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- 40 requirements.
- 41 21.24.440 Fish and wildlife habitat conservation areas – Mitigation.

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43 **21.24.010 Purpose.**

44 (1) Introduction. The purpose of this chapter is to ~~implement~~ designate and classify ecologically

45 critical 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 the goals and

49 policies of the ~~Washington State Environmental Policy Act, Chapter 43.21C RCW, and the~~

50 ~~City of Woodinville Comprehensive Plan. which call for protection of the natural environment~~

51 ~~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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- (a) Goal E-1: To preserve and enhance aquatic and wildlife habitat.
- (b) Goal E-2: To protect the public from natural hazards resulting from disturbance of the environment.
- (c) Goal E-3: To protect and improve water quality.
- (d) Goal E-5: To promote the preservation of Woodinville's Northwest woodland character.

~~(1) Including the best available science requirements pursuant to the Washington State Growth Management Act and giving special consideration to anadromous fish when developing the critical areas regulations;~~

~~(2) Establishing development standards to protect defined critical areas;~~

3)(2) Scope. Critical areas include critical aquifer recharge areas, geologically hazardous areas, wetlands, streams, frequent flood areas, and fish and wildlife habitat conservation areas. The City of Woodinville recognizes that critical areas provide a variety of valuable and beneficial biological and environmental functions that benefit the City and its residents, but that some critical areas may pose a threat to public safety and property. The standards established in this chapter are intended to protect critical areas while providing property owners with reasonable use of their property. This chapter seeks to:

- (a) Protecting members of the public and public resources and facilities from injury, loss of life, property damage or financial loss due to flooding, erosion, landslides, seismic events, soil subsidence or steep slope failures;
- (4b) Maintaining and protect healthy, functioning ecosystems through the protection of unique, fragile, and valuable elements of the environment, including ground and surface waters, wetlands, and fish and wildlife and their habitats, and to conservation of the biodiversity of plant and animal species;
- (5c) Directing activities not dependent on critical areas resources to less ecologically sensitive areas and mitigating-mitigate unavoidable impacts to critical areas by regulating alterations in and adjacent to critical areas;
- (6d) Preventing cumulative adverse environmental impact to water quality, and availability, net loss of wetlands, streams, lakes, fish and wildlife habitat, and the overall net loss of wetlands, frequently flooded areas, and fish and wildlife habitat conservation areas;

~~(7) Protecting unique, fragile and valuable elements of the environment including, but not limited to, wildlife and its habitat;~~

~~(8) Requiring mitigation of unavoidable impacts on environmentally sensitive areas by regulating alterations in or near critical areas;~~

~~(9) Preventing cumulative adverse environmental impacts on water availability, water quality, wetlands and streams;~~

~~(10) Measuring the quantity and quality of wetland and stream resources and preventing overall net loss of wetland and stream functions;~~

~~(11) Protecting the public trust as to navigable waters and aquatic resources;~~

(12e) Meeting the requirements of the National Flood Insurance Program and maintaining the City of Woodinville as an eligible community for Federal-federal flood insurance benefits;

(13f) Alerting members of the public including, but not limited to, appraisers, owners, potential buyers, or lessees, to the development limitations of critical areas;

(14g) Providing for public enjoyment of environmentally protected areas by encouraging when feasible and sensible, multiple use of critical area buffers; and

~~(15) Providing City officials with sufficient information to protect critical areas.~~

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

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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21.24.020 Applicability.

- (1) Compliance with this chapter. The provisions of this chapter shall apply to all land uses and activities in the City of Woodinville city limits, and all persons within the City city limits shall comply with the requirements of this chapter.
- (2) ~~The City of Woodinville shall not approve any~~ No permit or ~~otherwise issue any~~ authorization shall be approved or issued to alter the condition of any land, water, or vegetation, or to construct or alter any structure or improvement without first assuring compliance with the requirements of this chapter.
- (3) ~~Approval of a development proposal pursuant to the provisions of this chapter does not discharge the obligation of the applicant to comply with the provisions of this chapter.~~
- (2) Alterations. Any human activity that results or is likely to result in an impact upon the existing condition of a critical area is an alteration that is subject to specific limitations as specified by this chapter. Alterations include, but are not limited to, grading; filling; dredging; draining; channelizing; applying herbicides, pesticides or any hazardous substance; discharging pollutants ~~except stormwater~~; grazing domestic animals; paving; constructing; cutting, pruning, topping, trimming, relocating or removing vegetation; or any other human activity which results or is likely to result in an impact to existing vegetation, hydrology, wildlife or wildlife habitat. Alterations do not include walking, fishing, any other passive recreation, or other similar activities.
- (4) ~~Conflict of provisions. When any another provision of any other chapter of the City of~~ Woodinville Municipal Code conflicts with this chapter or when the provisions of this chapter are in conflict, that provision which provides more environmental protection to ~~environmentally~~ critical areas shall apply, unless specifically provided otherwise in this chapter, or unless such provision conflicts with ~~Federal~~ federal or ~~State~~ state laws or regulations.
- (5) ~~Forest practices. The provisions of this chapter shall apply to all forest practices over which the City has jurisdiction pursuant to Chapter 76.09 RCW and WAC Title 222.76.09 RCW and WAC Title 222.~~

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

21.24.030 Appeals.

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

Commented [SC6]: This section is unnecessary. Appeals should not be included in this chapter. All of the appeals under Title 21 are found in Chapter 17.17

21.24.040 Critical areas rules.

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

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

21.24.050 Alteration.

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

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

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21.24.030 Critical area maps and inventories.

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

21.24.060-040 Complete exemptions.

- (1) The following activities are exempt from the provisions of this chapter ~~and any administrative rules promulgated hereunder;~~ provided they are otherwise consistent with the provision of other local, state, and federal law requirements:
 - (a1) ~~Alterations in response to emergencies that threaten the~~ Emergency actions necessary to prevent an immediate threat to public health, safety and welfare or ~~which~~ that pose an imminent risk of damage to public or private property ~~as long as any alteration.~~ Alterations undertaken pursuant to this subsection ~~is~~ shall be reported to the City immediately. ~~The Development Services Director~~ The impacted critical areas and its buffers shall ~~confirm that an emergency exists and determine what, if any, be fully restored in accordance with a critical areas report and mitigation shall be required to protect the health, safety, welfare and environment and to repair any resource damage; plan;~~
 - (b2) Agricultural activities in existence before March 31, 1993, as follows:
 - (ia) Mowing of hay, grass, or grain crops;
 - (iib) Tilling, dicing, planting, seeding, harvesting and related activities for pasture, food crops, grass seed, or sod if such activities do not take place on steep slopes;
 - (iiie) Normal and routine maintenance of existing irrigation and drainage ditches not used by ~~salmonids~~ fish species and do not drain directly into salmon-bearing waterbodies; and
 - (ivd) Normal and routine maintenance of farm ponds, fish ponds, manure lagoons and livestock watering ponds;
 - (c3) ~~Public water, electric~~ Local collection and ~~natural gas~~ distribution, utility lines, mains, equipment, appurtenances, including electric facilities with an associated voltage of 55,000 volts or less, not including substations; public sewer local collection; public water local distribution; natural gas; cable communications; or telephone utility facilities. Local collection and ~~related activities undertaken pursuant to Public Works Director approved best management practices and Policy U-1.12 of the Comprehensive Plan~~ distribution utilities may be allowed in critical areas or their buffers, as follows:
 - (ia) Normal and routine maintenance or repair of existing utility structures ~~of rights-of-way;~~

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

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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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- (iib) 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
- (iiie) 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;~~
- (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;~~
- (42) 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;
- (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.~~
- (53) ~~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.~~
- (64) ~~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.~~

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

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

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

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

21.24.050 ~~070~~ 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
- 12 within the above-described buffer or building setback area by more than
- 13 1,000 square feet over that existing before March 31, 1993, and no portion of
- 14 the modification, addition or replacement is located closer to the critical area
- 15 or, if the existing residence is in the sensitive area, extends farther into the
- 16 critical area. Modifications, additions, and/or replacement of structures shall
- 17 use bioengineered techniques beneficial to fish and wildlife and based upon
- 18 the best available science, including but not limited to stream bank
- 19 stabilization, wetland enhancement, water quality improvement, and similar
- 20 methods to preserve and/or enhance habitat functions; and;
- 21 (ii) No portion of the modification, addition, or replacement is located closer or
- 22 extends farther to the critical area or its buffer;
- 23 (iii) The proposal includes on-site mitigation to offset any impacts to critical areas
- 24 consistent with the provisions of this chapter; and
- 25 (iv) The proposal will not significantly affect fish and wildlife habitat, stream bank
- 26 stability, drainage capabilities, flood potential, and steep slopes and landslide
- 27 hazards on neighboring properties.
- 28 (b) All other structures, except single detached residences, in existence prior to March
- 29 31, 1993 may be expanded, repaired, modified, or replaced, provided all of the
- 30 following are met:
- 31 (i) Expansion does not increase the existing footprint of the structure lying within
- 32 the above-described building setback area, critical area or its buffer;
- 33 (ii) No portion of the modification, addition, or replacement is located closer or
- 34 extends farther to the critical area or its buffer;
- 35 (iii) The proposal includes on-site mitigation to offset any impacts to critical areas
- 36 consistent with the provisions of this chapter; and
- 37 (iv) The proposal will not significantly affect fish and wildlife habitat, stream bank
- 38 stability, drainage capabilities, flood potential, and steep slopes and landslide
- 39 hazards on neighboring properties.
- 40 (c) Maintenance or repair of structures which that do not meet the development
- 41 standards of this chapter for geological hazard areas, if the maintenance or repair
- 42 does not increase the footprint of the structure and there is no increased risk to life or
- 43 property as a result of the proposed maintenance 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]: These exemptions were placed into bullets, above for readability. Changes were made so that "bioengineered techniques beneficial to fish and wildlife.." was removed. The language appears to be unnecessarily specific – instead, the language should generally require that no adverse impacts should occur to fish and wildlife habitat, stream banks, etc.

Commented [SC18]: 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.~~

(ba) 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~~ ability to provide services to the public;
- (iii) Any impacts permitted to the critical area are mitigated in accordance with WMC 21.24.140 to the greatest extent possible;
- (iv) The proposed development protects ~~critical areas~~ and/or buffer functions and values consistent with best available science; and
- (v) The proposed development is consistent with other applicable regulations and requirements.

