~~Unless otherwise allowed by this chapter, a~~ Activities may only be permitted in a *wetland* or *wetland buffer* ~~after demonstration of mitigation sequencing, and~~ if the *applicant* can show that the proposed activity will not degrade the *functions and values* of the *wetland* and other *critical areas* and no other feasible site design exists that results in less encroachment or impact to the *wetland* or *wetland buffer*.

C. ~~Class 1~~ **Category I and II** *Wetlands*. Activities and *uses* shall be prohibited from ~~Class 1~~ **Category I and II** *wetlands*, except as provided for in the ~~exemptions, public agency and utility exception, or reasonable use exception~~ sections of this chapter, ~~or in subsection E of this section.~~

D. ~~Class 2 and 3~~ **Category III and IV** *Wetlands*. Activities may be permitted, if the *city manager* determines, based upon review of special studies completed by *qualified professionals*, that the activity meets avoidance and minimization requirements outlined in KMC [18.55.210](#) and will not:

1. Adversely affect water quality;
2. Adversely affect fish, wildlife, or their habitat;
3. Have an adverse effect on drainage and/or stormwater detention capabilities;
4. Lead to unstable earth conditions or create an *erosion* hazard or contribute to scouring actions;
5. Be materially detrimental to any other property or the *City* as a whole; or
6. Have adverse effects on any other *critical areas*.

6E. **Wetland and Buffer Uses.** The following *uses* may be permitted within a ~~wetland and~~ *wetland buffer* in accordance with the review procedures of this chapter, provided they are not prohibited by any other applicable law and they are conducted in a manner so as to minimize impacts to the *buffer* and adjacent *wetland*:

a1. Conservation and *Restoration* Activities. Conservation or *restoration* activities aimed at protecting or restoring the soil, water, *vegetation*, or wildlife;

b2. Passive Recreation. Passive recreation facilities designed in accordance with an approved *critical areas* report, including:

(1)a. Private wWalkways and *trails*; provided, that those pathways that are generally parallel to the perimeter of the *wetland* shall be located in the outer 25 percent of the *buffer area*. Walkway and trail surfaces in buffers shall be made of pervious materials and shall be a maximum of 5 feet wide. Where private walkways and trails must cross a wetland to reach a permitted water access structure, such as a dock, or a pedestrian bridge over an associated waterbody, the walkway or trail must be a raised boardwalk supported by piles that allow free movement of water beneath the structure;

b. Public walkways and trails; provided, that those pathways are located and designed based on existing site-specific conditions to minimize native vegetation removal, and are part of an approved public park or trail plan. The trail proposal shall be accompanied by a plan demonstrating that the existing ecological functions of the wetland or required buffer area on a project site would be improved. Trails may extend in or across a wetland if necessary to access viewing platforms or other viewpoints, access pedestrian bridges over an associated waterbody, or provide some other public purpose. Walkway and trail surfaces in buffers shall be made of pervious materials except that public multipurpose trails may be of impervious materials if they meet all other requirements, including water quality. Trail segments in wetlands must be a raised boardwalk supported by piles that allow free movement of water beneath the structure, but should be limited to protect ecological functions of the buffer and wetland.

Walkway and trail surfaces shall be made of pervious materials except that public multipurpose trails may be of impervious materials if they meet all other requirements, including water quality;

c. Walkways and trails proposed in wetlands and buffers by private parties as part of subdivisions, multifamily development, or commercial or institutional uses may be allowed subject to subsection E.2.b, if they will be accessible to the general public, identified with visible signage, and are recorded on title. Providing connectivity to existing City or regional trail systems or completing or contributing to a trail linkage identified in the City's Parks, Recreation and Open Space Plan or Walkways & Waterways Plan is encouraged.

d. Wildlife viewing structures; and

e. Fishing access areas; and

f. Interpretive and other signs, benches, railings, and similar accessories to passive recreation that do not require significant ground disturbance, *vegetation* clearing, or concrete foundations.

C3. Stormwater Management Facilities. Stormwater dispersion outfalls and bioswales Grass-lined swales and dispersal trenches may be located in the outer 25 percent of the *buffer* area of Category III and IV Class 2 and 3 wetlands only. All other surface water management facilities are not allowed within the *buffer* area.

18.55.325 Buffer Width Alterations.

5A. *Buffer* Conditions Shall Be Maintained. Except as otherwise specified or allowed in accordance with this chapter, *wetland buffers* shall be retained in an undisturbed condition.

4B. Averaged or Reduced *Buffer* Widths. *Buffer* widths may be averaged or reduced if an *applicant* receives approval as provided in this section. An *applicant* may request either (1) *buffer* averaging, or (2) *buffer* reduction with *enhancement*. A combination of these two *buffer* modification approaches shall not be used.

A. *Wetland Buffer Width Averaging*. The *city manager* may allow averaging of the *wetland buffer* width in accordance with an approved *critical areas* report and the *best available science* on a case-by-case basis. Averaging of *buffer* widths may only be allowed where a *qualified professional biologist* demonstrates that:

{1}. Additional protection to the *wetland* will be provided through implementation of a *buffer enhancement* plan;

{2}. It will not reduce *wetland functions* or values;

{3}. The *wetland* contains variations in sensitivity due to existing physical characteristics or the character of the *buffer* varies in slope, soils, or *vegetation*, and the *wetland* would benefit from a wider *buffer* in places and would not be adversely impacted by a narrower *buffer* in other places;

{4}. The total area contained in the *buffer* after averaging is no less than that which would be contained within the standard *buffer*; and

(5) For Class 1 and 2 wetlands, the buffer width shall not be reduced by more than 2025 percent in any one place. For Class 3 wetlands, the buffer width shall not be reduced to less than 50 feet in any one place.

B. Buffer Reduction with Enhancement. Standard buffer widths for degraded wetland buffers may be reduced through a combination of buffer enhancement and low impact development strategies. The applicant shall demonstrate that through enhancing the buffer and use of low impact development strategies the reduced buffer will function at a higher level than the standard buffer. Buffers may be reduced in the following manner according to wetland type:

Wetland Category	Maximum Buffer Reduction	Minimum Buffer Width (Feet)
1	25 percent	112.5 feet
2	25 percent	75 feet
3	25 percent	45 feet

C. Decisional Criteria. Prior to approval of a reduced buffer, a critical areas application shall meet all of the decisional criteria listed below. A reduced buffer will be approved in a degraded wetland buffer only if:

- (1) It will provide an overall improvement in water quality;
- (2) It will provide an overall enhancement to fish, wildlife, or their habitat;
- (3) It will provide a net improvement in drainage and/or stormwater detention capabilities;
- (4) It will not lead to unstable earth conditions or create an erosion hazard;
- (5) It will not be materially detrimental to any other property or the City as a whole; and
- (6) All exposed areas are stabilized with native vegetation, as appropriate.

D. Buffer Enhancement Plan. As part of the buffer reduction request, the applicant shall submit a buffer enhancement plan prepared by a qualified professional and fund a review of the plan by

the City's wetland consultant. The plan shall assess the habitat, water quality, stormwater detention, ground water recharge, shoreline protection, and erosion protection functions of the buffer; assess the effects of the proposed modification on those functions; and address the six criteria listed in subsection (F)(4)(c) of this section.

C. The City may approve a modification of the minimum required buffer in cases where an improved right-of-way, associated with a legally established roadway, transects the buffer. The buffer may be reduced to match the edge of the right-of-way closest to the wetland if the portion of the buffer on the other side of the roadway meets the following criteria:

1. Does not provide additional protection to the proposed development from flooding or other hazard, or to the wetland; and
2. Provides insignificant biological, geological or hydrological buffer functions relating to the other portion of the buffer adjacent to the wetland.

Improved rights-of-way are those that are maintained out of necessity as a cleared, graded, paved, mowed or otherwise altered surface to allow for access, maintenance, or safety.

D. The City may approve a modification of the minimum required buffer width where the proposed development or use is isolated from the critical area and its contiguous buffer by an existing legally established building, detached garage, accessory dwelling unit, commercial parking area, or retaining wall over six (6) feet in height. The modification may not be requested for such improvements as fences, sheds, patios, decks, driveways, or other similar structures and impervious surfaces.

For the buffer modification to be approved, the applicant must demonstrate conclusively in a critical area report that all of the following criteria are met.

1. The existing legal improvement between the proposed development or use and the wetland creates a substantial barrier to buffer function;
2. The isolated section of buffer does not provide additional protection of the critical area from the proposed development; and
3. The isolated section of buffer does not provide significant hydrological, water quality, and wildlife buffer functions relating to the portion of the buffer adjacent to the critical area.

7. Building Setback. A building setback from the buffer edge is required per KMC 18.55.270.

18.55.330 Performance standards – Mitigation requirements.

A. *Mitigation Shall Achieve Equivalent or Greater Ecological Functions.* *Mitigation for alterations to wetlands and buffers shall achieve equivalent or greater ecologic functions than exist in the impacted wetland and buffer. Mitigation plans shall be generally consistent with the Department of Ecology Guidelines found in Wetland Mitigation in Washington State – Part 2, Version 1, March 2006, Publication No. 06-060-011b.*

B. *Mitigation for Lost Functions and Values.* *Mitigation actions shall address functions affected by the alteration to achieve functional equivalency or improvement, and shall provide similar wetland functions as those lost except when:*

1. The lost *wetland* provides minimal functions as determined by a site-specific function assessment and the proposed *mitigation* action(s) will provide equal or greater functions or will provide functions shown to be limiting within a watershed through a formal watershed assessment plan or protocol; or
2. Out-of-kind replacement will best meet formally identified regional goals, such as replacement of historically diminished *wetland* types.

C. *Buffers for Mitigation Shall Be Consistent.* *All mitigation sites shall have When mitigation for a wetland impact includes creation of new wetland area, that new area shall be provided with a functioning buffers consistent with the buffer requirements of this chapter, unless determined by the city manager through a variance or a reasonable use exemption that a different buffer would provide adequate protection to the critical area.*

D. *Preference of Mitigation Actions.* *Mitigation sequencing outlined in KMC 18.55.210 shall be demonstrated in each development proposal. Mitigation actions that require compensation by replacing, enhancing, or substitution shall occur in the following order of preference:*

1. Restoring *wetlands* on upland sites that were formerly *wetlands*.
2. Creating *wetlands* in upland areas, considering degraded areas first.
3. Enhancing significantly *degraded wetlands*.
4. Preserving high quality *wetlands* that are under imminent threat.

E. *Type and Location of Mitigation.* *Mitigation actions shall be conducted within the same sub-drainage basin or on the same site as the alteration except when all of the following apply:*

1. There are no reasonable on-site or in-*subdrainage-basin* opportunities, or on-site and in-*subdrainage-basin* opportunities do not have a high likelihood of success due to development pressures or adjacent land *uses*, or on-site *buffers* or connectivity is inadequate;
2. Off-site *mitigation* has a greater likelihood of providing equal or improved *wetland functions* than the impacted *wetland*; and
3. Off-site locations shall be in the same *subdrainage basin* unless established regional or watershed goals for water quality, *flood* or conveyance, habitat or other *wetland functions* have been established and strongly justify location of *mitigation* at another *site*.

F. *Mitigation Timing*. Where feasible, *mitigation* or *restoration* projects shall be completed prior to activities that will disturb *wetlands*. In all other cases, *mitigation* shall be completed immediately following disturbance and prior to use or occupancy of the activity or *development*. Construction of *mitigation* projects shall be timed to reduce impacts to existing wildlife and flora.

G. *Mitigation Ratios*.

1. Acreage Replacement Ratios. The following ratios shall apply to creation or *restoration* that is *in-kind*, on-site, the same **classcategory**, timed prior to or concurrent with *alteration*, and has a high probability of success. These ratios do not apply to remedial actions resulting from unauthorized *alterations*; greater ratios shall apply on a case-by-case basis. These ratios do not apply to the use of credits from a State-certified *wetland mitigation bank*. The first number specifies the acreage of replacement *wetlands* and the second specifies the acreage of *wetlands* altered.

Class 1	3 to 1
Class 2	2 to 1
Class 3	1 to 1

~~The required acreage replacement ratios for *wetlands* within the jurisdiction of the Kenmore shoreline master program are different from these standards. See KMC 16.65.010(C) for required *wetland mitigation ratios* in the shoreline jurisdiction.~~

Standard Wetland Mitigation Ratios

Category and Type of Wetland	Creation or Reestablishment	Rehabilitation ¹	Enhancement ²
Category I (Mature Forested)	6:1	12:1	24:1
Category I	4:1	8:1	16:1
Category II	3:1	6:1	12:1
Category III	2:1	4:1	8:1
Category IV	1.5:1	3:1	6:1
Buffer	1:1	1:1	1:1

¹Rehabilitation means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural or historic functions and processes of a degraded wetland. Rehabilitation results in a gain in wetland function but does not result in a gain in wetland acres. An example would be breaching a dike to reconnect wetlands to a floodplain.

²Enhancement means the manipulation of the physical, chemical, or biological characteristics of a wetland to heighten, intensify, or improve specific function(s) or to change the growth stage or composition of the vegetation present. Enhancement is undertaken for specified purposes such as water quality improvement, flood water retention, or wildlife habitat. Enhancement results in a change in wetland function(s) and can lead to a decline in other wetland functions, but does not result in a gain in wetland acres. Examples are planting vegetation, controlling non-native or invasive species, and modifying site elevations to alter hydroperiods.

2. Increased Replacement Ratio. The city manager may increase the ratios under the following circumstances:
 - a. Uncertainty exists as to the probable success of the proposed restoration or creation; or
 - b. A significant period of time will elapse between impact and replication of wetland functions; or
 - c. Mitigation will occur off-site versus on-site; or
 - d. Proposed mitigation will result in a lower category wetland or reduced functions relative to the wetland being impacted; or
 - e. The impact was an unauthorized impact.

3. Decreased Replacement Ratio.

a. The *city manager* may decrease the replacement/creation/reestablishment ratios required for Class 1 and 2/Category II and III *wetlands* to 2:1 and 1.5:1, respectively, under the following circumstances:

(1) The *applicant's* qualified *biologist* provides documentation that increases the certainty of success of the proposed *wetland restoration* or creation. At a minimum, this documentation shall include ground water *monitoring* in the area of proposed *restoration* or creation in the early growing season over a sufficient period of time to determine that there is a high probability of creating or restoring *wetlands* in that location; or

(2) Proposed *mitigation* will result in a higher functioning *wetland* (higher class) relative to the functions of the *wetland* being impacted; or

(3) The *mitigation* is successfully installed for a period of one year prior to the *wetland* being impacted. Successful installation shall be determined by a qualified *biologist*.

b. When a decreased replacement ratio is allowed, the *mitigation* shall be monitored for a period of no less than 10 years.

4. Credit/Debit Method. As an alternative to the standard mitigation ratios, the City may allow mitigation based on the "credit/debit" method developed by the Department of Ecology and documented in *Calculating Credits and Debits for Compensatory Mitigation in Wetlands of Western Washington, Final Report, March 2012* (Hruby, 2012 or as revised).

H. *Wetlands Enhancement as Mitigation.* 1. Impacts to *wetlands* may be mitigated by *enhancement* of existing significantly *degraded wetlands*. *Applicants* proposing to enhance *wetlands* must produce a *critical areas* report that identifies how *enhancement* will increase the functions of the *degraded wetland* and how this increase will adequately mitigate for the loss of *wetland* area and function at the impact *site*. An *enhancement* proposal must also show whether existing *wetland functions* will be reduced by the *enhancement* actions.

