

Chapter 19.145 ENVIRONMENTALLY CRITICAL AREAS¹

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Article I. Administrative

19.145.010 Purpose.

The purpose of this chapter is to protect the environment, human life, and property from harm and degradation. This is to be achieved by precluding or limiting development in areas where development poses serious or special hazards; by preserving and protecting the quality of drinking water; and by preserving important ecological areas such as steep slopes, streams, lakes and wetlands. The public purposes to be achieved by this chapter include protection of water quality, groundwater recharge, stream flow maintenance, stability of slope areas, wildlife and fisheries habitat maintenance, protection of human life and property and maintenance of natural stormwater storage and filter systems.

(Ord. No. 15-797, § 17, 6-16-15; Ord. No. 07-554, § 5(Exh. A(10)), 5-15-07; Ord. No. 04-468, § 3, 11-16-04; Ord. No. 91-123, § 3(80.10), 12-17-91; Ord. No. 91-105, § 4(80.10), 8-20-91; Ord. No. 90-43, § 2(80.10), 2-27-90. Code 2001 § 22-1221.)

19.145.015 Administration.

Except as otherwise established in this chapter, if a proposed development activity requires city approval, this chapter will be implemented and enforced as part of that process.

(Ord. No. 15-797, § 18, 6-16-15.)

19.145.020 Applicable provisions.

The provisions of this division apply throughout the city and must be complied with regardless of any other conflicting provisions of this title. The provisions of this title that do not conflict with the provisions of this division apply to the subject property.

(Ord. No. 07-554, § 5(Exh. A(10)), 5-15-07; Ord. No. 04-468, § 3, 11-16-04; Ord. No. 91-123, § 3(80.15), 12-17-91; Ord. No. 91-105, § 4(80.15), 8-20-91; Ord. No. 90-43, § 2(80.15), 2-27-90. Code 2001 § 22-1222.)

19.145.030 Jurisdiction.

(1) The city shall regulate all uses, activities, and development within critical areas and the corresponding buffers and setbacks.

(2) Critical areas regulated by the city include the following areas and their corresponding buffers:

- (a) Geologically hazardous areas;
- (b) Fish and wildlife habitat conservation areas;
- (c) Wetlands;
- (d) Critical aquifer recharge areas; and
- (e) Frequently flooded areas.

(Ord. No. 15-797, § 19, 6-16-15; Ord. No. 07-554, § 5(Exh. A(10)), 5-15-07; Ord. No. 04-468, § 3, 11-16-04; Ord. No. 99-353, § 3, 11-16-99; Ord. No. 91-123, § 3(80.20), 12-17-91; Ord. No. 91-105, § 4(80.20), 8-20-91; Ord. No. 90-43, § 2(80.20), 2-27-90. Code 2001 § 22-1223.)

19.145.040 Relationship to other regulations.

(1) Nothing in this chapter in any way limits, or may be construed to limit, the authority of the city under any other applicable law, nor in any way decreases the responsibility of the applicant to comply with all other applicable local, state and federal laws and regulations.

(2) These critical areas regulations shall apply as an overlay and in addition to zoning and other regulations adopted by the city.

(3) When any provision of this title or any existing regulation, easement, covenant, or deed restriction conflicts with regulations in this chapter, the regulations that provide greater protection to the critical areas shall apply.

(4) Compliance with the provisions of this chapter does not constitute compliance with other federal, state, and local regulations and permit requirements that may be required. The applicant is responsible for complying with these requirements, apart from the process established in this chapter.

(Ord. No. 15-797, § 20, 6-16-15; Ord. No. 07-554, § 5(Exh. A(10)), 5-15-07; Ord. No. 04-468, § 3, 11-16-04; Ord. No. 91-123, § 3(80.25), 12-17-91; Ord. No. 91-105, § 4(80.25), 8-20-91; Ord. No. 90-43, § 2(80.25), 2-27-90. Code 2001 § 22-1224.)

19.145.050 Liability.

(1) The city is not liable for any damage resulting from development activities within critical areas. Prior to issuance of any building permit or other permit by the building official, use process, or subdivision approval, the applicant may be required to enter into an agreement with the city, in a form acceptable to the city attorney, releasing and indemnifying the city from and for any damage or liability resulting from any development activity on the subject property that is related to the physical condition of the critical area. This agreement shall be recorded with the King County recorder's office at the applicant's expense and shall run with the property.

(2) The city may also require the applicant to obtain insurance coverage for damage to city or private property and/or city liability related to any such development activity.

(Ord. No. 15-797, § 21, 6-16-15; Ord. No. 07-554, § 5(Exh. A(10)), 5-15-07; Ord. No. 04-468, § 3, 11-16-04; Ord. No. 91-123, § 3(80.55), 12-17-91; Ord. No. 91-105, § 4(80.55), 8-20-91; Ord. No. 90-43, § 2(80.55), 2-27-90. Code 2001 § 22-1225.)

19.145.060 Unauthorized alterations and enforcement.

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

(2) *Restoration plan.* All development work shall remain stopped until a restoration plan is prepared at the expense of the owner or violator and approved by the city. The plan shall be prepared by a qualified professional using the best available science and shall describe how the actions proposed meet the minimum requirements described in subsections (2)(a) and (b) of this section. The director may, at the owner or violator's expense, seek expert advice in determining the adequacy of the plan. Inadequate plans shall be returned to the owner or violator for revision and resubmittal.