(eb) 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 can clearly demonstrate that the facility will protect public health and safety or repair damaged natural resources:

- (i) Class 1 stream buffers;
- (ii) ~~Class 4~~ Category I 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;~~

(ba) The reasonable use permit shall be reviewed as Type III project permit, pursuant to Chapters ~~17.07 through 17.17 WMC~~. 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 [SC19]: 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 [SC20]: 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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- 1 ~~(ii) There is no other reasonable use with less impact on the sensitive area;~~
 2 ~~(iii)(ii) The proposed development does not pose an unreasonable threat to the~~
 3 ~~public health, safety or welfare on or off the development proposal site and is~~
 4 ~~consistent with the general purposes of this chapter and the public interest;~~
 5 ~~and;~~
 6 (iviii) Any alterations permitted to the sensitive critical area shall be the minimum
 7 necessary to allow for reasonable use of the property;
 8 (iv) Any impacts permitted to the critical area are mitigated in accordance with
 9 WMC 21.24.140 to the greatest extent possible;
 10 (v) The proposed development protects critical areas and/or buffer functions and
 11 values consistent with best available science; and
 12 (vi) The proposed development is consistent with other applicable regulations
 13 and requirements.
 14 (be) Any authorized alteration of a sensitive-critical area under this subsection shall be
 15 subject to conditions established by the Hearing Examiner including, but not limited
 16 to, mitigation under an approved mitigation plan to safeguard public health, general
 17 welfare and safety.
 18

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

- 19
 20 (1) Intent. The intent of this section is ~~The following regulations for density calculation for single-~~
 21 ~~family residential subdivisions and short plats are designed~~ to provide for the preservation of
 22 critical areas and ~~critical area~~ their buffers, flexibility in design, and consistent treatment of
 23 different types of development proposals.
 24 (2) Subdivisions in Critical Areas. The ~~regulations~~ subdivision and short subdivision of land
 25 located in ~~geologically~~ landslide and erosion hazardous areas, frequently flooded areas,
 26 wetlands, streams, and fish and wildlife habitat conservation areas shall ~~apply~~ be subject to
 27 ~~all properties on which~~ the following:
 28 (a) Land that is located wholly within ~~thea critical areas such as streams, wetlands, steep~~
 29 ~~slopes,~~ area or its buffer may not be subdivided.
 30 (b) Land that is located partially within ~~thea~~ critical area or its buffer may be divided;
 31 provided, that the developable portion of each new lot ~~and floodways of streams~~ its
 32 access is located outside of the critical area or its buffer. Each resulting lot shall meet
 33 the minimum lot size, and have sufficient buildable area outside of, and will not affect
 34 the critical area or its buffer.; and
 35 (c) Access roads and utilities serving the proposed may be permitted within the critical
 36 area and associated ~~critical area buffers limit land area available for development.~~
 37 ~~This section lists the maximum~~ only if the City determines that no other feasible
 38 alternative exists and when consistent with this chapter.
 39 (3) On-Site Density Credits. For single-family residential subdivisions and short
 40 ~~plats~~ subdivisions on sites with critical areas ~~and~~ or buffers, on-site density credits ~~that~~ may
 41 be transferred ~~on a particular site~~ from the critical area to a developable site area. ~~However,~~
 42 ~~in~~ In some cases, the maximum density credits may not be attainable due to other site
 43 constraints including, but not limited to, acreage constraints of the developable site area.
 44 (4a) For sites where up to 50 percent of the site is constrained by critical areas, up to
 45 100 percent of the density that could be achieved on the constrained area portion of
 46 the site can be transferred to the ~~nonsensitive~~ developable portion of the property.
 47 (b) For sites that are over 50 percent constrained by critical areas, up to 50 percent of
 48 the density that could be achieved on the constrained area portion of the site can be
 49 transferred to the ~~nonsensitive~~ developable portion of the property; ~~provided,~~
 50 (54) Density Transfer. On-site density transfer is subject to the following:

Commented [SC21]: 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.

~~(b2) 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 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.~~

~~(ee) 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.~~

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

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

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

4

(6) Except as allowed by WMC 21.32.095, ~~Nonconforming lots~~, in no event shall a lot be less in size than specified by subsection (2) 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.~~

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1 **21.24.100.090 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 required contents and form of the notice shall be set forth in administrative~~
9 ~~rules. (2) If the development proposal site contains or is within a critical area, the applicant~~
10 ~~shall submit an affidavit, to the extent consistent with the applicant's constitutional rights~~
11 ~~which declares whether the applicant has knowledge of any illegal alteration to any or all~~
12 ~~sensitive areas on the development proposal site and whether the applicant previously has~~
13 ~~been found in violation of this chapter, pursuant to Chapter 21.50 WMC, Enforcement. If the~~
14 ~~applicant previously has been found in violation, the applicant shall declare whether such~~
15 ~~violation has been corrected to the satisfaction of the Development Services Director.~~
16 The notice shall state the presence of critical areas or buffers on the property, of the application
17 of this chapter to the property, and that limitations on actions in or affecting such critical
18 areas or buffers may exist. The notice shall run with the land and failure to provide such
19 notice to any purchaser prior to transferring interest in the property shall be a violation of this
20 chapter.
21 (3) Submittal of Proof. The applicant shall submit proof to the City that the notice has been filed
22 prior to approval of a development proposal for the property or, in the case of subdivisions,
23 short subdivisions, and binding site plans, at or before recording.

Commented [SC22]: No rules exist.

25 **21.24.140.100 Critical area review determination.**

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

43 **21.24.120.110 Critical area special study areas report requirement.**

- 44 (1) General. An ~~applicant~~ application for a development proposal ~~which~~ that includes a critical
45 area ~~or its or is within an identified critical area buffer~~ shall ~~submit~~ include a critical area
46 ~~special study~~ (report requirements are available at the Community Development
47 ~~Department~~) report that uses the best available science to ~~adequately~~ evaluate the proposal
48 and all probable impacts.
49 (2) Waiver. The ~~Development Services Director~~ may waive the requirement for a ~~special~~
50 ~~study report~~ if the applicant ~~shows, to the Development Services Director's~~
51 ~~satisfaction, demonstrates~~ that:

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

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- 1 (a) There will be no alteration of the critical area or its buffer;
- 2 (b) The development proposal will not have an impact on the critical area in a manner
- 3 contrary to the goals, purposes, objectives and requirements of this 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.
- 10 ~~special study.~~
- 11 (4) Area Limits. If the development proposal will affect only a part of the development proposal
- 12 site, the ~~Development Services~~ Director may limit the scope of the ~~required special~~
- 13 ~~study~~ report to include only that part of the site that may be affected by the development.
- 14 (5) Report Contents. A critical areas report shall evaluate the proposed project area and critical
- 15 areas within 200 feet of the project area or have the potential to be affected by this proposal.
- 16 A critical areas report shall include the following information:
- 17 **21.24.130 Contents of critical area special study.**
- 18 ~~(1) The critical area special study shall be in the form of a written report and shall contain the~~
- 19 ~~following, as applicable:~~
- 20 ~~(a) Using the best available science, identification and characterization of all sensitive~~
- 21 ~~critical areas within 300 feet of the project area; on or encompassing the development~~
- 22 ~~proposal site;~~
- 23 ~~(ba) Existing conditions of the critical area, including an assessment of habitat and~~
- 24 ~~ecological functions and values; Using the best available science, assessment~~
- 25 ~~assessment of the impacts of any alteration on the development proposal, other~~
- 26 ~~properties and the environment, and/or assessment of the impacts to the development~~
- 27 ~~proposal resulting from development in the critical area or buffer;~~
- 28 ~~(eb) Assessment of the impacts of any alteration proposed for a critical area or buffer;~~
- 29 ~~Studies, which propose adequate mitigation, maintenance, monitoring and contingency~~
- 30 ~~plans and bonding measures;~~
- 31 ~~(ec) A scale map of the project area. If only a portion of the development site has been~~
- 32 ~~mapped pursuant to WMC 21.24.130, the unmapped portion shall be clearly identified~~
- 33 ~~and labeled on the site plans. The site plans shall be attached to the notice on title~~
- 34 ~~required by WMC 21.24.090.~~
- 35 ~~development proposal site; and~~
- 36 ~~(ed) Project narrative describing the proposal: anticipated temporary and permanent impacts~~
- 37 ~~to critical areas or its buffers; construction activities and sequencing; restoration,~~
- 38 ~~enhancement, or mitigation measures; and other relevant information;~~
- 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 (c) 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 (d) 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 (e) Other drawings to demonstrate construction techniques and anticipated final
- 50 outcomes;
- 51

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- 1 (7) Mitigation. ~~(g)~~ A description of proposed mitigation actions and mitigation site selection
2 criteria. Mitigation shall be design to achieve no net loss of ecological function consistent
3 with WMC 21.24.120 and mitigation requirements for each type of affected critical area;
4
- 5 (8) ~~(h)~~ Evaluation of the proposal for the additional requirements for each critical area. Critical
6 areas reports for two or more types of critical areas must meet the report requirements for
7 each ~~relevant~~ type of affected critical area.
8 ~~(e) Detailed studies, as required by the Development Services Director;~~
- 9 ~~(2) A critical area special study may be combined with any studies required by other laws and
10 regulations; and~~
- 11 ~~(3) If the development proposal will affect only a part of the development proposal site, the
12 Development Services Director may limit the scope of the required special study to include
13 only that part of the site, which may be affected by the development.~~
- 14 ~~21.24.(69) A permit or approval sought as part of a development proposal for which multiple
15 permits are required may adopt a previously approved critical area report if:~~
- 16 (a) There is no material change in the development proposal since the prior review;
17 (b) There is no new information available that is important to the critical area review of
18 the site or particular critical area;
19 (c) The permit or approval under which the prior review was conducted has not expired,
20 or if no expiration date exists, no more than five years have lapsed since the
21 issuance of that permit or approval; and
22 (d) The prior permit or approval, including any conditions, has been ~~complied with~~met.
- 23
- 24 ~~21.24.140120 Mitigation requirements, maintenance, monitoring and contingency.~~
- 25 (1) ~~General. As determined by the Development Services Director, mitigation~~ Mitigation,
26 maintenance and monitoring measures shall be in place to protect critical areas and buffers
27 from alterations ~~occurring on the development proposal site of a~~resulting from proposed
28 development.
- 29 (2) Mitigation Measures. Mitigation shall be in-kind and on-site where feasible, and shall be
30 designed to maintain and enhance ecological functions and values, and to prevent risk from
31 hazards posed by the critical area. Mitigation measures shall evaluate goals and objectives
32 of proposed mitigation relating to impact to functions and values. Review of best available
33 science supporting the proposed mitigation is required. ~~Where monitoring reveals a
34 significant deviation from predicted impacts or a failure of mitigation or maintenance
35 measures, the applicant shall be responsible for appropriate corrective action which, when
36 approved, shall be subject to further monitoring;~~
- 37 (3) Mitigation ~~s~~Sequencing. When an alteration to a critical area is proposed, such alteration
38 shall be avoided, minimized, or compensated for, as outlined by WAC 197-11-768, in the
39 following order of preference:
- 40 (a) Avoiding the impact altogether by not taking a certain action or parts of actions;
41 (b) Minimizing impacts by limiting the degree or magnitude of the action and its
42 implementation;
43 (c) Rectifying the impact by repairing, rehabilitating, or restoring the affected
44 environment;
45 (d) Reducing or eliminating the impact over time by preservation and maintenance
46 operations during the life of the action;
47 (e) Compensating for the impact by replacing or providing substitute resources or
48 environments; and/or
49 (f) Monitoring the impacts and compensation projects and taking appropriate corrective
50 measures.
51

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]: This language is originally from 21.24.040(3). See the staff comment in that section for explanation of why this language has moved.

Commented [SC27]: 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 [SC28]: Moved to section 4

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~~21.24.130~~ Maintenance, monitoring, and contingency

(1) Maintenance and ~~m~~Monitoring. A program shall be included as part of the mitigation plan, and shall include the following:

- (a) Performance standards for mitigation or restoration sites, which shall include:
 - (i) 100 percent survival of installed vegetation within the first two years of planting;
 - (ii) At least 80 percent survival of installed vegetation for three years or more; and
 - (iii) Less than 10 percent of the mitigation area covered in nonnative invasive species for ~~five~~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.

Commented [SC29]: This section adds language in for standard maintenance and monitoring requirements, which are not present in the existing code.

Commented [SC30]: These percentages are typical for maintenance programs, but these percentages can be increased or decreased.