2. At a minimum, *enhancement* acreage shall be double the acreage required for creation or restoration.

I. *Mitigation Banking.* The City may consider and approve *mitigation banking* as a form of compensatory *mitigation* for *wetland* impacts when the provisions of this chapter require *mitigation* and when it is clearly demonstrated that the use of a bank will provide equivalent or greater replacement of *critical area*

functions and values when compared to on-site *mitigation*; provided, that all of the following criteria are met:

1. Banks shall only be used when they provide significant ecological benefits including long-term conservation of *critical areas*, important *species*, habitats, and when they are consistent with the City comprehensive plan and create a viable alternative to the piecemeal *mitigation* for individual project impacts to achieve ecosystem-based conservation goals. Credits from a *wetland mitigation bank* may be approved for use as compensation for *unavoidable impacts to wetlands* when:
 - a. The bank is certified under state rules;
 - b. The *city manager* determines that the *wetland mitigation bank* provides appropriate compensation for the authorized impacts; and
 - c. The proposed use of credits is consistent with the terms and conditions of the certified bank instrument.
2. The bank shall be established in accordance with the Washington State Draft Mitigation Banking Rule (Chapter 173-700 WAC) or as revised, and (Chapter 90.84 RCW) and the federal *mitigation banking* guidelines as outlined in the Federal Register Volume 60, No. 228, November 28, 1995. These guidelines establish the procedural and technical criteria that banks must meet to obtain State and federal certification. Replacement ratios for projects using bank credits shall be consistent with replacement ratios specified in the certified bank instrument.
3. Preference shall be given to *mitigation banks* that implement *restoration* actions that have been identified formally by an adopted shoreline *restoration* plan or the Lake Washington/Cedar/Sammamish (WRIA 8) Watershed Chinook Salmon Conservation Plan. Credits from a certified *wetland mitigation bank* may be used to compensate for impacts located within the service area specified in the certified bank instrument. In some cases, the service area of the bank may include portions of more than one adjacent drainage basin for specific *wetland functions*.

J. *In Lieu Fee Programs*. To aid in the implementation of off-site *mitigation*, the City may develop an in-lieu fee (ILF) program or allow participation in an ILF program, such as King County's Mitigation Reserves Program. ILF programs shall be developed and approved through a public process and be consistent with federal rules, state policy on in-lieu fee *mitigation*, and state water quality regulations. An approved ILF program sells compensatory *mitigation* credits to permittees whose obligation to provide compensatory *mitigation* is then transferred to the in-lieu program sponsor, a governmental or non-profit

natural resource management entity. Credits from an approved in-lieu-fee program may be used when paragraphs 1-6 below apply:

1. The *city manager* determines that it would provide environmentally appropriate compensation for the proposed impacts.
2. The *mitigation* will occur on a site identified using the site selection and prioritization process in the approved ILF program instrument.
3. The proposed use of credits is consistent with the terms and conditions of the approved ILF program instrument.
4. Land acquisition and initial physical and biological improvements of the *mitigation* site must be completed within three years of the credit sale. A one-year extension to this requirement may be granted by the *city manager* if the need for additional *mitigation* because of possible temporal loss is evaluated and addressed.
5. Projects using ILF credits shall have debits associated with the proposed impacts calculated by the *applicant's* qualified *wetland* scientist using the method consistent with the credit assessment method specified in the approved instrument for the ILF program.
6. Credits from an approved ILF program may be used to compensate for impacts located within the service area specified in the approved ILF instrument.

K. *Advance Mitigation*. *Mitigation* for projects with pre-identified impacts to *wetlands* may be constructed in advance of the impacts if the *mitigation* is implemented according to federal rules, state policy on advance *mitigation*, and state water quality regulations.

L. *Alternative Mitigation Plans*. The *city manager* may approve alternative *critical areas mitigation* plans that are based on *best available science*, such as priority *restoration* plans that achieve *restoration* goals identified in the SMP. Alternative *mitigation* proposals must provide an equivalent or better level of protection of *critical area functions and values* than would be provided by the strict application of this chapter and must contain all of the standard components of a *mitigation* plan. The *city manager* shall consider the following for approval of an alternative *mitigation* proposal:

1. The proposal uses a watershed approach consistent with *Selecting Wetland Mitigation Sites Using a Watershed Approach (Western Washington)* (Ecology Publication #09-06-32, Olympia, WA, December 2009, or as revised).

2. Creation or *enhancement* of a larger system of natural areas and *open space* is preferable to the preservation of many individual habitat areas.
3. There is clear potential for success of the proposed *mitigation* at the proposed *mitigation* site.
4. A *wetland* of a different type is justified based on regional needs or *functions and values*; the replacement ratios may not be reduced or eliminated unless the reduction results in a preferred environmental alternative.

Article X. Streams and Lakes – Designation and Rating

18.55.400 Designation and rating of streams and lakes.

A. Stream and Lake Classifications. Streams and lakes shall be designated Type 1, Type 2, Type 3, and Type 4 Type S, Type F, Type Np, and Type Ns according to the following criteria in this section identified in WAC 222-16-030.

1. Type 1S streams Waters are those streams segments of natural waters identified as “shorelines of the State” under Chapter 90.58 RCW, including the Sammamish River and the main stem of Swamp Creek, as well as Lake Washington.
2. Type 2 streams are those streams that are:
 - a. Natural streams that have perennial (year-round) flow and are used by salmonid fish; or
 - b. Natural streams that have intermittent flow and are used by salmonid fish.
3. Type 3 streams are those streams that are:
 - a. Natural streams that have perennial flow and are used by fish other than salmonids; or
 - b. Natural streams that have intermittent flow and are used by fish other than salmonids.
4. Type 4 streams are those natural streams with perennial or intermittent flow that are not used by fish.
2. Type F Waters 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 in any case contain fish habitat.

3. Type Np Waters means all segments of *natural waters* within the *bankfull width* of defined channels that are perennial *nonfish habitat streams*. 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.

4. Type Ns Waters means all segments of *natural waters* within the *bankfull width* of the defined channels that are not Type S, 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 S, F, or Np Waters.

B. Presumption of fish use: Waters having any of the following characteristics are presumed to contain suitable *fish habitat*, and therefore are a Type F water:

1. *Stream* segments having a defined *channel width* of 2 feet or greater within the *bankfull width* and having a *channel gradient* of 16 percent or less;
2. *Stream* segments having a defined *channel width* of 2 feet or greater within the *bankfull width* and having a *channel gradient* greater than 16 percent and less than or equal to 20 percent, and having greater than 50 acres in contributing basin size based on hydrographic boundaries;
3. Ponds or impoundments having a surface area of less than 1 acre at *seasonal low water* and having an outlet to a *fish stream*; or
4. Ponds or impoundments having a surface area greater than 0.5 acre at *seasonal low water*.

BC. Ditches. Ditches are artificial drainage features created in uplands through purposeful human action, such as irrigation and drainage ditches, grass-lined swales, and canals. Purposeful creation must be demonstrated through documentation, photographs, statements and/or other evidence. Ditches are excluded from regulation as *streams*, unless they are used by *native species of fish*. Drainage setbacks are required as per the City's surface water runoff policy (Chapter 13.35 KMC).

D. Lakes and ponds, which terms can be used interchangeably and are loosely differentiated in common use by the larger size of lakes, are surface water bodies distinguished from *wetlands* by the presence of deep water, typically 2 meters (6.6 feet) or greater.

E. Lakes, ponds and impoundments deliberately designed and created from dry sites, such as canals, detention facilities, wastewater treatment facilities, farmponds, temporary construction ponds (of less than three years duration), and landscape amenities, are not regulated by this chapter unless they are used by native fish. Purposeful creation must be demonstrated through documentation, photographs, statements

and/or other evidence. However, lakes, ponds and impoundments intentionally created from dry areas as mitigation for a critical areas impact are regulated by this chapter.

FB. Stream and Lake Buffers.

A1. Establishment of Stream Buffers. The establishment of *buffer* areas shall be required for all *development proposals* and activities in or adjacent to *streams and lakes*. The purpose of the *buffer* shall be to protect the integrity, function, and value of the *stream or lake* and provide habitat for *great blue heron* and other wildlife. *Buffers* shall be protected during construction by placement of a temporary barricade, on-site notice for construction crews of the presence of the *stream or lake*, and implementation of appropriate *erosion* and sedimentation controls. *Native vegetation removal or disturbance is not allowed in established buffers.*

Required buffer widths shall reflect the sensitivity of the stream or the risks associated with development and, in those circumstances permitted by these regulations, the type and intensity of human activity and site design proposed to be conducted on or near the critical area.

- The following *buffers* are established for *streams and lakes* to protect *functions and values*, including heron habitat:

Stream Type	Buffer Width (Feet)
Type 1S - and Swamp Creek, Lake Washington and Sammamish River Little Swamp Creek	150 See KMC 16.65.020
Type F – Little Swamp Creek	150
Type 2F (other waterbodies used by or containing habitat suitable for salmonid fish)	100
Type 3F (waterbodies used by or containing habitat suitable for fish other than salmonids)	50
Type 4Np or Ns	25
Any type stream restored from a pipe	25

- Measurement of *Stream Buffers*. *Stream buffers* shall be measured perpendicularly from the *ordinary high water mark*.

- Building Setback*. A *building setback* is required from the edge of the *buffer* per KMC 18.55.270.

3. Increased **Stream-Buffer** Widths. The *city manager* shall require increased *buffer* widths in accordance with the recommendations of a *qualified professional* and the *best available science* on a case-by-case basis when a larger *buffer* is necessary to protect *stream or lake functions and values* based on site-specific characteristics. This determination shall be based on one or more of the following criteria:

- a. A larger *buffer* is needed to protect other *critical areas or their functions*;
- b. The *buffer* has a slope greater than 30 percent or is susceptible to *erosion* and standard *erosion-control* measures will not prevent adverse impacts to the *stream or lake*. The *buffer* should be measured from the toe of the slope. In such cases, the *buffer* shall be increased to include the slope or the standard *buffer* shall be drawn from the top of the slope, whichever provides greater protection.

Article XI. Streams and Lakes – Additional Report Requirements

18.55.410 Critical areas report.

Requirements for *critical areas* reports for *streams and lakes* are available from the *city manager*.

Article XII. Streams and Lakes – Performance Standards Allowed Uses and Alterations

18.55.415 – Allowed Uses

5A. *Buffer* Conditions Shall Be Maintained. Except as otherwise specified or allowed in accordance with this chapter and Title 16 KMC (Shoreline Management), *stream and lake buffers* shall be retained in an undisturbed condition.

B. *Native vegetation* removal or disturbance is not allowed in established *buffers*.

6C. *Buffer Uses*. The following *uses* may be permitted within a *stream or lake buffer* in accordance with the review procedures of this chapter and Title 16 KMC (Shoreline Management), provided they are not prohibited by any other applicable law and they are conducted in a manner so as to minimize impacts to the *buffer* and adjacent *stream or lake*:

- 1a.** Conservation and *Restoration* Activities. Conservation or *restoration* activities aimed at protecting the soil, water, *vegetation*, or wildlife;
- 2b.** Passive Recreation. Passive recreation facilities designed in accordance with an approved *critical areas* report, including:

(1)a. Private walkways and trails; provided, that those pathways that are generally parallel to the perimeter of the stream or lake shall be located in the outer 25 percent of the buffer area;

(2) Walkway and trail surfaces in buffers shall be made of pervious materials and shall be a maximum of 5 feet wide except that public multipurpose trails may be of impervious materials if they meet all other requirements, including water quality;

b. Public walkways and trails; provided, that those pathways are located and designed based on existing site-specific conditions to minimize native vegetation removal, and are part of an approved public park or trail plan. The trail proposal shall be accompanied by a plan demonstrating that the ecological functions of the overall required buffer area on a project site would be improved. Walkway and trail surfaces in buffers shall be made of pervious materials except that public multipurpose trails may be of impervious materials if they meet all other requirements, including water quality. In order to allow for a waterfront promenade area along the inner harbor area of the Downtown Waterfront shoreline environment on Lake Washington, public access improvements may extend to the water's edge.

c. Walkways and trails proposed in stream and lake buffers by private parties as part of subdivisions, multifamily development, or commercial or institutional uses may be allowed subject to subsection C.2.b, if they will be accessible to the general public, identified with visible signage, and are recorded on title. Providing connectivity to existing City or regional trail systems or completing or contributing to a trail linkage identified in the City's Parks, Recreation and Open Space Plan or Walkways & Waterways Plan is encouraged.

d.(3) Wildlife viewing structures; and

e.(4) Fishing access areas; and

f. Interpretive and other signs, benches, railings, and similar accessories to passive recreation that do not require significant ground disturbance, native vegetation removal, or concrete foundations.

C3. Stormwater Management Facilities. Stormwater dispersion outfalls and bioswales Grass-lined swales and dispersal trenches may be located in the outer 25 percent of the buffer area. All other surface water management facilities are not allowed within the buffer area.

7. Building Setback. A building setback is required from the edge of the buffer per KMC 18.55.270.

18.55.420 Performance standards – General Alterations.

A. Establishment of *Stream Buffers*. The establishment of *buffer* areas shall be required for all *development proposals* and activities in or adjacent to *streams*. The purpose of the *buffer* shall be to protect the integrity, function, and value of the *stream* and provide habitat for heron and other wildlife. *Buffers* shall be protected during construction by placement of a temporary barricade, on-site notice for construction crews of the presence of the *stream*, and implementation of appropriate *erosion* and *sedimentation* controls. *Native vegetation* removal or disturbance is not allowed in established *buffers*.

Required *buffer* widths shall reflect the sensitivity of the *stream* or the risks associated with *development* and, in those circumstances permitted by these regulations, the type and intensity of human activity and site design proposed to be conducted on or near the *critical area*.

B. *Stream Buffers*.

1. The following *buffers* are established for *streams* to protect *functions and values*, including heron habitat:

<i>Stream Type</i>	<i>Buffer Width (Feet)</i>
Type 1 and Little Swamp Creek	150
Type 2	100
Type 3	50
Type 4	25

2. Measurement of *Stream Buffers*. *Stream buffers* shall be measured perpendicularly from the *ordinary high water mark*.

3. Increased *Stream Buffer* Widths. The *city manager* shall require increased *buffer* widths in accordance with the recommendations of a *qualified professional* and the *best available science* on a case-by-case basis when a larger *buffer* is necessary to protect *stream functions and values* based on site-specific characteristics. This determination shall be based on one or more of the following criteria:

a. A larger *buffer* is needed to protect other *critical areas*;

b. The *buffer* has a slope greater than 30 percent or is susceptible to *erosion* and standard *erosion-control* measures will not prevent adverse impacts to the *stream*. The *buffer* should be measured from the toe of the slope. In such cases, the *buffer* shall be increased to include the

slope or the standard *buffer* shall be drawn from the top of the slope, whichever provides greater protection.

A. Modification of Standard Buffer.

1. The *City* may approve a modification of the minimum required *buffer* in cases where an improved right-of-way, associated with a legally established roadway, transects the *stream* or lake *buffer*. The *buffer* may be reduced to match the edge of the right-of-way closest to the *stream* or lake if the portion of the *buffer* on the other side of the roadway meets the following criteria:

a. Does not provide additional protection to the proposed development from *flooding* or other hazard, or to the lake or *stream*; and

b. Provides insignificant biological, geological or hydrological *buffer* functions relating to the other portion of the *buffer* adjacent to the lake or *stream*.

Improved rights-of-way are those that are maintained out of necessity as a cleared, graded, paved, mowed or otherwise altered surface to allow for access, maintenance, or safety.

