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1 Chapter 21.24  
2 DEVELOPMENT STANDARDS – CRITICAL AREAS

3  
4 Sections:

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- 36 21.24.400 Fish and wildlife habitat conservation areas – Designation.
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- 39 21.24.430 Fish and wildlife habitat conservation area – Critical areas report additional requirements.
- 40 requirements.
- 41 21.24.440 Fish and wildlife habitat conservation areas – Mitigation.

42 **activities**

43 **21.24.010 Purpose.**

44 (1) Introduction. The purpose of this chapter is to designate and classify ecologically critical  
45 areas, to protect these areas and their functions and values, and to supplement the  
46 development regulations contained within the Woodinville Municipal Code through best  
47 available science and additional controls as required by the Growth Management Act.  
48 Additionally, this chapter is intended to encourage development that meets ~~implement~~ the  
49 goals and policies of the ~~Washington State Environmental Policy Act, Chapter 43.21C RCW,~~  
50 ~~and the~~ City of Woodinville Comprehensive Plan. ~~which call for protection of the natural~~  
51 ~~environment and the public health and safety by:~~ These goals include:

**Commented [SC1]:** This section was updated based on recommendations from the Gap Analysis. The purpose section is reoriented to provide a, the connection to the City's Comprehensive Plan, and GMA.

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- 1 (a) Goal E-1: To preserve and enhance aquatic and wildlife habitat.
- 2 (b) Goal E-2: To protect the public from natural hazards resulting from disturbance of the
- 3 environment.
- 4 (c) Goal E-3: To protect and improve water quality.
- 5 (d) Goal E-5: To promote the preservation of Woodinville's Northwest woodland
- 6 character.
- 7 ~~(1) Including the best available science requirements pursuant to the Washington State~~
- 8 ~~Growth Management Act and giving special consideration to anadromous fish when~~
- 9 ~~developing the critical areas regulations;~~
- 10 ~~(2) Establishing development standards to protect defined critical areas;~~
- 11 (2) Scope. Critical areas include critical aquifer recharge areas, geologically hazardous areas,
- 12 wetlands, frequent flood areas, and fish and wildlife habitat conservation areas. The City of
- 13 Woodinville recognizes that critical areas provide a variety of valuable and beneficial
- 14 biological and environmental functions that benefit the City and its residents, but that some
- 15 critical areas may pose a threat to public safety and property. The standards established in
- 16 this chapter are intended to protect critical areas while providing property owners with
- 17 reasonable use of their property. This chapter seeks to:
- 18 (3a) Protecting members of the public and public resources and facilities from injury, loss
- 19 of life, property damage or financial loss due to flooding, erosion, landslides, seismic
- 20 events, soil subsidence or steep slope failures;
- 21 (4b) Maintaining and protect healthy, functioning ecosystems through the protection of
- 22 unique, fragile, and valuable elements of the environment, including ground and
- 23 surface waters, wetlands, and fish and wildlife and their habitats, and to
- 24 conservation of the biodiversity of plant and animal species;
- 25 (5c) Directing activities not dependent on critical areas resources to less ecologically
- 26 sensitive areas and mitigating-mitigate unavoidable impacts to critical areas by
- 27 regulating alterations in and adjacent to critical areas;
- 28 (6d) Preventing cumulative adverse environmental impact to water quality, and
- 29 availability, net loss of wetlands, streams, lakes, fish and wildlife habitat, and the
- 30 overall net loss of wetlands, frequently flooded areas, and fish and wildlife habitat
- 31 conservation areas;
- 32 ~~(7) Protecting unique, fragile and valuable elements of the environment including, but not~~
- 33 ~~limited to, wildlife and its habitat;~~
- 34 ~~(8) Requiring mitigation of unavoidable impacts on environmentally sensitive areas by~~
- 35 ~~regulating alterations in or near critical areas;~~
- 36 ~~(9) Preventing cumulative adverse environmental impacts on water availability, water~~
- 37 ~~quality, wetlands and streams;~~
- 38 ~~(10) Measuring the quantity and quality of wetland and stream resources and preventing~~
- 39 ~~overall net loss of wetland and stream functions;~~
- 40 ~~(11) Protecting the public trust as to navigable waters and aquatic resources;~~
- 41 (12e) Meeting the requirements of the National Flood Insurance Program and
- 42 maintaining-maintain the City of Woodinville as an eligible community for Federal
- 43 federal flood insurance benefits;
- 44 (13f) Alerting members of the public including, but not limited to, appraisers, owners,
- 45 potential buyers, or lessees, to the development limitations of critical areas;
- 46 (14g) Providing for public enjoyment of environmentally-protected critical areas by
- 47 encouraging when feasible and sensible, multiple use of critical area buffers; and
- 48 ~~(15) Providing City officials with sufficient information to protect critical areas.~~
- 49 (h) Serve as a basis for exercise of the City's substantive authority under the State
- 50 Environmental Policy Act (SEPA) and the City's SEPA rules.
- 51

**Commented [SC2]:** Under this Intent section, the reader is introduced to types of critical areas regulated in the City and the importance of regulating critical areas. Where possible, language was consolidated to reduce redundancy.

The following deleted items were moved as follows:  
-(7) was consolidated with (b)  
-(8) was consolidated with (d). The currently used language by state agencies broadly at preventing cumulative adverse impact, which may include mitigation under the umbrella in addition to other measures.  
-(9) was consolidated with (d)  
-(10) was consolidated with (d). Measuring quality/quantity is not necessarily a goal, but it is an implementation measure required in this CAO  
-(11) was consolidated with (g). Staff did not believe it was necessary to include the language related to the public trust as to navigable waters as a separate item. Additionally, the SMP provides additional protections to navigable waters.

**Commented [SC3]:** See note above. These goals were consolidated with other items above.

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1 **21.24.020 Applicability.**

2 (1) **Compliance with This Chapter.** The provisions of this chapter shall apply to all land uses and  
3 activities in the ~~City of Woodinville~~ city limits, and all persons within the ~~City~~ city limits shall  
4 comply with the requirements of this chapter.

5 ~~(2) The City of Woodinville shall not approve any~~ No permit or ~~otherwise issue any~~ authorization  
6 shall be approved or issued to alter the condition of any land, water, or vegetation, or to  
7 construct or alter any structure or improvement without first assuring compliance with the  
8 requirements of this chapter.

9 ~~(3) Approval of a development proposal pursuant to the provisions of this chapter does not  
10 discharge the obligation of the applicant to comply with the provisions of this chapter.~~

11 (2) Alterations. Any human activity that results or is likely to result in an impact upon the existing  
12 condition of a critical area is an alteration that is subject to specific limitations as specified by  
13 this chapter. Alterations include, but are not limited to, grading; filling; dredging; draining;  
14 channelizing; applying herbicides, pesticides or any hazardous substance; discharging  
15 pollutants; grazing domestic animals; paving; constructing; cutting, pruning, topping,  
16 trimming, relocating or removing vegetation; or any other human activity which results or is  
17 likely to result in an impact to existing vegetation, hydrology, wildlife or wildlife habitat.  
18 Alterations do not include walking, fishing, any other passive recreation, or other similar  
19 activities.

20 ~~(34) Conflict of provisions.~~ When ~~any another~~ provision of ~~any other chapter of the~~ City of  
21 Woodinville Municipal Code conflicts with this chapter or when the provisions of this chapter  
22 are in conflict, that provision which provides more environmental protection to  
23 ~~environmentally~~ critical areas shall apply, unless specifically provided otherwise in this  
24 chapter, or unless such provision conflicts with ~~Federal~~ federal or ~~State~~ state laws or  
25 regulations.

26 ~~(45) Forest practices.~~ The provisions of this chapter shall apply to all forest practices over which  
27 the City has jurisdiction pursuant to Chapter 76.09 RCW and WAC Title 222.

28 **~~21.24.030 Appeals.~~**

29 ~~Any decision to approve, condition or deny a development proposal based on the requirements  
30 of this chapter may be appealed according to and as part of the appeal procedure for the permit  
31 or approval involved.~~

32 **~~21.24.040 Critical areas rules.~~**

33 ~~The directors of the applicable departments within the City of Woodinville are authorized to  
34 adopt such administrative rules and regulations as are necessary and appropriate to implement  
35 this chapter and to prepare and require the use of such forms as are necessary to its  
36 administration.~~

37 **~~21.24.050 Alteration.~~**

38 ~~Any human activity which results or is likely to result in an impact upon the existing condition of  
39 a critical area is an alteration which is subject to specific limitations as specified for each critical  
40 area. Alterations include, but are not limited to, grading, filling, dredging, draining, channelizing,  
41 applying herbicides or pesticides or any hazardous substance, discharging pollutants except  
42 storm water, grazing domestic animals, paving, constructing, applying gravel, modifying for  
43 surface water management purposes, cutting, pruning, topping, trimming, relocating or  
44 removing vegetation or any other human activity which results or is likely to result in an impact  
45 to existing vegetation, hydrology, wildlife or wildlife habitat. Alterations do not include walking,  
46 fishing or any other passive recreation or other similar activities.~~

**Commented [SC4]:** Where appropriate, staff has changed the titles. In this instance, city limits is more clear in terms of the jurisdictional boundaries. Readers often confuse City of Woodinville between the government, the land area, or as a whole

**Commented [SC5]:** This was consolidated with subsection 1 for ease of reading

**Commented [SC6]:** This separate section is unnecessary. A note for the appeals process was listed below. All of the appeals under Title 21 are found in Chapter 17.17

**Commented [SC7]:** This section is unnecessary. We do not have critical area administrative rules and regulations outside of this chapter.

**Commented [SC8]:** This was moved to section 21.24.020(2), as it ties in with the applicability section.

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1 **21.24.030 Critical area maps and inventories.**

- 2 (1) Critical Areas Maps. The approximate location and extent of critical areas are shown on the  
3 City's adopted critical areas maps. The latest critical areas maps are available from the  
4 Development Services Department. The maps do not provide a final critical area  
5 determination. Adopted critical areas maps include, but are not limited to the following:  
6 (a) Federal Emergency Management Administration flood insurance rate maps;  
7 (b) US Geological Survey landslide hazard, seismic hazard, and volcano hazard maps;  
8 (c) Department of Natural Resources seismic hazard maps for Western Washington;  
9 (d) Department of Natural Resources slope stability map;  
10 (e) National Wetlands Inventory;  
11 (f) Washington Department of Fish and Wildlife Priority Habitat and Species maps;  
12 (g) Locally adopted maps, including the Critical Aquifers Recharge Areas map and  
13 Geologically Hazardous map.  
14 (2) Maps showing critical areas are to be used for guidance purposes only and may be  
15 continuously updated as new critical areas are identified. If there is a conflict among the  
16 maps, inventory and site-specific features, the actual presence or absence of the features  
17 defined in this chapter as critical areas shall govern.  
18

19 **21.24.060-040 Complete exemptions.**

- 20 (1) The following activities are exempt from the provisions of this chapter ~~and any~~  
21 ~~administrative rules promulgated hereunder~~, provided they are otherwise consistent with  
22 other local, state, and federal law requirements:  
23 (a) ~~Alterations in response to emergencies that threaten the~~ Emergency actions  
24 necessary to prevent an immediate threat to public health, safety and welfare or  
25 ~~which~~ that pose an imminent risk of damage to public or private property ~~as long as~~  
26 ~~any alteration~~. Alterations undertaken pursuant to this subsection ~~is~~ shall be reported  
27 to the City immediately. ~~The Development Services Director~~ The impacted critical  
28 areas and its buffers shall ~~confirm that an emergency exists and determine what, if~~  
29 ~~any~~, be fully restored in accordance with a critical areas report and mitigation ~~shall~~  
30 ~~be required to protect the health, safety, welfare and environment and to repair any~~  
31 ~~resource damage~~; plan;  
32 (b) Agricultural activities in existence before March 31, 1993, as follows:  
33 (i) Mowing of hay, grass, or grain crops;  
34 (ii) Tilling, dicing, planting, seeding, harvesting and related activities for pasture,  
35 food crops, grass seed, or sod if such activities do not take place on steep  
36 slopes;  
37 (iii) Normal and routine maintenance of existing irrigation and drainage ditches  
38 not used by ~~salmonids~~ fish species and do not drain directly into salmon-  
39 bearing waterbodies; and  
40 (iv) Normal and routine maintenance of farm ponds, fish ponds, manure lagoons  
41 and livestock watering ponds;  
42 (c) ~~Public water, electric~~ Local collection and ~~natural gas~~ distribution, utility lines, mains,  
43 equipment, appurtenances, including electric facilities with an associated voltage of  
44 55,000 volts or less, not including substations; public sewer local collection; public  
45 water local distribution; natural gas; cable communications; or telephone utility  
46 facilities. Local collection and related activities undertaken pursuant to Public Works  
47 Director approved best management practices and Policy U-1.12 of the  
48 Comprehensive Plan distribution utilities may be allowed in critical areas or their  
49 buffers, as follows:  
50 (i) Normal and routine maintenance or repair of existing utility structures ~~or~~  
51 ~~rights of way~~;

Commented [SC9]: Restoration is required regardless of the emergency. The strikethrough language implies that staff more discretion than in practice.

Commented [SC10]: From the Gap Analysis, page 4: Ag exemption for maintenance and repair of ditches and drainages NOT used by salmonids. Consider implication for those which 1) are used by fish other than salmonids and/or 2) ditches and drainages which drain directly to salmon bearing waterbodies.

Commented [SC11]: Section (3) was re-worded to reduce the unnecessary repetition and redundancy. Subsections (d) and (e) were deleted and the language was placed in (3)

Commented [SC12]: Right-of-way maintenance and repair should not be under the utility exception

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- (ii) Relocation of ~~electric facilities, local collection and distribution utility lines, equipment or appurtenances, not including substations, with an associated voltage of 55,000 volts or less, only~~ when required by a local governmental agency, ~~which approves the new location of the facilities;~~ and
- (iii) Replacement, operation, repair, modification ~~or~~, installation, or construction in an improved public road right-of-way of ~~all electric facilities, lines, equipment or appurtenances, not including substations, with an associated voltage of 55,000 volts or less~~ local collection and distribution utility lines, when ~~such facilities are~~ located within an improved public road right-of-way or Public Works Director ~~City-~~authorized private roadway;

Commented [SC13]: Unnecessary. Utility line relocation never permitted without permission and approval of all applicable agencies, whether in a critical area or not

(d) Relocation of public sewer local collection, public water local distribution, natural gas, cable communication or telephone facilities, lines, pipes, mains, equipment or appurtenances, only when required by a local governmental agency which approves the new location of the facilities; and

(e) Replacement, operation, repair, modification, installation or construction of public sewer local collection, public water local distribution, natural gas, cable communication or telephone facilities, lines, pipes, mains, equipment or appurtenances when such facilities are located within an improved public right-of-way or Public Works Director authorized private roadway;

(24) Maintenance, operation, repair or replacement of publicly improved roadways ~~as long as or~~ recreation areas, provided any such alteration does not involve the expansion of roadways structures or related improvements into previously unimproved areas ~~rights-of-way or portions of rights-of-way when such facilities are located within an improved public right-of-way or Public Works Director authorized private roadway;~~

Commented [SC14]: Consolidated and moved up to section (3), (a), (b) and (c)

Commented [SC15]: Should this include privately improved roadways as well?

(5) Maintenance, operation or repair of publicly improved recreation areas as long as any such alteration does not involve the expansion of improvements into previously unimproved recreation areas;

(6) All clearing and grading activities which are exempt from the requirement for a clearing and grading permit as specified in the WMC, unless these activities require other permits or authorizations as specified in WMC 21.24.020.

(35) Removal of non-native invasive species. Work shall be limited to hand removal of non-native invasive species, unless permits from affected regulatory agencies have been obtained for approved biological or chemical treatments.

Commented [SC16]: Language was consolidated with section (4)

(46) Passive recreation, educational and scientific research that do not degrade critical areas or buffers, such as fishing, hiking and bird watching, not including trail building or clearing.

#### 21.24.050070 Partial Limited exemptions.

(1) The following are exempt from the provisions of this chapter ~~and any administrative rules promulgated hereunder,~~ except for disclosures and notice on title, WMC 21.24.090, and frequently flooded provisions, WMC 21.24.350 through 21.24.380: ~~the notice on title provisions, WMC 21.24.170 through 21.24.180, and the flood hazard area provisions, WMC 21.24.220 through 21.24.260;~~

(a) Structural modification of, addition to, repair or replacement of structures, except single detached residences, in existence before March 31, 1993, which do not meet the building setback or buffer requirements for wetlands, streams or geological hazard areas if the 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. Modifications, additions, and/or replacement of structures shall use bioengineered techniques beneficial to fish and wildlife and based upon the best available science, including but not limited to stream

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1 bank stabilization, wetland enhancement, water quality improvement, and similar  
2 methods to preserve and/or enhance habitat functions.

3 ~~(b) Structural modification of, addition to, repair or replacement of single detached~~  
4 ~~residences in existence before March 31, 1993, or residences allowed by reasonable~~  
5 ~~use or variance process which do not meet the building setback or buffer~~  
6 ~~requirements for wetlands, streams or geological hazard areas if the modification,~~  
7 ~~addition, replacement or related activity~~

8 (a) Single-family detached residences in existence prior to March 31, 1993 or approved  
9 under a variance or reasonable use permit may be expanded, repaired, modified, or  
10 replaced, provided all of the following are met:

11 (i) Expansion does not increase the existing footprint of the residence lying within  
12 the above-described buffer or building setback area by more than 1,000  
13 square feet ~~over that existing before March 31, 1993, and~~

14 (ii) ~~No~~ portion of the modification, addition, or replacement is located closer to  
15 the critical area ~~or, if the existing residence is in the sensitive area, extends~~  
16 ~~farther into the critical area or its buffer; . Modifications, additions, and/or~~  
17 ~~replacement of structures shall use bioengineered techniques beneficial to~~  
18 ~~fish and wildlife and based upon the best available science, including but not~~  
19 ~~limited to stream bank stabilization, wetland enhancement, water quality~~  
20 ~~improvement, and similar methods to preserve and/or enhance habitat~~  
21 ~~functions; and;~~

22 (iii) The proposal includes on-site mitigation to offset any impacts to critical areas  
23 consistent with the provisions of this chapter; and

24 (iv) The proposal will not significantly affect fish and wildlife habitat, stream bank  
25 stability, drainage capabilities, flood potential, and landslide hazards on  
26 neighboring properties.

27 (b) All other structures, except single-family detached residences, in existence prior to  
28 March 31, 1993 may be expanded, repaired, modified, or replaced, provided all of  
29 the following are met:

30 (i) Expansion does not increase the existing footprint of the structure lying within  
31 the above-described building setback area, critical area or its buffer;

32 (ii) No portion of the modification, addition, or replacement is located closer or  
33 extends farther to the critical area or its buffer;

34 (iii) The proposal includes on-site mitigation to offset any impacts to critical areas  
35 consistent with the provisions of this chapter; and

36 (iv) The proposal will not significantly affect fish and wildlife habitat, stream bank  
37 stability, drainage capabilities, flood potential, and steep slopes and landslide  
38 hazards on neighboring properties.

39 (c) Maintenance or repair of structures ~~which~~that do not meet the development  
40 standards of this chapter for geological hazard ~~areas, if the maintenance or repair~~  
41 ~~areas, provided there is no~~does not increase to the footprint of the structure and  
42 there is no increased risk to life or property as a result of the proposed maintenance  
43 or repair.

44 ~~(2) The grazing of livestock is exempt from the provisions of this chapter and any administrative~~  
45 ~~rules promulgated hereunder, except for the livestock restriction provisions, WMC 21.24.320~~  
46 ~~and 21.24.360, and any animal density limitations established by law, if the grazing activity~~  
47 ~~was in existence before March 31, 1993.~~

48 ~~(3) A permit or approval sought as part of a development proposal for which multiple permits are~~  
49 ~~required is exempt from the provisions of this chapter and any administrative rules~~  
50 ~~promulgated hereunder, except for the notice on title provisions, WMC 21.24.170 and~~  
51 ~~21.24.180, if:~~

Commented [SC17]: Not applicable in the city

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- ~~(a) The City of Woodinville previously reviewed all critical areas on the site;~~
- ~~(b) There is no material change in the development proposal since the prior review;~~
- ~~(c) There is no new information available, which is important to any critical area review of the site or particular critical area;~~
- ~~(d) The permit or approval under which the prior review was conducted has not expired or, if no expiration date exists, no more than five years have lapsed since the issuance of that permit or approval; and~~
- ~~(e) The prior permit or approval, including any conditions, has been complied with.~~

~~21.24.080 Exceptions.~~

**21.24.060 Public agency and utility critical areas exceptions.**

(1) If the application of this chapter would prohibit a development proposal by a public agency or public utility, the agency or utility may apply for a critical area exception pursuant to this subsection:

~~(a) The public agency or utility shall apply to the Department and shall make available to the Department other related project documents such as permit applications to other agencies, special studies and environmental documents. The Development Services Director shall prepare a recommendation to the Hearing Examiner.~~

(b) The critical area exception shall be reviewed as Type III project permit, pursuant to Chapters 17.07 through 17.17 WMC. The Hearing Examiner shall make a decision based on the following criteria:

- (i) There is no other practical alternative to the proposed development with less impact on the sensitive critical area; and
- (ii) The proposal minimizes application of this chapter would unreasonably restrict the impact on critical areas ability to provide services to the public;
- (iii) Any impacts permitted to the critical area are mitigated in accordance with WMC 21.24.120 to the greatest extent possible;
- (iv) The proposed development protects and/or buffer functions and values consistent with best available science; and
- (v) The proposed development is consistent with other applicable regulations and requirements.

(b) This exception shall not allow the use of the following critical areas for regional retention/detention facilities except where there is a clear showing the applicant clearly demonstrates that the facility will protect public health and safety or repair damaged natural resources:

- (i) ~~Class 4~~ Type S stream buffers;
- (ii) ~~Class 4~~ Category I or II wetland buffers with plant associations of infrequent occurrence; or
- (iii) ~~Class 4~~ Category I or 2II wetland buffers, which provide critical or outstanding habitat for herons, raptors or State or Federal designated endangered or threatened species unless clearly demonstrated by the applicant that there will be no impact on such habitat.