Commented [SC31]: Three to five years is typical. The City has been requiring five year periods.

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

(24) Performance ~~g~~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.~~

Commented [SC32]: 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.

(32) Maintenance ~~g~~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 is 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 ~~m~~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.~~

Commented [SC33]: Moved from existing section 21.24.140(2)

(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~~

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

Commented [SC34]: Redundant?

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

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

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

21.24.140 Critical area markers and signs.

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

(2) When Required. Signage and fencing shall be required for all wetlands and fish and wildlife habitat conservation areas. The City shall determine if fencing and permanent signage is necessary to protect other types of critical areas. Signage and fencing shall be located along the outer boundary between of a critical area buffer or tract and contiguous land in order to protect the critical area.

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

Commented [SC35]: 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.

Protected Critical Area
Do Not Disturb
Help protect and care for this area
Contact City of Woodinville 489-2754

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

21.24.170 Notice on title.

~~(1) The owner of any property containing critical areas or buffers on which a development proposal is submitted, except a public right-of-way or the site of a permanent public facility, shall file a notice approved by the Development Services Director with the County's records and elections division. The required contents and form of the notice shall be set forth in administrative rules. The notice shall inform the public of the presence of critical areas or buffers on the property, of the application of this chapter to the property and that limitations on actions in or affecting such critical areas or buffers may exist. The notice shall run with the land.~~

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

Commented [SC36]: This section was moved up to 21.24.090 and consolidated with the disclosure section.

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1 ~~21.24.150~~ **200 Critical aquifer recharge areas – Designation and rating.**
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 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 is
20 required), geological hazard areas, streams and wetlands, buffers and building setbacks
21 and native growth protection easements. If only a part of the development site has been
22 mapped pursuant to WMC 21.24.130, the part of the site which has not been mapped shall
23 be clearly identified and labeled on the site plans. The site plans shall be attached to the
24 notice on title required by WMC 21.24.170.
- 25
- 26 (4) Easements. If a NGPA tract is not required in accordance with subsection (1), a NGPA in
27 the form of an easement may be required over delineated critical areas to protect them in
28 perpetuity.
- 29 (5) Recording. NGPAs shall be recorded on all documents of the title of record and shall be
30 designated on the face of the plat or recorded drawing.
- 31 (6a) Native growth protection areas (NGPA) shall be marked with critical area signage and/or
32 ~~(wildlife friendly)~~ fencing to protect wildlife corridors and to discourage human intrusion into
33 the critical area. ~~Fencing options will be left up to the discretion of the Director to further~~
34 ~~protect wildlife habitat pursuant to WMC 21.24.140.~~
- 35 (7b) Native growth protection areas may be enhanced as part of a mitigation or restoration
36 project. The ~~NGPEN~~NGPA shall be designated as protected habitat for fish and wildlife and
37 shall be left in its natural state (with the exception of mitigation to enhance habitat). Any
38 downed trees shall remain in the NGPA to provide habitat for wildlife.
- 39 ~~(4) Native growth protection easements may be required over delineated critical areas to protect~~
40 ~~them in perpetuity, as determined by the Development Services Director. Easements shall be~~
41 ~~recorded with the County Assessor's Office prior to issuance of a certificate of occupancy.~~

Commented [SC37]: 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 [SC38]: Covered with sections (1) and (3) above.

43 **21.24.190** **200 Critical aquifer recharge areas – Designation and rating.**

- 44 (1) Definition. Critical aquifer recharge areas (CARAs) are those areas with a critical recharging
45 effect on aquifers used for potable water as defined in WAC 365-190-030(2). Due to soil
46 infiltration conditions of these CARAs, they contribute significantly to the replenishment of
47 groundwater, and often have a high potential for contamination of groundwater resources.
- 48 (1) ~~The map entitled King County Critical Recharge Areas, including any authorized updates to~~
49 ~~this map, is hereby adopted as the designation of critical aquifer recharge areas in the City~~
50 ~~of Woodinville. The designated critical aquifer recharge areas map may be updated from~~

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1 ~~time to time as new information becomes available pursuant to WMC 21.24.080 and~~
2 ~~21.24.090.~~

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

Commented [SC39]: Golder completed a CARA map for the City. Language related to update of maps is listed in 21.24.080.

9
10 (2) ~~Critical aquifer recharge areas are categorized as follows:~~

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

Commented [SC40]: Golder's mapping does not include categories as the existing code does. Need to clarify.

15 (b) ~~Category II critical aquifer recharge areas include those mapped areas designated~~
16 ~~that:~~
17 (i) ~~Have a medium susceptibility to ground water contamination and are located~~
18 ~~in a sole source aquifer or wellhead protection area; or~~
19 (ii) ~~Are highly susceptible to ground water contamination and are not located in a~~
20 ~~sole source aquifer or wellhead protection area.~~

21 (3) An applicant can request that the ~~Development Services Director~~City declassify a specific
22 area included in the map adopted under ~~subsection (1)~~WMC 21.24.030 of this
23 ~~section~~chapter. The request must be supported by a critical areas report that includes a
24 hydro-geologic assessment. The request to declassify an area shall be reviewed by the
25 ~~Development Services~~Director following the procedure in WMC 21.24.110.

Commented [SC41]: 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.

26
27 **21.24.200210 Critical aquifer recharge areas – Development ~~regulations~~standards.**

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

- 30 (a) ~~Hazardous liquid transmission pipelines;~~
- 31 (b) ~~Sand and gravel, and hard rock mining on land that is not zoned for mining as of December~~
32 ~~1, 2004;~~
- 33 (c) ~~Mining of any type below the ground water table;~~
- 34 (d) ~~Processing, storage, and disposal of radioactive wastes;~~
- 35 (e) ~~Hydrocarbon extraction;~~
- 36 (f) ~~Commercial wood treatment facilities on permeable surfaces;~~
- 37 (g) ~~Golf courses;~~
- 38 (h) ~~Cemeteries;~~
- 39 (i) ~~Wrecking yards;~~
- 40 (j) ~~Landfills for hazardous waste, municipal solid waste, or special waste; and~~
- 41 (k) ~~On-site septic systems on lots smaller than one acre without a treatment system that results~~
42 ~~in effluent nitrate nitrogen concentrations below 10 milligrams per liter.~~

Commented [SC42]: No land in the city is zoned for mining

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

- 45 (a) ~~Mining of any type below the water table;~~
- 46 (b) ~~Processing, storage, and disposal of radioactive substances;~~
- 47 (c) ~~Hydrocarbon extraction;~~
- 48 (d) ~~Commercial wood treatment facilities on permeable surfaces;~~
- 49 (e) ~~Wrecking yards;~~
- 50 (f) ~~Landfills for hazardous waste, municipal solid waste, or special waste; and~~

Commented [SC43]: Not included are:
-Hazardous liquid transmission pipelines
-Sand/gravel/hard rock mining
-Golf courses
-Cemeteries

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

21.24.230 Critical aquifer recharge areas – Permitted alterations.

(31) 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 ~~s~~State and ~~f~~Federal regulations as necessary to protect critical aquifer recharge areas.

Commented [SC44]: 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, Best Management Practices for Vehicle and Equipment Washwater Discharges (WDOE WQ-R-/Best Management Practices Manual (DOE 95-56056)
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, Best Management Practices to Prevent Storm Water Pollution at Vehicles

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Activity	Applicable State and Federal Regulations
	Recycler Facilities (WDOE 94-146) , Vehicle Recyclers: A Guide for 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, Best Management Practices to Prevent Storm Water Pollution at Log Yards (WDOE 95-53) 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, WDOE Land Application Guidelines, Best Management Practices for Irrigated Agriculture

Field Code Changed

Commented [SC45]: No longer exists

- 1
- 2 21.24.240 Critical aquifer recharge areas – Critical areas report additional requirements.
- 3 (1) In addition to the general critical report requirements in WMC 21.24.110, critical areas
- 4 reports for CARAs ~~must address the requirements of this section~~ shall include the following:
- 5 (a) Prepared by a Qualified Professional. A critical areas report for CARAs shall be
- 6 prepared by a qualified professional who is a hydrogeologist, geologist, or engineer
- 7 ~~who is~~ licensed in the State of Washington. The qualified professional shall have
- 8 ~~with~~ a minimum of five years of experience in the field and with experience in
- 9 preparing hydrogeologic assessments.
- 10 (b) Hydrogeologic Assessment. For all proposed activities to be located in a critical
- 11 aquifer recharge area, a critical area report shall contain a Level 1 hydrogeological
- 12 assessment. A Level 2 hydrogeologic assessment shall be required for any of the
- 13 following proposed activities:
- 14 (i) Activities that result in five percent (~~5%~~) or more impervious site area;

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- (ii) Activities that divert, alter, or reduce the flow of surface or ground-waters, or reduce the recharging of the aquifer;
 - (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 to have an adverse impact on ground water quality or quantity, or on the recharge of the aquifer.
- (c) Level 1 Hydrogeologic Assessment. A Level ~~one~~1 hydrogeologic assessment shall include the following ~~site-and-proposal-related information at a minimum~~ 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 ~~two~~2 hydrogeologic assessment shall include the ~~following site-and-proposal-related~~ information required for a Level 1 hydrogeologic assessment and the following ~~information-at-a-minimum, in addition to the requirements for a level one hydrogeological assessment:~~ information:
- (i) Historic water quality data for the area to be affected by the proposed activity compiled for at least the previous five ~~(5)~~ 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 [SC46]: 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.

21.24.250 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.:

Commented [SC47]: 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 [SC48]: 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.;(b) Landslide hazard;
- 2 (c) Seismic hazard;
- 3 (d) Other geological events including mass wasting debris flows, rock falls, and
- 4 differential settlement.
- 5 (2) Designation of Specific Hazard Areas.
- 6 (a) Erosion Hazard Areas. Erosion hazard areas are those Those areas identified by the
- 7 U.S. Department of Agriculture's Natural Resources Conservation Service or
- 8 identified by a critical area special study report as having a severe to very severe
- 9 erosion potential.
- 10 (b) Landslide Hazard Areas. Landslide hazard areas are. Those areas potentially subject
- 11 to landslides based on a combination of geologic, topographic, and hydrologic
- 12 factors. These factors include areas susceptible because of any combination of
- 13 bedrock, soil, slope (gradient), slope aspect, structure, hydrology, or other factors.
- 14 Examples of these may include, but are not limited to the following:
- 15 (i) Areas of historic failures, such as areas designated as quaternary slumps,
- 16 earthflows, mudflows, lahars, or landslides on maps published by the U.S.
- 17 Geological Survey or Department of Natural Resources;
- 18 (ii) Areas with all three of the following characteristics:
- 19 (A) Slopes steeper than 15 percent; and
- 20 (B) Hillside intersecting geologic contacts with a relatively permeable
- 21 sediment overlying a relatively impermeable sediment or bedrock; and
- 22 (C) Springs or ground water seepage;
- 23 (iii) Areas that have shown movement during the Holocene epoch (from 10,000
- 24 years ago to the present) or that are underlain or covered by mass wastage
- 25 debris of that epoch;
- 26 (iv) Areas potentially unstable because of rapid stream incision, stream bank
- 27 erosion, and undercutting by wave action;
- 28 (v) Areas located in a canyon or on an active alluvial fan, presently or potentially
- 29 subject to inundation by debris flows or catastrophic flooding; and
- 30 (vi) Any area with a slope of 40 percent or steeper and with a vertical relief of 10
- 31 or more feet except areas composed of consolidated rock. A slope is
- 32 delineated by establishing its toe and top and measured by averaging the
- 33 inclination over at least 10 feet of vertical relief.
- 34 (c) Seismic Hazard Areas. Seismic hazard areas are. Those areas subject to severe
- 35 risk of damage as a result of earthquake-induced ground shaking, slope failure,
- 36 settlement, surface rupture, or soil liquefaction.
- 37 (i) Ground shaking is the primary cause of earthquake damage in Washington.
- 38 The strength of ground shaking is primarily affected by the magnitude of an
- 39 earthquake; the distance from the source of an earthquake; the type and
- 40 thickness of geologic materials at the surface; and the subsurface geologic
- 41 structure.
- 42 (ii) Settlement and soil liquefaction conditions occur in areas underlain by
- 43 cohesionless, loose, or soft-saturated soils of low density, typically in
- 44 association with a shallow ground water table.
- 45 (d) Other Geologic Hazard. Other geological events including mass wasting debris flows,
- 46 rock falls, and differential settlement.