2. The *City* may approve a modification of the minimum required *buffer* width where the proposed *development* or *use* is isolated from the *critical area* and its contiguous *buffer* by an existing legally-established *building*, detached garage, accessory dwelling unit, commercial parking area, *retaining wall* over six (6) feet in height, or similar structure. The modification may not be requested for such improvements as *fences*, sheds, patios, decks, driveways, or other similar structures and *impervious surfaces*. For the *buffer* modification to be approved, the *applicant* must demonstrative conclusively in a *critical area* report that all of the following criteria are met:

a. The existing legal improvement between the proposed development or *use* and the *stream* or lake creates a substantial barrier to *buffer* function;

b. The isolated section of *buffer* does not provide additional protection of the *critical area* from the proposed *development*; and

c. The isolated section of *buffer* does not provide significant hydrological, water quality, and wildlife *buffer* functions relating to the portion of the *buffer* adjacent to the *critical area*.

7. *Building Setback*. A building *setback* from the *buffer* edge is required per KMC 18.55.270.

4B. *Buffer Reduction with Enhancement.* Standard *buffer* widths for degraded *buffers* of Type F, Ns, or Np waters may be reduced a maximum of 25 percent of the standard width through a combination of *buffer enhancement* and *low impact development* strategies. The *applicant* shall demonstrate that through enhancing the *buffer* and use of *low impact development* strategies the reduced *buffer* will function at a higher level than the standard *buffer*. Type S *buffers* and *setbacks* may only be reduced as outlined in KMC 16.60.030 or under the *Shoreline Variance* requirements of KMC 16.75.030. *Buffers* may be reduced in the following manner according to *stream type*:

The following table describes the maximum *buffer* reduction and minimum *buffer* width when a degraded *buffer* is enhanced:

<i>Stream Type</i>	Maximum <i>Buffer</i> Reduction	Minimum <i>Buffer</i> Width (Feet)
Type S - Swamp Creek, Lake Washington and Sammamish River	See KMC 16.60.030 or 16.75.030	
Type F – Type 1 and Little Swamp Creek	25 percent	112.5 feet
Type F (other waterbodies used by or containing habitat suitable for salmonid fish) Type 2	25 percent	75 feet
Type F (waterbodies used by or containing habitat suitable for fish other than salmonids) Type 3	25 percent	37.5 feet
Type Np or Ns Type 4	25 percent	18.75 feet
Any type <i>stream</i> restored from a pipe	25 percent	18.75 feet

A1. Prior to approval of a reduced *buffer*, a *critical areas* application shall meet all of the decisional criteria listed below. A reduced *buffer* will be approved in a degraded *stream* or *lake* *buffer* only if:

- (1)a. It will provide an overall improvement in water quality;
- (2)b. It will provide an overall *enhancement* to fish, wildlife, or their habitat;

(3)c. It will provide a net improvement in drainage and/or stormwater detention capabilities;

(4)d. It will not lead to unstable earth conditions or create an *erosion* hazard;

(5)e. It will not be materially detrimental to any other property or the *City* as a whole; and

(6)f. All exposed areas are stabilized with *native vegetation*, as appropriate.

b2. As part of the *buffer* reduction request, the *applicant* shall submit a *buffer enhancement* plan prepared by a *qualified professional* and fund a review of the plan by the *City's wetland/critical areas* consultant. The plan shall assess the habitat, water quality, stormwater detention, ground water recharge, shoreline protection, and *erosion* protection functions of the *buffer*; assess the effects of the proposed modification on those functions; and address the six criteria listed in subsection (F)(4)(c)B.1 of this section.

5. *Buffer Conditions Shall Be Maintained.* Except as otherwise specified or allowed in accordance with this chapter, *stream buffers* shall be retained in an undisturbed condition.

6. *Buffer Uses.* The following *uses* may be permitted within a *stream buffer* in accordance with the review procedures of this chapter, provided they are not prohibited by any other applicable law and they are conducted in a manner so as to minimize impacts to the *buffer* and adjacent *stream*:

a. *Conservation and Restoration Activities.* Conservation or *restoration* activities aimed at protecting the soil, water, *vegetation*, or wildlife;

b. *Passive Recreation.* Passive recreation facilities designed in accordance with an approved *critical areas* report, including:

(1) Walkways and *trails*; provided, that those pathways that are generally parallel to the perimeter of the *stream* shall be located in the outer 25 percent of the *buffer* area;

(2) Walkway and *trail* surfaces shall be made of pervious materials except that public multipurpose *trails* may be of impervious materials if they meet all other requirements, including water quality;

(3) Wildlife viewing *structures*; and

(4) Fishing access areas.

c. Stormwater Management Facilities. Grass-lined swales and dispersal trenches may be located in the outer 25 percent of the *buffer* area. All other surface water management facilities are not allowed within the *buffer* area.

7. Building *Setback*. A building *setback* is required from the edge of the *buffer* per KMC 18.55.270.

C. *Stream* Crossings. *Stream* crossings may be allowed and may encroach on the otherwise required *stream buffer* if:

1. All crossings are designed using the most recent version of Washington Department of Fish and Wildlife's *Water Crossing Design Guidelines* (Barnard and others, 2013, or as revised), prioritizing use bridges or other construction techniques which do not disturb the *stream* bed or bank, except that bottomless culverts or other appropriate methods demonstrated to provide fisheries protection may be used for Type 2 or 3F *streams* if the *applicant* demonstrates that such methods and their implementation will pose no harm to the *stream* nor inhibit migration of fish;
2. All crossings are constructed during the summer low flow and are timed to avoid *stream* disturbance during periods when use is critical to *salmonids*;
3. Crossings do not occur over *salmonid* spawning areas unless the *City* determines that no other possible crossing site exists;
4. Bridge piers or abutments are not placed within the *Federal Emergency Management Agency* (FEMA) floodway or below the *ordinary high water mark*;
5. Crossings do not diminish the *flood*-carrying capacity of the *stream*;
6. Underground utility crossings are laterally drilled and located at a depth of four feet below the maximum depth of scour for the *base flood* predicted by a civil engineer licensed by the State of Washington. Temporary bore pits to perform such crossings may be permitted within the *stream buffer* established in this chapter; and
7. Crossings are minimized and serve multiple purposes and properties whenever possible.

D. *Stream* Relocations.

1. *Stream* relocations may be allowed only for:
 - a. All Type F, Type Np, and Type Ns *streams* types as part of a public project for which a public agency and utility exception is granted pursuant to this chapter; or

b. Type 3 or 4F streams with fish use other than salmonids, Np or Ns streams for the purpose of enhancing resources in the stream if:

(1) Appropriate floodplain protection measures are used; and

c. The location occurs on-site except that relocation off-site may be allowed if the applicant demonstrates that any on-site relocation is impracticable, the applicant provides all necessary easements and waivers from affected property owners and the off-site location is in the same drainage sub-basin as the original stream.

2. For any relocation allowed by this section, the applicant shall base the design on the most recent version of the multi-agency Stream Habitat Restoration Guidelines (Cramer, 2012 or as revised), and demonstrate, based on information provided by a civil engineer and a qualified biologist, that:

- a. The equivalent base flood storage volume and function will be maintained;
- b. There will be no adverse impact to local ground water;
- c. There will be no increase in velocity;
- d. There will be no interbasin transfer of water;
- e. There will be no increase in the sediment load;
- f. There is an overall increase in habitat function and value for salmonids and other fish;
- g. Requirements set out in the mitigation plan are met;
- h. The relocation conforms to other applicable laws; and
- i. All work will be carried out under the direct supervision of a qualified biologist.

E. Stream or Lake Enhancement/Restoration. Stream or lake enhancement and restoration not associated with any other development proposal may be allowed if:

- 1. Accomplished according to a plan consistent with the most recent version of the multi-agency Stream Habitat Restoration Guidelines (Cramer, 2012 or as revised) for its design, implementation, maintenance and monitoring prepared by a civil engineer and a qualified biologist and carried out under the direction of a qualified biologist.

F. *Minor Stream Restoration*. A minor stream restoration project for fish habitat enhancement may be allowed if:

21. The project results in a net increase in stream or lake functions and values;
2. The restoration is sponsored by a public agency with a mandate to do such work;
3. The enhancement or restoration is not associated with mitigation of a specific development proposal; and
4. The enhancement or restoration is limited to removal of non-native vegetation and enhancement of riparian vegetation, placement of rock weirs, log controls, spawning gravel and other specific salmonid habitat improvements;
5. The restoration only involves the use of hand labor and light equipment; or the use of helicopters, cranes, or aerial equipment which deliver supplies to the project site; provided, that they have no contact with critical areas or their buffers; and
6. The restoration is performed under the direction of a qualified biologist.

18.55.430 Performance standards – Mitigation requirements.

A. *Stream or Lake Mitigation*. Mitigation of adverse impacts to aquatic or riparian habitat areas shall result in equivalent functions and values on a per function basis, be located as near to the alteration as feasible, and be located in the same subdrainage basin as the impacted habitat unless mitigation will be implemented via a City-approved in-lieu fee program or mitigation bank. See also KMC 18.55.200, 18.55.210 and 18.55.220.

B. *Alternative Mitigation for Stream Areas*. The performance standards set forth in this section may be modified at the City's discretion if the applicant demonstrates that greater habitat functions, on a per function basis, can be obtained in the affected subdrainage basin as a result of alternative mitigation measures.

B. *Advance Mitigation*. Mitigation for projects with pre-identified impacts to streams, lakes or their buffers may be constructed in advance of the impacts if the mitigation is implemented according to federal rules, state policy on advance mitigation, and state water quality regulations.

C. *Alternative Mitigation Plans*. The city manager may approve alternative critical areas mitigation plans that are based on best available science, such as priority restoration plans that achieve restoration goals identified in the SMP. Alternative mitigation proposals shall provide an equivalent or better level of

protection of *critical area functions and values* than would be provided by the strict application of this chapter and shall contain all of the standard components of a *mitigation* plan. The *city manager* shall consider the following for approval of an alternative *mitigation* proposal:

1. The proposal uses a watershed approach consistent with the joint U.S. Environmental Protection Agency and U.S. Army Corps of Engineers *Compensatory Mitigation for Losses of Aquatic Resources* (33 CFR Part 33, April 2008).
2. Creation or *enhancement* of a larger system of natural areas and *open space* is preferable to the preservation of many individual habitat areas.
3. There is clear potential for success of the proposed *mitigation* at the proposed *mitigation* site.
4. *Mitigation* in a different sub-basin is justified based on regional needs or *functions and values*; the replacement ratios may not be reduced or eliminated unless the reduction results in a preferred environmental alternative.

D. *Mitigation Banking*.

1. Credits from a *mitigation bank* may be approved for use as compensation for *unavoidable impacts* to aquatic habitats when:
 - a. The bank is certified under state rules;
 - b. The *city manager* determines that the *mitigation bank* provides appropriate compensation for the authorized impacts; and
 - c. The proposed use of credits is consistent with the terms and conditions of the certified bank instrument.
2. Accounting methods for quantifying project impacts and the necessary compensation shall be consistent with methods specified in the certified bank instrument.
3. Credits from a certified *mitigation bank* may be used to compensate for impacts located within the service area specified in the certified bank instrument. In some cases, the service area of the bank may include portions of more than one adjacent drainage basin.

E. *In Lieu Fee Programs*. To aid in the implementation of off-site *mitigation*, the *City* may develop an in-lieu fee (ILF) program or allow participation in an ILF program, such as King County's Mitigation Reserves Program. ILF programs shall be developed and approved through a public process and be consistent with federal rules, state policy on in-lieu fee *mitigation*, and state water quality regulations. An approved

ILF program sells compensatory *mitigation* credits to permittees whose obligation to provide compensatory *mitigation* is then transferred to the in-lieu program sponsor, a governmental or non-profit natural resource management entity. Credits from an approved in-lieu-fee program may be used when paragraphs 1-6 below apply:

1. The *city manager* determines that it would provide environmentally appropriate compensation for the proposed impacts.
2. The *mitigation* will occur on a site identified using the site selection and prioritization process in the approved ILF program instrument.
3. The proposed use of credits is consistent with the terms and conditions of the approved ILF program instrument.
4. Land acquisition and initial physical and biological improvements of the *mitigation* site shall be completed within three years of the credit sale. A one-year extension to this requirement may be granted by the *city manager* if the need for additional *mitigation* because of possible temporal loss is evaluated and addressed.
5. Projects using ILF credits shall have debits associated with the proposed impacts calculated by the *applicant's* qualified *stream* or lake scientist using the method consistent with the credit assessment method specified in the approved instrument for the ILF program.
6. Credits from an approved ILF program may be used to compensate for impacts located within the service area specified in the approved ILF instrument.

Article XIII. Fish and Wildlife Habitats of Importance – Designation

18.55.500 Designation of fish and wildlife habitats of importance.

A. Fish and wildlife habitats of importance are those habitat areas that serve a critical role in sustaining needed habitats and *species* for the functional integrity of the ecosystem, and which, if altered, may reduce the likelihood that the *species* will persist over the long term. In the *City*, habitats of importance meet any of the following criteria:

1. Documented presence of *species* listed by the federal government or the State of Washington as *endangered*, *or threatened* *or sensitive*; or

2. Great blue heron rookeries or active nesting trees; or
3. Pileated woodpecker breeding habitat as mapped by the Washington Department of Fish and Wildlife in its Priority Habitats and Species Program; Class 1 wetlands as defined in these regulations; or
4. Biodiversity areas and corridors as mapped by the Washington Department of Fish and Wildlife in its Priority Habitats and Species Program; or Type 1 streams as defined in these regulations.
5. Bald eagle habitat shall be protected pursuant to the Washington State Bald Eagle Protection Rules (WAC 232-12-292); Federal Bald and Golden Eagle Protection Act; or
6. Anadromous fish habitat; or
7. Habitat for species nominated and approved by the City per KMC 18.55.500.C.

B. All areas within the City meeting one or more of these criteria, regardless of any formal identification, are hereby designated *critical areas* and are subject to the provisions of this chapter.

C. The City may accept and consider nominations by Kenmore residents or property owners for habitat areas and species to be designated as fish and wildlife habitats of importance. Nominations will be accepted by the city manager on an annual basis and will be considered for approval by the City Council following a public hearing on the nomination. Guidelines for nomination are available from the city manager. Information to be included with a nomination request includes:

1. Specific geographic boundaries and list of species proposed, including a list of functions;
2. Rationale for nomination based on best available science, including the viability of the population in Kenmore and the contribution to biodiversity;
3. Causes for vulnerability, including a description of activities that compromise these areas, as well as a list of proposed management and protection measures;
4. Regulatory gaps regarding protection of the habitat or species; and
5. Non-environmental impacts affecting the habitat area and species (e.g., legal, cultural, recreational, and economic significance).

Article XIV. Fish and Wildlife Habitats of Importance – Report Requirements

18.55.510 Critical areas report – Habitat Management Plan.

Requirements for *critical areas* reports for fish and wildlife habitats of importance are available from the *city manager*. A. Habitat Management Plan. A habitat management plan is required when the *priority habitats and species available* maps or natural heritage program maps provided by the *City*, or other information, indicate the presence of *fish and wildlife habitats of importance areas with which critical species listed as endangered or threatened* under federal or State law have a primary association.