**21.24.070 Reasonable use exceptions.**

(1) If the application of this chapter would deny all reasonable use of the property, the applicant may apply for a reasonable use permit pursuant to this subsection:

~~(a) The applicant shall apply to the Department, and the Development Services Director shall prepare a recommendation to the Hearing Examiner.~~

(b) The reasonable use permit shall be reviewed as Type III project permit, pursuant to Chapters 17.07 through 17.17 WMC. The Hearing Examiner shall make a decision based on the following criteria:

- (i) The application of this chapter would deny all reasonable use of the property;

**Commented [SC18]:** This should be removed – projects that are not exempt should not have individual permits that are exempt. Staff recommends that language should be adopted under 21.24.110(6) allowing an applicant to adopt a previous critical area study if the information is still valid.

The intent appears to be to reduce the number of reports generated and adopt one critical area report for a set of permits.

**Commented [SC19]:** This requirement is unnecessary. Relevant studies and information is required as part of the submittal and does not need to be reiterated here.

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- (ii) ~~There is no other reasonable use with less impact on the sensitive area;~~
  - (iii) The proposed development does not pose an unreasonable threat to the public health, safety or welfare on or off the development proposal site ~~and is consistent with the general purposes of this chapter and the public interest;~~ ~~and;~~
  - (iv) Any alterations ~~permitted~~ to the ~~sensitive~~critical area shall be the minimum necessary to allow for reasonable use of the property; ~~and~~
  - (v) Any impacts permitted to the critical area are mitigated in accordance with WMC 21.24.120 to the greatest extent possible;
  - (vi) The proposed development protects critical areas and/or buffer functions and values consistent with best available science; and
  - (vi) The proposed development is consistent with other applicable regulations and requirements.
- (be) Any authorized alteration of a ~~sensitive~~critical area under this subsection shall be subject to conditions established by the Hearing Examiner ~~including, but not limited to, mitigation under an approved mitigation plan.~~ to safeguard public health, general welfare and safety.

**21.24.085 Density-080 Subdivisions and density calculations ~~for~~within critical areas.**

- (1) ~~Intent. The intent of this section is. The following regulations for density calculation for single-family residential subdivisions and short plats are designed to provide for the preservation of critical areas and critical area~~their buffers, flexibility in design, and consistent treatment of different types of development proposals. ~~The regulations shall apply to all properties on which critical areas such as streams, wetlands, steep slopes, and floodways of streams and associated critical area buffers limit land area available for development.~~
- (2) Subdivisions in Critical Areas. The subdivision and short subdivision of land located in landslide and erosion hazardous areas, frequently flooded areas, wetlands, streams, and fish and wildlife habitat conservation areas shall be subject to the following:
  - (a) Land that is located wholly within a critical area or its buffer may not be subdivided.
  - (b) Land that is located partially within a critical area or its buffer may be divided; provided, that the developable portion of each new lot and its access is located outside of the critical area or its buffer. Each resulting lot shall meet the minimum lot size, and have sufficient buildable area outside of, and will not affect the critical area or its buffer; and
  - (c) Access roads and utilities serving the proposed may be permitted within the critical area and associated buffers only if the City determines that no other feasible alternative exists and when consistent with this chapter.
- (3) On-Site Density Credits. For single-family residential subdivisions and short subdivisions on sites with critical areas ~~and/or~~ buffers, ~~This section lists the maximum~~ on-site density credits ~~that may be transferred on a particular site~~ from the critical area to a developable site area. ~~However, in~~ In some cases, the maximum density credits may not be attainable due to other site constraints including, but not limited to, acreage constraints of the developable site area.
  - (4a) For sites where up to 50 percent of the site is constrained by critical areas, up to 100 percent of the density that could be achieved on the constrained area portion of the site can be transferred to the ~~nonsensitive~~developable portion of the property.
  - (b) For sites that are over 50 percent constrained by critical areas, up to 50 percent of the density that could be achieved on the constrained area portion of the site can be transferred to the ~~nonsensitive~~developable portion of the property; ~~provided;~~
- (4) Density Transfer. On-site density transfer is subject to the following:

**Commented [SC20]:** This language was originally located in the geologically hazardous areas, but applies to other critical areas as well.

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(a) The density credit can only be transferred within the development proposal site. The on-site density transfer provided for in this section shall not be applied to allow density from a constrained site to be transferred to an unconstrained parcel, lot or site when combined with a constrained site by subdivision, binding site plan, lot line adjustment or other means of land assemblage or arrangement for development.

~~(2) This on-site transfer is subject to the following conditions:~~

~~(ab) No additional density is allowed over the base density of the underlying zone.~~

~~(bc) The minimum lot size and other dimensional requirements of the underlying zoning classification may be reduced to accommodate the transfers in densities per the following table:~~

**Table 21.24.070(4)(c) – Reduced Dimensional Standards**

Zone	Minimum Lot Size	Maximum Building Coverage	Maximum Impervious Surface	Lot Width at Street
R-1	31,000 sf	15%	20%	100 ft/ 75 ft on cul-de-sac
R-4	7,200 sf	35%	45%	60 ft
R-6	5,000 sf	50%	70%	50 ft
R-8	4,600 sf	55%	75%	30 ft

~~(ed) All other applicable dimensional requirements pursuant to WMC 21.12.030 shall be met.~~

~~(de) The area to which the density is transferred shall not be constrained by another critical area regulation.~~

~~(ef) No portion of the critical area shall be included as part of the minimum lot size.~~

~~(fg) The lot sizes shall not be averaged pursuant to WMC 21.12.180.~~

~~(gh) No panhandle lots are permitted.~~

~~(3) The density credit can only be transferred within the development proposal site.~~

(45) Except as allowed by WMC 21.32.095, ~~Nonconforming lots~~, in no event shall a lot be less in size than specified by subsection ~~(24)~~ of this section.

**21.24.090 Critical area maps and inventories.**

~~(1) Critical Areas Map. The distribution of many critical areas in the City of Woodinville are displayed on maps in the King County Critical Areas Map Folio and the City of Woodinville Critical Areas Map. Many of the wetlands are inventoried and rated and that information is published in the King County Wetlands Inventory Notebooks.~~

~~(2) Flood Hazard Maps. Many flood hazard areas are mapped by the Federal Insurance Administration in a scientific and engineering report entitled "The Flood Insurance Study for King County."~~

~~(3) King County Critical Recharge Areas Map. The King County Critical Recharge Areas, including any authorized updates to this map, is hereby adopted as the designation of critical aquifer recharge areas in the City of Woodinville.~~

~~If there is a conflict among the maps, inventory and site-specific features, the actual presence or absence of the features defined in this title as critical areas shall govern.~~

**Commented [SC21]:** Moved and elaborated in WMC 21.24.030

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1 **21.24.400090 Disclosure by applicant and notice on title.**

- 2 (1) **Disclosure.** The applicant shall disclose to the ~~Development Services Director~~ City the  
3 presence of critical areas on the ~~development proposal site~~ project area and any mapped or  
4 identifiable ~~sensitive~~ critical areas within 2400 feet of the applicant's property.
- 5 (2) **Notice.** The owner of any property containing critical areas or buffers on which a  
6 development proposal is submitted, except a public right-of-way or the site of a permanent  
7 public facility, shall file for record with the King County Auditor a notice approved in form by  
8 the City. The notice shall state the presence of critical areas or buffers on the property, of  
9 the application of this chapter to the property, and that limitations on actions in or affecting  
10 such critical areas or buffers may exist. The notice shall run with the land and failure to  
11 provide such notice to any purchaser prior to transferring interest in the property shall be a  
12 violation of this chapter. ~~The required contents and form of the notice shall be set forth in~~  
13 ~~administrative rules. If the development proposal site contains or is within a critical area, the~~  
14 ~~applicant shall submit an affidavit, to the extent consistent with the applicant's constitutional~~  
15 ~~rights which declares whether the applicant has knowledge of any illegal alteration to any or~~  
16 ~~all sensitive areas on the development proposal site and whether the applicant previously~~  
17 ~~has been found in violation of this chapter, pursuant to Chapter 21.50 WMC, Enforcement. If~~  
18 ~~the applicant previously has been found in violation, the applicant shall declare whether~~  
19 ~~such violation has been corrected to the satisfaction of the Development Services Director.~~
- 20 (3) **Submittal of Proof.** The applicant shall submit proof to the City that the notice has been filed  
21 prior to approval of a development proposal for the property or, in the case of subdivisions,  
22 short subdivisions, and binding site plans, at or before recording.

Commented [SC22]: No rules exist.

23  
24 **21.24.410100 Critical area review determination.**

- 25 (1) **Determination.** The ~~Development Services Director~~ City shall perform a critical area ~~review~~  
26 ~~determination~~ for any ~~City of Woodinville~~ development ~~proposal~~ permit application or other  
27 request for permission to proceed with an alteration on a site ~~which~~ that includes a critical  
28 area or is within an identified critical area buffer.
- 29 ~~(2) As part of the critical area determination, the City review, the Development Services Director~~  
30 ~~shall:~~
- 31 (a) Determine whether any critical area exists on the property and confirm its nature and  
32 type;
  - 33 (b) Determine whether a critical area ~~special study~~ report is required;
  - 34 (c) Evaluate the critical area ~~special study~~ report;
  - 35 (d) Determine whether the development proposal is consistent with this chapter;
  - 36 (e) Determine whether any proposed alteration to the critical area is necessary; and
  - 37 (f) Determine if the mitigation and monitoring plans and bonding measures proposed by  
38 the applicant are sufficient to protect the public health, safety and welfare, consistent  
39 with the goals, purposes, objectives and requirements of this chapter.
- 40 (2) **Appeals.** The critical areas determination may be appealed pursuant to Title 17 WMC.

41  
42 **21.24.420110 Critical area special study areas report requirement.**

- 43 (1) **General.** An ~~applicant~~ application for a development proposal ~~which~~ that includes a critical  
44 area ~~or its or is within an identified critical area~~ buffer shall ~~submit~~ include a critical area  
45 ~~special study (report requirements are available at the Community Development~~  
46 ~~Department) report~~ that uses the best available science to ~~adequately~~ evaluate the proposal  
47 and all probable impacts.
- 48 (2) **Waiver.** The ~~Development Services~~ Director may waive the requirement for a ~~special~~  
49 ~~study report~~ if the applicant ~~shows, to the Development Services Director's~~  
50 ~~satisfaction, demonstrates~~ that:
- 51 (a) There will be no alteration of the critical area or its buffer;

Commented [SC23]: Reworded to reduce confusion. This section was consolidated with the section below.

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1 (b) The development proposal will not have an impact on the critical area or its buffer in  
2 a manner contrary to the goals, purposes, objectives and requirements of this  
3 chapter; and

4 (c) The minimum standards required by this chapter are met.

5 (3) Report Format. The critical areas report shall be in the form of a written document. A critical  
6 area report may be combined with any studies required by other laws and regulations. If  
7 necessary to ensure compliance with this chapter, ~~the Development Services Director may~~  
8 ~~require~~ additional information from the applicant ~~may be required~~, separate from the critical  
9 areas report. ~~special study.~~

10 (4) Area Limits. If the development proposal will affect only a part of the development proposal  
11 site, the Director may limit the scope of the required special report to include only that part of  
12 the site that may be affected by the development.

13 (5) Report Contents. A critical areas report shall evaluate the proposed project area and critical  
14 areas within 200 feet of the project area or have the potential to be affected by this proposal.  
15 A critical areas report shall include the following information:

16 **21.24.130 Contents of critical area special study.**

17 ~~(1) The critical area special study shall be in the form of a written report and shall contain the~~  
18 ~~following, as applicable:~~

19 ~~(a) Using the best available science, identification and characterization of all sensitive areas~~  
20 ~~on or encompassing the development proposal site;~~

21 ~~(b) Existing conditions of the critical area, including an assessment of habitat and~~  
22 ~~ecological functions and values;~~

23 ~~(b) Using the best available science, a~~ assessment of the impacts of any alteration proposed  
24 for a critical area or buffer, ~~assessment of the impacts of any alterations on the~~  
25 ~~development proposal, other properties and the environment, and/or assessment of the~~  
26 ~~impacts to the development proposal resulting from development in the critical area or~~  
27 ~~buffer;~~

28 ~~(c) Studies, which propose adequate mitigation, maintenance, monitoring and contingency~~  
29 ~~plans and bonding measures;~~ ~~(d) A scale map of the project area. If only a portion of the~~  
30 ~~development site has been mapped, the unmapped portion shall be clearly identified and~~  
31 ~~labeled on the site plans. The site plans shall be attached to the notice on title required~~  
32 ~~by WMC 21.24.090; development proposal site; and~~

33 ~~(e) Project narrative describing the proposal; anticipated temporary and permanent impacts~~  
34 ~~to critical areas or its buffers; construction activities and sequencing; restoration,~~  
35 ~~enhancement, or mitigation measures; and other relevant information; and~~

36 (f) Additional report requirements for each type of critical area or its buffer affected by the  
37 development proposal pursuant to WMC 21.24.230, WMC 21.24.260, WMC 21.24.270,  
38 WMC 21.24.330, WMC 21.24.380, and WMC 21.24.430.

39 ~~(6) (f) Site and construction plans showing the following:~~

40 (a) Site diagrams, cross-sectional drawings;

41 (b) Slope gradients, and existing and final grade elevations at two-foot intervals;

42 (c) Type and extent of all critical areas, and buffers on, adjacent to, or within 200 feet of,  
43 or that are likely to impact the proposal;

44 (d) Location of springs, steeps, surface water runoff features, or other surface  
45 expressions of groundwater on or within 200 feet of the project area;

46 (e) Proposed development, including the location of existing and proposed structures,  
47 fill, storage of materials, drainage facilities, and clearing limits with dimensions  
48 indicating distances to the critical area, if available; and

49 (f) Other drawings to demonstrate construction techniques and anticipated final  
50 outcomes;

51

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- 1 (7) Mitigation. A description of proposed mitigation actions and mitigation site selection criteria.  
2 Mitigation shall be design to achieve no net loss of ecological function consistent with WMC  
3 21.24.120 and mitigation requirements for each type of affected critical area;  
4 (8) Multiple Critical Areas Affected. Critical areas reports for two or more types of critical areas  
5 must meet the report requirements for each type of affected critical area.  
6 ~~(e) Detailed studies, as required by the Development Services Director;~~  
7 ~~(2) A critical area special study may be combined with any studies required by other laws and~~  
8 ~~regulations; and~~  
9 ~~(3) If the development proposal will affect only a part of the development proposal site, the~~  
10 ~~Development Services Director may limit the scope of the required special study to include~~  
11 ~~only that part of the site, which may be affected by the development.~~  
12 ~~21.24.~~(9) A permit or approval sought as part of a development proposal for which multiple  
13 permits are required may adopt a previously approved critical area report if:  
14 (a) There is no material change in the development proposal since the prior review;  
15 (b) There is no new information available that would change the evaluation of the critical  
16 area review of the site or particular critical area;  
17 (c) The permit or approval under which the prior review was conducted has not expired,  
18 or if no expiration date exists, no more than five years have lapsed since the  
19 issuance of that permit or approval; and  
20 (d) The prior permit or approval, including any conditions, has been met.

21  
22 ~~21.24.140~~ 120 Mitigation requirements, maintenance, monitoring and contingency.

- 23 (1) ~~General. As determined by the Development Services Director, mitigation~~ Mitigation,  
24 maintenance and monitoring measures shall be in place to protect critical areas and buffers  
25 from alterations ~~occurring on the development proposal site of a~~ resulting from proposed  
26 development.  
27 (2) Mitigation Measures. Mitigation shall be in-kind and on-site where feasible, and shall be  
28 designed to maintain and enhance ecological functions and values, and to prevent risk from  
29 hazards posed by the critical area. Mitigation measures shall evaluate goals and objectives  
30 of proposed mitigation relating to impact to functions and values. Review of best available  
31 science supporting the proposed mitigation is required. ~~Where monitoring reveals a~~  
32 ~~significant deviation from predicted impacts or a failure of mitigation or maintenance~~  
33 ~~measures, the applicant shall be responsible for appropriate corrective action which, when~~  
34 ~~approved, shall be subject to further monitoring.~~  
35 (3) Mitigation Sequencing. When an alteration to a critical area is proposed, such alteration shall  
36 be avoided, minimized, or compensated for, as outlined by WAC 197-11-768, in the  
37 following order of preference:  
38 (a) Avoiding the impact altogether by not taking a certain action or parts of actions;  
39 (b) Minimizing impacts by limiting the degree or magnitude of the action and its  
40 implementation;  
41 (c) Rectifying the impact by repairing, rehabilitating, or restoring the affected  
42 environment;  
43 (d) Reducing or eliminating the impact over time by preservation and maintenance  
44 operations during the life of the action;  
45 (e) Compensating for the impact by replacing or providing substitute resources or  
46 environments; and/or  
47 (f) Monitoring the impacts and compensation projects and taking appropriate corrective  
48 measures.  
49

**Commented [SC24]:** Common practice to combine a critical area report with other studies. Not necessary to lay out

**Commented [SC25]:** This was moved up to Section (4)

**Commented [SC26]:** Maintenance, monitoring and contingency were moved to 21.24.130.

Mitigation requirements were lacking in the existing code.

Mitigation sequencing is a standard measure to evaluate alterations in a critical area. Applicants are required to evaluate the impacts of a proposal based on a preference order from no action to compensation.

**Commented [SC27]:** Moved to section 4

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21.24.130 Maintenance, monitoring, and contingency.

(1) Maintenance and monitoring. A maintenance and monitoring program shall be included as part of a mitigation plan. At minimum, the program shall include the following:

- (a) Performance standards for mitigation or restoration sites, including:
  - (i) 100 percent survival of installed vegetation within the first two years of planting;
  - (ii) At least 80 percent survival of installed vegetation after three years or more; and
  - (iii) Less than 10 percent of the mitigation area covered in nonnative invasive species after three years or more.
- (b) Contingency plan identifying courses of action and corrective measures to be taken if monitoring or evaluation indicates that the performance measures have not been met;
- (c) A schedule for site monitoring, which includes at minimum one monitoring or inspection every 12 months;
- (d) Monitoring period necessary to ensure that the performance standards have been met, not to be less than five years; and
- (e) Information on maintenance bonds or financial guarantees to ensure that the mitigation plan is implemented.

~~21.24.150 Security -insure mitigation, maintenance and monitoring-~~

~~(24) Performance Guarantee. A performance bond or other security equal to or greater than 150 percent of the actual cost of mitigation shall be posted in a form acceptable to the City prior to issuance of construction permits. Actual costs shall include all labor and materials associated with the mitigation activity. When mitigation required pursuant to a development proposal is not completed prior to the Development Services Director finally approving the proposal, the Development Services Director may delay final approval until mitigation is completed or may require the applicant to post a performance bond or other security in a form and amount deemed acceptable by the Development Services Director. The security shall be sufficient to guarantee that all required mitigation measures will be completed in a timely manner in accordance with this chapter. no later than the time established by the Development Services Director in accordance with this chapter.~~

(32) Maintenance Guarantee. A maintenance/monitoring bond or other security equal to or greater than 20 percent of the cost of mitigation shall be posted in a form acceptable to the City prior to final inspection, occupancy, or release of the performance bond, whichever comes first. ~~If the development proposal is subject to mitigation, maintenance or monitoring plans, the applicant shall post a maintenance/monitoring bond or other security in a form and amount deemed acceptable the Development Services Director.~~ The security shall be sufficient to guarantee satisfactory workmanship on, materials in and performance of or related to structures and improvements allowed or required by this chapter for a period of up to five years. The duration of maintenance/monitoring obligations shall be established by the ~~Development Services~~ Director, based upon the nature of the proposed mitigation, maintenance or monitoring, and the likelihood and expense of correcting mitigation or maintenance failures.

(4) Corrective measures. ~~Where monitoring reveals a significant deviation from predicted impacts or a failure of mitigation or maintenance measures, the applicant shall be responsible for appropriate corrective action which, when approved, shall be subject to further monitoring.~~

(53) Restoration. Performance and maintenance/monitoring bonds or other security shall also be required for restoration of a critical area or buffer not performed as part of a mitigation or maintenance plan, except that no security shall be required for minor stream restoration

Commented [SC28]: This section adds language in for standard maintenance and monitoring requirements, which are not present in the existing code.

Commented [SC29]: These percentages are typical for maintenance programs, but these percentages can be increased or decreased.

Commented [SC30]: Three to five years is typical. The City has been requiring five year periods.

Commented [SC31]: In practice, a performance bond is not pushed off until the applicant determines they cannot complete the mitigation in time or before other permits are approved. A performance bond is a required component of a critical areas report. Staff does not issue without a bond, regardless of where the mitigation is in the sequence.

Commented [SC32]: Moved from existing section 21.24.140(2)

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1 carried out pursuant to this chapter. The bond or other security shall be in a form and  
2 amount deemed acceptable by the ~~Development Services~~ Director.

3 (4) ~~Time Limit.~~ Performance and maintenance/monitoring bonds or other security authorized  
4 by this section shall remain in effect until the ~~Development Services Director~~ City determines,  
5 in writing, that the standards bonded for have been met.

6 (5) ~~Obligation.~~ Depletion, failure or collection of security funds shall not discharge the  
7 obligation of an applicant or violator to complete required mitigation, maintenance,  
8 monitoring or restoration.

9 ~~(6) Public development proposals shall be relieved from having to comply with the security~~  
10 ~~requirements of this section if public funds have previously been committed for mitigation,~~  
11 ~~maintenance, monitoring or restoration.~~

12  
13 **21.24.140 Critical area markers and signs.**

14 (1) ~~Survey Stakes.~~ Permanent survey stakes delineating the boundary between the adjoining  
15 property and ~~critical area tracts~~ native growth protection area (NGPA) shall be set, using iron  
16 or concrete markers as established by current survey standards.

17 (2) ~~When Required.~~ Signage and fencing shall be required for all wetlands and fish and wildlife  
18 habitat conservation areas, unless otherwise specified in this chapter. The City shall  
19 determine if fencing and permanent signage is necessary to protect other types of critical  
20 areas. Signage and fencing shall be located along the outer boundary ~~between~~ of a critical  
21 area buffer ~~tract and contiguous land~~ in order to protect the critical area.