Commented [SC49]: 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).

21.24.300 260 Geologically hazardous areas – Erosion and landslide hazards.

Development standards – General requirements.

- (1) General Development Standards. Alterations of geologically hazardous areas erosion and landslide hazard areas or associated and their buffers may only occur for activities that:

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- (4a) Will not increase the threat of the geological hazard to adjacent properties beyond predevelopment conditions;
- (2b) Will not adversely impact other critical areas or buffers; and
- (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.

Commented [SC50]: Per Golder's recommendation: Risk cannot be completely eliminated, but can be reduced and minimized

- (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.

~~(3) 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:~~

Commented [SC51]: 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.

- (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; predevelopment levels based on demonstrated geotechnical back analysis by a qualified professional;

Commented [SC52]: Per Golder: prescriptive and unnecessary limiting

Planning staff agrees – will need to rework this section.

- (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 and shall be tiered where possible to conform to existing topography;

Commented [SC53]: 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.

Commented [SC54]: Does not exist in the IBC. Replacement language will require that safety factor be equal to or better that existing

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

Commented [SC55]: 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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~~(i) Land that is located wholly within an erosion or landslide hazard area or its buffer may not be subdivided. Land that is located partially within an erosion or landslide hazard area or its buffer may be divided; provided, that each resulting lot has sufficient buildable area outside of, and will not affect, the erosion or landslide hazard or its buffer.~~

~~(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 buffers.

Commented [SC56]: This language was moved to 21.24.080 for subdivisions in critical areas, as this language is applicable to more than just geo hazards

(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 **specifically** 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; and
- (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

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- 1 capacities for bearing and lateral loads, installation considerations, and
- 2 estimates of settlement performance;
- 3 (ii) Recommendations for drainage and subdrainage improvements;
- 4 (iii) Earthwork recommendations including clearing and site preparation criteria,
- 5 fill placement and compaction criteria, temporary and permanent slope
- 6 inclinations and protection, and temporary excavation support, if necessary;
- 7 and
- 8 (iv) Mitigation of adverse site conditions including slope stabilization measures
- 9 and seismically unstable soils, if appropriate;
- 10 (d) Analysis of Proposal. The report shall contain a hazards analysis including a detailed
- 11 description of the project, its relationship to the geologic hazard(s), and its potential
- 12 impact upon the hazard area, the subject property, and affected adjacent properties.
- 13 (e) Erosion and Sediment Control Plan. For any development proposal on a site
- 14 containing an erosion hazard area, an erosion and sediment control plan shall be
- 15 required. The erosion and sediment control plan shall be prepared in compliance
- 16 with requirements set forth in the adopted King County Stormwater Design Manual.
- 17 (f) Drainage Plan. The technical information shall include a drainage plan for the
- 18 collection, transport, treatment, discharge, and/or recycle of water prepared in
- 19 accordance with the adopted King County Stormwater Design Manual. The drainage
- 20 plan should consider on-site septic system disposal volumes where the additional
- 21 volume will affect the erosion or landslide hazard area.
- 22 (g) Monitoring Surface Waters. If the City determines that there is a significant risk of
- 23 damage to downstream receiving waters due to potential erosion from the site,
- 24 based on the size of the project, the proximity to the receiving waters, or the
- 25 sensitivity of the receiving waters, the technical information shall include a plan to
- 26 monitor the surface water discharge from the site. The monitoring plan shall include
- 27 a recommended schedule for submitting monitoring reports to the City.
- 28 (h) Minimum Buffer and Building Setback. The report shall make a recommendation for
- 29 the minimum no-disturbance buffer and minimum building setback from any geologic
- 30 hazard based upon the geotechnical analysis.
- 31 (i) Mitigation Assessment. When hazard mitigation is required, the mitigation plan shall
- 32 specifically address how the activity maintains or reduces the pre development level
- 33 of risk to the site and adjacent properties on a long-term basis (equal to or exceeding
- 34 the projected lifespan of the activity or occupation). Mitigation may be required to
- 35 avoid any increase in risk above the pre-existing conditions following abandonment
- 36 of the activity.

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

- 39 (21) ~~Seismic Hazard Areas~~ Development Standards. Alterations of seismic hazard areas or
- 40 other hazard areas and their buffers may only occur for activities that:
 - 41 (a) Will not increase the threat of the geological hazard to adjacent properties beyond
 - 42 predevelopment conditions;
 - 43 (b) Will not adversely impact other critical areas or buffers;
 - 44 (c) Are designed so that the hazard to the project is eliminated or mitigated to a level
 - 45 where there is no increased adverse impact beyond predevelopment condition to the
 - 46 project or its associated land use; and
 - 47 (d) Are certified as safe by a qualified engineer or geologist, licensed in the State of
 - 48 Washington.

Commented [SC57]: 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.

~~Activities proposed to be located in seismic hazard areas shall meet the standards of WMC 21.24.300, Development standards— General requirements.~~

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1 ~~(3) Other Hazard Areas. Activities on sites containing or adjacent to other geologically~~
2 ~~hazardous areas shall meet the standards of WMC 21.24.300. Development standards—~~
3 ~~General requirements.~~
4

5 (2) Additional report requirements. In addition to the general critical report requirements of WMC
6 21.24.110, critical areas reports for seismic and other hazard areas must address the
7 requirements of this section.

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

47
48 **21.24.320-300 Wetlands – Designation and rating.**

49 (1) Definition. Wetlands are those areas ~~designated in accordance with the Washington State~~
50 ~~Wetland Identification and Delineation Manual (1997)~~ that are inundated or saturated by
51 surface or ground water at a frequency and duration to support, and that under normal

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Commented [SC58]: Identified in 21.24.010

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

Commented [SC59]: 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."

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.

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Category III	<ul style="list-style-type: none"> - Moderate level of functions (score of 16-19). - Can often be adequately replaced with a well-planned mitigation project. - Experienced some disturbance. - Often less diverse and more isolated from other natural resources than Category II wetlands.
Category IV	<ul style="list-style-type: none"> - Lowest level of functions (score of 15 or less). - Can often be adequately replaced with a well-planned mitigation project. - Often characterized by a high level of disturbance .

- (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.

21.24.310330 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-~~ (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			

Commented [SC60]: 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.

- (2) Measurement. The outer edge of the wetland buffer shall be delineated through a survey and field investigation by a qualified professional.
- (3) Increased Buffers. An increased buffer width shall be required in accordance with ~~a plan approved by the Development Services Director.~~

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1 (e) Any wetland restored, relocated, replaced or enhanced because of a wetland
2 alteration shall have the minimum buffer required for the highest wetland class
3 involved.

4 (f) Wetland buffers shall be measured from the wetland edge as delineated and marked
5 in the field using the 1997 Washington State Wetland Identification and Delineation
6 Manual (Ecology).

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

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

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

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

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

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

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

35 (a) It will provide A additional protection to the wetlands and result in a net improvement
36 of wetland will be provided through implementation of a buffer enhancement plan;

37 (b) It will not reduce wetland habitat, functions or values;

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

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

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

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

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

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

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- 1 (3) The
- 2 use of hazardous substances, pesticides and fertilizers in the wetland and its buffer may be
- 3 prohibited by the Development Services Director.
- 4 (7) Temporary and permanent signs and fencing shall be installed along the outer boundary of
- 5 the wetland buffer in accordance with WMC 21.24.130.
- 6 (8) Livestock. Property owners shall implement a farm management plan or standards to protect
- 7 and enhance wetland water quality pursuant to Chapter 21.30 WMC. ~~(4) Unless otherwise~~
- 8 ~~provided, the following restrictions shall apply to all development proposals, which include~~
- 9 ~~the introduction of livestock:~~
- 10 (a) ~~To prevent damage to Class 1 and 2 wetlands:~~
- 11 (i) ~~A plan to protect and enhance the wetland's water quality shall be implemented pursuant to~~
- 12 ~~Chapter 21.30 WMC; or~~
- 13 (ii) ~~Fencing located at the buffer edge shall be required.~~
- 14 (5) ~~Standards pertaining to access to streams for watering purposes, stream crossing~~
- 15 ~~requirements and use of natural barriers and vegetative buffering in lieu of fencing shall be~~
- 16 ~~included in administrative rules promulgated pursuant to this chapter.~~
- 17 (6) ~~The livestock restrictions contained in subsection (4) of this section shall not apply to~~
- 18 ~~wetlands defined as grazed wet meadows, regardless of their classification.~~

19 **21.24.340 Wetlands – Permitted 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

34 (2) There shall be no introduction of any plant or wildlife which is not indigenous to the Puget

35 Sound region into any wetland or buffer unless authorized by a State or Federal permit or

36 approval;

37 (3) Utilities may be allowed in wetland buffers if the Development Services Director

38 **21.24.320 Wetlands – Permitted activities.**

- 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:
- 41 (a) No there is no practical alternative location is available; with less adverse impact on the
 - 42 wetland or its buffer, subject to 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 is located on the outer may be located in the outer 25
 - 48 percent of the buffer 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 [SC61]: Moved to section below with added requirements

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Commented [SC62]: Moved to 21.24.320

Commented [SC63]: Section was moved. Requirements are included in greater detail in 21.24.320.

Commented [AK64]: 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;~~

Commented [SC65]: 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.

~~(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

Commented [SC66]: These substances are prohibited pursuant to (3), below

- ~~(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.

(d) 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)~~ (f) 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 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:

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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~~
- (v)(iv) There are no significant adverse impacts to the wetland.;
- (g)(v) ~~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 or 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;~~
- (h-7) 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.;
- (8i) 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;
- (iie) 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.

21.24.350 Wetlands — Mitigation requirements.

- (1) ~~When an alteration to a critical area is proposed, such alteration shall be avoided, minimized, or compensated for, as outlined by WAC 197-11-768, in the following order of preference:~~
- (a) ~~Avoiding the impact altogether by not taking a certain action or parts of actions;~~

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- ~~(b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation;~~
 - ~~(c) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;~~
 - ~~(d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and/or~~
 - ~~(e) Compensating for the impact by replacing or providing substitute resources or environments.~~
- ~~(2)~~

Commented [SC67]: 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.