1. All habitat management plans shall be prepared *by a qualified professional* and are encouraged to *be prepared* in consultation with the *State Washington* Department of Fish and Wildlife. *Habitat management plans for critical species listed as endangered or threatened shall be approved by the Department of Fish and Wildlife.*
2. Habitat Management Plan Content Requirements. *Based on the characteristics of the site and information submitted by the applicant, the city manager may require that all or a portion of the following be included in a habitat management plan* Requirements for habitat management plans are available from the *city manager*. Plans also shall include:
 - a. A map drawn to scale or survey showing the following information:
 - (1) All lakes, ponds, *streams*, and *wetlands* on, or adjacent to, the subject property, including the name (if named), *ordinary high water mark* of each, and the *stream type or wetland class* consistent with this chapter.
 - (2) The location and description of the fish and wildlife habitats of importance on the subject property, as well as any potential fish and wildlife habitats of importance within 200 feet of the subject property as shown on maps maintained by the *City*.
 - (3) The location of any observed evidence of use by a listed *species*.
 - ba. An analysis of how the proposed *development* activities will affect the fish and wildlife habitats of importance and listed *species of importance*.
 - cb. Provisions to reduce or eliminate the impact of the proposed *development* activities on any fish and wildlife habitats of importance and listed *species*. An analysis of mitigation sequencing per KMC 18.55.210, including a *mitigation plan*.
 - dc. The habitat management plan should also address *Consideration of* the following issues:

(1) Prohibition or limitation of *development* activities within the fish and wildlife habitats of importance;

(21) Establishment of a *buffer* around the fish and wildlife habitat conservation area of importance;

(32) Retention of certain *vegetation* or areas of *vegetation* critically important to the listed species of importance;

(43) Limitation of access to the fish and wildlife habitats of importance and *buffer*;

(54) Seasonal restrictions on construction activities on the subject property; and

(65) Clustering of *development* on the subject property; and

(7) The preservation or creation of a habitat area for the listed species.

d. Discussion of how the project complies with published Washington Department of Fish and Wildlife management recommendations for the species' habitat, if available.

3. When bald eagle habitat is the only potential fish and wildlife habitat of importance on a site, applicants may self-certify that they are in compliance with the Federal Bald and Golden Eagle Protection Act by submitting a document generated online through the U.S. Fish and Wildlife Service's *Bald and Golden Eagle Permit Recommendation Tool*. Washington Department of Fish and Wildlife no longer maps bald eagle nest sites, so applicants would complete the certification based on their knowledge of their site and local conditions. The City may review the applicant's certificate and require modification if more accurate information or updated standards for protection are available.

4. The applicant may combine a habitat management plan with any studies required by other laws and regulations (e.g. a Biological Assessment or Biological Evaluation).

Article XV. Fish and Wildlife Habitats of Importance – Performance Standards

18.55.520 Performance standards – General requirements.

A. Habitat Management Plan. A habitat management plan is required when the *priority habitats* and species maps or natural heritage program maps provided by the City, or other information, indicate the presence of areas with which critical species listed as *endangered* or *threatened* under federal or State law have a primary association.

1. All habitat management plans shall be prepared in consultation with the State Department of Fish and Wildlife. Habitat management plans for critical *species* listed as *endangered* or *threatened* shall be approved by the Department of Fish and Wildlife.

2. Habitat Management Plan Content Requirements. Based on the characteristics of the *site* and information submitted by the *applicant*, the *city manager* may require that all or a portion of the following be included in a habitat management plan:

a. A map drawn to scale or survey showing the following information:

(1) All lakes, ponds, *streams*, and *wetlands* on, or adjacent to, the subject property, including the name (if named), *ordinary high water mark* of each, and the *stream* type or *wetland* class consistent with this chapter.

(2) The location and description of the fish and wildlife habitats of importance on the subject property, as well as any potential fish and wildlife habitats of importance within 200 feet of the subject property as shown on maps maintained by the *City*.

(3) The location of any observed evidence of use by a listed *species*.

b. An analysis of how the proposed *development* activities will affect the fish and wildlife habitats of importance and listed *species*.

c. Provisions to reduce or eliminate the impact of the proposed *development* activities on any fish and wildlife habitats of importance and listed *species*.

d. The habitat management plan should also address the following issues:

(1) Prohibition or limitation of *development* activities within the fish and wildlife habitats of importance;

(2) Establishment of a *buffer* around the fish and wildlife habitat conservation area;

(3) Retention of certain *vegetation* or areas of *vegetation* critically important to the listed *species*;

(4) Limitation of access to the fish and wildlife habitats of importance and *buffer*;

(5) Seasonal restrictions on construction activities on the subject property;

(6) Clustering of *development* on the subject property; and

(7) The preservation or creation of a habitat area for the listed *species*.

GA. Buffers.

1. Establishment of *Buffers*. The *city manager* shall require the establishment of *buffer* areas for activities in, or adjacent to, fish and wildlife habitats of importance, when needed to protect fish and wildlife habitats of importance. *Buffers* shall consist of an undisturbed area of *native vegetation*, or areas identified for *restoration*, established to protect the integrity, *functions and values* of the affected habitat. *Buffer enhancement* may be required. Required *buffer* widths shall reflect the sensitivity of the habitat and the type and intensity of human activity proposed to be conducted nearby, and shall be consistent with the management recommendations issued by the Washington State Department of Fish and Wildlife.
2. Seasonal Restrictions. When a *species* is more susceptible to adverse impacts during specific periods of the year, seasonal restrictions, as determined by the Washington State Department of Fish and Wildlife in a permit or in its management recommendations, or by another state or federal agency with expertise in the species or its habitat, may apply. Larger *buffers* may be required and activities may be further restricted during the specified season.

B. *Alterations* shall not degrade the *functions and values* of habitat. Fish and wildlife habitat areas of importance may be altered only if the proposed alteration of the habitat or the mitigation proposed does not degrade the quantitative and qualitative functions and values of the habitat. Fish habitat areas of importance may be altered only when necessary to install water-dependent developments that are mitigated consistent with this chapter and Title 16 KMC (Shoreline Management), when applicable. All new structures and land alterations shall be prohibited from habitat areas of importance, except in accordance with this chapter.

C. *Nonindigenous* species shall not be introduced. No plant, wildlife, or fish species not indigenous to the region shall be introduced into a fish and wildlife habitat area of importance unless authorized by a State or federal permit or approval.

D. *Mitigation* shall result in contiguous habitat. When feasible, mitigation sites shall be located to achieve contiguous wildlife habitat corridors in accordance with a mitigation plan that is part of an approved critical areas report to minimize the isolating effects of development on habitat areas, so long as mitigation of aquatic habitat is located within the same aquatic ecosystem as the area disturbed.

E. *Mitigation* shall achieve equivalent or greater biological functions. *Mitigation* of *alterations* to habitat areas of importance shall achieve equivalent or greater biologic functions and shall include *mitigation* for adverse impacts upstream or downstream of the *development proposal site*. *Mitigation* shall address each function affected by the *alteration* to achieve functional equivalency or improvement on a per function basis.

F. Approvals shall be supported by the *best available science*. Any approval of *alterations* or impacts to a fish and wildlife habitat of importance shall be supported by the *best available science*. Special consideration shall be given to conservation or protection measures necessary to preserve or enhance anadromous fish and their habitat, such as salmon and bull trout, as required by WAC 365-195-900 through 365-195-925.

G. Buffers.

1. Establishment of *Buffers*. The *city manager* shall require the establishment of *buffer* areas for activities in, or adjacent to, fish and wildlife habitats of importance, when needed to protect fish and wildlife habitats of importance. *Buffers* shall consist of an undisturbed area of *native vegetation*, or areas identified for *restoration*, established to protect the integrity, *functions and values* of the affected habitat. *Buffer enhancement* may be required. Required *buffer widths* shall reflect the sensitivity of the habitat and the type and intensity of human activity proposed to be conducted nearby, and shall be consistent with the management recommendations issued by the State Department of Fish and Wildlife.

2. Seasonal Restrictions. When a *species* is more susceptible to adverse impacts during specific periods of the year, seasonal restrictions, as determined by the Washington State Department of Fish and Wildlife, may apply. Larger *buffers* may be required and activities may be further restricted during the specified season.

18.55.530 Performance standards – Specific habitats.

A. Endangered, Threatened, and Sensitive Species.

1. No *development* shall be allowed within a fish and wildlife habitat of importance or *buffer* with which State or federally *endangered, threatened, or sensitive species* have a primary association except as otherwise approved through this chapter. For fish habitat of importance on lands regulated under the Kenmore shoreline master program, development also must meet the use and development requirements of the Kenmore shoreline master program.

2. Whenever activities are proposed adjacent to a fish and wildlife habitat of importance with which State or federally *endangered, threatened, or sensitive species* have a primary association, such area shall be protected through the application of protection measures in accordance with a *critical areas* report prepared by a *qualified professional* and approved by the *City*. Approval for *alteration* of land adjacent to the fish and wildlife habitat of importance or its *buffer* shall not occur prior to consultation with the Department of Fish and Wildlife and the appropriate federal agency.

3. Bald eagle habitat shall be protected pursuant to the Washington State Bald Eagle Protection Rules (WAC 232-12-292). Whenever activities are proposed adjacent to a verified nest territory or communal roost, a habitat management plan shall be developed by a *qualified professional*. Activities are adjacent to bald eagle sites when they are within 800 feet of an active nest, or within a quarter mile (2,640 feet) of an active nest and in a shoreline foraging area. The *City* shall verify the location of eagle management areas for each proposed activity. Approval of the activity shall not occur prior to approval of the habitat management plan by the *City* and the Washington State Department of Fish and Wildlife.

BA. Great Blue Heron Rookery.

1. A *buffer* equal to the distance of a 900656-foot radius measured from the outermost nest *tree* in the rookery will be established around an active rookery. This area will be maintained in *native vegetation*. For the Kenmore heron rookery located adjacent to the Kenmore park-and-ride lot, the *buffer* excludes the area south of the north edge of the State Route 522 right-of-way and west of the east edge of the 73rd Avenue NE right-of-way.
2. Between January 1st and July 31st, no *clearing, grading* or land disturbing activity shall be allowed within 900656 feet of the rookery unless approved by the *City* and Washington State Department of *Fish and Wildlife*. For the Kenmore heron rookery located adjacent to the Kenmore park-and-ride lot, the area south of the north edge of the State Route 522 right-of-way and west of the east edge of 73rd Avenue NE right-of-way is excluded.
3. Approval of permits for activities within the heron rookery *buffer* shall not occur prior to the approval of a habitat management plan by the *City* and the Washington State Department of *Fish and Wildlife*.

CB. *Anadromous Fish*.

1. All activities, *uses*, and *alterations* proposed to be located in waterbodies used by *anadromous fish* or in areas that affect such water bodies shall give special consideration to the preservation and

enhancement of *anadromous fish habitat*, including, but not limited to, adhering to the following standards:

- a. Activities shall be timed to occur only during the allowable work window as designated by the Washington State Department of Fish and Wildlife for the applicable *species*;
 - b. **Applicant must demonstrate that a**An alternative alignment or location for the activity is not feasible;
 - c. The activity is designed so that it will **provide an overall improvement in**not degrade the functions or values of the *fish habitat* or other *critical areas*; and
 - d. Any impacts to the functions or values of the *anadromous fish habitat conservation area* are mitigated in accordance with an approved **critical areas report**habitat management plan.
2. Structures that prevent the migration of *salmonids* shall not be allowed in the portion of water bodies currently or historically used by *anadromous fish*. Fish bypass facilities shall be provided that allow the upstream migration of adult fish and shall prevent fry and juveniles migrating downstream from being trapped or harmed. **See also KMC 18.55.420.C.**
3. **Fills, when authorized by the City's shoreline management master program, shall not adversely impact anadromous fish or their habitat or shall mitigate any unavoidable impacts, and shall only be allowed for a water-dependent use.**

Article XVI. Geologically Hazardous Areas – Designation

18.55.600 Purpose.

The primary purpose of *geologically hazardous area* regulations is to avoid and minimize potential impacts to life and property from geologic hazards.

18.55.610 Designation of geologically hazardous areas.

Geologically hazardous areas include areas susceptible to *erosion*, **land**sliding, earthquake, or other geological events. They pose a threat to the health and safety of citizens when incompatible *development* is sited in **hazard** areas of significant hazard. Such incompatible *development* may not only place itself at risk, but also may increase the hazard to surrounding *development* and *use*. Areas susceptible to one or more of the following types of hazards shall be designated as a *geologically hazardous area*:

A. *Erosion* hazard;

B. *Landslide hazard*;

C. Seismic hazard; and

D. Other geological events including *mass wasting*, *debris flows*, *rock falls*, and *differential settlement*.

18.55.620 Designation of specific hazard areas.

A. *Erosion Hazard Areas*. *Erosion hazard areas* are those areas identified by the U.S. Department of Agriculture's Natural Resources Conservation Service or identified by a special study as having a "moderate to severe," "severe," or "very severe" *erosion* potential.

B. *High Landslide Hazard Areas*. *High Landslide hazard areas* are areas *potentially subject to a high risk of landslides* based on a combination of geologic, topographic, and hydrologic factors. They include areas susceptible because of any combination of bedrock, soil, slope (gradient), slope aspect, structure, hydrology, or other factors. Examples of these may include, but are not limited to, the following:

1. Areas of historic failures, such as:

a. Those areas delineated by the U.S. Department of Agriculture's Natural Resources Conservation Service as having a "severe" limitation for building *site development*; or

b. Areas designated as Quaternary slumps, earthflows, mudflows, or *landslides* on maps published by the U.S. Geological Survey or State Department of Natural Resources; or

c. *Areas identified on King County's 2017 map of unstable slopes and as amended.*

2. Areas with all three of the following characteristics:

a. Slopes steeper than 15 percent; and

b. Hillsides intersecting geologic contacts with a relatively permeable sediment overlying relatively impermeable sediment; and

c. Springs or ground water seepage.;

3. Areas that have shown movement during the *Holocene epoch post-glacial period* (from 106,000 years ago to the present) or that are underlain or covered by mass wastage debris of that *epoch time period, as shown on U.S. Geological Survey, Washington Department of Natural Resources, or King County maps*;

4. Slopes that are parallel or subparallel to planes of weakness (such as bedding planes, joint systems, and fault planes) in subsurface materials;

54. Areas potentially unstable because of rapid *stream* incision, *stream bank erosion*, and undercutting by wave action; and

65. Areas located in a canyon or on an active alluvial fan, presently or potentially subject to inundation by *debris flows* or catastrophic flooding; and.

C. Moderate Landslide Hazard Areas. Moderate landslide hazard areas are areas at moderate risk of landslides based on a combination of geologic, topographic, and hydrologic factors. They include areas susceptible because of any combination of bedrock, soil, slope (gradient), slope aspect, structure, hydrology, or other factors. Examples of these may include, but are not limited to, the following:

71. Areas with a slope of 40 percent or steeper and with a vertical relief of 10 or more feet. A slope is delineated by establishing its toe and measured by averaging the inclination over at least 10 feet of vertical relief.

CD. Seismic Hazard Areas. Seismic hazard areas are locations subject to severe risk of damage as a result of earthquake-induced ground shaking, slope failure, settlement, soil liquefaction, lateral spreading, tsunami, or surface faulting. One indicator of potential for future earthquake damage is a record of earthquake damage in the past. Ground shaking is the primary cause of earthquake damage in Washington. The strength of ground shaking is primarily affected by:

1. The magnitude of an earthquake;
2. The distance from the source of an earthquake;
3. The type or thickness of geologic materials at the surface; and
4. The type of subsurface geologic structure.

Settlement, and soil liquefaction, and lateral spreading conditions occur in areas underlain by cohesionless, loose, or soft-saturated soils of low density, typically in association with a shallow ground water table. Tsunami or seiche waves triggered by an earthquake or seismically-induced landslides can inundate shoreline-adjacent land, such as along Lake Washington or the lower reaches of the Sammamish River.