22 (3) ~~Permanent Signs.~~ Signs shall be ~~identified with permanent signs.~~ made of an enamel-  
23 coated metal face and attached to a metal post or other material of equal durability. Signs  
24 must be posted at an interval of 75 feet and must be maintained by the property owner in  
25 perpetuity. The sign shall follow the City's adopted signage standard, be worded as follows  
26 or with alternative language as approved by the City:

27  
28 Protected Critical Area  
29 Do Not Disturb  
30 Help protect and care for this area  
31 Contact City of Woodinville 489-2754  
32

33 (4) ~~Fencing.~~ Required fencing shall be constructed of permanent and durable materials. Fencing  
34 shall be designed so as to not interfere with species migration and shall be constructed in a  
35 manner that minimizes impacts to the critical areas and associated habitat.

36  
37 **~~21.24.170 Notice on title.~~**

38 (1) ~~The owner of any property containing critical areas or buffers on which a development~~  
39 ~~proposal is submitted, except a public right of way or the site of a permanent public facility,~~  
40 ~~shall file a notice approved by the Development Services Director with the County's records~~  
41 ~~and elections division. The notice shall inform the public of the presence of critical areas or~~  
42 ~~buffers on the property, of the application of this chapter to the property and that limitations~~  
43 ~~on actions in or affecting such critical areas or buffers may exist. The notice shall run with the~~  
44 ~~land.~~

45 (2) ~~The applicant shall submit proof that the notice has been filed for public record before the~~  
46 ~~Development Services Director and/or Building Official shall approve any development~~  
47 ~~proposal for the property or, in the case of subdivisions, short subdivisions and binding site~~  
48 ~~plans, at or before recording.~~

**Commented [SC33]:** This section was changed to include some more details on material type, spacing, etc. The wording is similar to the signage currently found around the City. Planning Commission may wish to adopt a standard detail for the signage for consistency.

**Commented [SC34]:** This section was moved up to 21.24.090 and consolidated with the disclosure section.

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1 ~~21.24.150~~**180 Critical area tracts or easements-Native growth protection areas and**  
2 **designations on site plans.**

3 (1) ~~Tracts. Critical area tracts~~A native growth protection area (NGPA) in the form of a tract shall  
4 be used to delineate and protect those critical areas and buffers listed below ~~in development~~  
5 ~~proposals for subdivisions, short subdivisions or binding site plans and for development~~  
6 ~~proposals including new construction, subdivisions, short subdivisions and binding site~~  
7 ~~plans.~~ NGPA tracts shall be recorded on all documents of title of record for all affected lots.:

- 8 (a) All geological hazard areas and buffers which are one acre or greater in size;
- 9 (b) All fish and wildlife conservation areas;
- 10 (c) All wetlands and buffers;
- 11 ~~(d) All streams and buffers.~~

12 (2) ~~Tract Interest.~~ Any required ~~critical area~~-NGPA tract shall be held in an undivided interest by  
13 each owner of a building lot within the development ~~with this.~~ This ownership interest shall  
14 ~~passing~~ with the ownership of the lot or shall be held by an incorporated homeowner's  
15 association or other legal entity, which assures the ownership, maintenance, and protection  
16 of the tract.

17 (3) ~~Site Plans.~~ Site plans submitted as part of development proposals for building permits and  
18 clearing and grading permits shall include and delineate all flood hazard areas (if they have  
19 been mapped by FEMA, King County or the City of Woodinville or if a ~~special study~~-critical  
20 ~~areas report~~ is required), geological hazard areas, streams and wetlands, buffers and  
21 building setbacks and native growth protection ~~areas~~ ~~easements~~. If only a part of the  
22 development site has been mapped pursuant to WMC 21.24.4030, the part of the site ~~which~~  
23 ~~that~~ has not been mapped shall be clearly identified and labeled on the site plans. The site  
24 plans shall be attached to the notice on title required by WMC 21.24.090~~470~~.

25 ~~(3)~~ ~~Easements.~~ If a NGPA tract is not required in accordance with subsection (1), a NGPA in  
26 the form of an easement may be required over delineated critical areas to protect them in  
27 perpetuity.

28 ~~(5)~~ ~~Recording.~~ NGPAs shall be recorded on all documents of the title of record and shall be  
29 designated on the face of the plat or recorded drawing.

30 ~~(6)~~ ~~a~~ Native growth protection areas (~~NGPA~~) shall be marked with critical area signage and/or  
31 ~~(wildlife friendly)~~-fencing to protect wildlife corridors and to discourage human intrusion into  
32 the critical area. ~~Fencing options will be left up to the discretion of the Director to further~~  
33 ~~protect wildlife habitat~~ pursuant to WMC 21.24.140.

34 ~~(7)~~ ~~b~~ Native growth protection areas may be enhanced as part of a mitigation or restoration  
35 project. The ~~NGPEN~~NGPA shall be designated as protected habitat for fish and wildlife and  
36 shall be left in its natural state (with the exception of mitigation to enhance habitat). Any  
37 downed trees shall remain in the NGPA to provide habitat for wildlife.

38 ~~(4)~~ ~~Native growth protection easements may be required over delineated critical areas to protect~~  
39 ~~them in perpetuity, as determined by the Development Services Director. Easements shall be~~  
40 ~~recorded with the County Assessor's Office prior to issuance of a certificate of occupancy.~~

41  
42 ~~21.24.190~~**200 Critical aquifer recharge areas – Designation and rating.**

43 (1) ~~Definition.~~ Critical aquifer recharge areas (CARAs) are those areas with a critical recharging  
44 effect on aquifers used for potable water as defined in WAC 365-190-030(2). Due to soil  
45 infiltration conditions of these CARAs, they contribute significantly to the replenishment of  
46 groundwater, and often have a high potential for contamination of groundwater resources.

47 ~~(1)~~ ~~The map entitled King County Critical Recharge Areas, including any authorized updates to~~  
48 ~~this map, is hereby adopted as the designation of critical aquifer recharge areas in the City~~  
49 ~~of Woodinville. The designated critical aquifer recharge areas map may be updated from~~  
50 ~~time to time as new information becomes available pursuant to WMC 21.24.080 and~~  
51 ~~21.24.090.~~

Commented [SC35]: The terminology in the existing code was inconsistent. "Critical area tracts," "critical area easements", "native growth protection easements," was changed to "native growth protection areas". NGPAs cover both tracts and easements

Commented [SC36]: Streams now covered under fish and wildlife

Commented [SC37]: Covered with sections (1) and (3) above.

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1 ~~(2) Designation. Identification of CARAs shall be made in~~ based on the City's adopted Critical  
2 ~~Aquifer Recharge Areas map pursuant to WMC 21.24.030. Areas meeting the CARA~~  
3 ~~designation are critical areas and subject to the provisions of this chapter. The critical~~  
4 ~~aquifer recharge areas within the city limits have a medium to high susceptibility to~~  
5 ~~groundwater contamination and are not located in a sole source aquifer or wellhead~~  
6 ~~protection area.~~

**Commented [SC38]:** Golder completed a CARA map for the City. Language related to update of maps is listed in 21.24.080.

7  
8 ~~(2) Critical aquifer recharge areas are categorized as follows:~~

**Commented [SC39]:** Golder's mapping does not include categories as the existing code does. Need to clarify.

9 ~~(a) Category I critical aquifer recharge areas include those areas designated on the~~  
10 ~~critical aquifer recharge area map as highly susceptible to ground water~~  
11 ~~contamination and that are located within a sole source aquifer or wellhead~~  
12 ~~protection area.~~

13 ~~(b) Category II critical aquifer recharge areas include those mapped areas designated~~  
14 ~~that:~~

15 ~~(i) Have a medium susceptibility to ground water contamination and are located~~  
16 ~~in a sole source aquifer or wellhead protection area; or~~

17 ~~(ii) Are highly susceptible to ground water contamination and are not located in a~~  
18 ~~sole source aquifer or wellhead protection area.~~

19 (3) An applicant can request that the ~~Development Services Director~~ City declassify a specific  
20 area included in the map adopted under ~~subsection (1)~~ WMC 21.24.030 of this  
21 ~~section chapter~~. The request must be supported by a critical areas report that includes a  
22 hydro-geologic assessment. The request to declassify an area shall be reviewed by the  
23 ~~Development Services~~ Director following the procedure in WMC 21.24.100419.

**Commented [SC40]:** Based on Golder's analysis, the city does not have Category I CARAs – staff suggest removing to reduce confusion with the levels for hydrogeologic assessment.

24  
25 **21.24.200210 Critical aquifer recharge areas – Development ~~regulations~~ standards.**

26 (1) ~~The following new uses or activities are not allowed in Category I critical aquifer recharge~~  
27 ~~areas:~~

28 ~~(a) Hazardous liquid transmission pipelines;~~

29 ~~(b) Sand and gravel, and hard rock mining on land that is not zoned for mining as of December~~  
30 ~~1, 2004;~~

31 ~~(c) Mining of any type below the ground water table;~~

32 ~~(d) Processing, storage, and disposal of radioactive wastes;~~

33 ~~(e) Hydrocarbon extraction;~~

34 ~~(f) Commercial wood treatment facilities on permeable surfaces;~~

35 ~~(g) Golf courses;~~

36 ~~(h) Cemeteries;~~

37 ~~(i) Wrecking yards;~~

38 ~~(j) Landfills for hazardous waste, municipal solid waste, or special waste; and~~

39 ~~(k) On-site septic systems on lots smaller than one acre without a treatment system that results~~  
40 ~~in effluent nitrate-nitrogen concentrations below 10 milligrams per liter.~~

41 ~~(2) The following new uses and activities are not allowed in a Category II critical aquifer~~  
42 ~~recharge area:~~

43 (a) Mining of any type below the water table;

44 (b) Processing, storage, and disposal of radioactive substances;

45 (c) Hydrocarbon extraction;

46 (d) Commercial wood treatment facilities on permeable surfaces;

47 (e) Wrecking yards;

48 (f) Landfills for hazardous waste, municipal solid waste, or special waste; and

49 (g) On-site septic systems on lots smaller than one acre without a treatment system that  
50 results in effluent nitrate-nitrogen concentrations below 10 milligrams per liter.

**Commented [SC41]:** No land in the city is zoned for mining

**Commented [SC42]:** Not included are:  
-Hazardous liquid transmission pipelines  
-Sand/gravel/hard rock mining  
-Golf courses  
-Cemeteries

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21.24.220 Critical aquifer recharge areas – Permitted activities.

(1) The following standards apply to any development proposal in a critical aquifer recharge area:

- (a) All storage tanks proposed to be located in a critical aquifer recharge area must comply with [the International Building Code and local building code requirements](#) and ~~must conform to~~ the International Fire Code requirements for secondary containment.
- (b) Commercial vehicle repair and servicing must be conducted over impermeable pads and within a covered structure capable of withstanding normally expected weather conditions. Chemicals used in the process of vehicle repair and servicing must be stored in a manner that protects them from weather and provides containment should leaks occur.
- (c) No dry wells shall be allowed in critical aquifer recharge areas on sites used for vehicle repair and servicing. Dry wells existing on the site prior to facility development must be abandoned using techniques approved by the Washington State Department of Ecology prior to commencement of the proposed activity.
- (d) The activities listed below shall be conditioned in accordance with the applicable ~~State and Federal~~ regulations as necessary to protect critical aquifer recharge areas.

**Commented [SC43]:** The table below was revised with updated manuals or guides where possible.

Activity	Applicable State and Federal Regulations
Above-ground storage tanks	WAC 173-303-640
Animal feedlots	Chapter 173-216 WAC, Chapter 173-220 WAC
Automobile washers	Chapter 173-216 WAC, <del>Best Management Practices for Vehicle and Equipment Washwater Discharges (WDOE WQ-R-)</del> <a href="#">Best Management Practices Manual (DOE 95-056)</a>
Chemical treatment storage and disposal facilities	WAC 173-303-182
Hazardous waste generator (boat repair shops, biological research facility, dry cleaners, furniture stripping, motor vehicle service garages, photographic processing, printing and publishing shops, etc.)	Chapter 173-303 WAC
Injection wells	Federal 40 CFR Parts 144 and 146, Chapter 173-218 WAC
Junk yards and salvage yards	Chapter 173-304 WAC, <del>Best Management Practices to Prevent Storm Water Pollution at Vehicle Recycler Facilities (WDOE 04-146),</del> <a href="#">Vehicle Recyclers: A Guide for</a>

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Activity	Applicable State and Federal Regulations
	Implementing the Industrial Stormwater General National Pollutant Discharge Elimination System (NPDES) Permit Requirements (DOE 94-146)
Oil and gas drilling	WAC 332-12-450, Chapter 173-218 WAC
On-site sewage systems (large scale)	Chapter 173-240 WAC
On-site sewage systems (< 14,500 gallons/day)	Chapter 246-272 WAC, Local Health Ordinances
Pesticide storage and use	Chapter 15.54 RCW, Chapter 17.21 RCW
Sawmills	Chapter 173-303 WAC, Chapter 173-304 WAC, <del>Best Management Practices to Prevent Storm Water Pollution at Log Yards (WDOE 95-53)</del> Industrial Stormwater General Permit Implementation Manual for Log Yards (DOE 04-10-031)
Solid waste handling and recycling facilities	Chapter 173-304 WAC
Surface mining	WAC 332-18-015
Underground storage tanks	Chapter 173-360 WAC
Wastewater application to land surface	Chapter 173-216 WAC, Chapter 173-200 WAC, <del>WDOE Land Application Guidelines, Best Management Practices for Irrigated Agriculture</del>

Field Code Changed

Commented [SC44]: No longer exists

**21.24.230 Critical aquifer recharge areas – Critical areas report additional requirements.**

(1) In addition to the general critical report requirements in WMC 21.24.110, critical areas reports for CARAs shall include the following:

- (a) Prepared by a Qualified Professional. A critical areas report for CARAs shall be prepared by a qualified professional who is a hydrogeologist, geologist, or engineer licensed in the State of Washington. The qualified professional shall have a minimum of five years of experience in the field and with experience in preparing hydrogeologic assessments.
- (b) Hydrogeologic Assessment. For all proposed activities to be located in a critical aquifer recharge area, a critical area report shall contain a Level I hydrogeological assessment. A Level 2 hydrogeologic assessment shall be required for any of the following proposed activities:
  - (i) Activities that result in five percent or more impervious site area;
  - (ii) Activities that divert, alter, or reduce the flow of surface or ground-waters, or reduce the recharging of the aquifer;

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(iii) The use of hazardous substances, other than household chemicals used according to the directions specified on the packaging for domestic applications;

(iv) 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 one acre; or

(v) Any other activity determined by the City to likely have an adverse impact on ground water quality or quantity, or on the recharge of the aquifer.

(c) Level 1 Hydrogeologic Assessment. A Level 1 hydrogeologic assessment shall include the following information on the site and development proposal:

(i) Available information regarding geologic and hydrogeologic characteristics of the site including the surface location of all critical aquifer recharge areas located on site or immediately adjacent to the site, and permeability of the unsaturated zone;

(ii) Ground-water depth, flow direction, and gradient based on available information;

(iii) Currently available data on 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 area;

(v) Available historic water quality data for the area to be affected by the proposed activity; and

(vi) Best management practices proposed to be utilized.

(d) Level 2 Hydrogeologic Assessment. A Level 2 hydrogeologic assessment shall include the information required for a Level 1 hydrogeologic assessment and the following information:

(i) Historic water quality data for the area to be affected by the proposed activity compiled for at least the previous five year period;

(ii) Ground-water monitoring plan provisions;

(iii) Discussion of the effects of the proposed project on the ground water quality and quantity, including:

(A) Predictive evaluation of ground-water withdrawal effects on nearby wells and surface water features; and

(B) Predictive evaluation of contaminant transport based on potential releases to ground water; and

(iv) A spill 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.

**Commented [SC45]:** Language is from DOE's model ordinance. May want to consider simplifying requirements to avoid confusion between CARA Categories I and II and hydrogeologic assessment Level I and 2.

#### **21.24.2590 Geologically hazardous areas – Designation.**

(1) **Definition.** Geologically hazardous areas ~~include are those~~ areas susceptible to erosion, sliding, earthquake, or other geological events. Geologically hazardous areas pose a risk to health and safety of citizens when incompatible development is located in areas of significant hazard.

(2) **Designation.** Areas susceptible to one or more of the following types of hazards shall be designated as a geologically hazardous area and subject to the provisions of this chapter.:

~~(a) Erosion hazard;~~ (b) Landslide hazard;

~~(c) Seismic hazard;~~

~~(d) Other geological events including mass wasting debris flows, rock falls, and differential settlement.~~

~~(2) Designation of Specific Hazard Areas.~~

**Commented [SC46]:** This section deviates from the standard organization due to the subset of different types of hazard areas. 21.24.250 designates the areas 21.24.260 includes development standards, permitted alterations, and report requirements in landslide/erosion hazard areas 21.24.270 includes development standards and report requirements for seismic hazard areas and other hazard areas

**Commented [SC47]:** Criteria language for geologically hazardous areas has been clarified, but not substantially changed. It has been moved from the section below for readability

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- 1 (a) Erosion Hazard. ~~Areas. Erosion hazard areas are those.~~ Those areas identified by  
2 the U.S. Department of Agriculture's Natural Resources Conservation Service or  
3 identified by a critical area ~~special study report~~ as having a severe to very severe  
4 erosion potential.
- 5 (b) Landslide Hazard. ~~Areas. Landslide hazard areas are.~~ Those areas potentially subject  
6 to landslides based on a combination of geologic, topographic, and hydrologic  
7 factors. They include areas susceptible because of any combination of bedrock, soil,  
8 slope (gradient), slope aspect, structure, hydrology, or other factors. Examples of  
9 these may include, but are not limited to the following:
- 10 (i) Areas of historic failures, such as areas designated as quaternary slumps,  
11 earthflows, mudflows, lahars, or landslides on maps published by the U.S.  
12 Geological Survey or Department of Natural Resources;
  - 13 (ii) Areas with all three of the following characteristics:
    - 14 (A) Slopes steeper than 15 percent; ~~and~~
    - 15 (B) Hillsides intersecting geologic contacts with a relatively permeable  
16 sediment overlying a relatively impermeable sediment or bedrock; and
    - 17 (C) Springs or ground water seepage;
  - 18 (iii) Areas that have shown movement during the Holocene epoch (from 10,000  
19 years ago to the present) or that are underlain or covered by mass wasting  
20 debris of that epoch;
  - 21 (iv) Areas potentially unstable because of rapid stream incision, stream bank  
22 erosion, and undercutting by wave action;
  - 23 (v) Areas located in a canyon or on an active alluvial fan, presently or potentially  
24 subject to inundation by debris flows or catastrophic flooding; and
  - 25 (vi) Any area with a slope of 40 percent or steeper and with a vertical relief of 10  
26 or more feet except areas composed of consolidated rock. A slope is  
27 delineated by establishing its toe and top and measured by averaging the  
28 inclination over at least 10 feet of vertical relief.
- 29 (c) Seismic ~~Hazard Areas. Seismic h~~ Hazard areas are. Those areas subject to severe  
30 risk of damage as a result of earthquake-induced ground shaking, slope failure,  
31 settlement, surface rupture, or soil liquefaction.
- 32 (i) Ground shaking is the primary cause of earthquake damage in Washington.  
33 The strength of ground shaking is primarily affected by the magnitude of an  
34 earthquake; the distance from the source of an earthquake; the type and  
35 thickness of geologic materials at the surface; and the subsurface geologic  
36 structure.
  - 37 (ii) Settlement and soil liquefaction conditions occur in areas underlain by  
38 cohesionless, loose, or soft-saturated soils of low density, typically in  
39 association with a shallow ground water table.
- 40 (d) Other Geologic Hazard. Other geological events including mass wasting debris flows,  
41 rock falls, and differential settlement.

43 **21.24.260 Geologically hazardous areas – Erosion and landslide hazards. 21.24.300**  
44 **Development standards – General requirements.**

- 45 (1) General Development Standards. Alterations of ~~geologically hazardous areas~~ erosion and  
46 landslide hazard areas ~~or associated~~ and their buffers may only occur for activities that:
- 47 (4a) Will not increase the threat of the geological hazard or slope instability to adjacent  
48 properties beyond predevelopment conditions;
  - 49 (2b) Will not adversely impact other critical areas or buffers; and

**Commented [SC48]:** This section combines former 21.24.300 and 21.24.310. Planning staff has frequently heard from applicants that the separate "general requirements" and "performance standards" is confusing, particularly when and why which section applies (note, they always both apply). In this version, all types of geologically hazardous areas must meet the "general" criteria in subsection (1) and the "specific" criteria in subsection (2) for the applicable hazard(s).

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- (3c) Are designed so that the hazard to the project is eliminated or mitigated to a level where there is no ~~reasonable chance of harm~~ increased adverse impact beyond predevelopment condition to the project or its associated land use; and
- (d) Are certified as safe by a qualified engineer or geologist, licensed in the State of Washington.

**21.24.310 Performance— Specific hazards.**

~~(1) Erosion and Landslide Hazard Areas. Activities on sites containing erosion or landslide hazards shall meet the following requirements:~~

(2a) Buffer Required. A buffer shall be established from all edges of erosion or landslide hazard areas. The size of the buffer shall be determined by the City to eliminate or minimize the risk of property damage, death, or injury resulting from erosion and 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.

- (a) ~~Standard~~ Minimum Buffer. The minimum buffer shall be 50 feet.
- (b) Buffer Reduction. The buffer may be reduced to a minimum of 10 feet when a qualified professional demonstrates ~~to the satisfaction of the Development Services Director~~ that the reduction will provide adequately protection to the proposed development, adjacent developments and uses, and the subject critical area.
- (c) Increased Buffer. The buffer may be increased where the ~~Development Services Director~~ City determines a larger buffer is necessary to prevent risk of damage to proposed and existing development.