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 shall have a minimum of five years of experience in the field of wetland science and experience in preparing wetland reports.
 - (b) Wetland Assessment. The wetland assessment shall include the following information on the site:
 - (i) Wetland delineation, category and required buffers;
 - (ii) Existing wetland acreage;
 - (iii) Vegetative, faunal, and hydrologic characteristics;
 - (iv) Soil and substrate conditions;
 - (v) A discussion of the water sources supplying the wetland and documentation of hydrologic regime (locations of inlet and outlet features, water depths throughout the wetland, evidence of recharge or discharge, evidence of water depths throughout the year – drift lines, algal layers, moss lines, and sediment deposits); and
 - (vi) Clearing limits.
 - (c) Habitat and Vegetation Conservation. A habitat and native vegetation conservation strategy that addresses methods to protect and enhance on-site habitat and wetland functions.
 - (d) Wetland Evaluation. Functional evaluation for the wetland and adjacent buffer using a local or state agency staff-recognized method and including the reference of the method and all data sheets.
 - (e) Proposed Mitigation. If required, a mitigation plan consistent with WMC 21.24.120 and WMC 21.24.340. The mitigation plan shall include a written assessment and accompanying maps of the mitigation area, including the following information at a minimum:
 - (i) Proposed wetland acreage;
 - (ii) Proposed vegetative, faunal, and hydrologic characteristics;
 - (iii) Surface and subsurface hydrologic conditions including an analysis of existing and future hydrologic regime and proposed hydrologic regime for enhanced, created, or restored mitigation areas;
 - (iv) Proposed soil and substrate conditions;
 - (v) Proposed adjacent site conditions;
 - (vi) Required wetland buffers (including any buffer reduction and mitigation proposed to increase the plant densities, remove weedy vegetation, and replant the buffers);

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

21.24.340 Wetlands – Mitigation shall achieve equivalent or greater biological functions, requirements.

- (1) General. Mitigation shall be consistent with the requirements in WMC 21.24.120. An evaluation of mitigation sequencing, including avoidance, minimization, and compensation, shall be provided pursuant to WMC 21.24.120.
- (2) 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.
- (3) 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.
 - (c) Preserving an existing high-quality wetlands ~~that are under imminent threat~~ to protect it from future loss or degradation.
- (4) 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) ~~unless established regional or watershed goals for water quality, flood or conveyance, habitat or other~~ as the impacted wetland; and
 - (d) Off-site wetland functions ~~have been established and strongly justify location of mitigation at another site; and~~ will best meet formally identified watershed goals, such as replacement of historically diminished wetland types.
- (5) Mitigation Ratios.
 - (a) Acreage Replacement Ratios. The following ratios shall apply to creation or restoration that is in-kind, on-site, the same category, timed prior to or concurrent with alteration, and has a high probability of success. These ratios do not apply to remedial actions resulting from unauthorized alterations; greater ratios shall apply in those cases. These ratios do not apply to the use of credits from a state-certified wetland mitigation bank. The first number specifies the acreage of replacement wetlands and the second specifies the acreage of wetlands altered.

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Category I	6 to 1
Category II	3 to 1
Category III	2 to 1
Category IV	1.5 to 1

- 1 (b) Increased Replacement Ratio. The ratios shall be increased when one of the
2 following applies:
3 (i) Uncertainty exists as to the probable success of the proposed restoration or
4 creation;
5 (ii) A significant or extended period of time will elapse between impact and
6 replication of wetland functions;
7 (iii) Proposed mitigation will result in a lower category wetland or reduced
8 functions relative to the wetland being impacted; or
9 (iv) The impact is the result of an authorized activity or use.
10 (c) Wetlands Enhancement as Mitigation. Impacts to wetland functions may be mitigated
11 by enhancement of existing significantly degraded wetlands, but must be used in
12 conjunction with restoration and/or creation.
13 (i) At minimum, enhancement acreage shall be at least double the acreage
14 required for creation or restoration under Subsection (a). A higher ratio may
15 be required if the enhancement proposal results in minimal gain in the
16 performance of wetland functions and/or result in the reduction of other
17 wetland functions currently being provided.
18 (ii) Mitigation ratios for enhancement in combination with other forms of mitigation
19 shall range from 6:1 to 3:1 and be limited to Class III and Class IV wetlands.
20 (iii) A critical areas report consistent with WMC 21.24.110 and WMC 21.24.330
21 shall include information demonstrating how enhancement will increase
22 functions of degraded wetlands and how the increase will mitigate for loss of
23 wetland areas and functions at the impact site.
24 ~~(d) The off-site location is approved by the Development Services Director. The~~
25 ~~Development Services Director shall approve or deny the off-site location based on~~
26 ~~written findings and recommendation by a qualified professional wetland biologist.~~
27 (6) Mitigation Timing. Where feasible, mitigation projects shall be completed prior to activities
28 that will disturb wetlands. In all other cases, mitigation shall be completed immediately
29 following disturbance and prior to use or occupancy of the activity or development.
30 Construction of mitigation projects shall be timed to reduce impacts to existing wildlife and
31 flora.
32 (7) ~~Mitigation~~ Monitoring and Maintenance. Mitigation projects shall be monitored and
33 maintained ~~for a period of five years~~ consistent with WMC 21.24.130. ~~A monitoring protocol~~
34 ~~shall be approved by the Development Services Director and monitoring reports shall be~~
35 ~~submitted to the City as required.~~
36 (8) Buffers for Mitigation Sites. Mitigation sites shall have buffers consistent with the
37 requirements of this chapter. The buffer for a wetland that is created, restored, or enhanced
38 as compensation for approved wetland alterations shall be subject to the buffer of the
39 highest wetland category involved.-
40
41 ~~(1)(b) Increased Replacement Ratio. The Development Services Director may increase the ratios~~
42 ~~under the following circumstances:~~
43 ~~(i) Uncertainty exists as to the probable success of the proposed restoration or creation; or~~
44 ~~(ii) A significant period of time will elapse between impact and replication of wetland functions;~~
45 or

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- 1 ~~(iii) Proposed mitigation will result in a lower category wetland or reduced functions relative to~~
- 2 ~~the wetland being impacted; or~~
- 3 ~~(iv) The impact was an unauthorized impact.~~
- 4 ~~(c) Buffer Mitigation Ratios. When the standard buffers for Class 1, 2, and 3 wetlands are~~
- 5 ~~reduced, enhancement ratios for the reduced buffers will occur at a 1:1 ratio.~~
- 6 ~~(d)~~
- 7 9) Wetland Mitigation Banks. Credits from a wetland mitigation bank may be approved for use
- 8 as compensation for unavoidable impacts to wetlands ~~when:~~
- 9 (a) The following criteria shall be met in order to apply credits from a wetland mitigation
- 10 bank when:
- 11 (i) The bank is certified under Chapter 173-700 WAC;
- 12 (ii) The City determines that the wetland mitigation bank provides appropriate
- 13 compensation for the authorized impacts; and
- 14 (iii) The proposed use of credits is consistent with the terms and conditions of the
- 15 bank's certification.
- 16 (be) Replacement ratios for projects using bank credits shall be consistent with
- 17 replacement ratios specified in the bank's certification.
- 18 (c) Credits from a certified wetland mitigation bank may be used to compensate for
- 19 impacts located within the service area specified in the bank's certification. In some
- 20 cases, bank service areas may include portions of more than one adjacent drainage
- 21 basin for specific wetland functions.
- 22

~~21.24.360 Wetlands — Limited exemption.~~

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

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

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

~~A flood hazard area consists of the following components:~~

- 33 ~~(a) (a) Frequently flooded areas consist of the following components:~~
- 34 ~~(ia) Floodplain;~~

~~(b) (iib) Flood fringe;~~

~~(c) (iii) Zero-rise floodway; and~~

~~(d) (iv) Federal Emergency Management Agency ("FEMA") FEMA floodway.~~

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

~~21.24.220 Flood Insurance Study adopted.~~

~~(2) (b) Location Designation. Frequently flooded areas shall include the following areas:~~

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

Commented [SC68]: DOE does not recommend the filling exemption for wetlands as previously permitted.

Commented [SC69]: 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 [SC70]: Should we add definitions from definitions chapter?

Commented [SC71]: Incorporated with sections below.

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~~scientific and engineering report entitled "the most current approved version of the Flood Insurance Study for King County" dated November 8, 1999, and any revisions thereto, with accompanying Flood Insurance Maps flood insurance maps (FIRM), and any revisions thereto.~~ The Flood Insurance Study and accompanying maps are hereby adopted by reference ~~and declared to be a part of this chapter.~~

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

~~(32)~~ For all new structures or substantial improvements in a flood hazard area, the applicant shall provide certification by a professional civil engineer or land surveyor licensed by the State of Washington for the following:

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

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

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

~~(4)~~ ~~Use of additional~~ Supplemental information. The ~~Flood Insurance Study and the FIRM are on file at the Woodinville City Hall~~ may use additional flood information that is more restrictive or detailed than that provided in the Flood Insurance Study to designate frequently flooded areas, including data on channel migration, historical data, high water marks, photographs of past flooding, location of restrictive floodways, maps showing future build-out conditions, maps that show riparian habitat areas, or similar information.

~~(53)~~ Flood Elevation Data. When base flood elevation data is not available (A and V zones), the City shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a federal, state, or other source, in order to administer this Chapter.

~~(64)~~ Designation ~~m~~ Made by City. The ~~best available~~ flood insurance maps are to be used as a guide for the City, project applicants, and the public and should be considered a minimum designation of frequently flooded areas. Flood insurance maps are subject to continuous updated as areas are reexamined or new areas are identified. Newer and more restrictive information for flood hazard area identification ~~as outlined in WMC 21.24.210(2)~~ shall be the basis for regulation ~~until a new FIRM is issued which incorporates the data utilized under WMC 21.24.210(2).~~

~~(5)~~ For all new structures or substantial improvements in a flood hazard area, the applicant shall provide certification by a professional civil engineer or land surveyor licensed by the State of Washington for the following:

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

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

~~(62)~~ The engineer or surveyor shall indicate if the structure has a basement.

~~(73)~~ The Building Official shall maintain the certifications required by this section for public inspection.

21.24.360230 Flood fringe Frequently flooded areas – Development standards and permitted alterations.

(1) Base flood storage volume. Development shall not reduce the effective base flood storage volume of the floodplain. Grading or other activity ~~which~~ that would reduce the effective storage volume shall be mitigated by creating compensatory storage on the site or off the site ~~if legal~~. Legal arrangements ~~can~~ shall be made to assure that the effective compensatory storage volume will be preserved in perpetuity ~~over time~~. ~~Grading for construction of livestock manure storage facilities to control nonpoint source water pollution designed to the~~

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~~standards of and approved by the County Conservation District is exempt from this compensatory storage requirement.~~

Commented [SC72]: Not applicable within city limits

- (2) In addition to requiring the applicant to meet the requirements of WMC 21.24.360 through 21.24.380 and other applicable local, State, and Federal requirements, the City shall:
 - (a) Notify adjacent communities and the Department of Ecology prior to any alteration or relocation of a watercourse designated as a zone beginning with A on a FIRM map, and submit evidence of such notification to the Federal Insurance and Mitigation Administration.
 - (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.~~

Commented [SC73]: Unnecessary – standard requirement under IBC for new construction, not just for those in frequent flood areas.

- (b-4) Subdivisions, short subdivisions and binding site plans shall meet the following requirements:
 - (ia) 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;
 - (iib) 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;
 - (iiie) 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
 - (ivd) 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;
 - ~~(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~~

Commented [SC74]: Listed above.