In Kenmore, *seismic hazard areas* include liquefaction-prone areas and a potential strand of the Southern Whidbey Island Fault Zone known as the Kenmore Lineament as designated by the Washington Department of Natural Resources.

DE. Other Hazard Areas. *Geologically hazardous areas* shall also include areas determined by the *city manager* to be susceptible to other geological events including *mass wasting*, *debris flows*, and *differential settlement*.

Article XVII. Geologically Hazardous Areas – Report Requirements

18.55.630 Critical areas report.

A. A *critical areas* report shall be required for all proposed *alterations* of properties that are located within 200 feet of any *geologically hazardous area*. Requirements for *critical areas* reports for *geologically hazardous areas* are available from the *city manager*.

B. In the event that the *applicant's* geotechnical consultant and the *City's* geotechnical reviewer cannot resolve the geotechnical issues and do not agree on required *development* conditions, the *city manager* may require a third-party review of the *critical areas* report. The *applicant's* consultant and the *City's* reviewer shall select a mutually agreed upon *qualified professional* to provide the final opinion. The *applicant* shall fund this review and shall make substantive changes to the proposed *alteration* or provide additional analysis as directed by the third-party reviewer.

Article XVIII. Geologically Hazardous Areas – Performance Standards

18.55.640 Performance standards – General requirements.

bA. *Structures* and *site* improvements shall be *clustered* to avoid *geologically hazardous areas* and other *critical areas*;

AB. *Alterations* of *geologically hazardous areas* or associated *buffers* may only occur for activities that:

1. Will not increase the threat of the geological hazard to adjacent properties beyond predevelopment conditions;
2. Will not adversely impact other *critical areas*;
3. Are designed so that the hazard to the project is eliminated or mitigated to a level equal to or less than predevelopment conditions; and

4. Are ~~certified as determined to be~~ safe as ~~sited and~~ designed and under anticipated conditions by a qualified engineer ~~or geologist, or engineering geologist, as appropriate,~~ licensed in the State of Washington.

BC. *Critical Facilities Prohibited.* Critical facilities shall not be sited within geologically hazardous areas unless there is no other practical alternative. ~~If so sited, the design shall be adequate to mitigate the effects of the hazard.~~

18.55.650 Performance standards – Specific hazards.

A. *Erosion and Landslide Hazard Areas.* ~~Activities on sites containing e~~Erosion ~~or landslide~~ hazards areas shall meet the following requirements:

1. *Buffer* ~~Not~~ Required for *Erosion Hazard Areas*. No *buffer* is required from an area categorized as only an *erosion hazard area*.
2. *Best Management Practices.* ~~Best management practices for sediment and erosion control shall be implemented in an erosion hazard area.~~

53. *Vegetation Shall Be Retained.* Unless otherwise provided or as part of an approved *alteration*, removal of *vegetation* from an *erosion or landslide hazard area or related buffer* shall be prohibited.

64. *Seasonal Restriction.* ~~Clearing Site development work~~ shall be allowed only from May 1st to October 1st of each year; provided, that the ~~City~~ *manager* may extend or shorten the dry season on a case-by-case basis depending on actual weather conditions, except that timber harvest, not including brush clearing or stump removal, may be allowed pursuant to an approved *forest practice* permit issued by the *City* or the Department of Natural Resources.

75. *Utility Lines and Pipes.* Utility lines and pipes shall be permitted in *erosion and landslide hazard areas* only when the *applicant* demonstrates that no other *practical alternative* is available. ~~Such utilities shall be designed by qualified professionals to resist ground movement and erosion. The line or pipe shall be located above ground and properly anchored and/or designed so that it will continue to function in the event of an underlying slide. Stormwater conveyance shall be allowed only through a high-density polyethylene pipe with fuse-welded joints, or similar product that is technically equal or superior.~~

86. *Point Discharges.* Point discharges from surface water facilities and roof drains onto or upstream from an *erosion or landslide hazard area* shall be prohibited except as follows:

a. Conveyed via continuous storm pipe downslope to a point where there are no *erosion hazard areas* downstream or downslope from the discharge; or

b. Discharged at flow durations matching predeveloped conditions, with adequate energy dissipation, into existing channels that previously conveyed stormwater runoff in the predeveloped state; or.

c. Dispersed discharge upslope of the steep slope onto a low-gradient undisturbed *buffer* demonstrated to be adequate to infiltrate all surface and stormwater runoff, and where it can be demonstrated that such discharge will not increase the saturation of the slope.

37. *Alterations*. In addition to meeting the requirements in KMC 18.55.640, *Alterations* of an *erosion hazard area* or a *landslide hazard area* and/or its *buffer* may only occur for activities for which a special study is submitted and certifies demonstrating that:

a. The *alteration* will not increase surface water discharge or sedimentation to adjacent properties beyond predevelopment conditions.

b. The *alteration* will not decrease slope stability on adjacent properties; and

c. Such *alterations* will not adversely impact other *critical areas*.

B. *Landslide Hazard Areas*. In addition to meeting the requirements in KMC 18.55.640, activities on *sites* containing *landslide* hazards shall meet the following requirements:

21. *General Standards*. The following standards shall apply in all *landslide hazard areas*:

a. *Buffer Required for Landslide Hazard Areas*. A *buffer* shall be established from all edges of *landslide hazard areas*. The size of the *buffer* shall be determined by the *city manager* to eliminate or minimize the risk of property damage, death or injury resulting from *landslides* caused in whole or part by the *development*, based upon review of and concurrence with a *critical area* report prepared by a *qualified professional*.

ai. *Minimum Buffer*. The minimum *buffer* shall be equal to the height of the slope, as measured from the toe to the top, or 50 feet, whichever is greater.

bii. *Buffer Reduction*. The *buffer* may be reduced to a minimum of 4025 feet when a *qualified professional* demonstrates to the *city manager's* satisfaction based upon review of a special study that the reduction will adequately protect the proposed *development*, adjacent

developments and uses and the subject *critical area* through slope stability improvements or structural means.

eiii. Increased *Buffer*. The *buffer* may be increased where the *city manager* determines a larger *buffer* is necessary to prevent risk of damage to proposed and existing *development*.

d. ~~Building *Setback*. A building *setback* is required from the edge of the *buffer* per KMC 18.55.270.~~

5b. *Vegetation Shall Be Retained*. Unless otherwise provided or as part of an approved *alteration*, removal of *vegetation* from an erosion or landslide hazard area or related *buffer* shall be prohibited.

8c. Point Discharges. Point discharges from surface water facilities and roof drains onto or upstream from an erosion or landslide hazard area shall be prohibited except as follows:

ai. Conveyed via continuous storm pipe downslope to a point where there are no erosion hazard areas/landslide hazard areas downstream or downslope from the discharge;

bii. Discharged at flow durations matching predeveloped conditions, with adequate energy dissipation, into existing channels that previously conveyed stormwater runoff in the predeveloped state; or

eiii. Dispersed discharge upslope of the steep slope onto a low-gradient undisturbed *buffer* demonstrated to be adequate to infiltrate all surface and stormwater runoff, and where it can be demonstrated that such discharge will not increase the saturation of the slope.

7d. Utility Lines and Pipes.

i. Utility lines and pipes shall be permitted in erosion and landslide hazard areas only when the *applicant* demonstrates that no other *practical alternative* is available. The line or pipe shall be located above ground and properly anchored and/or designed so that it will continue to function in the event of an underlying landslide. It must be demonstrated by the applicant that a utility line within the landslide hazard area has been designed in a manner that does not negatively impact the stability of the slope, minimizes or eliminates the potential for rupture or failure, and assures that in the event of failure there will not be a life/safety risk.

Stormwater conveyance shall be allowed only through a high-density polyethylene pipe with fuse-welded joints, or similar product that is technically equal or superior. Automatic shutoff valves shall be provided on petroleum or natural gas lines to isolate the landslide area.

bii. Access roads and to serve utilities may be permitted within a *landslide hazard area* and associated *buffer* if the *City* determines that no other feasible alternative exists, and the road is designed so as not to lower the stability of the slope. Such a road shall not be used for general ingress/egress to the property unless otherwise approved as part of a *development proposal*.

6e. Seasonal Restriction. Permitted *Clearingsite development work* shall be allowed only from May 1st to October 1st of each year; provided, that the *City manager* may extend or shorten the dry season on a case-by-case basis depending on actual weather conditions, except that timber harvest, not including brush clearing or stump removal, may be allowed pursuant to an approved *forest practice* permit issued by the *City* or the *Washington* Department of Natural Resources. An exception may be granted by the *city manager* for emergency repair of structures or landslides when waiting for the clearing window will (1) create a life-threatening risk, (2) do additional damage to the structure, or (3) damage adjacent property or structures.

f. Trails. Trails shall be permitted when all of the following conditions have been met:

i. The proposed trail shall not decrease the existing factor of safety within the *landslide hazard area* or any required *buffer*;

ii. The proposed trail is for pedestrian use only, and is a maximum of 4 (four) feet wide;

iii. The trail shall not be sited within a *landslide hazard area* or associated *buffer* when there is such a high risk of *landslide* activity that the use of the trail would be hazardous; and

iv. The trail shall be designed and constructed using an engineered drainage system or other methods to prevent the trail surface from becoming a drainage course.

9g. Subdivisions. The division of land in *landslide hazard areas* and associated *buffers* is subject to the following:

aj. Land that is located wholly within a *landslide hazard area* or its *minimum buffer* as required by 18.55.650.B.1.a KMC may shall not be subdivided.

ii. Land that is located partially within a *landslide hazard area* or its *minimum buffer* may be divided; provided, that each resulting lot has sufficient buildable area outside of, and will not affect, or be affected by, the *landslide hazard area* or its *buffer*; and. For single-family residential subdivisions and short subdivisions on sites in the R-4 zone located partially within a *landslide hazard area* and its *minimum buffer*, minimum lot size in the area outside of the

landslide hazard area and its *buffer* may be reduced to 5,400 sq.ft. with no limitation on the percentage of smaller *lots*, regardless of KMC 18.21.030 footnote 16. These smaller *lots* shall be located so as to have the least impact on surrounding properties in terms of consistency of *street frontages* and privacy of abutting properties and the *lot area* shall exclude access easements and access panhandles.

iii. Access roads shall be allowed within a *landslide hazard area* and associated *buffer* only if the *City* determines that no other feasible alternative exists, and the road is designed so as not to lower the stability of the slope.

40h. Prohibited *Development*. On-site sewage disposal systems, including drain fields, shall be prohibited within *landslide hazard areas* and related *buffers*.

2. High Landslide Hazard Areas – Additional Standards.

a. No new *alteration* shall be permitted in a high *landslide hazard area* unless approved as a *reasonable use exception*, KMC 18.55.180.

b. Modifications to a previously approved *alteration*, including remodeling of an existing residence, in a high *landslide hazard area* may be permitted only if a *critical areas report* is submitted demonstrating that the proposal is determined to be safe as sited and designed and under anticipated conditions by a qualified engineer, or engineering *geologist*, as appropriate, licensed in the State of Washington.

3. Moderate Landslide Hazard Areas – Additional Standards.

4a. Design Standards. *Alterations of a moderate landslide hazard area and/or its buffer* may only occur for activities for which a *critical areas report* is submitted. *Alterations within an erosion hazard area, landslide hazard area and/or buffer* shall be designed to meet the following basic requirements unless it can be demonstrated that an alternative design that deviates from one or more of these standards provides greater long-term slope stability while meeting all other provisions of this *chapter/article*. The requirement for long-term slope stability shall exclude designs that require regular and periodic maintenance to maintain their level of function. The basic *development* design standards are:

ai. The proposed *development* shall not decrease the factor of safety for *landslide* occurrences below the limits of 1.5 for static conditions and 1.2 for dynamic conditions.

Analysis of dynamic conditions shall be based on a minimum horizontal acceleration as established by the current version of the International Building Code;

eii. Structures and improvements shall minimize *alterations* to the natural contour of the slope and foundations shall be tiered where possible to conform to existing topography;

ejii. Structures and improvements shall be located to preserve the most critical portion of the *site* and its natural landforms and *vegetation*;

eiv. The proposed *development* shall not decrease slope stability on adjacent properties or result in greater risk or a need for increased *buffers* on neighboring properties;

fv. The use of *retaining walls* that allow the maintenance of existing natural slope area is preferred over graded artificial slopes; and

gvi. *Development* shall be designed to minimize impervious *lot* coverage.

11C. Slopes Created by Previous Grading. Artificial slopes meeting the criteria of a *landslide hazard area* based on slope steepness and height that were created through previous permitted *grading* or are legally non-conforming may be further altered or graded provided the *applicant* provides information from a *qualified professional* demonstrating that the naturally occurring slope, as it existed prior to the permitted *grading*, did not meet any of the criteria for a *landslide hazard area* and that a new hazard will not be created. Previously graded slopes meeting the criteria of a landslide hazard area that were not permitted or were illegally created are considered to be landslide hazard areas.

BD. Seismic Hazard Areas. Activities proposed to be located in *seismic hazard areas* shall meet the standards of KMC 18.55.640, Performance standards – General requirements, and the International Building Code. Development or renovation of property in designated tsunami or seiche zones, when identified by the USGS or Washington State Department of Natural Resources, may be allowed if taking into account *Designing for Tsunamis, Seven Principles for Planning and Designing for Tsunami Hazards* (National Tsunami Hazard Mitigation Program, 2001) and following the regulations for floodways.

CE. Other Hazard Areas. Activities on *sites* containing or adjacent to other *geologically hazardous areas* shall meet the standards of KMC 18.55.640, Performance standards – General requirements.

Article XIX. Flood Hazard Areas

(EXISTING ARTICLE XIX IS ENTIRELY REPLACED WITH THE FOLLOWING NEW TEXT)

18.55.700 Purpose.

The Washington State Legislature has delegated the responsibility to each community to adopt *floodplain* management regulations consistent with the National Flood Insurance Program designed to promote the public health, safety and general welfare of its citizenry. The State Legislature also has established that *floodplains* and other areas subject to *flooding* perform important hydrologic functions, and as such they must also be regulated as *critical areas* under the Growth Management Act (GMA). This article addresses both mandates as an integrated set of regulations.

The *flood hazard areas* of the City of Kenmore, which encompass the Federal Emergency Management Agency (FEMA)-designated *areas of special flood hazard*, are subject to periodic inundation which may result in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for *flood* protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare. These *flood* losses may be caused by the cumulative effect of development in areas of *flood* hazard which increase *flood* heights and velocities.

Uses that are inadequately floodproofed, elevated, anchored, or otherwise protected from *flood* damage contribute to *flood* losses and may cause damage in other areas. The purpose of this article is to establish minimum standards for developments located within or adjacent to *flood hazard areas*, including *areas of special flood hazard*. The following statements describe the purpose of this article:

- A. Protect human life and health;
- B. Minimize expenditure of public money and costly *flood* control projects;
- C. Minimize the need for rescue and relief efforts associated with *flooding*;
- D. Minimize prolonged business interruptions;
- E. Minimize damage to public infrastructure, facilities and utilities;
- F. Minimize damage to critical fish and wildlife habitat areas;
- G. Protect frequently flooded areas that provide natural and beneficial ecological functions, including providing vital habitat to support salmon and other fish and wildlife species;
- H. Ensure that potential buyers are notified that property is in a *flood hazard area*;
- I. Ensure that those who occupy *flood hazard areas* assume responsibility for their actions; and

J. Qualify for participation in the National Flood Insurance Program, thereby providing owners located within the mapped *area of special flood hazard* the opportunity to purchase *flood insurance*.