~~(b) Alterations. Alterations of an erosion or landslide hazard area and/or buffer may only occur for activities for which a geotechnical analysis is submitted and certifies that:~~

- (i) ~~The development will not increase surface water discharge or sedimentation to adjacent properties beyond predevelopment conditions;~~
- (ii) ~~The development will not decrease slope stability on adjacent properties; and~~
- (iii) ~~Such alterations will not adversely impact other critical areas.~~

(34e) Design Standards. Development within an erosion or landslide hazard area and/or its 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 title: ~~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:~~

- (a) 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;~~
- (b) Structures and improvements shall be clustered to avoid geologically hazardous areas and other critical areas ~~to the greatest extent possible;~~
- (c) 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;
- (d) Structures and improvements shall be located to preserve the most critical portion of the site and its natural landforms and vegetation;
- (e) The proposed development shall not result in greater risk or a need for increased buffers on neighboring properties;
- (f) The use of retaining walls that allow the maintenance of existing natural slope area is preferred over graded artificial slopes; and

**Commented [SC49]:** Per Golder's recommendation: Risk cannot be completely eliminated, but can be reduced and minimized

**Commented [SC50]:** On several recent development projects, site conditions have revealed artificially created steep slopes from past grading activities. In some of these instances, the certain engineering techniques or regrading could reduce landslide or erosion potential compared to existing conditions.

**Commented [SC51]:** Per Golder: prescriptive and unnecessary limiting

Planning staff agrees – will need to rework this section.

**Commented [SC52]:** Golder stated that many common recommended or accepted techniques do require periodic maintenance. The inclusion of this language limits commonly accepted practices. Staff recommends removal.

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- 1 (g~~v~~ii) Development shall be designed to minimize impervious lot coverage.
- 2 (43) Alteration ~~s~~ Criteria. Alterations shall be subject to the following requirements:
- 3 (a) Alterations of an erosion or landslide hazard area and its ~~or~~ buffer may only occur for
- 4 activities for which a geotechnical analysis is submitted and certifies that:
- 5 (i) The development will not increase surface water discharge or sedimentation to
- 6 adjacent properties beyond predevelopment conditions;
- 7 (ii) The development will not decrease slope stability on adjacent properties;
- 8 (iii) Such alterations will not adversely impact other critical areas; and
- 9 (iv) Slopes that are determined to be artificially created or man-made slopes
- 10 through past grading or development activities may be modified under the
- 11 recommendation of an approved geotechnical report that demonstrates that
- 12 alteration will stabilize the slope and minimize erosion and landslide risk
- 13 beyond predevelopment conditions.
- 14 (d~~b~~) Vegetation ~~Shall Be Retained~~ Preservation. Unless otherwise provided or as part of
- 15 an approved alteration, removal of vegetation from an erosion or landslide hazard
- 16 area or related buffer shall be prohibited.
- 17 (c~~e~~) Seasonal Restriction. Clearing shall be allowed only from May 1st to October 1st of
- 18 each year; provided, that the ~~Development Services Director~~City may extend or
- 19 shorten the dry season on a case-by-case basis depending on actual weather
- 20 conditions, ~~except that timber~~. Timber harvest, not including brush clearing or stump
- 21 removal, may be allowed outside of seasonal restrictions pursuant to an approved
- 22 forest practice permit issued by ~~the City or~~ the Washington Department of Natural
- 23 Resources.
- 24 (d~~f~~) Utility Lines and Pipes. Utility lines and pipes shall be permitted in erosion and
- 25 landslide hazard areas only when the applicant demonstrates that no other practical
- 26 alternative is available. The line or pipe shall be located above ground and properly
- 27 anchored, and ~~or~~ designed so that it will continue to function in the event of an
- 28 underlying slide. Storm-water conveyance shall be allowed only through a high-
- 29 density polyethylene pipe with fuse-welded joints, or similar product approved by the
- 30 ~~Public Works Director~~City that is technically equal or superior.
- 31 (e~~g~~) Point Discharges. Point discharges from surface water facilities and roof drains onto
- 32 or upstream from an erosion or landslide hazard area shall be prohibited except as
- 33 follows:
- 34 (i) Conveyed via continuous storm pipe downslope to a point where there are no
- 35 erosion hazards areas downstream from the discharge;
- 36 (ii) Discharged at flow durations matching predeveloped conditions, with
- 37 adequate energy dissipation, into existing channels that previously conveyed
- 38 storm water runoff in the predeveloped state; or
- 39 (iii) Dispersed discharge upslope of the steep slope onto a low-gradient
- 40 undisturbed buffer demonstrated to be adequate to infiltrate all surface and
- 41 storm water runoff, and where it can be demonstrated that such discharge will
- 42 not increase the saturation of the slope.
- 43 (f~~h~~) Subdivisions. The division of land in erosion and landslide hazard areas and
- 44 associated buffers shall be subject to WMC 21.24.080. ~~is subject to the following:~~
- 45 (i) ~~Land that is located wholly within an erosion or landslide hazard area or its~~
- 46 ~~buffer may not be subdivided. Land that is located partially within an erosion~~
- 47 ~~or landslide hazard area or its buffer may be divided; provided, that each~~
- 48 ~~resulting lot has sufficient buildable area outside of, and will not affect, the~~
- 49 ~~erosion or landslide hazard or its buffer.~~

**Commented [SC53]:** On several recent development projects, site conditions have revealed artificially created steep slopes from past grading activities. In some of these instances, the certain engineering techniques or regrading could reduce landslide or erosion potential compared to existing conditions.

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~~(ii) Access roads and utilities may be permitted within the erosion or landslide hazard area and associated buffers if the Development Services Director determines that no other feasible alternative exists.~~

(g) ~~Prohibited Development~~Septic Systems. On-site sewage disposal systems, including drain fields, shall be prohibited within erosion and landslide hazard areas and ~~related~~ their buffers.

(5) Additional Report Requirements. In addition to the general critical report requirements of WMC 21.24.110, critical areas reports for erosion and landslide hazard areas shall include the following information:

(a) Prepared by a Qualified Professional. The critical areas report shall be prepared by a qualified professional who is an engineer or geologist licensed in the State of Washington. The qualified professional shall have a minimum of five years of experience in the field and experience in preparing reports for geologic, hydrologic, and groundwater flow systems.

(b) Hazards Analysis. The hazards analysis shall include the following information on the site and development proposal:

- (i) A description of the extent and type of vegetative cover;
- (ii) A description of subsurface conditions based on data from site-specific explorations;
- (iii) Descriptions of surface and ground water conditions, public and private sewage disposal systems, fills and excavations, and all structural improvements;
- (iv) An estimate of slope stability and the effect construction and placement of structures will have on the slope over the estimated life of the structure;
- (v) An estimate of the bluff retreat rate, taking into account potential catastrophic events such as seismic activity or a one hundred-year storm event;
- (vi) Consideration of the run-out hazard of landslide debris and/or the impacts of landslide run-out on down slope properties;
- (vii) A study of slope stability including an analysis of proposed cuts, fills, and other site grading;
- (viii) Recommendations for building siting limitations;
- (ix) An analysis of proposed surface and subsurface drainage, and the vulnerability of the site to erosion;
- (x) A detailed overview of the field investigations, published data, and references; data and conclusions from past assessments of the site; and site specific measurements, test, investigations, or studies that support the identification of geologically hazardous areas; and
- (xi) A review of the site history regarding landslides, erosion, and prior grading. A description of the vulnerability of the site to seismic and other geologic events.

(c) Geotechnical Engineering Report. The technical information for a project within a landslide hazard area shall include a geotechnical engineering report prepared by a licensed engineer that presents engineering recommendations for the following:

- (i) Parameters for design of site improvements including appropriate foundations and retaining structures. These should include allowable load and resistance capacities for bearing and lateral loads, installation considerations, and estimates of settlement performance;
- (ii) Recommendations for drainage and subdrainage improvements;
- (iii) Earthwork recommendations including clearing and site preparation criteria, fill placement and compaction criteria, temporary and permanent slope

**Commented [SC54]:** This language was moved to 21.24.080 for subdivisions in critical areas, as this language is applicable to more than just geo hazards

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inclinations and protection, and temporary excavation support, if necessary;  
and

(iv) Mitigation of adverse site conditions including slope stabilization measures  
and seismically unstable soils, if appropriate.

(d) Analysis of Proposal. The report shall contain a hazards analysis including a detailed  
description of the project, its relationship to the geologic hazard(s), and its potential  
impact upon the hazard area, the subject property, and affected adjacent properties.

(e) Erosion and Sediment Control Plan. For any development proposal on a site  
containing an erosion hazard area, an erosion and sediment control plan shall be  
required. The erosion and sediment control plan shall be prepared in compliance  
with requirements set forth in the adopted King County Stormwater Design Manual.

(f) Drainage Plan. The technical information shall include a drainage plan for the  
collection, transport, treatment, discharge, and/or recycle of water prepared in  
accordance with the adopted King County Stormwater Design Manual. The drainage  
plan should consider on-site septic system disposal volumes where the additional  
volume will affect the erosion or landslide hazard area.

(g) Monitoring Surface Waters. If the City determines that there is a significant risk of  
damage to downstream receiving waters due to potential erosion from the site,  
based on the size of the project, the proximity to the receiving waters, or the  
sensitivity of the receiving waters, the technical information shall include a plan to  
monitor the surface water discharge from the site. The monitoring plan shall include  
a recommended schedule for submitting monitoring reports to the City.

(h) Minimum Buffer and Building Setback. The report shall make a recommendation for  
the minimum no-disturbance buffer and minimum building setback from any geologic  
hazard based upon the geotechnical analysis.

(i) Mitigation Assessment. When hazard mitigation is required, the mitigation plan shall  
specifically address how the activity maintains or reduces the predevelopment level  
of risk to the site and adjacent properties on a long-term basis (equal to or exceeding  
the projected lifespan of the activity or occupation). Mitigation may be required to  
avoid any increase in risk above the pre-existing conditions following abandonment  
of the activity.

**21.24.270 Geologically hazardous areas – Seismic hazard areas and other hazard areas.**

~~(2) Seismic Hazard Areas. Activities proposed to be located in seismic hazard areas shall meet  
the standards of WMC 21.24.300, Development standards – General requirements.~~

Development Standards. Alterations of seismic hazard areas or other hazard areas and their  
buffers may only occur for activities that:

(a) Will not increase the threat of the geological hazard to adjacent properties beyond  
predevelopment conditions;

(b) Will not adversely impact other critical areas or buffers;

(c) Are designed so that the hazard to the project is eliminated or mitigated to a level  
where there is no increased adverse impact beyond predevelopment condition to the  
project or its associated land use; and

(d) Are certified as safe by a qualified engineer or geologist, licensed in the State of  
Washington.

~~(3) Other Hazard Areas. Activities on sites containing or adjacent to other geologically  
hazardous areas shall meet the standards of WMC 21.24.300, Development standards –  
General requirements.~~

**Commented [SC55]:** The Model Ordinance limits development in seismic hazards to certain square footages. PC may want to consider this. The square footages in the model ordinance are listed as follows:  
1. Construction of new buildings with less than 2,500 square feet of floor area or roof area, whichever is greater, and which are not residential structures or used as places of employment or public assembly;  
2. Additions to existing single-story residences that are two hundred fifty (250) square feet or less; and  
3. Installation of fences.

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- 1 (2) Additional Report Requirements. In addition to the general critical report requirements of  
2 WMC 21.24.110, critical areas reports for seismic and other hazard areas shall include the  
3 following information:  
4 (a) Prepared by a Qualified Professional. The critical areas report shall be prepared by a  
5 qualified professional who is an engineer or geologist licensed in the State of  
6 Washington. The qualified professional shall have a minimum of five years of  
7 experience in the field and experience in preparing reports for geologic, hydrologic,  
8 and groundwater flow systems.  
9 (b) Hazards Analysis. The hazards analysis shall include a complete discussion of the  
10 potential impacts of seismic activity on the site (for example, forces generated and  
11 fault displacement).  
12 (c) Geological Assessment. The report shall include an assessment of the geologic  
13 characteristics of the soils, sediments, and/or rock of the project area and potentially  
14 affected adjacent properties. Soils analysis shall be accomplished in accordance with  
15 accepted classification systems in use in the region. The assessment shall include:  
16 (i) A description of the surface and subsurface geology, hydrology, soils, and  
17 vegetation found in the project area and in all hazard areas addressed in the  
18 report;  
19 (ii) A detailed overview of the field investigations, published data, and references;  
20 data and conclusions from past assessments of the site; and site specific  
21 measurements, test, investigations, or studies that support the identification  
22 of geologically hazardous areas; and  
23 (iii) A review of the site history regarding landslides, erosion, and prior grading. A  
24 description of the vulnerability of the site to seismic and other geologic  
25 events.  
26 (d) Geotechnical Engineering Report. A geotechnical engineering report shall evaluate  
27 the physical properties of the subsurface soils, particularly the thickness of  
28 unconsolidated deposits and their liquefaction potential. If it is determined that the  
29 site is subject to liquefaction, mitigation measures shall be recommended and  
30 implemented.  
31 (e) Analysis of Proposal. The report shall contain a hazards analysis including a detailed  
32 description of the project, its relationship to the geologic hazard(s), and its potential  
33 impact upon the hazard area, the subject property, and affected adjacent properties.  
34 (f) Minimum Buffer and Building Setback. The report shall make a recommendation for  
35 the minimum no-disturbance buffer and minimum building setback from any geologic  
36 hazard based upon the geotechnical analysis.  
37 (g) Mitigation Assessment. When hazard mitigation is required, the mitigation plan shall  
38 specifically address how the activity maintains or reduces the predevelopment level  
39 of risk to the site and adjacent properties on a long-term basis (equal to or exceeding  
40 the projected lifespan of the activity or occupation). Mitigation may be required to  
41 avoid any increase in risk above the pre-existing conditions following abandonment  
42 of the activity.  
43

44 **21.24.320-300 Wetlands – Designation and rating.**

- 45 (1) Definition. Wetlands are those areas ~~designated in accordance with the Washington State~~  
46 ~~Wetland Identification and Delineation Manual (1997)~~ that are inundated or saturated by  
47 surface or ground water at a frequency and duration to support, and that under normal  
48 circumstances do support, a prevalence of vegetation adapted for life in saturated soil  
49 conditions. ~~The goal of the City of Woodinville is to maintain a standard of no net loss in the~~  
50 ~~functions and values of wetlands.~~

Commented [SC56]: Identified in 21.24.010

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- 1 (2) Designation. Identification of wetlands and delineation of their boundaries shall be in  
 2 accordance with the current approved federal wetland delineation manual and applicable  
 3 regional supplements as set forth in WAC 173-22-035. Areas meeting the wetland  
 4 designation criteria are critical areas and subject to the provisions of this chapter.
- 5 (3) ~~4~~ Wetland Rating and Categories. Wetlands shall be rated ~~similarly~~ according to the current  
 6 approved version of the Department of Ecology ~~Wetland Rating System found in the~~  
 7 Washington State Wetland Rating System ~~document~~, for Western Washington, ~~Ecology~~  
 8 ~~Publication No. 93-74~~. Definitions and the methodology for determining criteria as provided  
 9 in this document are hereby adopted by reference.
- 10 ~~(2) Wetland Rating Categories.~~ (a) Wetlands shall be categorized based on the table below. If  
 11 the wetland qualifies under more than one category, the greater wetland rating shall  
 12 apply. ~~designated as Class 1, Class 2, and Class 3 according to the criteria in this section:~~
- 13 ~~(a) Class 1 wetlands are those wetlands that meet any of the following criteria:~~
- 14 ~~(i) Documented habitat for Federal or State listed endangered or threatened fish,~~  
 15 ~~animal, or plant species; or~~
  - 16 ~~(ii) Wetlands documented as high-quality habitats in the natural Heritage~~  
 17 ~~Information System; or~~
  - 18 ~~(iii) Wetlands of exceptional local significance or irreplaceable ecological~~  
 19 ~~functions, including spagnum bogs and fens or natural forest swamps; or~~
  - 20 ~~(iv) Wetlands proximal to and influenced by the main stem of the Sammamish~~  
 21 ~~River or Little Bear Creek.~~
- 22 ~~(b) Class 2 wetlands are those wetlands not rated as Class 1 wetlands and meet any of~~  
 23 ~~the following criteria:~~
- 24 ~~(i) Wetlands that have significant functions that may not be adequately replicated~~  
 25 ~~through creation or restoration; or~~
  - 26 ~~(ii) Wetlands of any size associated with Type 2 or 3 streams; or~~
  - 27 ~~(iii) Wetlands greater than one acre in size; or~~
  - 28 ~~(iv) Wetlands equal to or less than one acre having three or more classes of~~  
 29 ~~wetland vegetation as defined in Classification of Wetlands and Deepwater~~  
 30 ~~Habitats of the United States (Cowardin, et al. 1979); or~~
- 31 ~~(v) Wetlands equal to or less than one acre having a forested wetland class or open~~  
 32 ~~water habitat.~~
- 33 ~~(c) Class 3 wetlands are those wetlands not rated as Class 1 or 2 wetlands.~~

**Table 21.24.320(3)(a) – Wetland Categories**

Category	Designation Descriptions
Category I	Wetlands that meet one of the following criteria: - High level of functions (score of 23 or more); - Represent a unique or rare high-functioning wetland types; - More sensitive to disturbance than most wetlands; or - Relatively undisturbed and contain ecological attributes that are impossible to replace in a human lifetime.
Category II	- High level of some functions (score of 20-22). - Difficult, though not impossible, to replace.
Category III	- Moderate level of functions (score of 16-19). - Can often be adequately replaced with a well-planned mitigation project.

**Commented [SC57]:** This table follows the state's rating system in WAC 173-22-035. The scoring associated with each category of wetland comes from the DOE Wetland Rating System. In this system, a wetland biologist will evaluate a wetland through an inventory of wetland characteristics in a [worksheet](#) provided by DOE.

Wetlands are rated based on Function as scored in the worksheet. A higher score indicates that a wetland is less disturbed, unique, provides important or irreplaceable ecological attributes, and so forth. Function and value is defined as "The services provided by critical areas to society, including, but not limited to, improving and maintaining water quality, providing fish and wildlife habitat, supporting terrestrial and aquatic food chains, reducing flooding and erosive flows, wave attenuation, historical or archaeological importance, educational opportunities, and recreation."

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	<ul style="list-style-type: none"> <li>- Experienced some disturbance.</li> <li>- Often less diverse and more isolated from other natural resources than Category II wetlands.</li> </ul>
Category IV	<ul style="list-style-type: none"> <li>- Lowest level of functions (score of 15 or less).</li> <li>- Can often be adequately replaced with a well-planned mitigation project.</li> <li>- Often characterized by a high level of disturbance .</li> </ul>

- (b) Date of Wetland Rating. Wetland rating categories shall be applied as the wetland exists on the date of adoption of the rating system, as the wetland naturally changes thereafter, or as the wetland changes in accordance with permitted activities. Wetland rating categories shall not change due to illegal modification.
- (c) Delineation. The wetland's boundaries shall be delineated through a survey and field investigation by a qualified professional applying the most current federal wetland delineation manual and applicable regional supplement. Wetland delineations are valid for five years; after such date, the City shall determine whether a revision or additional assessment is necessary.

**21.24.310~~330~~ Wetlands – Development standards.**

~~A development proposal on a site containing a wetland shall meet the following requirements:~~

- ~~(1) The following standard minimum buffers shall be established from the wetland edge:~~
- ~~(a) Class 1 wetlands shall have a 150-foot buffer with a 50-foot reduction with enhancement as defined in WMC 21.06.208.~~
  - ~~(b) Class 2 wetlands shall have an 100-foot buffer with a 50-foot reduction with enhancement.~~
  - ~~(c) Class 3 wetlands shall have a 50-foot buffer with a 25-foot buffer reduction with enhancement.~~
  - ~~(d) The standard buffer width will be established unless the existing wetland buffer is significantly degraded. If the existing wetland buffer is significantly degraded, the applicant may use a reduced buffer as long as enhancement measures are implemented to provide a net improvement in overall wetland and buffer function and value as determined by a qualified biologist. Enhancement measures shall be conducted in accordance with a plan approved by the Development Services Director.~~
  - ~~(e) Any wetland restored, relocated, replaced or enhanced because of a wetland alteration shall have the minimum buffer required for the highest wetland class involved.~~

- (1) Standard Wetland Buffers. Activities and uses shall be prohibited within wetlands and their buffers except as provided for in this chapter. The width of the wetland buffers shall be determined according to the wetland category and habitat point scoring shown in Table 21.24.310(1).

**Table 21.24.310(1) – Wetland Buffer Widths**

Wetland Category	Buffer width based on habitat points			
	3-4 habitat points	5 habitat points	6-7 habitat points	8-9 habitat points
Category I	75 feet	105 feet	165 feet	225 feet
Category II	75 feet	105 feet	165 feet	225 feet
Category III	60 feet	105 feet	165 feet	225 feet
Category IV	45 feet			

- (2) Measurement. The outer edge of the wetland buffer shall be delineated through a survey and field investigation by a qualified professional.

**Commented [SC58]:** These new buffer widths are based on DOE's Wetlands and CAO Update Guidance for Small Cities. The City must be consistent with this guidance document or with DOE Wetlands in Washington State Vol. 2 document, both of which are based of best available science.

Habitat points are also from the Wetland Rating System worksheet. Habitat, along with Hydrologic and Improving Water Quality are the three functions that comprise Wetland Functions (used to determine wetland category above).

It is difficult to compare how the City's wetlands compare between the existing system and the new rating system. The existing categories did not follow new or previously recommended rating systems, which means that the categories have changed significantly.

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1 (f) ~~Wetland buffers shall be measured from the wetland edge as delineated and marked~~  
2 ~~in the field using the 1997 Washington State Wetland Identification and Delineation~~  
3 ~~Manual (Ecology).~~

4 (g) ~~The Development Services Director shall require increased buffer widths in accordance with~~  
5 ~~a(3) Increased Buffers. An increased buffer width shall be required in accordance with the~~  
6 ~~recommendations of a qualified biologist professional and the best available science on a~~  
7 ~~case-by-case basis when a larger buffer is necessary to protect wetland functions and~~  
8 ~~values based on site-specific characteristics. This determination shall be based on one or~~  
9 ~~more of the following criteria critical areas:~~

10 (i) ~~A-~~(a) Geologically Hazardous Areas. If the buffer or abutting uplands include a  
11 geologically hazardous area, the buffer width shall be the greater of either the  
12 required wetland buffer or 25 feet beyond the top of the hazard area.