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- (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~~ ~~between 1 to 1.5 feet~~ one foot above the base flood elevation.
 - (b)ii) Portions of a structure which are below the lowest floor area shall not be fully enclosed. The areas and rooms below the lowest floor shall be designed to automatically equalize hydrostatic and hydrodynamic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for satisfying this requirement shall meet or exceed the following requirements:
 - (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;
 - (e)iii) Materials and methods ~~which~~ that are resistant to and minimize flood damage shall be used; ~~and~~
 - (d)iv) 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 (5) 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;
 - (e) ~~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)ii) 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;~~

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Commented [SC75]: Residential and non-residential structures were consolidated together and section 6 was eliminated to reduce redundancy. Requirements for both were nearly the same.

Commented [SC76]: Section appears to contradict section immediate above. What would be the room below the lowest floor?

Commented [SC77]: Figure out what this is

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- ~~(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;~~
- shall be elevated on a permanent foundation such that the lowest floor of the manufactured or mobile home is elevated one foot above the base flood elevation. ~~and is securely anchored to an adequately designed foundation system to resist flotation, collapse and lateral movement.~~
- ~~(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:~~
 - ~~(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.~~
- (e-9) Recreational vehicles ~~must either~~ shall meet one of the following requirements:
 - (ia) Be on the site for fewer than 180 consecutive days;
 - (iib) 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
 - (iiie) 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;

Commented [SC78]: Unnecessary to call out specific cases. This calls out every possible location for a mobile/manufactured home

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Commented [SC79]: Incorporated in (ii)

Commented [SC80]: City does not have any existing mobile home parks or subdivisions

Commented [SC81]: Incorporated in section above.

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- (iii)e On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding;
- (iv)d Sewage and agricultural waste storage facilities shall be flood-proofed to the flood protection elevation;
- (v)e Above-ground utility transmission lines, other than electric transmission lines, shall only be allowed for the transport of nonhazardous substances; and
- (vi)f 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.

~~(g14)~~ **Critical** Essential 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** Essential 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.

~~(h12)~~ Prior to approving any permit for alterations in the flood fringe, ~~the Public Works Director~~ City shall determine that all permits required by ~~S~~state or ~~F~~federal regulations~~law~~ have been obtained.

Commented [SC82]: Check with critical facilities definition

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

~~(1)~~ ~~(23)~~ 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.

Commented [SC83]: Consolidated with FEMA floodway section below

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

(2b) 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:

(ai) 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

(bii) 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.

~~(3)~~ (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:

(ai) 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;

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

~~(ciii)~~ Substantial improvements of existing residential structures meeting the requirements for new residential structures in WMC

~~21.24.230~~ 21.24.323 70(2)(c); or

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- 1 ~~(4)(iv)~~ Substantial improvements of existing residential structures in the FEMA
- 2 floodway, meeting the requirements of WAC 173-158-070, as amended.
- 3 (d) Post or piling construction techniques which permit water flow beneath a structure
- 4 shall be used.
- 5 (5e) All temporary structures or substances hazardous to public health, safety and
- 6 welfare, except for hazardous household substances or consumer products
- 7 containing hazardous substances, shall be removed from the zero-rise floodway
- 8 during the flood season from September 30th to May 1st.
- 9 (6f) ~~New residential or nonresidential structures shall meet the following requirements:~~
- 10 ~~(a) The structures shall be outside the FEMA floodway; and~~
- 11 ~~(bii) The structures shall be on lots in existence before March 31, 1993, which contain~~
- 12 ~~less than 5,000 square feet of buildable land outside the zero-rise floodway.~~
- 13 ~~(7g)~~ Utilities may be allowed ~~within the zero-rise floodway~~ if the City determines that no
- 14 feasible alternative site is available, subject to the following requirements:
- 15 (a) Installation of new on-site sewage disposal systems shall be prohibited
- 16 unless a waiver is granted by the department of public health; and
- 17 (bii) Construction of sewage treatment facilities shall be prohibited.
- 18 ~~(8) Critical facilities shall not be allowed within the zero-rise floodway except as~~
- 19 ~~provided in WMC 21.24.230(11).~~
- 20 (9) Livestock manure storage facilities and associated nonpoint source water pollution
- 21 facilities designed, constructed and maintained to the standards of and approved in a
- 22 conservation plan by the King County Conservation District may be allowed if the
- 23 Public Works Director reviews and approves the location and design of the facilities.
- 24 ~~(g)10~~ Structures and installations that, ~~which~~ are dependent upon the floodway, may be
- 25 located in the floodway if the development proposal is approved by all agencies with
- 26 jurisdiction. Such structures include, but are not limited to:
- 27 (a) Dams or diversions for water supply, flood control, hydroelectric production,
- 28 irrigation, or fisheries enhancement;
- 29 (bii) Flood damage reduction facilities, such as levees and pumping stations;
- 30 (eiii) Stream bank stabilization structures where no feasible alternative exists for
- 31 protecting public or private property;
- 32 (div) Storm water conveyance facilities subject to the development standards for
- 33 streams and wetlands and the King County Surface Water Design Manual;
- 34 (ev) Boat launches and related recreation structures;
- 35 (fvi) Bridge piers and abutments; and
- 36 (gvii) Other fisheries enhancement or stream restoration projects.

Commented [SC84]: What was this requirement intended for?

Commented [SC85]: Removed., as it is not allowed per section (330)(11)

- 37
- 38 ~~21.24.250 FEMA floodway — Development standards and permitted alterations.~~
- 39 ~~(1) The requirements which apply to the zero-rise floodway shall also apply to the FEMA~~
- 40 ~~floodway. The more restrictive requirements shall apply where there is a conflict.~~
- 41 ~~2) A development proposal including, but not limited to, new or reconstructed structures shall~~
- 42 ~~not cause (any increase in the base flood elevation.~~
- 43 ~~(3) New residential or nonresidential structures are prohibited within the FEMA floodway.~~
- 44 ~~(4) Substantial improvements of existing residential structures in the FEMA floodway,~~
- 45 ~~meeting the requirements of WAC 173-158-070, as amended, are presumed to~~
- 46 ~~produce no increase in base flood elevation and shall not require a special study to~~
- 47 ~~establish this fact.~~
- 48 ~~21.24.260 Flood hazard areas — Certification by engineer or surveyor.~~

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~~21.24.260 Flood hazard areas – Certification by engineer or surveyor.~~

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

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

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

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

Commented [SC86]: Moved to 21.24.360

21.24.380 Frequently flooded areas – Critical areas report additional requirements.

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

- (a) Prepared by a ~~q~~Qualified Professional. The critical areas report shall be prepared by a qualified professional who is a hydrologist or engineer 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 flood hazard assessments.
- (b) Site Areas. The following areas shall be addressed:
 - (i) The site area of the proposed activity;
 - (ii) All areas of a special flood hazard, or other flood area as indicated in the flood insurance maps within 200 feet of the project area; and
 - (iii) All other flood areas indicated on the flood insurance maps within 200 feet of the project area.
- (c) Watercourse Alteration. Alteration of natural watercourses shall be avoided, if feasible. If unavoidable, a critical area report shall include:
 - (i) A description of and plan showing the extent to which a watercourse will be altered or relocated as a result of proposal;
 - (ii) A maintenance program that provides maintenance practices for the altered or relocated portion of the watercourse to ensure that the flood carrying capacity is not diminished; and
 - (iii) Information describing and documenting how the proposed watercourse alteration complies with the requirements of WMC 21.24.400 through 21.2.440, the adopted Shoreline Master Program, and other applicable state or federal permit requirements.
- (ed) Habitat Impact Assessment. A habitat impact assessment is required for activities that meet one of the following: repair and remodel of existing structures or facilities; additions less than 10 percent of the existing footprint; restoration or enhancement of natural function; or development of recreational facilities. A habitat assessment shall be one of the following:
 - (i) A Biological Evaluation or Biological Assessment developed in accordance with 50 C.F.R. § 402.12;
 - (ii) Documentation that the activity fits within Section 4(d) of the Endangered Species Act;
 - (iii) Documentation that the activity fits within a Habitat Conservation Plan approved pursuant to Section 10 of the Endangered Species Act, where such assessment has been prepared and made available; or
 - (iv) A habitat impact assessment prepared in accordance with the current adopted FEMA Regional Guidance for Floodplain Habitat Assessment and Mitigation, FEMA Region X. The assessment shall determine if the project would adversely affect:

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- (A) Species that are federal, state or local listed as threatened or endangered;
- (B) The primary constituent elements for critical habitat, when designated, including but not limited to water quality, water quantity, flood volumes, flood velocities, spawning substrate, and/or floodplain refugia for listed salmonids;
- (C) Essential fish habitat designated by the National Marine Fisheries Service;
- (D) Fish and wildlife habitat conservation areas; and
- (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.

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

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1 biologist and the best available science on a case-by-case basis. A reduced buffer must be
2 sufficient to protect stream functions and values based on site-specific characteristics and must
3 include enhancement measures implemented to provide a net improvement in overall stream
4 and buffer function and value. Stream enhancement measures may be required on-site and/or
5 off-site to improve overall stream function. No buffer shall be reduced on a stream designated
6 as "urban" to less than 50 feet unless the stream is not used by fish whereas the minimum
7 buffer will be 35 feet. Streams designated as "urban" are those streams, which meet all of the
8 following criteria:
9 (i) Streams other than Type 1 streams according to the City of Woodinville classification system;
10 (ii) Streams with degraded channel conditions (i.e., presence of piping, sedimentation,
11 channelization, etc.);
12 (iii) Streams with buffers that are currently degraded or developed; and
13 (iv) Streams within sub-basins where restoration opportunities are limited.
14 (c) Any stream relocated because of a permitted alteration shall have the minimum buffer
15 required for the stream class involved.
16 (d) The Development Services Director shall require increased buffer widths in accordance with
17 the recommendations of a qualified professional biologist and the best available science on a
18 case-by-case basis when a larger buffer is necessary to protect stream functions and values
19 based on site-specific characteristics. This determination shall be based on one or more of the
20 following criteria:
21 (i) A larger buffer is needed to protect other critical areas;
22 (ii) The buffer or adjacent uplands has a slope greater than 30 percent or is susceptible to
23 erosion and standard erosion control measures will not prevent adverse impacts to the stream;
24 and
25 (e) Any stream adjoined by a riparian wetland or other contiguous critical area shall have the
26 buffer required for the stream class involved or the buffer which applies to the wetland or other
27 sensitive area, whichever is greater;
28 (2) The use of hazardous substances in the stream corridor and its buffer is prohibited; and
29 (3) The use of pesticides and fertilizers in the stream corridor and its buffer shall be restricted by
30 type and seasonal use under the discretion of the Development Services Director.
31 (4) The livestock restrictions in WMC 21.24.330 shall also apply to Type 1 and 2 streams and
32 their buffers.
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34 **21.24.410 400 Fish and wildlife habitat conservation areas – Designation.**

35 (1) **Definition.** Fish and wildlife habitat conservation areas are those habitat areas that meet any
36 of the criteria listed below. Fish and wildlife habitat conservation areas do not include such
37 artificial features or constructs as irrigation delivery systems, irrigation infrastructure,
38 irrigation canals, or drainage ditches that lie within the boundaries of and are maintained by
39 a port district or an irrigation district. following criteria:
40 (a) Documented presence of species listed by the Federal Government or the State of
41 Washington as endangered or threatened; or
42 (b) Heron rookeries or active nesting trees; or
43 (c) Class 1 wetlands and buffers as defined in WMC 21.24.310; or
44 (d) Type 1 streams and buffers as defined in WMC 21.24.350; or
45 (a) Areas with Which State or Federally Designated Endangered, Threatened, and
46 Sensitive Species Have a Primary Association.
47 (i) Federally designated endangered and threatened species are those fish and
48 wildlife species identified by the U.S. Fish and Wildlife Service and the
49 National Marine Fisheries Service that are in danger of extinction or
50 threatened to become endangered. The U.S. Fish and Wildlife Service and

Commented [SC87]: These habitats are still designated as Fish and Wildlife Habitat, they are elaborated below.