18.55.705 Definitions.

Most of the terms used in this article are defined in Chapter 18.20 KMC. However, there are some terms used in this article that are required to have unique meanings separate from those in Chapter 18.20 KMC. Those terms listed below are defined in 44CFR 59.1 and supersede those provided in Chapter 18.20 KMC for purposes of administering this article. Any undefined terms used in these definitions will also be based on 44CFR 59.1.

A. "Appeal" means a request for a review of the interpretation of any provision of this article or a request for a variance.

B. "Development" means any man-made change to improved or unimproved real estate, including but not limited to *buildings* or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.

C. "Existing manufactured home park or subdivision" means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the *floodplain* management regulations adopted by the *City*.

D. "Highest adjacent grade" means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

E. "Manufactured home" means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term manufactured home does not include a recreational vehicle.

F. "New construction" means, for the purposes of determining insurance rates, structures for which the *start of construction* commenced on or after the effective date of an initial *Flood Insurance Rate Map* or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures. For *floodplain* management purposes, new construction means structures for which the *start of construction* commenced on or after the effective date of a *floodplain* management regulation adopted by the *City* and includes any subsequent improvements to such structures.

G. "Recreational vehicle" means a vehicle which is:

1. Built on a single chassis;

2. 400 square feet or less when measured at the largest horizontal projection;

3. Designed to be self-propelled or permanently towable by a light-duty truck; and

4. Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

H. "Structure" means, for floodplain management purposes, a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home.

I. "Substantial improvement" means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the start of construction of the improvement. This term includes structures which have incurred substantial damage, regardless of the actual repair work performed. The term does not, however, include either:

1. Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions; or

2. Any alteration of an historic structure, provided that the alteration will not preclude the structure's continued designation as an historic structure.

J. "Variance" means a grant of relief by the City from the terms of a floodplain management regulation.

18.55.707 Lands to which this Article applies.

This article shall apply to all flood hazard areas within the jurisdiction of the City of Kenmore, including areas of special flood hazards as mapped by FEMA and shown on the FIRM.

18.55.710 Basis for establishing flood hazard area.

A. The City shall determine the flood hazard area after obtaining, reviewing and utilizing base flood elevations and available floodway data for a flood having a one percent chance of being equaled or exceeded in any given year, often referred to as the "100-year flood." The base flood is determined for existing conditions, unless a basin plan including projected flows under future developed conditions has been completed and adopted by the City, in which case these future flow projections shall be used.

B. The areas of special flood hazard identified by the Federal Insurance Administrator (FIA) in a scientific and engineering report entitled "The Flood Insurance Study of King County, Washington and Incorporated

Areas," dated November 8, 1999, and any revisions thereto, with an accompanying effective *flood insurance rate map (FIRM)*, dated November 8, 1999, and any revisions thereto, are hereby adopted by reference and declared to be a part of this article. The *flood insurance study* is on file at Kenmore City Hall. In areas where the *flood insurance study* for the City includes detailed *base flood elevation* calculations, those calculations will be used until projections of future flows are completed and approved by the City and FEMA.

C. The City may use other sources of *flood hazard data* to determine *floodplain boundaries, floodway boundaries, base flood elevations* or cross sections when identifying a *flood hazard area* if the data from sources listed below is more restrictive than the effective data:

1. Preliminary Flood Insurance Rate Maps;
2. Preliminary Flood Insurance Studies;
3. Draft *flood boundary work maps* and associated technical reports;
4. *Critical area* reports prepared in accordance with FEMA standards contained in 44 C.F.R. Part 65 and consistent with the King County Surface Water Design Manual provisions for *floodplain analysis*;
5. Approved Letter of map amendments;
6. Approved Letter of map revisions;
7. Channel migration zone maps and studies;
8. Historical *flood hazard* information;
9. Wind and wave data provided by the United States Army Corps of Engineers; and
10. Any other available data that accurately classifies and delineates the *flood hazard area* or *base flood elevation*.

D. Where elevation data is not available either through the *flood insurance study* or from the *FIRM*, or another authoritative source for the City to administer the *floodplain development requirements*, applications for building permits shall be reviewed to ensure that proposed construction will be reasonably safe from *flooding*. The test of reasonableness is a federal, state or local source; historical data; documented high water marks; photographs of past *flooding*; or additional modeling studies, etc., where available. Structures shall be elevated two feet above the highest adjacent grade in these zones.

E. Where *base flood elevation* data has not been provided or is not available from another authoritative source, it shall be generated for subdivision proposals and other proposed developments which contain at least 50 *lots* or five acres (whichever is less).

18.55.715 Permits.

A. Development Permit Required. A development permit shall be obtained before construction or development begins within any *flood hazard area*. The permit shall be for all structures, including manufactured homes as defined in KMC 18.55.705, and for all development as defined in KMC 18.55.705.

B. Application for Development Permit. Application for a development permit shall be made on forms furnished by the City of Kenmore and may include but not be limited to plans drawn to scale showing the nature, location, dimensions, and elevations of the area in question, existing or proposed structures, fill, storage of materials, drainage facilities, and the location of the foregoing. Specifically, the following information is required:

1. Elevation in relation to mean sea level and the effective *flood study base flood elevation survey datum* of the *lowest floor* (including *basement*) of all structures;
2. Elevation in relation to mean sea level and the effective *flood study base flood elevation survey datum* to which any structure has been floodproofed;
3. Map depicting existing conditions, *wetlands*, *streams*, waterbodies, designated fish and wildlife habitats of importance, the boundary of the *flood hazard area* and *floodway*, and the location of grading and structures in the proposed development.
4. Description of the extent to which a watercourse will be altered or relocated as a result of proposed development; and
5. Certification by a registered professional engineer or architect that the *floodproofing* methods for any nonresidential structure meet the *floodproofing* standards in this article.

C. All elevated construction shall be designed and certified by a professional structural engineer licensed by the State of Washington and shall be approved by the *City* prior to construction.

D. Prior to approving any permit, the *City* shall determine that all permits required by State or federal law have been obtained.

E. A notice on title shall be recorded consistent with KMC 18.55.250.

18.55.720 Final certification by surveyor.

A. For all new structures or substantial improvements in a *flood hazard area*, the *applicant* shall provide certification by a professional land surveyor licensed by the State of Washington of:

1. The actual as-built elevation of the *lowest floor*, including *basement*; and
2. The actual as-built elevation to which the structure is floodproofed, if applicable.

B. The surveyor shall indicate if the structure has a *basement*.

18.55.723 Designation and responsibilities of the local administrator.

The *city manager* is hereby appointed to administer and implement this article by granting or denying development permit applications in accordance with its provisions. Duties of the *city manager* shall include, but not be limited to:

A. Review of the *flood hazard area* maps, and other source documents, for any *development proposal* to determine whether the proposed project area for a regulated activity falls within a potential *flood hazard area*;

B. Review of proposed development located within a *flood hazard area* to ensure compliance with the *flood hazard area* standards set forth in this article; and.

C. Interpretation of *flood hazard area* boundaries. The *city manager* shall make interpretations, where needed, as to exact location of the boundaries of the *flood hazard area*, including the FEMA-mapped *area of special flood hazard* (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation to the *hearing examiner* as provided in KMC Chapter 19.30.

18.55.725. Information to be obtained and maintained by the City.

A. The *City* shall obtain, verify and record the actual elevation (in relation to mean sea level and the *base flood elevation datum*) of the *lowest floor* (including *basement*) of all new or substantially improved structures, and whether or not the structure contains a *basement*.

B. For all new or substantially improved floodproofed structures, the *City* shall maintain the *floodproofing* certifications required in this article.

C. Alteration of Watercourses.

1. The City shall notify adjacent communities and the Department of Ecology, or federal resource agencies where required, prior to any *alteration* or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administrator through appropriate notification means.
2. The City shall require that the *flood* carrying capacity of the altered or relocation portion of said watercourse is maintained.
3. *Base flood elevations* may increase or decrease resulting from physical changes affecting *flooding* conditions. If a project will alter the *base flood elevation* or boundaries of the *area of special flood hazard*, then the project proponent shall provide the City with engineering documentation and analysis regarding the proposed change. If the change to the *base flood elevation* or boundaries of the *area of special flood hazard* would normally require a Letter of Map Change, then the *applicant* shall initiate, and receive approval of, a Conditional Letter of Map Revision (CLOMR) prior to approval of the development permit. The project shall be constructed in a manner consistent with the approved CLOMR. As soon as practicable, but not later than six months after the date such information becomes available, the *city manager* shall notify the Federal Insurance Administrator of the changes by submitting technical or scientific data in accordance with Volume 44 Code of Federal Regulations Section 65.3. The City reserves the right to require the *applicant* to develop and provide the required technical or scientific data. Such a submission is necessary so that upon confirmation of those physical changes affecting *flooding* conditions, risk premium rates and *floodplain* management requirements will be based upon current data.
4. The City shall notify the Federal Insurance Administrator in writing of acquisition by means of annexation, incorporation or otherwise, of additional areas of jurisdiction.

D. The City shall maintain for public inspection all records pertaining to the provisions of this article.

18.55.730 Development standards applicable to all flood hazard areas.

Development proposals on sites within flood hazard areas, including the area of special flood hazard, shall meet the following requirements:

A. *Buffers. No critical area buffer is required for a flood hazard area.*

B. *Anchoring.*

1. All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy; and

2. All manufactured homes must likewise be anchored to prevent flotation, collapse, or lateral movement, and shall be installed using methods and practices that minimize *flood* damage. Anchoring methods may include, but are not limited to, use of over-the-top or frame ties to ground anchors (reference FEMA's "Manufactured Home Installation in Flood Hazard Areas" guidebook for additional techniques).

C. Construction Materials and Methods.

1. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to *flood* damage.
2. All new construction and substantial improvements shall be constructed using methods and practices that minimize *flood* damage.
3. Electrical, heating, ventilation, plumbing, and air-conditioning equipment and other utility and service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of *flooding*.
4. Adequate drainage paths shall be provided around structures on slopes to guide floodwaters around and away from proposed structures.

D. Utilities.

1. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.
2. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharge from the systems into floodwaters.
3. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during *flooding*. They shall be, to the extent possible, located outside of the *flood hazard area*. The installation of a new on-site sewage disposal system in the *flood hazard area* may be allowed if no feasible alternative *site* is available.
4. Above-ground utility transmission lines, other than electric transmission lines, shall only be allowed for the transport of *nonhazardous substances*.
5. Buried utility transmission lines transporting *hazardous substances* shall be buried at a minimum depth of four feet below the maximum depth of scour for the *base flood*, as predicted by a

professional civil engineer licensed by the State of Washington, and shall achieve sufficient negative buoyancy so that any potential for flotation or upward migration is eliminated.

6. Water wells shall be located on high ground that is not in the *floodway*.

E. Encroachments.

The cumulative effect of any proposed development, where combined with all other existing and anticipated development, shall not increase the water surface elevation of the *base flood* more than one foot at any point within the *City*.

18.55.740 Development standards for specific uses in flood hazard areas.

A. Residential Construction.

1. New construction and substantial improvement of any residential structure shall have the *lowest floor*, including *basement*, elevated one foot above the *base flood elevation*. In any *flood hazard area* where the *base flood elevation* has not been determined on the *FIRM*, the *base flood elevation* is determined by the *city manager* consistent with KMC 18.55.710.

2. Fully enclosed areas below the *lowest floor* that are subject to *flooding* are prohibited unless used solely for parking, access or storage. These areas shall be designed to automatically equalize hydrostatic *flood* forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:

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

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

c. Openings may be equipped with screens, louvers, or other coverings or devices; provided, that they permit the automatic entry and exit of floodwaters.

B. Manufactured Homes.

1. Except as noted in B.2, all manufactured homes to be placed or substantially improved within any *flood hazard area* shall be elevated on a permanent foundation such that the *lowest floor* of the manufactured home is elevated one foot above the *base flood elevation* and shall be securely anchored to an adequately designed foundation system to resist flotation, collapse and lateral

movement. In any *flood hazard area* where the *base flood elevation* has not been determined on the *FIRM*, the *base flood elevation* is determined by the *city manager* consistent with KMC 18.55.710. The *City* reserves the right to require the *applicant* to perform the engineering studies necessary to determine the *base flood elevation*.

2. Manufactured homes to be placed or substantially improved on sites in an existing manufactured home park or subdivision within a *flood hazard area* that have not incurred *substantial damage* as the result of a *flood* shall be elevated so that either:

a. The *lowest floor* of the manufactured home is elevated one foot above the *base flood elevation*; or

b. The manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade and is securely anchored to an adequately designed foundation system to resist flotation, collapse, and lateral movement.

C. Nonresidential Construction. New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the *lowest floor*, including *basement*, elevated one foot above the *base flood elevation*; or, together with attendant utility and sanitary facilities, shall:

1. Be floodproofed so that below one foot above the *base flood* level the structure is watertight with walls substantially impermeable to the passage of water;

2. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;

3. Be certified by a professional civil or structural engineer licensed by the State of Washington that the *floodproofing* methods are adequate to withstand the *flood* depths, pressures, velocities, impacts, uplift forces and other factors associated with the *base flood*. After construction, the engineer shall certify that the permitted work conforms with the approved plans and specifications;

4. Nonresidential structures that are elevated, not floodproofed, must meet the same standards for space below the *lowest floor* as described in subsection (A)(2) of this section;

5. Approved building permits for floodproofed nonresidential structures shall contain a statement notifying *applicants* that *flood* insurance premiums shall be based upon rates for structures which are one foot below the floodproofed level (e.g., a *building* floodproofed to the *base flood* level will be rated as one foot below);

6. Sewage and agricultural waste storage facilities shall be floodproofed to the *flood protection elevation*.

D. Recreational Vehicles. Recreational vehicles placed on *sites* within *flood hazard areas* shall either:

1. Be on the *site* for fewer than 180 consecutive days;
2. Be fully licensed and ready for highway use, on their wheels or jacking systems, attached to the *site* only by quick disconnect type utilities and security devices, and have no permanently attached additions; or
3. Meet the requirements of subsection B of this section, including the elevation and anchoring requirements.

E. *Critical facility*. Construction of new *critical facilities* shall be, to the extent possible, located outside the limits of *flood hazard areas*, including the *area of special flood hazard*. Construction of new *critical facilities* shall be permissible within the *flood hazard area* if no feasible alternative *site* is available and if the proposal is evaluated through the *conditional use permit* process. *Critical facilities* constructed within the *flood hazard area* shall have the *lowest floor* elevated three feet or more above the level of the *base flood elevation* (100-year) at the *site*. *Floodproofing* and sealing measures shall be taken to ensure that *hazardous substances* will not be displaced by or released into floodwaters. Access routes elevated to or above the level of the *base flood elevation* shall be provided to all *critical facilities* from the nearest maintained public *street* or roadway.

F. Subdivisions, short subdivisions and binding site plans shall meet the following requirements:

1. New building *lots* shall contain 5,000 square feet or more of buildable land outside the *flood hazard area*, and building *setback* areas shall be shown on the face of the plat to restrict permanent structures to this buildable area;
2. All utilities and facilities such as sewer, gas, electrical and water systems shall be located and constructed consistent with KMC 18.55.730;
3. *Base flood* data and *flood hazard* notes shall be shown on the face of the recorded subdivision, short subdivision or binding site plan including, but not limited to, the *base flood elevation*, required *flood protection elevations* and the boundaries of the *flood hazard area* and the *floodway*, if determined;

4. The following notice shall also be shown on the face of the recorded subdivision, short subdivision or binding site plan for all affected *lots*:

5. All subdivision proposals shall be consistent with the need to minimize *flood damage*; and

6. All subdivision proposals shall have adequate drainage provided to reduce exposure to *flood damage*.

NOTICE

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

18.55.750 Development in the floodway.

A. Encroachments. Encroachments, including fill, new construction, substantial improvements, and other development, within the adopted regulatory *floodway* are prohibited unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachments shall not result in any increase in *flood* levels within the *City* during the occurrence of the *base flood discharge*.