13 (b) Other Critical Areas. If the wetland and its buffer are located adjacent to other critical  
14 areas, a larger buffer ~~is needed~~ may be required to protect other critical areas; in  
15 accordance to the recommendations of a qualified professional and best available  
16 science.

17 (ii) ~~The buffer or adjacent uplands has a slope greater than 30 percent or is~~  
18 ~~susceptible to erosion and standard erosion control measures will not prevent~~  
19 ~~adverse impacts to the wetland.~~

20 (c) Species Habitat. The wetland contains documented habitat for endangered,  
21 threatened, priority species or species of local importance. The buffer shall be  
22 established based on a habitat assessment pursuant to WMC 21.24.400 through  
23 WMC 21.24.440.

24 (4) Roads or Structures in Buffers. Where a legally established roadway transects a wetland  
25 buffer, a modification to the minimum required buffer width may be granted to the edge of  
26 the roadway, provided that the proposed development is on the other side of the roadway  
27 and does not increase the degree of nonconformity.

28 (25) Buffer ~~width averaging~~Averaging. The minimum buffer width may be ~~allowed by the~~  
29 ~~Development Services Director averaged~~ averaged in accordance with an approved critical area report  
30 ~~and using the best available science. on a case-by-case basis.~~ Averaging of buffer widths  
31 may only be allowed ~~where a qualified professional biologist demonstrates compliance with~~  
32 ~~all of the following provisions~~criteria are met:

33 (a) ~~It will provide A~~Additional protection to ~~the wetlands and result in a net improvement~~  
34 ~~of wetland will be provided through implementation of a buffer enhancement plan;~~

35 ~~(b) It will not reduce wetland~~habitat, functions ~~or~~and values;

36 (b) The buffer width is not reduced by more than 25 percent of the standard width in any  
37 one location;

38 (c) The wetland contains variations in sensitivity due to existing physical characteristics  
39 or the character of the buffer varies in slope, soils, or vegetation, and the wetland  
40 would benefit from a wider buffer in places and would not be adversely impacted by  
41 a narrower buffer in other places;

42 (d) The total area contained in the buffer area after averaging is no less than that which  
43 would be contained within the standard buffer; and

44 ~~(e) The buffer width is not reduced by more than 20 percent of the standard width or 50~~  
45 ~~feet, whichever is greater.~~

46 ~~(f) Buffer averaging is allowed as an alternative to buffer reduction with enhancement.~~  
47 ~~Only one method shall be implemented.~~

48 (ge) When wetland standard buffers are reduced ~~for mitigation purposes~~, wetland areas  
49 shall not to be filled to create wetland buffers.

50 (3) ~~The~~

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- 1 use of hazardous substances, pesticides and fertilizers in the wetland and its buffer may be  
2 prohibited by the Development Services Director.
- 3 (6) Temporary and permanent signs and fencing shall be installed along the outer boundary of  
4 the wetland buffer in accordance with WMC 21.24.140.
- 5 (7) Livestock. Property owners shall implement a farm management plan or standards to protect  
6 and enhance wetland water quality pursuant to Chapter 21.30 WMC. ~~(4) Unless otherwise~~  
7 ~~provided, the following restrictions shall apply to all development proposals, which include~~  
8 ~~the introduction of livestock:~~
- 9 ~~(a) To prevent damage to Class 1 and 2 wetlands:~~
- 10 ~~(i) A plan to protect and enhance the wetland's water quality shall be implemented pursuant to~~  
11 ~~Chapter 21.30 WMC; or~~
- 12 ~~(ii) Fencing located at the buffer edge shall be required.~~
- 13 ~~(5) Standards pertaining to access to streams for watering purposes, stream crossing~~  
14 ~~requirements and use of natural barriers and vegetative buffering in lieu of fencing shall be~~  
15 ~~included in administrative rules promulgated pursuant to this chapter.~~
- 16 ~~(6) The livestock restrictions contained in subsection (4) of this section shall not apply to~~  
17 ~~wetlands defined as grazed wet meadows, regardless of their classification.~~

19 **21.24.320~~340~~ Wetlands – Permitted activities~~alterations~~.**

20 The Development Services Director may allow alterations to a wetland and wetland buffers  
21 under the following conditions:

- 22 ~~(1) Special studies completed by qualified professionals determine:~~
- 23 ~~(a) The wetland does not serve any of the valuable functions of wetlands identified in WMC~~  
24 ~~21.06.710 including, but not limited to, biologic and hydrologic functions; or~~
- 25 ~~(b) The proposed development will protect or enhance the wildlife habitat, natural~~  
26 ~~drainage or other valuable functions of the wetland and will be consistent with the~~  
27 ~~purposes of this chapter;~~
- 28 ~~(c) The existing on-site habitat value, hydrology, erosion and deposition and/or water~~  
29 ~~quality; and~~
- 30 ~~(d) Specific recommendations for mitigation which may be required as approval. The mitigation~~  
31 ~~may include, but is not limited to, construction techniques or design, drainage or density~~  
32 ~~specifications;~~
- 33 ~~(2) There shall be no introduction of any plant or wildlife which is not indigenous to the Puget~~  
34 ~~Sound region into any wetland or buffer unless authorized by a State or Federal permit or~~  
35 ~~approval;~~
- 36 ~~(3) Utilities may be allowed in wetland buffers if the Development Services Director determines~~  
37 ~~that:~~
- 38 ~~(a) No practical alternative location is available;~~
- 39 (1) Alterations. Alterations to wetlands and their buffers may be allowed in addition to those  
40 established in WMC 21.24.040 and WMC 21.24.050, if the City determines that there is no  
41 practical alternative location with less adverse impact on the wetland or its buffer, subject to  
42 mitigation requirements set forth in this chapter, as follows:
- 43 (a) Conservation and Restoration Activities. Conservation and recreation activities  
44 include activities that are aimed at protecting soil, water, vegetation, or wildlife.
- 45 (b) Public and Private Utilities. Utilities may be allowed in wetland buffers if all of the  
46 following criteria are met:
- 47 (i) Placement of the utilities may be located in the outer 25 percent of the buffer  
48 area;
- 49 (ii) The utility corridor and construction area are the minimum size necessary;
- 50 (iii) The utility is not located in a wetland or buffer designated as a fish and  
51 wildlife habitat conservation area pursuant to WMC 21.24.400;

Commented [SC59]: Moved

Commented [SC60]: Section was moved. Requirements are included in greater detail in 21.24.320.

Commented [AK61]: Make sure wetlands are not considered a FWHCA per 21.24.400.

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(biv) Mitigation is required that minimizes the impact of the proposal on the wetland buffer;

(ev) ~~and~~ The utility corridor meets the provisions of ~~Policy~~ Policies U-1.125 and U-1.8 of the City of Woodinville Comprehensive Plan;

~~(4) Sewer utility corridors may be allowed in wetland buffers only if:~~

~~(a) The applicant demonstrates that sewer lines are necessary for gravity flow;~~

~~(b) The corridor is not located in a wetland or buffer used by species listed as endangered or threatened by the State or Federal government or containing critical or outstanding actual habitat for those species or heron rookeries or raptor nesting trees;~~

~~(c) The corridor alignment including, but not limited to, any allowed maintenance roads follows a path beyond a distance equal to 75 percent of the buffer width from the wetland edge;~~

~~(d) Corridor construction~~ (vii) Construction and maintenance protects the wetland and buffer and is aligned to avoid cutting trees greater than 12 inches in diameter at breast height, ~~when possible, and pesticides, herbicides and other hazardous substances are not used; and~~

~~(e) An additional, contiguous and undisturbed buffer, equal in width to the proposed corridor including any allowed maintenance roads, is provided to protect the wetland;~~

~~(f) The corridor is revegetated with appropriate native vegetation at preconstruction densities or greater immediately upon completion of construction or as soon thereafter as possible, and the sewer utility ensures that such vegetation survives;~~

~~(g) Any additional corridor access for maintenance is provided, to the extent possible, at specific points rather than by a parallel road;~~

~~(h) The width of any necessary parallel road providing access for maintenance is as small as possible, but not greater than 15 feet, the road is maintained without the use of herbicides, pesticides or other hazardous substances and the location of the road is contiguous to the utility corridor on the side away from the wetland; and~~

~~(i) The utility corridor meets the provisions of Policy U-1.12 of the City of Woodinville Comprehensive Plan;~~

(5)(vii) For public sewer and water distribution only, if the corridor cannot be located in the outer 25 percent of the buffer area due to gravity flow, it may be located in another part of the buffer with the least adverse impact to the wetland.

(c) Drilling for Utilities or Utility Corridors under a Wetland. Entrance/exit portals shall be located completely outside of the wetland buffer, provided that drilling does not interrupt the ground water connection to the wetland or percolation of surface water down through the soil column. Specific studies by a hydrologist are necessary to determine whether the ground water connection to the wetland or percolation of surface water down through the soil column will be disturbed.

(d5) Utility Joint Use. Joint use of an approved ~~sewer~~-utility corridor by other utilities may be allowed.

~~(6) The following surface water management activities and facilities may be allowed in wetland buffers only as follows:~~

~~(a)~~ (e) Surface Water Discharge. Surface water discharge to a wetland from a detention facility, presettlement pond or other surface water management activity or facility may be allowed in the wetland buffer if the discharge does not increase the rate of flow, change the plant composition in a forested wetland, or decrease the water quality of the wetland.;

~~(b)~~ Class 1 or 2 Detention Facility. Category IV wetlands or buffer which has as its major function the storage of water may be used for a ~~retention~~/detention ~~facilities~~ facility if:

**Commented [SC62]:** No corridors or roads should be included as a permitted alteration in a buffer. A project of this scope would be required to obtain a critical area exemption. A permitted alteration was included to bore utilities underneath as an alternative to this.

**Commented [SC63]:** These substances are prohibited pursuant to (3), below

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- ~~(i) A public agency and utility exception is granted pursuant to WMC 21.24.080; (i) A presettlement pond is installed outside of the wetland buffer;~~
- (ii) All requirements of the King County Surface Water Design Manual are met;
- (iii) The use will not alter the rating or the factors used in rating the wetland; and
- ~~(iv) The proposal is in compliance with the latest adopted findings of the Puget Sound Wetlands Research Project; and~~

Commented [SC64]: Consider adding this back in

- (iv) There are no significant adverse impacts to the wetland.;
- ~~(gvi) Dispersal Trenches.~~ Grass-lined swales and dispersal trenches may be located in the outer 25 percent of the buffer area. All other Energy dissipaters and associated pipes may be permitted if no practical alternative exists and if the function of the buffer is not adversely affected. Other surface water management facilities are not allowed within the buffer area.;

- ~~(c) Class 3 wetlands or buffer which has as its major function the storage of water may be used as a retention/detention facility if a presettlement pond is required and all requirements of the King County Surface Water Design Manual are met; and~~
- ~~(d) Use of a wetland buffer for a surface water management activity or facility, other than a retention/detention facility, such as an energy dissipater and associated pipes, may be allowed only if the applicant demonstrates, to the satisfaction of the Development Services Director, that:~~

- ~~(i) No practicable alternative exists; and~~
- ~~(ii) The functions of the buffer or the wetland are not adversely affected;~~

- ~~(h7) Trails.~~ Public and private trails, or visual access to the sensitive area, are encouraged in-, may be located in wetland buffers provided:

- (ia) The trail surface shall not be made of impervious materials, except that public multi-purpose trails may be made of impervious materials if they meet all other requirements, including water quality and quantity; and
- (iib) Buffers shall be expanded, where possible, equal to the width of the trail corridor including disturbed areas.;

- ~~(8) Road Crossing.~~ Wetland and buffer road crossings may be allowed on the outer 25 percent of the buffer area if:

- ~~(ia) The Development Services Director determines that There is no practical alternative access is practical with less environmental adverse impact;~~
- (iib) Crossings minimize impact to the wetland and provide mitigation for unavoidable impacts through restoration, enhancement, or replacement of disturbed areas;
- (iiie) Crossings do not change the overall wetland hydrology;
- (ivd) Crossings do not diminish the flood storage capacity of the wetland; and
- (ve) Crossings are constructed during summer low water periods; and
- (vi) Crossings are the minimum size or length necessary to provide access.

- (2) There shall be no introduction of any plant or wildlife that is not indigenous to the Puget Sound region into any wetland or buffer unless authorized by a state or federal permit or approval.

- (3) The use of hazardous substances, pesticides, and fertilizers in the wetland and its buffer shall be prohibited.

#### 21.24.330 Wetlands – Critical areas report additional requirements.

- (1) Additional Report Requirements. In addition to the general critical report requirements of WMC 21.24.110, critical areas reports for wetlands shall include the following information:

- (a) Prepared by a Qualified Professional. The critical areas report shall be prepared by a qualified professional who is a certified wetland scientist. The qualified professional

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1 shall have a minimum of five years of experience in the field of wetland science and  
2 experience in preparing wetland reports.

3 (b) Wetland Assessment. The wetland assessment shall include the following  
4 information on the site:

- 5 (i) Wetland delineation, category and required buffers;
- 6 (ii) Existing wetland acreage;
- 7 (iii) Vegetative, faunal, and hydrologic characteristics;
- 8 (iv) Soil and substrate conditions;
- 9 (v) A discussion of the water sources supplying the wetland and documentation  
10 of hydrologic regime (locations of inlet and outlet features, water depths  
11 throughout the wetland, evidence of recharge or discharge, evidence of water  
12 depths throughout the year – drift lines, algal layers, moss lines, and  
13 sediment deposits); and
- 14 (vi) Clearing limits.

15 (c) Habitat and Vegetation Conservation. A habitat and native vegetation conservation  
16 strategy that addresses methods to protect and enhance on-site habitat and wetland  
17 functions.

18 (d) Wetland Evaluation. Functional evaluation for the wetland and adjacent buffer using  
19 a local or state agency staff-recognized method and including the reference of the  
20 method and all data sheets.

21 (e) Proposed Mitigation. If required, a mitigation plan consistent with WMC 21.24.120  
22 and WMC 21.24.340. The mitigation plan shall include a written assessment and  
23 accompanying maps of the mitigation area, including the following information at a  
24 minimum:

- 25 (i) Proposed wetland acreage;
- 26 (ii) Proposed vegetative, faunal, and hydrologic characteristics;
- 27 (iii) Surface and subsurface hydrologic conditions including an analysis of  
28 existing and future hydrologic regime and proposed hydrologic regime for  
29 enhanced, created, or restored mitigation areas;
- 30 (iv) Proposed soil and substrate conditions;
- 31 (v) Proposed adjacent site conditions;
- 32 (vi) Required wetland buffers (including any buffer reduction and mitigation  
33 proposed to increase the plant densities, remove weedy vegetation, and  
34 replant the buffers);

35 (f) Maintenance. A written plan outlining proposed maintenance and management  
36 practices that will provide long term protection of the wetland consistent with WMC  
37 21.24.130.

#### 38 **21.24.340 Wetlands – Mitigation.**

39 (1) General. Mitigation shall be consistent with the requirements in WMC 21.24.120. An  
40 evaluation of mitigation sequencing, including avoidance, minimization, and compensation,  
41 shall be provided pursuant to WMC 21.24.120.

#### 42 ~~21.24.350 Wetlands – Mitigation requirements.~~

43 ~~(1) When an alteration to a critical area is proposed, such alteration shall be avoided,~~  
44 ~~minimized, or compensated for, as outlined by WAC 197-11-768, in the following order of~~  
45 ~~preference:~~

- 46 ~~(a) Avoiding the impact altogether by not taking a certain action or parts of actions;~~
  - 47 ~~(b) Minimizing impacts by limiting the degree or magnitude of the action and its~~  
48 ~~implementation;~~
  - 49 ~~(c) Rectifying the impact by repairing, rehabilitating, or restoring the affected~~  
50 ~~environment;~~
- 51

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

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

~~(2) Mitigation shall achieve equivalent or greater biological functions. Mitigation for alterations to wetlands shall achieve equivalent or greater biologic functions. Mitigation plans shall be consistent with the Department of Ecology Guidelines for Developing Freshwater Wetlands Mitigation Plans and Proposals, 1994, as revised.~~

(32) 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:

(a) 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

(b) Off-site replacement will best meet formally identified regional goals, such as replacement of historically diminished wetland types.

(43) Preference of Mitigation Actions. Mitigation actions that require compensation by replacing, enhancing, or substitution shall occur in the following order of preference:

(a) Restoring ~~wetlands on upland sites that were formerly wetlands~~ wetland acreage and functions to an area where those functions formerly occurred.

(b) Creating new wetland areas and functions in an area where they did not previously occur.

(c) Enhancing ~~significantly degraded wetlands~~ at an existing wetland.

~~(de) Preserving an existing high-quality wetlands that are under imminent threat to protect it from future loss or degradation.~~

(45) Type and Location of Mitigation. Mitigation actions shall be ~~conducted within the same subdrainage basin and~~ in-kind and located on the same site as the alteration, except when all of the following apply:

(a) There ~~are~~ is no ~~reasonable opportunity for~~ 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, adjacent land uses, ~~wildlife impacts~~, or on-site buffers or connectivity are inadequate;

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

(c) Off-site locations shall be in the same ~~subdrainage~~ sub-basin and the same Water Resource Inventory Area (WRIA) ~~as the impacted wetland; and 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; and~~

(d) The off-site location ~~is approved by the Development Services Director. The Development Services director shall approve or deny the off-site location based on written findings and recommendations by a qualified wetland biologist.~~ wetland mitigation will best meet formally identified watershed goals, such as replacement of historically diminished wetland types.

~~(6) Mitigation Timing. Where feasible, mitigation projects shall be completed prior to activities that will disturb wetlands. In all other cases, mitigation shall be completed immediately following disturbance and prior to use or occupancy of the activity or development. Construction of mitigation projects shall be timed to reduce impacts to existing wildlife and flora.~~

**Commented [SC65]:** This mitigation sequencing has been moved to the general mitigation requirements in WMC 21.24.120. Specific mitigation requirements for wetlands are included in 21.24.340.

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1 ~~(7) Mitigation Monitoring and Maintenance. Mitigation projects shall be monitored and~~  
2 ~~maintained for a period of five years. A monitoring protocol shall be approved by the~~  
3 ~~Development Services Director and monitoring reports shall be submitted to the City as~~  
4 ~~required.~~

Commented [SC66]: Moved down below

6 (5) Mitigation Ratios.

7 (a) Acreage Replacement Ratios. The following ratios shall apply to creation or  
8 restoration that is in-kind, on-site, the same category, timed prior to or concurrent  
9 with alteration, and has a high probability of success. These ratios do not apply to  
10 remedial actions resulting from unauthorized alterations; greater ratios shall apply in  
11 those cases. These ratios do not apply to the use of credits from a State-certified  
12 wetland mitigation bank. ~~When credits from a certified bank are used, replacement~~  
13 ~~ratios should be consistent with the requirements of the bank's certification.~~ The first  
14 number specifies the acreage of replacement wetlands and the second specifies the  
15 acreage of wetlands altered.

Category I ~~Class 1~~ 6 to 1

Category II 3 to 1

Category III ~~Class 2~~ 2 to 1

Category IV ~~Class 3~~ 1.5 to 1

16 (b) Increased Replacement Ratio. The ~~Development Services Director may increase the~~  
17 ~~ratios under the following circumstances:~~ shall be increased when one of the  
18 following applies:

19 (i) Uncertainty exists as to the probable success of the proposed restoration or  
20 creation; ~~or~~

21 (ii) A significant ~~or extended~~ period of time will elapse between impact and  
22 replication of wetland functions; ~~or~~

23 (iii) Proposed mitigation will result in a lower category wetland or reduced  
24 functions relative to the wetland being impacted; or

25 (iv) The impact ~~was~~ is the result of an authorized ~~impact~~ activity or use.

26 (c) Wetlands Enhancement as Mitigation. Impacts to wetland functions may be mitigated  
27 by enhancement of existing significantly degraded wetlands, but must be used in  
28 conjunction with restoration and/or creation.

29 (i) At minimum, enhancement acreage shall be at least double the acreage  
30 required for creation or restoration under Subsection (a). A higher ratio may  
31 be required if the enhancement proposal results in minimal gain in the  
32 performance of wetland functions and/or result in the reduction of other  
33 wetland functions currently being provided.

34 (ii) Mitigation ratios for enhancement in combination with other forms of mitigation  
35 shall range from 6:1 to 3:1 and be limited to Class III and Class IV wetlands.

36 (iii) A critical areas report consistent with WMC 21.24.110 and WMC 21.24.330  
37 shall include information demonstrating how enhancement will increase  
38 functions of degraded wetlands and how the increase will mitigate for loss of  
39 wetland areas and functions at the impact site.

40 (6) Mitigation Timing. Where feasible, mitigation projects shall be completed prior to activities  
41 that will disturb wetlands. In all other cases, mitigation shall be completed immediately  
42 following disturbance and prior to use or occupancy of the activity or development.  
43 Construction of mitigation projects shall be timed to reduce impacts to existing wildlife and  
44 flora.

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- 1 (7) Monitoring and Maintenance. Mitigation projects shall be monitored and maintained  
2 consistent with WMC 21.24.130.
- 3 (8) Buffers for Mitigation Sites. Mitigation sites shall have buffers consistent with the  
4 requirements of this chapter. The buffer for a wetland that is created, restored, or enhanced  
5 as compensation for approved wetland alterations shall be subject to the buffer of the  
6 highest wetland category involved.-
- 7 ~~(c) Buffer Mitigation Ratios. When the standard buffers for Class 1, 2, and 3 wetlands are  
8 reduced, enhancement ratios for the reduced buffers will occur at a 1:1 ratio.~~
- 9 ~~(d)~~ (9) Wetland Mitigation Banks. Credits from a wetland mitigation bank may be approved for  
10 use as compensation for unavoidable impacts to wetlands. ~~when:~~
- 11 (a) The following criteria shall be met in order to apply credits from a wetland mitigation  
12 bank when:
- 13 (i) The bank is certified under Chapter 173-700 WAC;
- 14 (ii) The City determines that the wetland mitigation bank provides appropriate  
15 compensation for the authorized impacts; and
- 16 (iii) The proposed use of credits is consistent with the terms and conditions of the  
17 bank's certification.
- 18 ~~(be)~~ Replacement ratios for projects using bank credits shall be consistent with  
19 replacement ratios specified in the bank's certification.
- 20 (c) Credits from a certified wetland mitigation bank may be used to compensate for  
21 impacts located within the service area specified in the bank's certification. In some  
22 cases, bank service areas may include portions of more than one adjacent drainage  
23 basin for specific wetland functions.