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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.

(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 [SC88]: 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.

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(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:

Commented [SC89]: 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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- (A) Habitat or species rarity or vulnerability to rarity ~~is~~ 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;
- (D) Why special protection is needed and how existing ~~c~~County, ~~s~~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 ~~w~~Watercourses. Streams shall be classified using the ~~most~~ 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 ~~critical areas and~~ subject to the provisions of this chapter.

Commented [SC90]: 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.

Table 21.24.400(1)(~~f~~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"> (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; (b) Waters, which are diverted for use by federal, state, tribal or private fish hatcheries. Such waters

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Classification	Brief Description	Full Description
		<p>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 of fish and wildlife, department of ecology, the affected tribes and interested parties that:</p> <ul style="list-style-type: none"> (i) The management practices proposed by the landowner will adequately protect water quality for the fish hatchery; and (ii) Such additional harvest meets the requirements of the water type designation that would apply in the absence of the hatchery. <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> <p>(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:</p> <ul style="list-style-type: none"> (i) The site must be connected to a fish habitat stream and accessible during some period of the year; and (ii) The off-channel water must be accessible to fish.
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

Commented [AK91]: Do we need this?

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Classification	Brief Description	Full Description
		aboveground channel system to Type S, F, or Np Waters.

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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, 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.~~
- ~~(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).~~

Commented [SC92]: 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).

- (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.~~

Commented [AK93]: Should this be here? Maybe in the early/general sections?

Commented [SC94]: Listed above.

~~**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.

Commented [SC95]: The existing critical areas regulations uses "stream buffers", whereas current practices use "riparian habitat area" to mark the same area

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

Stream Type	Standard Area Width
S	175 feet
F	150 feet
Np	75 feet
Ns	50 feet

- 8
 9 (i) Measurement. The outer edge of the stream buffer shall be delineated through
 10 a survey and field investigation by a qualified professional.
 11 (ii) Increased Widths. An increased buffer shall be required in accordance with
 12 the recommendations of a qualified professional and the best available
 13 science in the following circumstances:
 14 (A) Where the standard width is insufficient to prevent habitat degradation
 15 and to protect the structure and functions of the habitat area;
 16 (B) Where the frequently flooded area exceeds the standard stream
 17 buffer, the width shall extend to the outer edge of the frequently
 18 flooded area;
 19 (C) Where the channel migration zone exceeds the standard stream
 20 buffer, the width shall extend to the outer edge of the channel
 21 migration zone; or
 22 (D) The habitat area is in an area of high blowdown potential, the stream
 23 buffer shall be expanded an additional 50 feet on the windward side.
 24 (iii) Reduced Buffers. Stream buffers may be reduced when width-reduction
 25 impacts are mitigated, resulting in equal or greater protection of the
 26 ecological riparian functions. A plan for mitigating buffer-reduction impacts
 27 must be prepared using selected incentive-based mitigation options from the
 28 list below. The following incentive options for reducing standard area widths
 29 shall be considered cumulative up to a maximum reduction of 33 percent of
 30 the standard area width.
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Table 21.24.40380(12)(b)(iii) Standard Area 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.

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(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 (minimum five-year) monitoring and continued-removal maintenance of relatively dense stands of invasive, nonnative vegetation from significant portions of the remaining buffer area.
(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.

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- (2) Buffer Averaging. The minimum buffer width may be averaged in accordance with an approved critical areas report using the best available science and any management recommendations issued by the Washington Department of Fish and Wildlife. Averaging of buffer widths may only be allowed if all of the following criteria are met:
 - (a) It will provide additional protection to the fish and wildlife habitat conservation area and result in a net improvement of the habitat functions and values;
 - (b) It will not adversely affect salmonid habitat;
 - (c) The buffer width is not reduced by more than 25 percent of the standard width in any one location;
 - (d) It will provide additional natural resource protection, such as buffer enhancement;
 - (e) The total area contained in the buffer area after averaging is no less than that which would be contained within the standard buffer;
 - (f) The proposal includes revegetation and restoration of the averaged buffer using native plants; and

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- 1 (g) Stream buffer reduction in WMC 21.24.410(1)(b)(iii) is not used as a part of the
2 proposal.
- 3 (53) Protection. Whenever activities are proposed in or adjacent to a habitat conservation area
4 with which state or federally endangered or threatened species have a primary association,
5 such area shall be protected through the application of measures in accordance with a
6 critical area report and approved by the city and guidance provided by the appropriate state
7 and federal agencies.
- 8 (4) Special Conditions. Stream buffers shall also be subject to modifications under the following
9 site conditions:
- 10 (a) Geologically Hazardous Areas. The buffer or abutting uplands include a geologically
11 hazardous area. The buffer width shall be the greater of either the required wetland
12 buffer or twenty-five feet beyond the top of the hazard area;
- 13 (b) Wetlands. Any stream adjoined by a riparian wetland shall have the buffer required
14 for the stream class involved or the buffer which applies to the wetland, whichever is
15 greater; or
- 16 (c) Other Critical Areas. If the stream and its buffer are located adjacent to other critical
17 areas, a larger buffer shall be required to protect other critical areas in accordance to
18 the recommendations of a qualified professional and best available science.
- 19 (5) Signage and Fencing. Temporary and permanent signs and fencing shall be installed along
20 the outer boundary of the wetland buffer in accordance with WMC 21.24.130.
- 21 (6) Livestock. Property owners shall implement a farm management plan or standards to protect
22 and enhance wetland water quality pursuant to Chapter 21.30 WMC.
- 23
- 24 (7) Livestock. Property owners shall implement a farm management plan or standards to protect
25 and enhance wetland water quality pursuant to Chapter 21.30 WMC.
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- 27 (8) Seasonal Restrictions. When a species is more susceptible to adverse impacts during
28 specific periods of the year, as determined by the Washington State Department of Fish and
29 Wildlife, seasonal restrictions may apply. Larger buffers may be required and activities may
30 be further restricted during the specified season.
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- 32 **21.24.440** ~~21.24.440~~ **Fish and wildlife habitat conservation areas – Performance standards for**
33 **specific habitats.** ~~Permitted activities.~~
- 34 (1) ~~Approval of Activities.~~ The City shall condition approvals of activities allowed within or
35 adjacent to a habitat conservation area or its buffers, as necessary to minimize or mitigate
36 any potential adverse impacts. Conditions shall be based on the best available science and
37 may include, but are not limited to, the following:
- 38 (a) Establishment of buffer zones;
- 39 (b) Preservation of critically important vegetation and/or habitat features such as snags
40 and downed wood;
- 41 (c) Limitation of access to the habitat area, including fencing to deter unauthorized
42 access;
- 43 (d) Seasonal restriction of construction activities;
- 44 (e) Establishment of a duration and timetable for periodic review of mitigation activities;
45 and
- 46 (f) Requirement of a performance bond, when necessary, to ensure completion and
47 success of proposed mitigation.
- 48 (2) Hazardous substances. The use of hazardous substances, pesticides and fertilizers, in the
49 stream and its buffer may be prohibited; and

Commented [SC96]: May want to consider moving this to permitted activities section

Commented [SC97]: Moved to 21.24.410(1)

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- 1 (3) Non-native Species. The introduction of any plant, wildlife, or fish species not indigenous to
2 the region shall be prohibited from fish and wildlife habitat conservation areas unless
3 authorized by a state or federal permit or approval.
- 4 (4) Alterations to fish and wildlife habitat conservation areas and their buffers, except for aquatic
5 environments, may be allowed in addition to those established in WMC 21.24.040 and WMC
6 21.24.050. Where applicable, activities and uses shall also be subject to the Woodinville
7 Shoreline Master Program (SMP).
- 8 (a) Utilities. Utilities may be allowed within fish and wildlife habitat conservation areas if:
9 (i) No practical alternative location is available;
10 (ii) ~~The utility corridor meets any additional requirements set forth in~~
11 ~~administrative rules including, but not limited to, requirements for installation,~~
12 ~~replacement of vegetation and maintenance;~~
13 (iii) ~~The requirements for sewer utility corridors in WMC 21.24.320 shall also~~
14 ~~apply;~~
15 (iii) Joint use of an approved utility corridor by more than one utility may be
16 allowed; and
17 (iv) The utility corridor meets the provisions of Policies U-1.5 and U-1.8 of the
18 City of Woodinville Comprehensive Plan.
- 19 (b) Surface Water Management Activities and Facilities. The following may be allowed
20 within fish and wildlife habitat conservation areas as follows:
21 (i) Surface water discharge to a stream from a detention facility, presettlement
22 pond or other surface water management activity or facility may be allowed if
23 the discharge is in compliance with the King County Surface Water Design
24 Manual;
25 (ii) Storm Water Management Facilities. Grass-lined swales and dispersal
26 trenches may be located in the outer 25 percent of the buffer area. All other
27 surface water management facilities are not allowed within the buffer area.
- 28 (c) Trails. Public and private trails, and/or visual access to the habitat conservation area
29 may be allowed if
30 (i) Trail surface shall be made of pervious materials, except that public multi-
31 purpose trails may be made of impervious materials if they meet all other
32 requirements including water quality and quantity; and
33 (ii) Buffers shall be expanded, where possible, equal to the width of the trail
34 corridor including disturbed areas.
- 35 (5) The following ~~development standards~~ shall apply for areas with endangered or
36 threatened species:
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- 38 (a) No development shall be allowed ~~without prior approval within a fish and wildlife~~
39 ~~habitat conservation area or buffer with which Statestate or Federallyfederally~~
40 ~~endangered or, threatened, or sensitive species have a primary association,~~ except
41 that which is provided for by a management plan established by the Washington
42 Department of Fish and Wildlife or applicable state or federal agency.
- 43 (b)
44 (i) ~~Whenever activities are proposed abutting a fish and wildlife adjacent to a~~
45 ~~habitat conservation area with which Statestate or Federallyfederally~~
46 ~~endangered or, threatened or sensitive species have a primary association,~~
47 ~~such areas~~ shall be protected through the application of protection measures
48 in accordance with a ~~habitat management plan~~ critical area report prepared by
49 a qualified professional biologist and approved by the ~~Director~~ City.
50 (A) Approval for alteration of land adjacent to the ~~fish and wildlife~~ habitat
51 conservation area or its buffer shall not occur prior to consultation with

Commented [SC99]: Moved from the former streams section

Commented [SC100]: Does not really say anything – they are subject to all of this chapter. Not typical to call out this requirement for just one type of alteration

Commented [SC101]: Same language as existing, moved up several pages

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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.

(2) ~~be~~ 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.

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(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.

(3) ~~cd~~ Great ~~blue~~ Blue Heron Rookeries:

(a) A buffer equal to the distance of 820 feet radius measured from the outermost nest tree in the rookery will be established around an active rookery. This area will be maintained in native vegetation.

(b) Between January 1st and July 31st, no clearing, grading or land disturbing activity shall be allowed within 900 feet of the rookery, unless approved by the ~~Director~~ City and Washington Department of Fish and Wildlife WDFW.

(c) Approval of all activities requiring permits shall not occur within 900 feet of a heron rookery prior to the approval of a ~~habitat management plan~~ critical areas report by the ~~Director~~ City and Washington Department of Fish and Wildlife WDFW.