B. If the requirements in Subsection A are satisfied, the requirements which apply to *all flood hazard areas* (KMC 18.55.730 and .740), including the *area of special flood hazard*, shall also apply to all new construction and substantial improvements in the *floodway*. The more restrictive requirements shall apply where there is a conflict.

C. Any *development proposal*, including, but not limited to, new or reconstructed structures, that results in any increase in the *base flood elevation* shall meet the following requirements:

1. Amendments to the *flood insurance rate map* are approved and adopted by FEMA, in accordance with all requirements of 44CFR 65.7, to incorporate the increase in the *base flood elevation*; and

2. Appropriate legal documents are prepared in which all property owners affected by the increased *flood elevations* consent to the impacts on their property. These documents shall be filed with the title of record for the affected properties.

D. If allowed, post or piling construction techniques which permit water flow beneath a structure shall be used.

18.55.760 Habitat assessment

To comply with Federal Endangered Species Act requirements, the *applicant* shall provide an assessment of impacts to federal, state or locally listed species, habitat, water quality and aquatic *riparian* habitat impacts, for any proposal lying within a mapped *area of special flood hazard*. See KMC Chapter 18.55, Article XIV.

18.55.770 Warnings and disclaimer of liability.

The degree of *flood* protection required by this article is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. *Floods* larger than the regulatory *base flood* can and will occur. *Flooding* and *flood* hazards may occur in unmapped areas. *Flood* heights may be increased by manmade or natural causes. This article does not imply that land outside *flood hazard areas* or *uses* permitted within such areas will be free from *flooding* or *flood* damages. This article shall not create liability on the part of the City of Kenmore, any officer or employee thereof, or the Federal Emergency Management Agency for any *flood* damages that result from reliance on this article or any administrative decision lawfully made hereunder.

18.55.780 Variances in flood hazard areas.**A. Conditions for Variances.**

1. Generally, the only condition under which a variance from the elevation standard may be issued is for new construction and substantial improvements to be erected on a *lot* of one-half acre or less in size contiguous to and surrounded by *lots* with existing structures constructed below the *base flood* level; providing subsections (B)(1) through (B)(11) of this section have been fully considered. As the lot size increases the technical justification required for issuing the variance increases.
2. Variances may be issued for the repair or rehabilitation of *historic structures* or the *City's* local landmarks, upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a *historic structure* and the variance is the minimum necessary to preserve the historic character and design of the structure.
3. Variances shall not be issued within a designated *floodway* if any increase in *flood* levels during the *base flood* discharge would result.
4. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the *flood* hazard, to afford relief.
5. Variances shall only be issued upon:

a. A showing of good and sufficient cause;

b. A determination that failure to grant the variance would result in exceptional hardship to the applicant; and

c. A determination that the granting of a variance will not result in increased *flood* heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.

6. Variances as interpreted in the National Flood Insurance Program are based on the general zoning law principle that they pertain to a physical piece of property; they are not personal in nature and do not pertain to the structure, its inhabitants, economic or financial circumstances. They primarily address small *lots* in densely populated residential neighborhoods. As such, variances from the *flood* elevations should be quite rare.

7. Variances may be issued for nonresidential *buildings* in very limited circumstances to allow a lesser degree of *floodproofing* than watertight or dry *floodproofing*, where it can be determined that such action will have low damage potential, complies with all other variance conditions except subsection (A)(1) of this section and otherwise complies with KMC 18.55.730(A) and (B).

8. Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a *lowest floor* elevation below the *base flood elevation* and that the cost of *flood* insurance will be commensurate with the increased risk resulting from the reduced *lowest floor* elevation.

B. If a variance to the standards in this article is proposed, the decisionmaker shall consider, in addition to the conditions itemized in subsection A, above, and the standard *variance* criteria itemized in KMC 18.115.030:

1. The danger that materials may be swept onto other lands to the injury of others;

2. The danger to life and property due to *flooding* or *erosion* damage;

3. The susceptibility of the proposed facility and its contents to *flood* damage and the effect of such damage on the individual owner;

4. The importance of the services provided by the proposed facility to the community;

5. The necessity to the facility of a waterfront location, where applicable;

6. The availability of alternative locations for the proposed *use* which are not subject to *flooding* or *erosion* damage;

7. The compatibility of the proposed *use* with existing and anticipated development;

8. The relationship of the proposed *use* to the comprehensive plan and *floodplain* management program for that area;

9. The safety of access to the property in times of *flood* for ordinary and emergency vehicles;

10. The expected depths, heights, velocity, duration, rate of rise, and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the *site*; and

11. The costs of providing governmental services during and after *flood* conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and *streets* and bridges.

C. The *city manager* shall report any variances to the Federal Emergency Management Agency upon request.

18.55.790 Penalties for noncompliance.

No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this article and other applicable regulations. Violations of the provisions of this article by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions) shall constitute a misdemeanor. Nothing herein contained shall prevent the City of Kenmore from taking such other lawful action as is necessary to prevent or remedy any violation.

18.55.795 Abrogation and greater restrictions.

This article is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this article and another ordinance, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

18.55.700 Flood hazard areas.

A. *Flood hazard areas* consist of the following components:

1. *Floodplain*;

2. *Flood fringe*;

3. *Zero-rise floodway*; and

4. *Federal Emergency Management Agency (FEMA) floodway*.

B. The City shall determine the *flood hazard area* after obtaining, reviewing and utilizing *base flood elevations* and available floodway data for a flood having a one-percent chance of being equaled or exceeded in any given year, often referred to as the "100-year flood." The *base flood* is determined for existing conditions, unless a basin plan including projected flows under future developed conditions has been completed and adopted by the City, in which case these future flow projections shall be used. In areas where the flood insurance study for the City includes detailed *base flood* calculations, those calculations may be used until projections of future flows are completed and approved by the City.

18.55.710 Flood fringe – Development standards and permitted alterations.

Development proposals on sites within the flood fringe area shall meet the following requirements:

A. *Development proposals shall not reduce the effective base flood storage volume of the floodplain. Grading or other activity which would reduce the effective storage volume shall be mitigated by creating compensatory storage on the site or off the site if legal arrangements can be made to assure that the effective compensatory storage volume will be preserved over time. Grading for construction of livestock manure storage facilities to control nonpoint source water pollution designed to the standards of and approved by the City is exempt from this compensatory storage requirement.*

B. All elevated construction shall be designed and certified by a professional structural engineer licensed by the State of Washington and shall be approved by the City prior to construction.

C. Subdivisions, short subdivisions and binding site plans shall meet the following requirements:

1. New building lots shall contain 5,000 square feet or more of buildable land outside the *zero-rise floodway*, and building setback areas shall be shown on the face of the plat to restrict permanent structures to this buildable area;

2. All utilities and facilities such as sewer, gas, electrical and water systems shall be located and constructed consistent with subsections D, E and H of this section;

3. *Base flood* data and flood hazard notes shall be shown on the face of the recorded subdivision, short subdivision or binding site plan including, but not limited to, the *base flood elevation*, required *flood protection elevations* and the boundaries of the *floodplain* and the *zero-rise floodway*, if determined; and

4. The following notice shall also be shown on the face of the recorded subdivision, short subdivision or binding site plan for all affected lots:

NOTICE

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

D. New residential *structures* and *substantial improvements* of existing residential *structures* shall meet the following requirements:

1. The lowest floor shall be elevated to the *flood protection elevation*;

2. Portions of a *structure* which are below the lowest floor area shall not be fully enclosed. The areas and rooms below the lowest floor shall be designed to automatically equalize hydrostatic and hydrodynamic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for satisfying this requirement shall meet or exceed the following requirements:

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

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

c. Openings may be equipped with screens, louvers or other coverings or devices if they permit the unrestricted entry and exit of floodwaters;

3. Materials and methods which are resistant to and minimize flood damage shall be used; and

4. All electrical, heating, ventilation, plumbing, air conditioning equipment and other utility and service facilities shall be floodproofed to or elevated above the *flood protection elevation*.

E. New nonresidential *structures* and *substantial improvements* of existing nonresidential *structures* shall meet the following requirements:

1. The elevation requirement for residential *structures* contained in subsection (D)(1) of this section shall be met; or

2. The *structure* shall be floodproofed to the *flood protection elevation* and shall meet the following requirements:

a. The *applicant* shall provide certification by a professional civil or structural engineer licensed by the State of Washington that the *floodproofing* methods are adequate to withstand the flood depths, pressures, velocities, impacts, uplift forces and other factors associated with the *base flood*. After construction, the engineer shall certify that the permitted work conforms with the approved plans and specifications; and

b. Approved building permits for floodproofed nonresidential *structures* shall contain a statement notifying *applicants* that flood insurance premiums shall be based upon rates for *structures* which are one foot below the floodproofed level;

3. Materials and methods which are resistant to and minimize flood damage shall be used; and

4. All electrical, heating, ventilation, plumbing, air conditioning equipment and other utility and service facilities shall be floodproofed to or elevated above the *flood protection elevation*.

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

G. *Mobile homes* and *mobile home parks* shall meet the following requirements:

1. *Mobile homes* shall meet all requirements for flood hazard protection for residential *structures*, shall be anchored and shall be installed using methods and practices which minimize flood damage; and

2. No permit or approval for the following shall be granted unless all *mobile homes* within the *mobile home park* meet the requirements for flood hazard protection for residential *structures*:

a. A new *mobile home park*;

b. An expansion of an existing *mobile home park*; or

c. Any repair or reconstruction of *streets*, utilities or pads in an existing *mobile home park* which equals or exceeds 50 percent of the value of such *streets*, utilities or pads.

H. Utilities shall meet the following requirements:

1. New and replacement utilities including, but not limited to, sewage treatment facilities shall be floodproofed to or elevated above the *flood protection elevation*;

2. New on-site sewage disposal systems shall be, to the extent possible, located outside the limits of the *base flood elevation*. The installation of new on-site sewage disposal systems in the *flood fringe* may be allowed if no feasible alternative *site* is available;

3. Sewage and agricultural waste storage facilities shall be floodproofed to the *flood protection elevation*;

4. Above-ground utility transmission lines, other than electric transmission lines, shall only be allowed for the transport of nonhazardous substances; and

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

I. *Critical facilities* may be allowed within the *flood fringe* of the *floodplain*, but only when no feasible alternative *site* is available. *Critical facilities* shall be evaluated through the *conditional or special use permit* process. *Critical facilities* constructed within the *flood fringe* shall have the lowest floor elevated to three or more feet above the *base flood elevation*. *Floodproofing* and sealing measures shall be taken to ensure that *hazardous substances* will not be displaced by or released into floodwaters. Access routes elevated to or above the *base flood elevation* shall be provided to all *critical facilities* from the nearest maintained public *street* or roadway.

J. Prior to approving any permit for alterations in the *flood fringe*, the *City* shall determine that all permits required by State or federal law have been obtained.

18.55.720 Zero-rise floodway – Development standards and permitted alterations.

A. The requirements which apply to the *flood fringe* shall also apply to the *zero-rise floodway*. The more restrictive requirements shall apply where there is a conflict.

B. A *development proposal* including, but not limited to, new or reconstructed *structures* shall not cause any increase in the *base flood elevation* unless the following requirements are met:

1. Amendments to the *flood insurance rate map* are adopted by FEMA, in accordance with [44 CFR 70](#), to incorporate the increase in the *base flood elevation*; and

2. Appropriate legal documents are prepared in which all property owners affected by the increased flood elevations consent to the impacts on their property. These documents shall be filed with the title of record for the affected properties.

C. The following are presumed to produce no increase in *base flood elevation* and shall not require a special study to establish this fact:

1. New residential *structures* outside the *FEMA floodway* on *lots* in existence before November 27, 1990, which contain less than 5,000 square feet of buildable land outside the *zero-rise floodway* and which have a total building footprint of all proposed *structures* on the lot of less than 2,000 square feet;

2. *Substantial improvements* of existing residential *structures* in the *zero-rise floodway*, but outside the *FEMA floodway*, where the footprint is not increased; or

3. *Substantial improvements* of existing residential *structures* meeting the requirements for new residential *structures* in KMC 18.55.710.

D. Post or piling construction techniques which permit water flow beneath a *structure* shall be used.

E. All temporary *structures* or substances hazardous to public health, safety and welfare, except for *hazardous household substances* or consumer products containing *hazardous substances*, shall be removed from the *zero-rise floodway* during the flood season from September 30th to May 1st.

F. New residential *structures* or any *structure* accessory to a residential use shall meet the following requirements:

1. The *structures* shall be outside the *FEMA floodway*; and

2. The *structures* shall be on *lots* in existence before November 27, 1990, which contain less than 5,000 square feet of buildable land outside the *zero-rise floodway*.

G. Utilities may be allowed within the *zero-rise floodway* if the City determines that no feasible alternative *site* is available, subject to the following requirements:

1. Installation of new on-site sewage disposal systems shall be prohibited unless a waiver is granted by Seattle/King County public health; and

2. Construction of sewage treatment facilities shall be prohibited.

H. *Critical facilities* shall not be allowed within the *zero-rise floodway* except as provided in subsection J of this section.

I. Livestock manure storage facilities and associated nonpoint source water pollution facilities designed, constructed and maintained to the standards of and approved in a conservation plan by the City may be allowed if the City reviews and approves the location and design of the facilities.

J. Structures and installations which are dependent upon the floodway may be located in the floodway if the development proposal is approved by all agencies with jurisdiction. Such structures include, but are not limited to:

1. Dams or diversions for water supply, flood control, hydroelectric production, irrigation or fisheries enhancement;

2. Flood damage reduction facilities, such as levees and pumping stations;

3. Stream bank stabilization structures where no feasible alternative exists for protecting public or private property;

4. Stormwater conveyance facilities subject to the development standards for streams and wetlands and the surface water design manual;

5. Boat launches and related recreation structures;

6. Bridge piers and abutments; and

7. Other fisheries enhancement or stream restoration projects.

18.55.730 FEMA floodway – Development standards and permitted alterations.

A. The requirements which apply to the zero-rise floodway shall also apply to the FEMA floodway. The more restrictive requirements shall apply where there is a conflict.

B. A development proposal including, but not limited to, new or reconstructed structures shall not cause any increase in the base flood elevation.

C. New residential or nonresidential structures are prohibited within the FEMA floodway.

D. Substantial improvements of existing residential structures in the FEMA floodway, meeting the requirements of WAC 173-158-070, as amended, are presumed to produce no increase in base flood elevation and shall not require a special study to establish this fact.

18.55.740 Flood hazard areas – Certification by engineer or surveyor.

A. For all new *structures* or *substantial improvements* in a *flood hazard area*, the *applicant* shall provide certification by a professional civil engineer or land surveyor licensed by the State of Washington of:

1. The actual as-built elevation of the lowest floor, including *basement*; and

2. The actual as-built elevation to which the *structure* is floodproofed, if applicable.

B. The engineer or surveyor shall indicate if the *structure* has a *basement*.

C. The *City* shall maintain the certifications required by this section for public inspection.

18.55.750 Channel relocation and stream meander areas.

No *structure* shall be allowed which would be at risk due to channel relocation or stream meander until the promulgation of a public rule.