24  
25 ~~21.24.360 Wetlands — Limited exemption.~~

26 ~~Class 3 wetlands less than 1,000 square feet may be exempted from the provisions of WMC  
27 21.24.320 to 21.24.340 and may be altered by filling or dredging if the Development Services  
28 Director determines that the cumulative impacts do not unduly counteract the purposes of this  
29 chapter and are mitigated pursuant to an approved mitigation plan.~~

30 ~~21.24.350 210 Flood hazard areas — Components. Frequently flooded areas - Designation.~~

31 (1) Definition. Frequently flooded areas are those areas meeting one or more of the following  
32 components. These areas shall be designated as frequently flooded areas and shall be  
33 subject to the provisions of this chapter:

34 ~~(1) A flood hazard area consists of the following components:~~

- 35 (a) Floodplain;
- 36 (b) Flood fringe;
- 37 (c) Zero-rise floodway; and
- 38 (d) FEMA floodway.

39 ~~(2) The Public Works Director shall determine the flood hazard area after obtaining, reviewing  
40 and utilizing base flood elevations and available floodway data for a flood having a one percent  
41 chance of being equaled or exceeded in any given year, often referred to as the "100-year  
42 flood." The base flood is determined for existing conditions, unless a basin plan including  
43 projected flows under future developed conditions has been completed and adopted by the City  
44 of Woodinville, in which case these future flow projections shall be used. In areas where the  
45 Flood Insurance Study for the County includes detailed base flood calculations, those  
46 calculations shall be used until projections of future flows are completed and adopted by the  
47 City of Woodinville.~~

48 ~~21.24.220 Flood Insurance Study adopted.~~

49 (2) Designation. Frequently flooded areas shall include the following areas:

50 (a) Areas identified on the flood insurance map(s). These areas of special flood hazard  
51 identified by the Federal Insurance and Mitigation Administration (FIMA) in a

**Commented [SC67]:** DOE does not recommend the filling exemption for wetlands as previously permitted.

**Commented [SC68]:** Frequently flooded areas (previously flood hazard areas) has been moved starting from 21.24.210. The sections have been renumbered to start at 21.24.300, adjacent to streams/fish and wildlife areas. The purpose of this was to place similar or overlapping critical areas together for ease of reading.

Due to this move, the revisions track as new or added language

**Commented [SC69]:** Should we add definitions from definitions chapter?

**Commented [SC70]:** Incorporated with sections below.

**DRAFT**

1 ~~scientific and engineering report entitled “the most current approved version of the~~  
2 ~~Flood Insurance Study for King County” dated November 8, 1999, and any revisions~~  
3 ~~thereto, with accompanying Flood Insurance Maps flood insurance maps (FIRM), and~~  
4 ~~any revisions thereto. The Flood Insurance Study and accompanying maps are~~  
5 ~~hereby adopted by reference and declared to be a part of this chapter. The Flood~~  
6 ~~Insurance Study and the FIRM are on file at the Woodinville City Hall. The best~~  
7 ~~available information for flood hazard area identification as outlined in WMC~~  
8 ~~21.24.210(2) shall be the basis for regulation until a new FIRM is issued which~~  
9 ~~incorporates the data utilized under WMC 21.24.210(2).~~

10 (b) Areas identified by the City. Those areas of special flood hazard identified by the City  
11 based on a review of base flood elevation and floodway data available from federal,  
12 state, county or other agency sources when base flood elevation data has not been  
13 provided from FIMA, identified as A and V zones of the flood insurance maps.

14 (3) For all new structures or substantial improvements in a flood hazard area, the applicant shall  
15 provide certification by a professional civil engineer or land surveyor licensed by the State of  
16 Washington for the following:

- 17 (a) The actual as-built elevation of the lowest floor, including basement; and  
18 (b) The actual as-built elevation to which the structure is flood-proofed, if applicable.

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

20 (4) Supplemental Information. The City may use additional flood information that is more  
21 restrictive or detailed than that provided in the Flood Insurance Study to designate  
22 frequently flooded areas, including data on channel migration, historical data, high water  
23 marks, photographs of past flooding, location of restrictive floodways, maps showing future  
24 build-out conditions, maps that show riparian habitat areas, or similar information.

25 (5) Flood Elevation Data. When base flood elevation data is not available (A and V zones), the  
26 City shall obtain, review, and reasonably utilize any base flood elevation and floodway data  
27 available from a federal, state, or other source, in order to administer this Chapter.

28 (6) Designation Made by City. The flood insurance maps are to be used as a guide for the City,  
29 project applicants, and the public and should be considered a minimum designation of  
30 frequently flooded areas. Flood insurance maps are subject to continuous updated as areas  
31 are reexamined or new areas are identified. Newer and more restrictive information for flood  
32 hazard area identification shall be the basis for regulation.

33 (7) The Building Official shall maintain the certifications required by this section for public  
34 inspection.

35  
36 **21.24.360~~230~~ Flood fringe Frequently flooded areas – Development standards and**  
37 **permitted alterations.**

38 (1) Base flood storage volume. Development shall not reduce the effective base flood storage  
39 volume of the floodplain. Grading or other activity ~~which~~ that would reduce the effective  
40 storage volume shall be mitigated by creating compensatory storage on the site or off the  
41 site ~~if legal~~. Legal arrangements ~~can~~ shall be made to assure that the effective compensatory  
42 storage volume will be preserved in perpetuity ~~over time~~. ~~Grading for construction of~~  
43 ~~livestock manure storage facilities to control nonpoint source water pollution designed to the~~  
44 ~~standards of and approved by the County Conservation District is exempt from this~~  
45 ~~compensatory storage requirement.~~

46 (2) In addition to requiring the applicant to meet the requirements of WMC 21.24.360 through  
47 21.24.380 and other applicable local, State, and Federal requirements, the City shall:

- 48 (a) Notify adjacent communities and the Department of Ecology prior to any alteration or  
49 relocation of a watercourse designated as a zone beginning with A on a FIRM map,  
50 and submit evidence of such notification to the Federal Insurance and Mitigation  
51 Administration.

Commented [SC71]: Moved to Subsection 6 below

Commented [SC72]: Taken from existing 21.24.260

Commented [SC73]: Not applicable within city limits

**DRAFT**

(b) Require that maintenance be provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is not diminished.

**21.24.370 Frequently flooded areas – Permitted alterations activities.**

(1) Alterations. Alterations to frequently flooded areas may be allowed in addition to those activities and uses established in WMC 21.24.040 and WMC 21.24.050.

(2) Flood Fringe. The following shall apply to development located within the flood fringe:

(a) No structure shall be allowed which would be at risk due to stream bank destabilization including, but not limited to, that associated with channel relocation or meandering.

~~(3) 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 Public Works Director prior to construction.~~

(b4) Subdivisions, short subdivisions and binding site plans shall meet the following requirements:

(i) 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;

(ii) All utilities and facilities such as sewer, gas, electrical and water systems shall be located and constructed to minimize or eliminate flood damage consistent with subsections ~~(5), (6) and (7)~~ (c), (d) and (e) of this section;

(iii) 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

(iv) 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.

~~(e) If a subdivision proposal or other proposed new development is in a flood-prone area, any such proposals shall be reviewed to assure that:~~

(iv) All such proposals are consistent with the need to minimize flood damage within the flood-prone area; and

~~(ii) All public utilities and facilities, such as sewer, gas, electrical, and water systems, are located and constructed to minimize or eliminate flood damage; and~~

~~(iii-vi) Adequate drainage is provided to reduce exposure to flood hazards.~~

(5c) New residential structures and substantial improvements of existing residential structures shall meet the following requirements:

(a) The lowest floor, including basement, shall be elevated ~~one to one and one-half~~ one foot above the base flood elevation.

(b) 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

**Commented [SC74]:** Unnecessary – standard requirement under IBC for new construction, not just for those in frequent flood areas.

**Commented [SC75]:** Listed above.

**Formatted:** Indent: Left: 0.5", Hanging: 0.25"

**Commented [SC76]:** Residential and non-residential structures were consolidated together and section 6 was eliminated to reduce redundancy. Requirements for both were nearly the same.

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walls by allowing for the entry and exit of floodwaters. Designs for satisfying this requirement shall meet or exceed the following requirements:

- (iA) 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;
- (iiB) The bottom of all openings shall be no higher than one foot above grade; and
- (iiiC) Openings may be equipped with screens, louvers, or other coverings or devices if they permit the unrestricted entry and exit of floodwaters;

**Commented [SC77]:** Section appears to contradict section immediate above. What would be the room below the lowest floor?

- (eiii) Materials and methods ~~which~~ that are resistant to and minimize flood damage shall be used; ~~and~~
- (div) All electrical, heating, ventilation, plumbing, air conditioning equipment and other utility and service facilities shall be flood-proofed to or elevated above the flood protection elevation;
- (6) ~~New nonresidential structures and substantial improvements of existing nonresidential structures shall meet the following requirements:~~
  - (a) ~~The elevation requirement for residential structures contained in subsection (6) of this section shall be met; or~~
  - (b) ~~The structure shall be flood-proofed to the flood protection elevation and shall meet the following requirements:~~
    - (i) ~~The applicant shall provide certification~~
    - (v) The structures shall be certified by a professional civil or structural engineer licensed by the State of Washington that the flood-proofing 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
    - (iii vi) Approved building permits for flood-proofed nonresidential structures shall contain a statement notifying applicants that flood insurance premiums shall be based upon rates for structures, ~~which~~ that are one foot below the flood-proofed level;
  - (c) ~~Materials and methods which are resistant to and minimize flood damage shall be used; and~~
  - (d) ~~All electrical, heating, ventilation, plumbing, air conditioning equipment and other utility and service facilities shall be flood-proofed to or elevated above the flood protection elevation.~~
  - (7 vii) All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.
- (8d) Mobile and manufactured homes shall meet the following requirements:
  - (a) ~~Manufactured homes and~~ (i) New mobile and manufactured homes ~~to be placed~~ or substantial ~~ly~~ improvements ~~d on sites~~ of existing mobile and manufactured homes:
    - (i) ~~Outside of a mobile home park or subdivision;~~
    - (ii) ~~In a new mobile home park or subdivision;~~
    - (iii) ~~In an expansion to an existing mobile home park or subdivision; or~~
    - (iv) ~~In an existing mobile home park or subdivision on which a mobile home has incurred "substantial damage" as the result of a flood;~~

**Commented [SC78]:** Figure out what this is

**Commented [SC79]:** Unnecessary to call out specific cases. This calls out every possible location for a mobile/manufactured home

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elevation, and is securely anchored to an adequately designed foundation system to resist flotation, collapse and lateral movement.

**Commented [SC80]:** Incorporated in (ii)

~~(b) Manufactured and mobile homes to be placed or substantially improved on sites in an existing mobile home park or subdivision that are not subject to the above manufactured and mobile home provisions must be elevated so that either:~~

**Commented [SC81]:** City does not have any existing mobile home parks or subdivisions

~~(i) The lowest floor of the manufactured or mobile home is elevated to one foot above the base flood elevation; or~~

~~(ii) The manufactured or mobile 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 be securely anchored to an adequately designed foundation system to resist flotation, collapse, and lateral movement.~~

~~(eii) All new or substantially improved manufactured and mobile homes shall be securely 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 consistent with FEMA's "Manufactured Homes Installation in Flood Hazard Areas" guidebook for additional techniques).~~

~~(iii) No permit or approval for the following~~ Compliance with this chapter shall be required for new construction or expansion of a mobile home park, or reconstruction of streets, utilities or pads in an existing mobile home park exceeding 50 percent of the assessed value of such structures. ~~granted unless all manufactured or mobile homes within the mobile home park meet the requirements in subsection (8)(b) of this section:~~

~~(i) A new mobile home park;~~

~~(ii) An expansion of an existing mobile home park; or~~

~~(iii) 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.~~

**Commented [SC82]:** Incorporated in section above.

~~(e-9)~~ Recreational vehicles ~~must either~~ shall meet one of the following requirements:

~~(ia)~~ Be on the site for fewer than 180 consecutive days;

~~(ib)~~ Be fully licensed and ready for highway use, on its wheels or jacking system, be attached to the site only by quick disconnect-type utilities and security devices, and have no permanently attached additions; or

~~(iie)~~ Meet the requirements of subsection ~~(8d)~~ of this section and the elevations and anchoring requirements of manufactured and mobile homes.

~~(f-10)~~ Utilities shall meet the following requirements:

~~(ia)~~ All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;

~~(iib)~~ New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters;

~~(iiie)~~ On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding;

~~(ivd)~~ Sewage and agricultural waste storage facilities shall be flood-proofed to the flood protection elevation;

~~(ve)~~ Above-ground utility transmission lines, other than electric transmission lines, shall only be allowed for the transport of nonhazardous substances; and

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(vi) 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.

(g) Critical public 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 public facilities constructed within the flood fringe shall have the lowest floor elevated to three or more feet above the base flood elevation. Flood-proofing and sealing measures 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~~ essential public facilities from the nearest maintained public street or roadway.

(h) Prior to approving any permit for alterations in the flood fringe, ~~the Public Works Director~~ the City shall determine that all permits required by ~~State or Federal~~ regulations ~~law~~ have been obtained.

**21.24.240 Zero-rise floodway—Development standards and permitted alterations.**

(3) Zero-rise floodway and FEMA floodway. The requirements ~~which~~ that apply to the flood fringe in Subsection (2) shall also apply to the zero-rise floodway and FEMA floodway. The more restrictive requirements shall apply where there is a conflict.

(a) New residential or nonresidential structures are prohibited within the FEMA floodway.

(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:

(a) 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

(b) 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~~ critical area report to establish this fact:

(a) New residential structures outside the FEMA floodway on lots in existence before March 31, 1993, 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;

(b) Substantial improvements of existing residential structures in the zero-rise floodway, but outside the FEMA floodway, where the footprint is not increased; ~~or~~

(c) Substantial improvements of existing residential structures meeting the requirements for new residential structures in WMC 21.24.230(2)(c); or

(d) Substantial improvements of existing residential structures in the FEMA floodway, meeting the requirements of WAC 173-158-070, as amended.

(4) Post or piling construction techniques which permit water flow beneath a structure shall be used.

(5) 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.

Commented [SC83]: Check with critical facilities definition

Commented [SC84]: Consolidated with FEMA floodway section below

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1 (6f) New residential or nonresidential structures shall meet the following requirements:

2 (a) The structures shall be outside the FEMA floodway; and

3 (b) The structures shall be on lots in existence before March 31, 1993, which contain  
4 less than 5,000 square feet of buildable land outside the zero-rise floodway.

5 (7g) Utilities may be allowed within the zero-rise floodway if the City determines that no  
6 feasible alternative site is available, subject to the following requirements:

7 (a) Installation of new on-site sewage disposal systems shall be prohibited  
8 unless a waiver is granted by the department of public health; and

9 (b) Construction of sewage treatment facilities shall be prohibited.

10 (8) Critical facilities shall not be allowed within the zero-rise floodway except as  
11 provided in WMC 21.24.230(11).

12 (9) Livestock manure storage facilities and associated nonpoint source water pollution  
13 facilities designed, constructed and maintained to the standards of and approved in a  
14 conservation plan by the King County Conservation District may be allowed if the  
15 Public Works Director reviews and approves the location and design of the facilities.

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

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

21 (b) Flood damage reduction facilities, such as levees and pumping stations;

22 (c) Stream bank stabilization structures where no feasible alternative exists for  
23 protecting public or private property;

24 (d) Storm water conveyance facilities subject to the development standards for  
25 streams and wetlands and the King County Surface Water Design Manual;

26 (e) Boat launches and related recreation structures;

27 (f) Bridge piers and abutments; and

28 (g) Other fisheries enhancement or stream restoration projects.

29  
30 ~~21.24.250 FEMA floodway — Development standards and permitted alterations.~~

31 (1) The requirements which apply to the zero-rise floodway shall also apply to the FEMA  
32 floodway. The more restrictive requirements shall apply where there is a conflict.

33 2) A development proposal including, but not limited to, new or reconstructed structures shall  
34 not cause (any increase in the base flood elevation:

35 (3) New residential or nonresidential structures are prohibited within the FEMA floodway.

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

40 ~~21.24.260 Flood hazard areas — Certification by engineer or surveyor.~~

41 (1) For all new structures or substantial improvements in a flood hazard area, the applicant shall  
42 provide certification by a professional civil engineer or land surveyor licensed by the State of  
43 Washington of:

44 (a) The actual as-built elevation of the lowest floor, including basement; and

45 (b) The actual as-built elevation to which the structure is flood-proofed, if applicable.

46 (2) The engineer or surveyor shall indicate if the structure has a basement.

47 (3) The Building Official shall maintain the certifications required by this section for public  
48 inspection.

Commented [SC85]: What was this requirement intended for?

Commented [SC86]: Removed., as it is not allowed per section (330)(11)

Commented [SC87]: Incorporated into 21.24.370

Commented [SC88]: Moved to 21.24.360

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1 **21.24.380 Frequently flooded areas – Critical areas report additional requirements.**

2 (1) In addition to the general critical report requirements of WMC 21.24.110, critical areas  
3 reports for frequently flooded areas shall include a flood hazard assessment and shall  
4 include the following information:

5 (a) Prepared by a Qualified Professional. The critical areas report for shall be prepared  
6 by a qualified professional who is a hydrologist or engineer licensed in the State of  
7 Washington. The qualified professional shall have a minimum of five years of  
8 experience in the field and experience in preparing flood hazard assessments.

9 (b) Site Areas. The following areas shall be addressed:

10 (i) The site area of the proposed activity;

11 (ii) All areas of a special flood hazard, or other flood area as indicated in the flood  
12 insurance maps within 200 feet of the project area; and

13 (iii) All other flood areas indicated on the flood insurance maps within 200 feet of the  
14 project area.

15 (c) Watercourse Alteration. Alteration of natural watercourses shall be avoided, if  
16 feasible. If unavoidable, a critical area report shall include:

17 (i) A description of and plan showing the extent to which a watercourse will be  
18 altered or relocated as a result of proposal;

19 (ii) A maintenance program that provides maintenance practices for the altered or  
20 relocated portion of the watercourse to ensure that the flood carrying capacity  
21 is not diminished; and

22 (iii) Information describing and documenting how the proposed watercourse  
23 alteration complies with the requirements of WMC 21.24.400 through  
24 21.24.440, the adopted Shoreline Master Program, and other applicable state  
25 or federal permit requirements.

26 (d) Habitat Impact Assessment. A habitat impact assessment is required for activities  
27 that meet one of the following: repair and remodel of existing structures or facilities;  
28 additions less than 10 percent of the existing footprint; restoration or enhancement of  
29 natural function; or development of recreational facilities. A habitat assessment shall  
30 be one of the following:

31 (i) A Biological Evaluation or Biological Assessment developed in accordance  
32 with 50 C.F.R. § 402.12;

33 (ii) Documentation that the activity fits within Section 4(d) of the Endangered  
34 Species Act;

35 (iii) Documentation that the activity fits within a Habitat Conservation Plan  
36 approved pursuant to Section 10 of the Endangered Species Act, where such  
37 assessment has been prepared and made available; or

38 (iv) A habitat impact assessment prepared in accordance with the current  
39 adopted FEMA Regional Guidance for Floodplain Habitat Assessment and  
40 Mitigation, FEMA Region X. The assessment shall determine if the project  
41 would adversely affect:

42 (A) Species that are federal, state or local listed as threatened or  
43 endangered;

44 (B) The primary constituent elements for critical habitat, when designated,  
45 including but not limited to water quality, water quantity, flood  
46 volumes, flood velocities, spawning substrate, and/or floodplain  
47 refugia for listed salmonids;

48 (C) Essential fish habitat designated by the National Marine Fisheries  
49 Service;

50 (D) Fish and wildlife habitat conservation areas; and

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(E) Other protected areas and elements necessary for species conservation.

**21.24.370 Streams – Designation and rating.**

Streams are water bodies with a defined bed and banks and demonstrable flow of water. Streams shall be designated Type 1, Type 2, Type 3 and Type 4 according to the following criteria:

- (1) Type 1 streams are those streams identified as “Shorelines of the State” under Chapter 90.58 RCW or supporting significant anadromous salmonid use, including the Sammamish River and Little Bear Creek.
- (2) Type 2 streams are those that have perennial (year-round) or intermittent (seasonal) flow and are used by salmonids.
- (3) Type 3 streams are those that have perennial or 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.

**Commented [SC89]:** Incorporated into Fish and Wildlife section

**21.24.380 Streams – Development standards.**

A development proposal on a site containing a stream shall meet the following requirements:

- (1) The following standard buffers shall be established from the ordinary high water mark or from the top of the bank if the ordinary high water mark cannot be identified:

Stream Type	Standard Buffer Width		Reduced Buffer Width with Enhancement	
1	150 feet	-	115 feet	*
2	115 feet	-	100 feet	
3	75 feet	-	50 feet	
4	50 feet	-	35 feet	-

\*A 100-foot buffer may be allowed by the Development Services Director when a special study (based on BAS) determines that functions achieved in 100 feet are equal to the functions achieved in 115 feet for the site in question.

(a) The standard buffer width will be established unless the existing stream buffer is significantly degraded. If the existing stream buffer is significantly degraded, the applicant may use the reduced buffer as referenced in subsection (1) of this section as long as enhancement measures are implemented to provide a net improvement in overall stream and buffer function and value as determined by a qualified biologist. Enhancement measures shall be conducted in accordance with a plan approved by the Development Services Director.