(4) ~~de~~ Anadromous Fish.

(a) All activities, uses, and alterations proposed to be located in water bodies used by anadromous fish or in areas that affect such water bodies shall give special consideration to the preservation and enhancement of anadromous fish habitat, including, but not limited to, ~~adhering to~~ the following standards:

(i) ~~A~~ Activities shall be timed to occur only during the allowable work window as designated by the Washington State Department of Fish and Wildlife for the applicable species;

(ii) ~~B~~ An alternative alignment or location for the activity is not ~~physically practicable~~ feasible;

(iii) ~~C~~ The activity is designed so that it will not degrade the functions or values of the fish habitat or other critical areas; and

(iv) ~~D~~ Shoreline erosion control measures shall be designed to use bioengineering methods or soft armoring techniques, according to an approved critical area report; and

(v) ~~E~~ Any impacts to the functions or values of the habitat conservation area are mitigated in accordance with an approved ~~habitat management plan~~ critical area report.

(b) Structures that prevent the migration of salmonids shall not be allowed in the portion of water bodies currently or historically used by anadromous fish. Fish bypass facilities shall be provided that allow the upstream migration of adult fish and shall prevent fry and juveniles migrating downstream from being trapped or harmed.

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(eiii) Fills, when authorized pursuant to the City of Woodinville's Shoreline Management Master Program, shall not adversely impact anadromous fish or their habitat or shall mitigate any unavoidable impacts, and shall only be allowed for a water-dependent use.

21.24.390 Streams — Permitted alterations.

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

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

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

Commented [SC102]: Moved to subsection 4, above

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

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

~~(b) 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;~~

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

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

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

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

~~(a) 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;~~

~~(b) 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.~~

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

~~(a) 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~~

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

Commented [SC103]: Moved up several pages

~~(6) Stream crossings may be allowed if:~~

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

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

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- 1 (iib) All crossings are constructed during the summer low flow and are timed to
 2 avoid stream disturbance during periods when use is critical to resident or
 3 anadromous fish including salmonids;
 4 (iie) Crossings do not occur over salmonid resident or anadromous fish
 5 spawning areas unless the Development Services Director city determines
 6 that no other possible crossing site exists;
 7 (ive) Bridge piers or abutments are not placed within the FEMA floodway or the
 8 ordinary high water mark;
 9 (ve) Crossings do not diminish the flood-carrying capacity of the stream;
 10 (vif) Underground utility crossings are laterally drilled and located at a depth of
 11 four feet below the maximum depth of scour for the base flood predicted by a
 12 civil engineer licensed by the State of Washington; and
 13 (viig) ~~Crossings are minimized and~~ The number of crossings is minimized and
 14 consolidated to serve multiple purposes and properties whenever possible.

15 (767) Stream Relocations. Relocations may be allowed subject to the following limitations:

- 16 (aia) ~~All stream types~~ Type F, Np and Ns streams as part of a public road project for
 17 which a public agency and utility exception is granted pursuant to WMC 21.24.060;
 18 (biib) ~~All stream types~~ Type F, Np and Ns streams for the purpose of enhancing or
 19 restoring resources in the stream if:

- 20 (i) Appropriate floodplain protection measures are used;
 21 (ii) The relocation occurs on the site, except that relocation off the site may be
 22 allowed if the applicant demonstrates that any on-site relocation is
 23 impracticable, the applicant provides all necessary easements and waivers
 24 from affected property owners and the off-site location is in the same
 25 drainage sub-basin as the original stream; and
 26 (iii) A ~~scientific study~~ critical area report shows that the relocation is beneficial to
 27 fish and wildlife habitat;

28 (iice) Relocations are constructed during the summer low flow and are timed to avoid
 29 stream disturbance during periods when use is critical to resident or anadromous fish
 30 including salmonids; and

31 (divd) Streams shall not be relocated solely for development purposes;

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 33 (e8v) Stream relocation pursuant to this section, the applicant shall demonstrate, based
 34 on information provided by a civil engineer and a qualified biologist, that:

- 35 (a)-i) Equivalent base flood storage volume and function will be maintained;
 36 (b)-ii) No adverse impact to local ground water;
 37 (e)-iii) No increase in velocity;
 38 (d)-iv) -No increase in transfer of water;
 39 (e)-v) No increase in the sediment load;
 40 (f)-vi) Requirements set out in the mitigation plan are met;
 41 (g)-vii) Relocation conforms to other applicable laws; and

42
 43 (viiih) All work will be carried out under the direct supervision of a qualified
 44 biologist.

45 (9f) Stream Channel Stabilization. A stream channel may occur be stabilized if:

- 46 (ia) Movement of the stream channel threatens existing residential or commercial
 47 structures, public facilities or improvements, unique natural resources or the
 48 only existing access to property; and
 49 (iib) Stabilization is done in compliance with the requirements of WMC 21.24.210
 50 through 21.24.260 21.24.350 through 21.24.380 and administrative rules
 51 promulgated pursuant to this chapter; and.

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(40iii) Soft-bank stabilization techniques are utilized unless the applicant demonstrates that soft-bank techniques are not a reasonable alternative due to site-specific soil, geologic and/or hydrologic conditions.

(g) Enhancement. Stream enhancement not associated with any other development proposal may be allowed if accomplished according to a plan for its design, implementation, maintenance, and monitoring prepared by a civil engineer and a qualified biologist and carried out under the direct supervision of a qualified biologist pursuant to provisions contained in administrative rules.

(11)(h) Stream Restoration. A minor stream restoration project for fish habitat enhancement may be allowed if the restoration is:

- (ia) Accomplished Sponsored or approved by a public agency with a mandate to do such work;
- (iib) Not Unassociated with mitigation of a specific development proposal;
- (iic) 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.

21.24.420430 Fish and wildlife habitat conservation area – Critical areas report additional requirements.

(1) In addition to the general critical area report requirements, Requirements for critical areas of WMC 21.24.110, critical area 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. A The critical areas report for a habitat conservation area 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:

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

Commented [SC104]: Elaborated below.

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

7 (ii) All habitat conservation areas and recommended buffers within 2003200 feet
 8 of the project area ~~feet of the subject property as shown on maps maintained~~
 9 ~~by the City~~; and

10 ~~(iii) The location of any observed evidence of~~ All shoreline areas, floodplains,
 11 other critical areas, and related buffers within 2300 feet of the project area.

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

15 (i) Extent of fish and wildlife habitat areas and required buffers;

16 (ii) Existing habitat area acreage;

17 (iii) Vegetative, faunal, and hydrologic characteristics;

18 (iv) Identification of species of local importance, priority species, or endangered,
 19 threatened, sensitive, or candidate species that have a primary association
 20 with habitat on or adjacent to the project area;

21 (v) Assessment of potential project impacts to the use of the site by a ~~threatened~~
 22 ~~or endangered~~ the species;

23 ~~(b) An analysis of how the proposed development activities will affect the fish and~~
 24 ~~wildlife habit conservation area and listed species;~~

25 ~~(c) Provisions to reduce or eliminate the impact of the proposed development~~
 26 ~~activities on any fish and wildlife habitat conservation area and listed species~~
 27 ~~including:~~

28 (vi) A discussion of any federal, state, or local special management
 29 recommendations, including Washington Department of Fish and Wildlife
 30 habitat management recommendations, that have been developed for
 31 species or habitats located on or adjacent to the project area; and

32 (vii) A detailed discussion of the direct and indirect potential impacts on habitat
 33 by the project, including potential impacts to water quality.

34 (d) Proposed Mitigation. If required, a mitigation plan consistent with WMC 21.24.120
 35 and WMC 21.24.440. The mitigation plan shall include a written assessment and
 36 accompanying maps of the mitigation area, including the following information at a
 37 minimum:

38 (i) Prohibition or limitation of development activities within the fish and wildlife
 39 habitat conservation area;

40 (ii) Establishment of a buffer around the fish and wildlife habitat conservation
 41 area;

42 (iii) Retention of certain vegetation or areas of vegetation critically important to
 43 the listed species;

44 (iv) Limitation of access to the fish and wildlife habitat conservation area and
 45 buffer;

46 (v) Seasonal restrictions on construction activities on the subject property;

47 (vi) Clustering of development on the subject property is appropriate; and

48 (vii) Preservation or creation of a habitat area for the listed species.

Commented [SC105]: List is from existing code

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~~(4) Fish and wildlife habitat conservation areas may be altered only if the proposed alteration of the habitat or the mitigation proposed does not degrade the quantitative and qualitative functions and values of the habitat. All new structures and land alterations shall be prohibited within habitat conservation areas, except in accordance with this title.~~

~~(5) Introduction of plant, wildlife, or fish species not indigenous to the region into a fish and wildlife habitat conservation areas shall be prohibited unless authorized by a State or Federal permit or approval.~~

~~(6) Mitigation sites shall be located to achieve contiguous wildlife habitat corridors in accordance with a mitigation plan that is part of an approved 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.~~

~~(7) Mitigation of alterations to habitat conservation areas shall achieve equivalent or greater biologic functions. Mitigation shall address each function affected by the alteration in order to achieve functional equivalency or improvement on a per function basis.~~

~~(8) Any mitigation for alterations or impacts to a fish and wildlife habitat conservation area shall be supported by the best available science.~~

~~(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, ~~or the~~ local Native American Indian Tribes or other appropriate agency; and

Commented [SC106]: Moved to mitigation section in 21.24.440

Commented [SC107]: Moved to 21.24.410(1)

Commented [SC108]: Moved to 21.24.440

Commented [SC109]: Moved to development standards (21.24.430(9))

Commented [SC110]: Not necessary to call out – all of these activities are subject to the tree code.

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(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) Any mitigation for alterations or impacts to a fish and wildlife habitat conservation area shall be supported by the best available science.~~

Commented [SC111]: Moved to (1)

(2) Sites. Mitigation sites shall be located to achieve contiguous wildlife habitat corridors in accordance with a mitigation plan ~~that is part of an approved~~ 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:

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

~~(4)~~ Stream Restoration and Mitigation. ~~The following minimum requirements shall be met for the All restoration and/or mitigation of impacts to a stream or its buffer~~ projects for streams shall meet the following:

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

~~(6)~~ Monitoring and Maintenance. Mitigation sites shall be monitored and maintain consistent with WMC 21.24.130. ~~Requirements which apply to the restoration of streams in subsection (2) of this section shall also apply to the relocation of streams, unless the applicant demonstrates to the satisfaction of the Development Services Director that a greater biologic function can be obtained by modifying these requirements.~~

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- 1 (76) Replacement or enhancement for approved stream or buffer alterations shall be
2 accomplished in streams and on the site unless the applicant demonstrates ~~to the~~
3 ~~satisfaction of the Development Services Director that~~ that:
4 (a) Enhancement or replacement on the site is not possible or on-site opportunities do
5 not have a high likelihood of success due to development pressures, adjacent land
6 uses, or on-site buffers or connectivity are inadequate;
7 (b) Off-site location is in the same drainage sub-basin as the original stream; and
8 (c) Greater biologic and hydrologic functions will be achieved.
- 9 (87) Surface water management or flood control alterations shall not be considered
10 enhancement unless other functions are simultaneously improved.
- 11 (98) Day-lighting a stream is encouraged when redeveloping. The ~~Development Services~~
12 Director may modify the requirements pertaining to aquatic areas and their buffers, when
13 locating or day-lighting a stream.
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