Article XX. Groundwater Susceptibility and Critical Aquifer Recharge Areas

(ARTICLE XX IS ENTIRELY NEW TEXT)

18.55.800 Designation of groundwater susceptibility and critical aquifer recharge areas.

Groundwater recharge areas play an important role in groundwater quality and the general environmental health of the area in which they are located. Although no critical aquifer recharge areas are designated within the city limits at this time, the *City* understands the importance of protecting its groundwater resources. For example, groundwater can be an important source of water in *City streams* and *wetlands*, particularly during dry summer months, which supports associated *vegetation* communities and aquatic habitat. Some communities rely on groundwater for irrigation or drinking water. In the *City*, areas susceptible to groundwater contamination have been designated using the City of Kenmore Groundwater Susceptibility Map, which was developed based on the *Guidance Document for the Establishment of Critical Aquifer Recharge Area Ordinances* (Ecology, 1998). The map is the result of combining the ratings of a variety of factors for areas throughout the *City* including: geologic unit (i.e. depositional environment), near surface permeability (based on the county soil map), and depth to groundwater. The map identifies areas with "moderate" or "high" susceptibility to groundwater contamination.

18.55.810 Critical Areas Report.

A. The purpose of a hydrogeologic assessment report is to evaluate actual hydrogeologic conditions and determine a *site's* proximity to vulnerable groundwater resources. This information then is used to evaluate the likely impacts of proposed activities and to determine appropriate construction practices.

monitoring programs, and other *mitigation* measures required to ensure achievement of the purpose and intent of these regulations.

B. The information required by the hydrogeologic assessment report should be coordinated with the study and reporting requirements for any other *critical areas* located on the *site*.

C. The hydrogeologic assessment report shall be prepared by a *qualified professional* who is a hydrogeologist, *geologist*, or engineer licensed in the State of Washington and has experience in preparing hydrogeologic assessments.

D. The City of Kenmore Groundwater Susceptibility Map, referenced under KMC 18.55.800, identifies the level of evaluation required at a particular *site* within the *City*.

1. Level One Hydrogeological Assessment – Areas of Moderate Susceptibility.

- a. A level one hydrogeologic assessment shall be required for any of the following non-residential proposed activities at *sites* located within groundwater susceptibility zones that are rated as “Moderate Susceptibility:”
 - i. The storage, handling, treatment, use, production, recycling, or disposal of *hazardous substances*, other than *hazardous household substances* used according to the directions specified on the packaging for domestic applications. See RCW 70.105.010.
 - ii. The use of injection wells, including on-site septic systems, except those domestic septic systems releasing less than 14,500 gallons of effluent per day and that are limited to a maximum density of one system per acre.
 - iii. Any other activity determined by the *city manager* likely to have an adverse impact on groundwater quality or quantity, or on groundwater recharge.
- a. A level one hydrogeologic assessment shall include the following *site and development-related* information at a minimum:
 - i. Information regarding geologic and hydrogeologic characteristics of the *site*, including the permeability of the unsaturated zone (soils located above the groundwater table) based on existing data.
 - ii. Groundwater depth, flow direction, and gradient based on available information.

- iii. Location of wells and springs within 1,300 feet of the project area.
- iv. Location of other *critical areas*, including surface waters, within 1,300 feet of the project site.
- v. Available historic water quality data for the area to be affected by the proposed activity.
- vi. *Best Management Practices (BMPs)* proposed to be utilized.

2. Level Two Hydrogeologic Assessment – Areas of High Susceptibility.

- a. A level two hydrogeologic assessment shall be required for any of the following non-residential, proposed activities at *sites* located within groundwater susceptibility zones that are rated as "High Susceptibility:"
 - i. The storage, handling, treatment, use, production, recycling, or disposal of *hazardous substances*, other than *hazardous household substances* used according to the directions specified on the packaging for domestic applications. See RCW 70.105.010.
 - ii. The use of injection wells, including on-site septic systems, except those domestic septic systems releasing less than 14,500 gallons of effluent per day and that are limited to a maximum density of one system per acre.
 - iii. Any other activity determined by the *city manager* likely to have an adverse impact on groundwater quality or quantity, or on groundwater recharge.
- b. A level two hydrogeologic assessment shall include the following *site* and proposal-related information at a minimum, in addition to the requirements for a level one hydrogeologic assessment:
 - i. Historic water quality and elevation data for the area to be affected by the proposed activity compiled for at least the previous five-year period, unless otherwise approved by the *city manager*.
 - ii. Groundwater *monitoring* plan provisions.
 - iii. Discussion of the effects of the proposed project on groundwater quality and quantity, including:

1. Predictive evaluation of groundwater withdrawal effects on nearby wells and surface water features.
 2. Predictive evaluation of contaminant transport based on potential releases to groundwater.
-
- iv. Identification of the type and quantities of any hazardous materials that will be stored, handled, treated, used, produced, recycled, or disposed of on the *site*, including but not limited to materials, such as elevator lift/hydraulic fluid, hazardous materials used during construction, materials used by the building occupants, proposed storage and manufacturing uses, etc.
 - v. Proposed methods of storing any of the above substances, including containment methods to be used during construction and/or use of the proposed facility.
 - vi. Proposed plan for implementing protection standards during construction.
 - vii. A spill prevention, control and countermeasure (SPCC) plan that identifies equipment and/or *structures* that could fail, resulting in an impact. Spill plans shall include provisions for regular inspection, repair, and replacement of *structures* and equipment that could fail.
 - viii. A discussion of past environmental investigations, sampling, spills, or incidents that may have resulted in or contributed to contaminated soil or groundwater at the *site*. Attach copies of all historical and current reports, and sampling results.

Amendments to Chapter 18.20, Definitions

18.20.206.1 Area of special flood hazard

“Area of special flood hazard” means the land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year. Designation on maps always includes the letter “A” or “V.” The area may be designated as Zone A on the FIRM. After detailed ratemaking has been completed in preparation for publication of the flood insurance rate map, Zone A usually is refined into Zones A, AO, AH, A1-30, AE, A99, AR, AR/A1-30, AR/AE, AR/AO, AR/AH, AR/A, VO, or V1-30, VE, or V. For purposes of these regulations, the term “special flood hazard area” is synonymous in meaning with the phrase “area of special flood hazard”.

18.20.228 Bankfull width.

“Bankfull width” means:

(a) For streams - The measurement of the lateral extent of the water surface elevation perpendicular to the channel at bankfull depth. In cases where multiple channels exist, bankfull width is the sum of the individual channel widths along the cross-section.

(b) For lakes, ponds, and impoundments - Line of mean high water.

(c) For periodically inundated areas of associated wetlands - Line of periodic inundation, which will be found by examining the edge of inundation to ascertain where the presence and action of waters are so common and usual, and so long continued in all ordinary years, as to mark upon the soil a character distinct from that of the abutting upland.

18.20.230 Base flood.

“Base flood” means at the flood having a one percent chance of being equaled or exceeded in any given year, often referred to as the “100-year flood.” Designation on the FIRM always includes the letter “A” or “V.”

18.20.240 Base flood elevation

“Base flood elevation” means the water surface elevation of the *base flood* in relation to the National Geodetic Vertical Datum of 1929/~~North American Vertical Datum 1988.~~

18.20.453 Channel width and gradient.

“Channel width and gradient” means a measurement over a representative section of at least 500 linear feet with at least 10 evenly spaced measurement points along the normal stream channel but excluding unusually wide areas of negligible gradient such as marshy or swampy areas, beaver ponds and impoundments. Channel gradient may be determined utilizing stream profiles plotted from United States geological survey topographic maps.

18.20.1055 Fish habitat.

"Fish habitat" means habitat that is used by any fish at any life stage at any time of the year, including potential habitat likely to be used by fish that could be recovered by *restoration* or management and off-channel habitat.

18.20.1057 Flood or flooding

"Flood" or "flooding" means:

A. A general and temporary condition of partial or complete inundation of normally dry land areas from:

1. The overflow of inland waters.
2. The unusual and rapid accumulation or runoff of surface waters from any source.
3. Mudslides (i.e., mudflows) which are proximately caused by flooding as defined in paragraph A.2. of this definition and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current.

B. The collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding as defined in paragraph A.2. of this definition.

18.20.105990 Flood insurance elevation study for King County

"Flood insurance elevation study for King County" means the official report provided by the Federal Insurance Administration which includes flood profiles and the *flood insurance rate map* means an examination, evaluation and determination of flood hazards and, if appropriate, corresponding water surface elevations, or an examination, evaluation and determination of mudslide (i.e., mudflow) and/or flood-related erosion hazards.

18.20.1060 Flood fringe

"Flood fringe" means that portion of the *floodplain area of special flood hazard* outside of the *zero-rise floodway* which is covered by floodwaters during the *base flood*, generally associated with standing water rather than rapidly flowing water.

18.20.1070 Flood hazard areas

"Flood hazard areas" means those areas in the City subject to inundation by the *base flood* (see "area of special flood hazard") and those areas subject to flood risks from *channel relocation* or *stream meander* including, but not limited to, *streams*, *lakes*, *wetlands* and closed depressions.

The latter flood hazard areas may extend outside of the area of special flood hazard mapped by FEMA, but are defined and designated by the City.

18.20.1080 Flood insurance rate map (FIRM)

“Flood insurance rate map (FIRM)” means the official map on which the Federal Insurance Administration Insurance Administrator has delineated ~~some~~ both the special flood hazard areas and the risk premium zones applicable to the community. ~~both the areas of special flood hazards and the risk premium zones applicable to the community.~~ A FIRM that has been made available digitally is called a Digital Flood Insurance Rate Map (DFIRM).

18.20.1090 Flood insurance study (FIS) for King County

“Flood insurance study for King County” means the official report provided by the Federal Insurance Administration which includes flood profiles and the flood insurance rate map. See “Flood elevation study.”

18.20.1110 Floodplain

“Floodplain” means the total area subject to inundation by the base flood. means any land area susceptible to being inundated by water from any source (see definition of “flooding”).

18.20.1120 Floodproofing

“Floodproofing” means any combination of structural and non-structural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents adaptations which will make a structure that is below the flood protection elevation substantially impermeable to the passage of water and resistant to hydrostatic and hydrodynamic loads including the impacts of buoyancy.

18.20.10201125 Federal Emergency Management Agency (FEMA) Floodway

“Federal Emergency Management Agency (FEMA) Floodway” means the channel of the stream a river or other watercourse and that portion of the adjoining adjacent floodplain land areas that must be reserved in order to which is necessary to contain and discharge the base flood flow without cumulatively increasing the base floodwater surface elevation more than one foot a designated height. Also known as the “Regulatory Floodway” or “FEMA floodway.”

18.20.1130 Floodway, zero-rise

“Zero-rise floodway” means the channel of a stream and that portion of the adjoining floodplain which is necessary to contain and discharge the base flood flow without any measurable increase in flood height. A measurable increase in base flood height means a calculated upward rise in the base flood elevation, equal to or greater than 0.01 foot, resulting from a comparison of existing conditions and changed conditions directly attributable to development in the floodplain. This definition is broader than that of the FEMA floodway, but always includes the FEMA floodway. The boundaries of the 100-year floodplain, as shown on the flood insurance study for King County, are considered the boundaries of the zero-rise floodway unless otherwise delineated by a critical area special study.

18.20.1340 Historic structure

"Historic structure" means any structure that is:

A. Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;

B. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

C. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of Interior; or

D. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:

1. By an approved state program as determined by the Secretary of the Interior or
2. Directly by the Secretary of the Interior in states without approved programs.

18.20.1673 Lowest floor

For purposes of flood hazard area regulations, "lowest floor" means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood-resistant enclosure, usable solely for parking of vehicles, building access or storage, in an area other than a basement area, is not considered a building's lowest floor; provided, that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of article XIX of KMC Chapter 18.55.

18.20.1835 Natural waters.

"Natural waters" means all surface waters of the state, only excluding water conveyance systems which are artificially constructed and actively maintained for irrigation.

18.20.2102 Practical alternative.

"Practical alternative" means an alternative that is available and capable of being carried out after taking into consideration effectiveness, engineering feasibility, cost, safety, existing technology, and logistics in light of overall project needs, purposes and objectives, and has less impacts to *critical areas*. For example, a practical alternative to a proposal to place a sidewalk through a *wetland* might be to place an elevated boardwalk through the *wetland*.

18.20.2461 Seasonal low flow and seasonal low water.

"Seasonal low flow" and "seasonal low water" mean the conditions of the 7-day, 2-year low water situation, as measured or estimated by accepted hydrologic techniques.

18.20.2875 Start of construction.

For purposes of flood hazard area regulations, "start of construction" includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, placement or other improvement was within 180 days of the permit date. The "actual start" means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation of the property or accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the "actual start of construction" means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

18.20.2900 Stream.

"Stream" means an area where open surface water produces a defined water contained within a channel or bed, either perennial or intermittent, and classified according to WAC 222-16-030 or 222-16-031. Streams also include natural watercourses modified by man. Streams do not include not including irrigation ditches, canals, wasteways, drains, outfalls, operational spillways, channels, storm or surface water runoff facilities or other wholly artificial watercourses, unless they are used by salmonids or are used to convey a watercourse naturally occurring prior to construction, except those that directly result from the modification to a natural watercourse. Artificial drainage features with documented fish usage are regulated as streams. A channel or bed need not contain water year-round, provided there is evidence of at least intermittent flow during years of normal rainfall.

18.20.2955 Substantial damage

For purposes of flood hazard area regulations, "substantial damage" means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

18.20.3118 Utility.

"Utility" means an enterprise or facility serving the public by means of an integrated system of collection, transmission, distribution, and processing facilities through more or less permanent physical connections between the plant of the serving entity and the premises of the customer. Included are systems for the delivery of natural gas, electricity, telecommunications services, and water, and for the disposal of sewage.

Amendments to other sections of the Zoning Code

18.30.190 Setbacks – Modifications.

The following *setback* modifications are permitted:

A. When the common property line of two *lots* is covered by a *building(s)*, the *setbacks* required by this chapter shall not apply along the common property line; and

B. When a *lot* is located between *lots* having nonconforming *street setbacks*, the required *street setback* for such *lot* may be the average of the two nonconforming *setbacks* or 60 percent of the required *street setback*, whichever results in the greater *street setback*.

C. The *city manager* may reduce *setbacks* in residential zones regulated by KMC 18.21 to 10 feet, and *setbacks* in other zones to 5 feet in order to maximize the protection of a *critical area* or *buffer* and avoid exceptions or variances.

18.40.030 Computation of required off-street parking spaces.

B. An *applicant* may request a modification of the minimum required number of *parking spaces* by providing a parking demand analysis demonstrating that parking demand can be met with a reduced parking requirement. In such cases, the *city manager* may approve a reduction of up to 50 percent of the minimum required number of spaces.

D. Where other provisions of this code stipulate maximum parking allowed or reduced minimum parking requirements, those provisions shall apply.

H. Tree Retention – DC and DR Zones. Where an applicant proposes retention of *trees* in accordance with KMC [18.35.100\(G\)](#) in the DC and DR zones, the *city manager* may reduce parking requirements by one *parking space* for every two *significant trees* that are saved in excess of the significant tree ordinance requirements.

I. Critical Area or Buffer Protection. When unavoidable, the *city manager* may reduce minimum parking requirements in order to maximize the protection of a *critical area* or its *buffer*. The reduction in the number of parking stalls or alternative stall or drive aisle dimensional requirements shall be in proportion to the area to be retained in the *buffer* or *critical area*.