(b) The Development Services Director may allow further decreases to buffer widths on streams designated as “urban” in accordance with the recommendations of a qualified professional biologist and the best available science on a case-by-case basis. A reduced buffer must be sufficient to protect stream functions and values based on site-specific characteristics and must include enhancement measures implemented to provide a net improvement in overall stream and buffer function and value. Stream enhancement measures may be required on-site and/or off-site to improve overall stream function. No buffer shall be reduced on a stream designated as “urban” to less than 50 feet wide unless the stream is not used by fish whereas the minimum buffer will be 35 feet. Streams designated as “urban” are those streams, which meet all of the following criteria:

- (i) Streams other than Type 1 streams according to the City of Woodinville classification system;

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- ~~(ii) Streams with degraded channel conditions (i.e., presence of piping, sedimentation, channelization, etc.);~~
- ~~(iii) Streams with buffers that are currently degraded or developed; and~~
- ~~(iv) Streams within sub-basins where restoration opportunities are limited.~~
- ~~(c) Any stream relocated because of a permitted alteration shall have the minimum buffer required for the stream class involved.~~
- ~~(d) The Development Services Director 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 stream functions and values based on site-specific characteristics. This determination shall be based on one or more of the following criteria:~~
  - ~~(i) A larger buffer is needed to protect other critical areas;~~
  - ~~(ii) The buffer or adjacent uplands 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; and~~
  - ~~(e) Any stream adjoined by a riparian wetland or other contiguous critical area shall have the buffer required for the stream class involved or the buffer which applies to the wetland or other sensitive area, whichever is greater;~~
  - ~~(2) The use of hazardous substances in the stream corridor and its buffer is prohibited; and~~
  - ~~(3) The use of pesticides and fertilizers in the stream corridor and its buffer shall be restricted by type and seasonal use under the discretion of the Development Services Director.~~
  - ~~(4) The livestock restrictions in WMC 21.24.330 shall also apply to Type 1 and 2 streams and their buffers.~~

**21.24.410 400 Fish and wildlife habitat conservation areas – Designation.**

- (1) **Definition.** Fish and wildlife habitat conservation areas are those habitat areas that meet any of the following criteria listed below. Fish and wildlife habitat conservation areas do not include such artificial features or constructs as irrigation delivery systems, irrigation infrastructure, irrigation canals, or drainage ditches that lie within the boundaries of and are maintained by a port district or an irrigation district.:
- ~~(a) Documented presence of species listed by the Federal Government or the State of Washington as endangered or threatened; or~~
  - ~~(b) Heron rookeries or active nesting trees; or~~
  - ~~(c) Class 1 wetlands and buffers as defined in WMC 21.24.310; or~~
  - ~~(d) Type 1 streams and buffers as defined in WMC 21.24.350; or~~
  - (a) Areas with Which State or Federally Designated Endangered, Threatened, and Sensitive Species Have a Primary Association.
    - (i) Federally designated endangered and threatened species are those fish and wildlife species identified by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service that are in danger of extinction or threatened to become endangered. The U.S. Fish and Wildlife Service and the National Marine Fisheries Service should be consulted for current listing status.
    - (ii) State designated endangered, threatened, and sensitive species are those fish and wildlife species native to the state of Washington identified by the Washington Department of Fish and Wildlife (WDFW), that are in danger of extinction, threatened to become endangered, vulnerable, or declining and are likely to become endangered or threatened in a significant portion of their range within the state without cooperative management or removal of threats. The Washington Department of Fish and Wildlife should be consulted for current listing status.

**Commented [SC90]:** These habitats are still designated as Fish and Wildlife Habitat, they are elaborated below.

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- (b) State Priority Habitat and Species. State priority habitats and areas associated with state priority species are considered priorities for conservation and management. Priority species require protective measures for their perpetuation due to their population status, sensitivity to habitat alteration, and/or recreational, commercial, or tribal importance. Priority habitats are those habitat types or elements with unique or significant value to a diverse assemblage of species. A priority habitat may consist of a unique vegetation type or dominant plant species, a described successional stage, or a specific structural element. Priority habitats and species are identified by the Washington Department of Fish and Wildlife.
- (c) Habitat and Species of Local Importance. Habitats and species of local importance are those identified by the City of Woodinville that due to their population status, or sensitivity to habitat manipulation, warrant protection.
- (i) The following species are designated as species of local importance:

**Table 21.24.400(c)(i) Species of Local Importance**

Common Name	Scientific Name
Bald Eagle	<i>Haliaeetus leucocephalus</i>
Peregrine Falcon	<i>Falco peregrines</i>
Common loon	<i>gavia immer</i>
Pileated woodpecker	<i>Dryocopus pileatus</i>
Vaux's swift	<i>Chaetura vauxi</i>
Purple martin	<i>Progne subis</i>
Western grebe	<i>Aechmophorus occidentalis</i>
Great blue heron	<i>Ardea herodias</i>
Green heron	<i>butorides striatus</i>
Osprey	<i>Pandion haliaetus</i>
Western big-eared bat	<i>Plecotus townsendii</i>
Keen's myotis	<i>Myotis keenii</i>
Long-eared myotis	<i>Myotis evotis</i>
Oregon spotted frog	<i>Rana pretiosa</i>
Western pond turtle	<i>Clemmys marmorata</i>
Bull trout	<i>Salvelinus confluentus</i>
Chinook salmon	<i>Oncorhynchus tshawyscha</i>
Coho salmon	<i>Oncorhynchus kisutch</i>
Sockeye salmon	<i>Oncorhynchus nerka</i>
River lamprey	<i>Lampetra ayresi</i>

**Commented [SC91]:** This list is based off the Gap Analysis. The list includes species in a federal status, priority species and those in a state status (monitor, sensitive, candidate, threatened and endangered). An addition of sockeye salmon, which was not included in the Gap Analysis, is included here.

- (ii) Nominations for habitats or species of local importance shall be processed pursuant to Chapter 17.07 WMC. Nominations for habitats or species of local importance shall demonstrate the following:
- (A) Habitat or species rarity or vulnerability to rarity, as evidenced by restricted, small, or declining species population and habitats or community loss or degradation;
  - (B) The need for protection, maintenance, and/or restoration of the nominated habitat to ensure the long-term survival of a species;
  - (C) If applicable, the ability of the site to maintain connectivity between habitat areas or to contribute significantly to regional biodiversity as evidenced by species use, richness, abundance, and/or rarity;

**Commented [SC92]:** Adding language regarding nominating other species should be included in the code to allow for future additions to the list. Other jurisdictions treat nominations as a Type V, where recommended by PC and heard by CC.

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- (D) Why special protection is needed and how existing county, state and federal programs and regulations do not provide adequate protection; and
- (E) Any proposed management strategies for the affected species or habitat supported by best available science.

(d) Streams and Watercourses. Streams shall be classified using the current approved version of the Permanent Water Typing System pursuant to WAC 222-16-030. Streams meeting the designation criteria below and all associated riparian habitat areas, identified as stream buffers in this chapter, are subject to the provisions of this chapter.

**Table 21.24.400(1)(d) Stream Classifications**

Classification	Brief Description	Full Description
Type S	Shoreline of the State	All waters, within their bank-full width, as inventoried as "shorelines of the state" under chapter 90.58 RCW and the rules promulgated pursuant to chapter 90.58 RCW including periodically inundated areas of their associated wetlands. Within the City of Woodinville, the Sammamish River and Little Bear Creek are designated as Type S streams.
Type F	Fish bearing stream (perennial or seasonal)	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 or are described by one of the following four categories: <ul style="list-style-type: none"> <li>(a) Waters, which are diverted for domestic use by more than 10 residential or camping units or by a public accommodation facility licensed to serve more than 10 persons, where such diversion is determined by the department to be a valid appropriation of water and the only practical water source for such users. Such waters shall be considered to be Type F Water upstream from the point of such diversion for 1,500 feet or until the drainage area is reduced by 50 percent, whichever is less;</li> <li>(b) Waters, which are diverted for use by federal, state, tribal or private fish hatcheries. Such waters shall be considered Type F Water upstream from the point of diversion for 1,500 feet, including tributaries if highly significant for protection of downstream water quality. The department may allow additional harvest beyond the requirements of Type F Water designation provided the department determines after a landowner-requested on-site assessment by the department</li> </ul>

**Commented [SC93]:** The streams section was eliminated and placed under the Fish and Wildlife Habitat section. This is consistent with how most jurisdictions approach these critical areas. These two critical areas have significant overlap in requirements.

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Classification	Brief Description	Full Description
		<p>of fish and wildlife, department of ecology, the affected tribes and interested parties that:</p> <ul style="list-style-type: none"> <li>(i) The management practices proposed by the landowner will adequately protect water quality for the fish hatchery; and</li> <li>(ii) Such additional harvest meets the requirements of the water type designation that would apply in the absence of the hatchery.</li> </ul> <p>(c) Waters, which are within a federal, state, local, or private campground having more than 10 camping units: provided, that the water shall not be considered to enter a campground until it reaches the boundary of the park lands available for public use and comes within 100 feet of a camping unit, trail or other park improvement;</p> <ul style="list-style-type: none"> <li>(d) Riverine ponds, wall-based channels, and other channel features that are used by fish for off-channel habitat. These areas are critical to the maintenance of optimum survival of fish. This habitat shall be identified based on the following criteria: <ul style="list-style-type: none"> <li>(i) The site must be connected to a fish habitat stream and accessible during some period of the year; and</li> <li>(ii) The off-channel water must be accessible to fish.</li> </ul> </li> </ul>
Type Np	Non-fish bearing perennial stream	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.
Type Ns	Non-fish bearing seasonal stream	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 aboveground channel system to Type S, F, or Np Waters.

Commented [AK94]: Do we need this?

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(e) Naturally Occurring Ponds Under 20 Acres. Naturally occurring ponds are those ponds under 20 acres and their submerged aquatic beds that provide fish or wildlife habitat, including those artificial ponds intentionally created from dry areas in order to mitigate impacts to ponds. Naturally occurring ponds do not include ponds deliberately designed and created from dry sites, such as canals, detention facilities,

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wastewater treatment facilities, farm ponds, temporary construction ponds, and landscape amenities, unless such artificial ponds were intentionally created for mitigation.

(f) Waters of the State. Waters of the state include lakes, ponds, streams, inland waters, underground waters, and all other surface waters and watercourses within the jurisdiction of the State of Washington, as classified in WAC 222-16-031.

(g) Areas of Rare Plant Species and High Quality Ecosystems. Areas of rare plant species and high quality ecosystems are identified by the Washington State Department of Natural Resources through the Natural Heritage Program.

(h) Native growth protection easements/ native growth protection areas (NGPE/NGPA) and other areas designated by the City; or

~~(f) Sites containing a bald eagle territory as mapped by WDFW. Bald eagle habitat shall be protected pursuant to the Washington State Bald Eagle Protection Rules (Chapter 232-12-292 WAC).~~

(2) Fish and wildlife habitat conservation areas are usually found in conjunction with another critical area listed in this chapter. The critical area report shall address all criteria for each critical area specifically.

~~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 title.~~

~~**21.24.420 Fish and wildlife conservation area report requirements.**~~

~~Requirements for critical areas reports for fish and wildlife habitat conservation areas are available at the City Hall Planning Department.~~

**21.24.410 Fish and wildlife habitat conservation areas – Development standards.**

(1) Standard Buffers. Activities and uses shall be prohibited within fish and wildlife habitat conservation areas and their buffers, except as provided for in this chapter.

(a) Habitat Conservation Area Buffers. The City shall require the establishment of buffer areas for activities adjacent to habitat conservation areas, when needed to protect habitat conservation areas. 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. 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 Department of Fish and Wildlife.

(b) Stream Buffers. Stream buffers shall be established for habitats that include aquatic and terrestrial ecosystems that mutually benefit each other and that are buffers located adjacent to rivers, perennial or intermittent streams, seeps, and springs.

(i) Stream Buffer Widths. The stream buffers shall be determined according to the stream type shown in Table 21.24.410(1)(b)(i). Widths shall be measured outward in each direction on the horizontal plane from the ordinary high water mark or from the top of the bank if the ordinary high water mark cannot be identified.

**Table 21.24.410(1)(b)(i) – Stream Buffer Widths**

Stream Type	Standard Area Width
S	175 feet
F	150 feet

**Commented [SC95]:** Native growth protection easements, native growth protection areas, critical area tracts, etc. have been retitled to “Native growth protection areas” in 21.24.150. This encompasses tracts and easements, status (critical area or forested areas).

**Commented [SC96]:** Covered under Subsections A, B, C, and listed below

**Commented [SC97]:** Listed above.

**Commented [SC98]:** The existing critical areas regulations uses “stream buffers”, whereas current practices use “riparian habitat area” to mark the same area

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Stream Type	Standard Area Width
Np	75 feet
Ns	50 feet

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- (ii) Measurement. The outer edge of the stream buffer shall be delineated through a survey and field investigation by a qualified professional.
  - (iii) Increased Widths. An increased buffer shall be required in accordance with the recommendations of a qualified professional and the best available science in the following circumstances:
    - (A) Where the standard width is insufficient to prevent habitat degradation and to protect the structure and functions of the habitat area;
    - (B) Where the frequently flooded area exceeds the standard stream buffer, the width shall extend to the outer edge of the frequently flooded area;
    - (C) Where the channel migration zone exceeds the standard stream buffer, the width shall extend to the outer edge of the channel migration zone; or
    - (D) The habitat area is in an area of high blowdown potential, the stream buffer shall be expanded an additional 50 feet on the windward side.
  - (iv) Reduced Buffers. Stream buffers may be reduced when width-reduction impacts are mitigated, resulting in equal or greater protection of the ecological riparian functions. A plan for mitigating buffer-reduction impacts must be prepared using selected incentive-based mitigation options from the list below. The following incentive options for reducing standard area widths shall be considered cumulative up to a maximum reduction of 33 percent of the standard area width.

**Table 21.24.400(1)(b)(iv) Stream Buffer Width Reduction Options**

Incentive Option	Reduction Allowed
(a) Removal of impervious surfaces	(i) Up to 5 percent reduction in standard buffer width if impervious surfaces within the to-be-remaining buffer area are reduced by at least 50 percent; or (ii) Up to 10 percent reduction in standard buffer width if the to-be-remaining buffer area is presently more than 50 percent impervious and all of it is to be removed.
(b) Installation of biofiltration/infiltration mechanisms	(i) Up to 10 percent reduction in standard buffer width for the installation of bioswales, created and/or enhanced wetlands, or ponds supplemental to existing storm drainage and water quality requirements.
(c) Removal of invasive, nonnative vegetation	(i) Up to 5 percent reduction in standard buffer width for the removal and extended monitoring and continued-removal maintenance of relatively dense stands of invasive, nonnative vegetation from significant portions of the remaining buffer area.

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(d) In-stream habitat enhancement	(i) Up to 5 percent reduction in standard buffer width for placement of large woody debris, bioengineered bank stabilization, or culvert removal; or (ii) Up to 15 percent reduction in standard buffer width for improving fish passage and/or creation of side channel or backwater areas
(e) Use of pervious material for driveway/road construction:	(i) Up to 5 percent reduction in standard buffer width
(f) Restoration of on-site buffer and habitat areas, or restoration of off-site buffer and habitat areas within the same sub-basin of the impacted stream if no on-site restoration is possible	(i) Up to 10 percent reduction in standard buffer width if restoration area is at a 2:1 ratio or greater; or (ii) Up to 20 percent reduction in standard buffer width if restoration area is at a 4:1 ratio or greater.
(g) Removal of significant refuse or sources of toxic material	(i) Up to 5 percent reduction in standard buffer width.
(h) Providing a ten year monitoring and maintenance plan	(i) Up to 5 percent reduction in standard buffer width.

- 1
- 2 (2) Buffer Averaging. The minimum buffer width may be averaged in accordance with an
- 3 approved critical areas report using the best available science and any management
- 4 recommendations issued by the Washington Department of Fish and Wildlife. Averaging of
- 5 buffer widths may only be allowed if all of the following criteria are met:
- 6 (a) It will provide additional protection to the fish and wildlife habitat conservation area
- 7 and result in a net improvement of the habitat functions and values;
- 8 (b) It will not adversely affect salmonid habitat;
- 9 (c) The buffer width is not reduced by more than 25 percent of the standard width in any
- 10 one location;
- 11 (d) It will provide additional natural resource protection, such as buffer enhancement;
- 12 (e) The total area contained in the buffer area after averaging is no less than that which
- 13 would be contained within the standard buffer;
- 14 (f) The proposal includes revegetation and restoration of the averaged buffer using
- 15 native plants; and
- 16 (g) Stream buffer reduction in WMC 21.24.410(1)(b)(iv) is not used in conjunction with
- 17 buffer averaging.
- 18 (3) Protection. Whenever activities are proposed in or adjacent to a habitat conservation area
- 19 with which state or federally endangered or threatened species have a primary association,
- 20 such area shall be protected through the application of measures in accordance with a
- 21 critical area report and approved by the city and guidance provided by the appropriate state
- 22 and federal agencies.
- 23 (4) Special Conditions. Buffers shall also be subject to modifications under the following site
- 24 conditions:
- 25 (a) Geologically Hazardous Areas. The buffer or abutting uplands include a geologically
- 26 hazardous area. The buffer width shall be the greater of either the required buffer or
- 27 twenty-five feet beyond the top of the hazard area;

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(b) Wetlands. Any fish and wildlife habitat conservation area adjoined by a riparian wetland shall have the buffer required for the habitat conservation area involved or the buffer which applies to the wetland, whichever is greater; or

(c) Other Critical Areas. If the habitat conservation area buffers are located adjacent to other critical areas, a larger buffer shall be required to protect other critical areas in accordance to the recommendations of a qualified professional and best available science.

(5) Signage and Fencing. Temporary and permanent signs and fencing shall be installed along the outer boundary of the fish and wildlife habitat conservation area buffer in accordance with WMC 21.24.130.

(6) Livestock. Property owners shall implement a farm management plan or standards to protect and enhance water quality pursuant to Chapter 21.30 WMC.

~~Livestock. Property owners shall implement a farm management plan or standards to protect and enhance wetland water quality pursuant to Chapter 21.30 WMC.~~

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

**21.24.440 420 Fish and wildlife habitat conservation areas – Performance standards for specific habitats. Permitted activities.**

(1) Approval of Activities. The City shall condition approvals of activities allowed within or adjacent to a habitat conservation area or its buffers, as necessary to minimize or mitigate any potential adverse impacts. Conditions shall be based on the best available science and may include, but are not limited to, the following:

- (a) Establishment of buffer zones;
- (b) Preservation of critically important vegetation and/or habitat features such as snags and downed wood;
- (c) Limitation of access to the habitat area, including fencing to deter unauthorized access;
- (d) Seasonal restriction of construction activities;
- (e) Establishment of a duration and timetable for periodic review of mitigation activities; and
- (f) Requirement of a performance bond, when necessary, to ensure completion and success of proposed mitigation.

(2) Hazardous substances. The use of hazardous substances, pesticides and fertilizers, in the stream and its buffer may be prohibited.

(3) Non-native Species. The introduction of any plant, wildlife, or fish species not indigenous to the region shall be prohibited from fish and wildlife habitat conservation areas unless authorized by a state or federal permit or approval.

(4) Alterations. Alterations to fish and wildlife habitat conservation areas and their buffers, except for aquatic environments, may be allowed in addition to those established in WMC 21.24.040 and WMC 21.24.050. Where applicable, activities and uses shall also be subject to the Woodinville Shoreline Master Program (SMP).

(a) Utilities. Utilities may be allowed within fish and wildlife habitat conservation areas if:

- (i) No practical alternative location is available;
- (ii) ~~The utility corridor meets any additional requirements set forth in administrative rules including, but not limited to, requirements for installation, replacement of vegetation and maintenance;~~
- (iii) The requirements for sewer utility corridors in WMC 21.24.320 shall also apply;

**Commented [SC99]:** May want to consider moving this to permitted activities section

**Commented [SC100]:** Moved to 21.24.410(1)

**Commented [SC101]:** Moved from the former streams section

**Commented [SC102]:** Does not really accomplish anything – they are subject to all of this chapter. Not typical to call out this requirement for just one type of alteration

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(iii) Joint use of an approved utility corridor by more than one utility may be allowed; and

(iv) The utility corridor meets the provisions of Policies U-1.5 and U-1.8 of the City of Woodinville Comprehensive Plan.

(b) Surface Water Management Activities and Facilities. The following may be allowed within fish and wildlife habitat conservation areas as follows:

(i) Surface water discharge to a stream from a detention facility, presettlement pond or other surface water management activity or facility may be allowed if the discharge is in compliance with the King County Surface Water Design Manual;

(ii) Storm Water 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.

(c) Trails. Public and private trails, and/or visual access to the habitat conservation area may be allowed if

(i) Trail surface shall be made of pervious materials, except that public multi-purpose trails may be made of impervious materials if they meet all other requirements including water quality and quantity; and

(ii) Buffers shall be expanded, where possible, equal to the width of the trail corridor including disturbed areas.

(5) The following ~~development standards~~ shall apply for areas with endangered or threatened species:

(a) No development shall be allowed ~~without prior approval~~ within a ~~fish and wildlife~~ habitat conservation area or its buffer with which ~~State~~ state or ~~Federally~~ federally endangered ~~or~~, threatened, or sensitive species have a primary association, ~~except that which is provided for by a management plan established by the Washington Department of Fish and Wildlife or applicable state or federal agency.~~

~~(b)~~

(i) ~~Whenever activities are proposed abutting a fish and wildlife with which State or Federally endangered or threatened species have a primary association, such a~~ Areas shall be protected through the application of protection measures in accordance with a ~~habitat management plan~~ critical area report prepared by a qualified professional ~~biologist~~ and approved by the ~~Director~~ City.

(ii) Approval for alteration of land adjacent to the ~~fish and wildlife~~ habitat conservation area or its buffer shall not occur prior to consultation with the Washington State Department of Fish and Wildlife ~~for animal species~~ and the Washington Department of Natural Resources ~~for plant species and other~~ appropriate ~~Federal~~ federal or state agency, ~~as applicable.~~

~~(2b)~~ Bald Eagle Habitat. 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~~ critical areas report shall be developed by a qualified professional.

(i) Activities are adjacent to bald eagle sites when they are within 800 feet, or within a quarter-mile (2,640 feet) and in a shoreline foraging area. The ~~Director~~ City shall verify the location of eagle management areas for each proposed activity.

(ii) Approval of the activity shall not occur prior to approval of ~~the a~~ habitat management plan by the ~~Development Services Director and~~ Washington Department of Fish and Wildlife.

Commented [SC103]: Same language as existing, moved up several pages

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1 (3c) Great ~~blue-Blue~~ Heron Rookeries.:

- 2 (a) A buffer equal to the distance of 820 feet radius measured from the  
3 outermost nest tree in the rookery will be established around an active  
4 rookery. This area will be maintained in native vegetation.  
5 (b) Between January 1st and July 31st, no clearing, grading or land disturbing  
6 activity shall be allowed within 900 feet of the rookery, unless approved by  
7 the ~~Director-City~~ and ~~Washington Department of Fish and Wildlife~~ WDFW.  
8 (c) Approval of all activities requiring permits shall not occur within 900 feet of a  
9 heron rookery prior to the approval of a ~~habitat management plan~~ critical  
10 areas report by the ~~Director-City~~ and ~~Washington Department of Fish and~~  
11 ~~Wildlife~~ WDFW.

12 (4d) Anadromous Fish.

- 13 (a) All activities, uses, and alterations proposed to be located in water bodies  
14 used by anadromous fish or in areas that affect such water bodies shall give  
15 special consideration to the preservation and enhancement of anadromous  
16 fish habitat, including, but not limited to, ~~adhering to~~ the following standards:  
17 (i) Activities shall be timed to occur only during the allowable work  
18 window as designated by the Washington State Department of Fish  
19 and Wildlife for the applicable species;  
20 (ii) An alternative alignment or location for the activity is not ~~physically~~  
21 ~~practicable~~ feasible;  
22 (iii) The activity is designed so that it will not degrade the functions or  
23 values of the fish habitat or other critical areas; ~~and~~  
24 (D) Shoreline erosion control measures shall be designed to use  
25 bioengineering methods or soft armoring techniques, according to an  
26 approved critical area report; and  
27 (iv) Any impacts to the functions or values of the habitat conservation  
28 area are mitigated in accordance with an approved ~~habitat~~  
29 ~~management plan~~ critical area report.  
30 (b) Structures that prevent the migration of salmonids shall not be allowed in the  
31 portion of water bodies currently or historically used by anadromous fish. Fish  
32 bypass facilities shall be provided that allow the upstream migration of adult  
33 fish and shall prevent fry and juveniles migrating downstream from being  
34 trapped or harmed.  
35 (c) Fills, when authorized pursuant to the City of Woodinville's Shoreline  
36 Management Master Program, shall not adversely impact anadromous fish or  
37 their habitat or shall mitigate any unavoidable impacts, and shall only be  
38 allowed for a water-dependent use.

39 ~~21.24.390 Streams – Permitted alterations.~~

40 (6) Alterations to streams and their buffers may be allowed ~~only~~ in addition to those established  
41 in WMC 21.24.420(2), as follows:

42 (1) ~~Alterations may only be permitted if based upon a special study.~~

43 (2) ~~Only plants and wildlife indigenous to the Puget Sound area shall be introduced to any~~  
44 ~~stream or buffer unless authorized by a State or Federal permit or approval.~~

45 (3) ~~Utilities may be allowed in stream buffers if:~~

46 (a) ~~No practical alternative location is available;~~

47 (b) ~~The utility corridor meets any additional requirements set forth in~~  
48 ~~administrative rules including, but not limited to, requirements for installation,~~  
49 ~~replacement of vegetation and maintenance;~~

Commented [SC104]: Language from this section was moved from existing 21.24.390 (streams)

Commented [SC105]: Moved to subsection 4, above

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1 (c) The requirements for sewer utility corridors in WMC 21.24.330 shall also  
2 apply to streams;

3 (d) Joint use of an approved utility corridor by more than one utility may be  
4 allowed; and

5 (e) The utility corridor meets the provisions of Policy U 1.12 of the City of  
6 Woodinville Comprehensive Plan.

7 (4) The following surface water management activities and facilities may be allowed in  
8 stream buffers as follows:

9 (a) Surface water discharge to a stream from a detention facility, presettlement  
10 pond or other surface water management activity or facility may be allowed if  
11 the discharge is in compliance with the King County Surface Water Design  
12 Manual;

13 (b) Storm Water Management Facilities. Grass-lined swales and dispersal  
14 trenches may be located in the outer 25 percent of the buffer area. All other  
15 surface water management facilities are not allowed within the buffer area.

16 (5) Public and private trails, or visual access to the stream, is encouraged in stream  
17 buffers provided:

18 (a) Trail surface shall not be made of impervious materials, except that public  
19 multi-purpose trails may be made of impervious materials if they meet all  
20 other requirements including water quality; and

21 (b) Buffers shall be expanded, where possible, equal to the width of the trail  
22 corridor including disturbed areas.

23 (6) Stream crossings may be allowed if:

24 (a) Stream Crossings. The use of existing crossings, including but not limited to utility  
25 corridors, road and railroad rights-of-way across streams or buffers for public or  
26 private trails is preferred to new crossings. New stream crossing may be allowed if  
27 within the buffer if:

28 (i) All crossings use bridges or other construction techniques in accordance with  
29 best management practices, which do not disturb the stream bed or bank,  
30 except that bottomless culverts or other appropriate methods demonstrated  
31 to provide fisheries protection may be used for Type 2F or 3Np streams if the  
32 applicant demonstrates to the satisfaction of the Development Services  
33 Director that such methods and their implementation will pose no harm to the  
34 stream or inhibit migration of fish;

35 (ii) All crossings are constructed during the summer low flow and are timed to  
36 avoid stream disturbance during periods when use is critical to resident or  
37 anadromous fish including salmonids;

38 (iii) Crossings do not occur over salmonid resident or anadromous fish spawning  
39 areas unless the Development Services Director/City determines that no other  
40 possible crossing site exists;

41 (iv) Bridge piers or abutments are not placed within the FEMA floodway or the  
42 ordinary high water mark;

43 (v) Crossings do not diminish the flood-carrying capacity of the stream;

44 (vi) Underground utility crossings are laterally drilled and located at a depth of  
45 four feet below the maximum depth of scour for the base flood predicted by a  
46 civil engineer licensed by the State of Washington; and

47 (vii) Crossings are minimized and The number of crossings is minimized and  
48 consolidated to serve multiple purposes and properties whenever possible.

49 (b) Stream Relocations. Relocations may be allowed subject to the following  
50 limitations:

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- 1 (ia) ~~All stream types~~ Type F, Np and Ns streams as part of a public road project  
2 for which a public agency and utility exception is granted pursuant to WMC  
3 21.24.060;
- 4 (ii) ~~All stream types~~ Type F, Np and Ns streams for the purpose of enhancing or  
5 restoring resources in the stream if:
- 6 (Ai) Appropriate floodplain protection measures are used;
- 7 (Bi) The relocation occurs on the site, except that relocation off the site  
8 may be allowed if the applicant demonstrates that any on-site  
9 relocation is impracticable, the applicant provides all necessary  
10 easements and waivers from affected property owners and the off-site  
11 location is in the same drainage sub-basin as the original stream; and
- 12 (Ciii) A ~~scientific study~~ critical area report shows that the relocation is  
13 beneficial to fish and wildlife habitat ;
- 14 (iii) Relocations are constructed during the summer low flow and are timed to  
15 avoid stream disturbance during periods when use is critical to ~~resident or~~  
16 ~~anadromous fish including~~ salmonids; and
- 17 (iv) Streams shall not be relocated solely for development purposes.
- 18 (v) Stream relocation pursuant to this section, the applicant shall demonstrate,  
19 based on information provided by a civil engineer and a qualified biologist,  
20 that:
- 21 (Aa) Equivalent base flood storage volume and function will be  
22 maintained;
- 23 (Bb) No adverse impact to local ground water;
- 24 (Ce) No increase in velocity;
- 25 (De) No increase in transfer of water;
- 26 (Ee) No increase in the sediment load;
- 27 (Ff) Requirements set out in the mitigation plan are met;
- 28 (Gg) Relocation conforms to other applicable laws; and
- 29 (Hh) All work will be carried out under the direct supervision of a qualified  
30 biologist.
- 31 (c) Stream Channel Stabilization. A stream channel may ~~occur~~ be stabilized if:
- 32 (ia) Movement of the stream channel threatens existing residential or commercial  
33 structures, public facilities or improvements, unique natural resources or the  
34 only existing access to property; ~~and~~
- 35 (ii) Stabilization is done in compliance with the requirements of WMC ~~21.24.210~~  
36 ~~through 21.24.260~~ 21.24.350 through 21.24.380 ~~and administrative rules~~  
37 ~~promulgated pursuant to this chapter.~~; and
- 38 (iii) ~~Soft-bank stabilization techniques are utilized unless the applicant~~  
39 ~~demonstrates that soft-bank techniques are not a reasonable alternative due~~  
40 ~~to site-specific soil, geologic and/or hydrologic conditions.~~
- 41 (d) ~~Enhancement~~. Stream enhancement not associated with any other development  
42 proposal may be allowed if accomplished according to a plan for its design,  
43 implementation, maintenance, and monitoring prepared by a civil engineer and a  
44 qualified biologist and carried out under the direct supervision of a qualified biologist  
45 pursuant to provisions contained in administrative rules.
- 46 (e) ~~Stream Restoration~~. A minor stream restoration project for fish habitat  
47 enhancement may be allowed if the restoration is:
- 48 (ia) ~~Accomplished~~ Sponsored or approved by a public agency with a mandate to  
49 do such work;
- 50 (ii) ~~Not Un~~ associated with mitigation of a specific development proposal;

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- (iii)e) Limited to placement of rock weirs, log controls, spawning gravel, culvert replacement and other specific ~~salmonid~~ habitat improvements for resident and anadromous fish including salmonid;
- (ivd) Involves the use of hand labor and light equipment; and or the use of helicopters and cranes that deliver supplies to the project site; provided, that they have no contact with critical areas or their buffers; and
- (ve) Performed under the direct supervision of a qualified biologist.

**21.24.420 430 Fish and wildlife habitat conservation area – Critical areas report additional requirements.**

(1) In addition to the general critical area report requirements of WMC 21.24.110, ~~Requirements for critical areas reports for fish and wildlife habitat conservation areas must meet the requirements of this section.~~ shall include the following information: ~~are available at the City Hall Planning Department.~~

- (a) Prepared by a Qualified Professional. The critical areas report shall be prepared by a wildlife, stream or wetland biologist or scientist. The qualified professional shall have a minimum of five years of experience in the field and experience in preparing reports for fish and wildlife habitat conservation areas.
- (b) Areas Addressed in Critical Areas Report. The following areas shall be addressed in a critical areas report for habitat conservation areas:

**21.24.430 Fish and wildlife habitat conservation areas – Performance standards.**

~~(1) Habitat Management Plan. A habitat management plan shall be required whenever the priority habitats and species maps or natural heritage program maps maintained by the City, or other information, indicate the presence of areas with which species listed as endangered or threatened under Federal law have a primary association, or which contain heron nests.~~

~~(2) All habitat management plans shall be prepared in consultation with the Washington State Department of Fish and Wildlife. Habitat management plans for species listed as endangered or threatened or heron rookeries shall be approved by the Department of Fish and Wildlife.~~

~~(3) Habitat Management Plan Content Requirements. Based on the characteristics of the site and information submitted by the applicant, the Director 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:~~

~~(i) 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 title;~~

~~(ii) The location and description of the fish and wildlife habitat conservation areas on (i) The project area of the subject property, as well as any potential fish and wildlife proposed activity;~~

~~(ii) All habitat conservation areas and recommended buffers within 200 feet of the project area feet of the subject property as shown on maps maintained by the City; and~~

~~(iii) The location of any observed evidence of- All shoreline areas, floodplains, other critical areas, and related buffers within 200 feet of the project area.~~

(c) Habitat Assessment. The report shall include an assessment of the presence or absence of potential critical fish or wildlife habitat. A habitat assessment shall include the following information:

- (i) Extent of fish and wildlife habitat areas and required buffers;
- (ii) Existing habitat area acreage;
- (iii) Vegetative, faunal, and hydrologic characteristics;

**Commented [SC107]:** This section and the previous section were swapped in the existing code

**Commented [SC108]:** Elaborated below.

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- 1 (iv) Identification of species of local importance, priority species, or endangered,  
2 threatened, sensitive, or candidate species that have a primary association  
3 with habitat on or adjacent to the project area;  
4 (v) Assessment of potential project impacts to the use of the site by ~~a threatened~~  
5 ~~or endangered~~ the species;  
6 (b) ~~An analysis of how the proposed development activities will affect the fish and~~  
7 ~~wildlife habitat conservation area and listed species;~~  
8 (c) ~~Provisions to reduce or eliminate the impact of the proposed development~~  
9 ~~activities on any fish and wildlife habitat conservation area and listed species~~  
10 ~~including:~~  
11 (iv) A discussion of any federal, state, or local special management  
12 recommendations, including Washington Department of Fish and Wildlife  
13 habitat management recommendations, that have been developed for  
14 species or habitats located on or adjacent to the project area; and  
15 (vii) A detailed discussion of the direct and indirect potential impacts on habitat  
16 by the project, including potential impacts to water quality.  
17 (d) Proposed Mitigation. If required, a mitigation plan consistent with WMC 21.24.120  
18 and WMC 21.24.440. The mitigation plan shall include a written assessment and  
19 accompanying maps of the mitigation area, including the following information at a  
20 minimum:  
21 (i) Prohibition or limitation of development activities within the fish and wildlife  
22 habitat conservation area;  
23 (ii) Establishment of a buffer around the fish and wildlife habitat conservation  
24 area;  
25 (iii) Retention of certain vegetation or areas of vegetation critically important to  
26 the listed species;  
27 (iv) Limitation of access to the fish and wildlife habitat conservation area and  
28 buffer;  
29 (v) Seasonal restrictions on construction activities on the subject property;  
30 (vi) Clustering of development on the subject property is appropriate; and  
31 (vii) Preservation or creation of a habitat area for the listed species.  
32 (4) ~~Fish and wildlife habitat conservation areas may be altered only if the~~  
33 ~~proposed alteration of the habitat or the mitigation proposed does not~~  
34 ~~degrade the quantitative and qualitative functions and values of the habitat.~~  
35 ~~All new structures and land alterations shall be prohibited within habitat~~  
36 ~~conservation areas, except in accordance with this title.~~  
37 (5) ~~Introduction of plant, wildlife, or fish species not indigenous to the region into~~  
38 ~~a fish and wildlife habitat conservation areas shall be prohibited unless~~  
39 ~~authorized by a State or Federal permit or approval.~~  
40 (6) ~~Mitigation sites shall be located to achieve contiguous wildlife habitat~~  
41 ~~corridors in accordance with a mitigation plan that is part of an approved~~  
42 ~~habitat management plan to minimize the isolating effects of development on~~  
43 ~~habitat areas. Mitigation of aquatic habitat shall be located within the same~~  
44 ~~aquatic ecosystem as the area disturbed.~~  
45 (7) ~~Mitigation of alterations to habitat conservation areas shall achieve equivalent~~  
46 ~~or greater biologic functions. Mitigation shall address each function affected~~  
47 ~~by the alteration in order to achieve functional equivalency or improvement on~~  
48 ~~a per function basis.~~  
49 (8) ~~Any mitigation for alterations or impacts to a fish and wildlife habitat~~  
50 ~~conservation area shall be supported by the best available science.~~

Commented [SC109]: List is from existing code

Commented [SC110]: Moved to mitigation section in 21.24.440

Commented [SC111]: Moved to 21.24.410(1)

Commented [SC112]: Moved to 21.24.440

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~~(9) Buffers. The Director shall require the establishment of buffer areas for activities in, or adjacent to, fish and wildlife habitat conservation areas, when needed to protect fish and wildlife habitat conservation areas. Buffers shall be established to protect the integrity, functions and values of the affected habitat. Buffers shall either consist of an undisturbed area of native vegetation, or of areas identified for restoration or enhancement. 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.~~

~~(10) 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.~~

~~(11) Tree Retention. The tree retention provisions of Chapter 21.15 WMC shall apply to the protection of fish and wildlife habitat conservation areas.~~

~~(12) Additional information may be required by the Director when appropriate, due to the type of habitat or species present or project area conditions.~~

(e) Habitat Management. When appropriate due to the type of habitat or species present or the project area conditions, the City may also require a habitat management plan to include:

- (i) A discussion of ongoing management practices that will protect habitat after the project site has been developed, including proposed monitoring and maintenance programs;
- (ii) An evaluation by the Washington State Department of Fish and Wildlife, local Native American Indian tribes, or other qualified expert regarding the applicant's analysis and the effectiveness of any proposed mitigating measures or programs, to include any recommendations as appropriate; and
- (iii) A request for consultation with the Washington Department of Fish and Wildlife, local Native American Indian Tribes or other appropriate agency; and
- (iv) Detailed surface and subsurface hydrologic features both on and adjacent to the site.

**21.24.440 Fish and wildlife habitat conservation areas – Mitigation.**

(1) General. Mitigation of alterations to habitat conservation areas shall achieve equivalent or greater biologic functions and shall include mitigation for adverse impacts upstream or downstream of the development proposal site as appropriate. Mitigation shall be supported by best available science and address each function affected by the alteration to achieve functional equivalency or improvement on a per function basis. Mitigation should occur in the same sub-drainage basin as the habitat.

(2) Sites. Mitigation sites shall be located to achieve contiguous wildlife habitat corridors in accordance with a mitigation plan and habitat management plan to minimize the isolating effects of development on habitat areas. Mitigation of aquatic habitat shall be located within the same aquatic ecosystem as the area disturbed.

~~(3) Restoration. Restoration or mitigation shall be required as part of a development proposal whereby impacts, either direct or indirect, to the stream-habitat conservation area occur. Restoration shall also be required when a stream-habitat conservation area or its buffer is altered in violation of law or without any specific permission or approval by the Development Services Director-City. A mitigation plan for the restoration or mitigation, included as part of the critical area report, shall demonstrate that the:~~

**Commented [SC113]:** Moved to development standards (21.24.430(9))

**Commented [SC114]:** Not necessary to call out – all of these activities are subject to the tree code.

**Commented [SC115]:** Located in existing 21.24.400(1)

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- 1 (a) ~~Stream~~ **Habitat conservation area** has been degraded and will not be further
- 2 degraded by the restoration or mitigation activity;
- 3 (b) Restoration or mitigation will reliably and demonstrably improve the water quality and
- 4 fish and wildlife habitat ~~of the stream~~;
- 5 (c) Restoration or mitigation will ~~have result in no lasting significant adverse~~ **no net loss**
- 6 ~~and no significant adverse~~ impact will occur to ~~on any stream~~ **habitat** functions; and
- 7 (d) ~~On sites where nonnative vegetation was cleared, restoration shall include~~
- 8 ~~installation of native vegetation with a density equal to or greater than the~~
- 9 ~~predevelopment site conditions; and~~
- 10 (e) Restoration or mitigation will assist in stabilizing the stream channel.

11 ~~(42) Stream Restoration and Mitigation. The following minimum requirements shall be met for~~  
12 ~~the All restoration and/or mitigation of impacts to a stream or its buffer projects for streams~~  
13 ~~shall meet the following:~~

Commented [SC116]: Located in existing 21.24.400(2)

- 14 (a) All work shall be carried out under the direct supervision of a qualified biologist;
- 15 (b) Basin analysis shall be performed to determine hydrologic conditions;
- 16 (c) Natural channel dimensions shall be replicated including its depth, width, length and
- 17 gradient at the original location, and the original horizontal alignment (meander
- 18 lengths) shall be replaced;
- 19 (d) Identical or similar materials shall be used to restore the stream bottom;
- 20 (e) Bank and buffer configuration shall be restored to its original condition;
- 21 (f) Channel, bank and buffer areas shall be replanted with native vegetation which
- 22 replicates the original vegetation in species, sizes and densities; and
- 23 (g) Pre-existing biologic functions of the stream shall be recreated.

24 ~~(3) Mitigation projects shall be monitored and maintained for a period of five years. A~~  
25 ~~monitoring protocol shall be approved by the Development Services Director and monitoring~~  
26 ~~reports shall be submitted to the Development Services Director as required.~~

27 ~~(4) The requirements in subsection (2) of this section may be modified if the applicant~~  
28 ~~demonstrates to the satisfaction of the Development Services Director that a greater biologic~~  
29 ~~function can otherwise be obtained.~~

Commented [SC117]: Incorporated in WMC 21.24.130, located in existing 21.24.400(3) and (4)

30 ~~(56) Monitoring and Maintenance. Mitigation sites shall be monitored and maintain consistent~~  
31 ~~with WMC 21.24.130. Requirements which apply to the restoration of streams in subsection~~  
32 ~~(2) of this section shall also apply to the relocation of streams, unless the applicant~~  
33 ~~demonstrates to the satisfaction of the Development Services Director that a greater biologic~~  
34 ~~function can be obtained by modifying these requirements.~~

35 ~~(67) Stream Replacement or Enhancement. Replacement or enhancement for approved stream~~  
36 ~~or buffer alterations shall be accomplished in streams and on the site unless the applicant~~  
37 ~~demonstrates to the satisfaction of the Development Services Director that:~~

- 38 (a) Enhancement or replacement on the site is not possible ~~or on-site opportunities do~~
- 39 ~~not have a high likelihood of success due to development pressures, adjacent land~~
- 40 ~~uses, or on-site buffers or connectivity are inadequate;~~
- 41 (b) Off-site location is in the same drainage sub-basin as the original stream; and
- 42 (c) Greater biologic and hydrologic functions will be achieved.

43 ~~(78) Surface Water Management. Surface water management or flood control alterations shall~~  
44 ~~not be considered enhancement unless other functions are simultaneously improved.~~

45 ~~(89) Daylighting. Day-lighting a stream is encouraged when redeveloping. The Development~~  
46 ~~Services Director may modify the requirements pertaining to aquatic areas and their buffers,~~  
47 ~~when locating or day-lighting a stream.~~

48 ~~(8) Monitoring and Maintenance. Mitigation sites shall be monitored and maintain consistent~~  
49 ~~with WMC 21.24.130.~~

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