(a) For alterations to critical aquifer recharge areas, frequently flooded areas, wetlands, and fish and wildlife habitat conservation areas, the following minimum performance standards shall be met for the restoration of a critical area:

(i) The historic structural and functional values shall be restored, including water quality and habitat functions;

(ii) The historic soil types and configuration shall be replicated;

(iii) The critical area and buffers shall be replanted with native vegetation that replicates the vegetation historically found on the site in species types, sizes, and densities. The historic functions and values should be replicated at the location of the alteration; and

(iv) Information demonstrating compliance with FWRC 19.145.140 (Mitigation plan requirements) shall be submitted to the director.

(b) For alterations to frequently flooded areas and geologically hazardous areas, the following minimum performance standards shall be met for the restoration of critical area:

(i) The hazard shall be reduced to a level equal to, or less than, the predevelopment hazard;

(ii) Any risk of personal injury resulting from the alteration shall be eliminated or minimized; and

(iii) The hazard area and buffers shall be replanted with native vegetation sufficient to minimize the hazard.

(3) Minimum performance standards identified in subsections (2)(a) and (b) of this section may be modified if the owner or violator can demonstrate that greater functional and habitat values can be obtained.

(4) *Site investigations.* Site investigations necessary to enforce this chapter are authorized pursuant to FWRC 7.03.070.

(5) *Penalties.* Any development carried out contrary to the provisions of this chapter shall constitute a public nuisance and be subject to provisions of Chapter 7.03 FWRC. (Ord. No. 15-797, § 22, 6-16-15.)

19.145.070 Maps and inventories.

(1) Critical areas maps and inventories generally designate the location of critical areas within the city and are adopted by reference.

(2) Area-wide inventories and documents identifying critical areas may not identify all critical areas designated under this chapter. The provisions of this chapter will apply to all designated critical areas located within the city, including those critical areas not identified on a map or inventory. Whenever there is evidence of a critical area located within or in proximity to a nonexempt action, the director may require a critical area report to determine the extent to which such critical area may exist.

(3) Critical area maps and inventories are to be used for planning level purposes only and the actual presence/absence, type, extent, and boundaries of critical areas shall be identified in the field by a qualified professional according to the procedures and criteria established in this chapter. In the event of any conflict between the critical area location and designation shown on the city's map and the criteria or standards of this chapter, the criteria and standards shall prevail.

(4) The following maps and inventories, as amended, are used for identifying possible critical areas and their buffers:

(a) Federal Way critical areas map;

(b) ~~Lakehaven Utility District capture zone~~ [Washington State Department of Health Source Water](#) map;

(c) Federal Way final wetland inventory report prepared by Sheldon and Associates, Inc., July 19, 1999;

(d) Preliminary stream inventory, Federal Way gap analysis, November 29, 2001;

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

(f) Additional state and federal maps and inventories may be used if necessary.

(Ord. No. 15-797, § 22, 6-16-15.)

19.145.080 Critical area report.

(1) Unless waived or modified by the director in accordance with subsection (4) of this section, an applicant proposing activities where impacts or alteration of a critical area or its associated buffer and/or setback shall submit a critical areas report that adequately evaluates the proposal and probable impacts.

(2) The critical area report shall be prepared by a qualified professional, incorporate best available science, and include the following items:

- (a) The name and contact information of the applicant, a description of the proposal, and identification of the type of approval (use process, subdivision, building permit) requested;
- (b) Vicinity map;
- (c) The dates, names, and qualifications of the persons preparing the report and documentation of any reconnaissance on site;
- (d) A scaled site plan depicting critical areas, buffers, setbacks, and proposed improvements;
- (e) Photographs of the site and critical areas;
- (f) Identification and characterization of all critical areas adjacent to the proposed improvements;
- (g) A description of efforts made to apply mitigation sequencing pursuant to FWRC 19.145.130 to avoid, minimize, and mitigate impacts to critical areas;
- (h) A copy of the Joint Aquatic Resource Permit Application (JARPA) if applicable;
- (i) Additional information required for the individual critical area; and
- (j) Any additional information determined by the director to adequately review the proposed activity.

(3) Critical area reports may be reviewed by the city's third party consultant at the applicant's expense.

(4) The critical area report may be waived or modified if the director determines:

- (a) There will be no alteration of the critical area or buffer; or
- (b) The applicant cannot obtain permission to access off-site critical areas or buffers.

(Ord. No. 15-797, § 22, 6-16-15.)

19.145.090 Reasonable use of the subject property.

(1) The provisions of this section establish a mechanism whereby the provisions of this chapter may be modified or waived on a case-by-case basis if their implementation would deprive an applicant of all reasonable use of the subject property.

(2) An applicant may apply for a modification or waiver of the provisions of this chapter using process IV; except, that applications for projects on single-family residential lots may use process III.

(3) The city may approve a modification or waiver of the requirements of this chapter on a case-by-case basis based on the following criteria:

(a) The application of the provisions of this chapter eliminates all reasonable use of the subject property;

(b) No feasible and reasonable on-site alternatives to the proposal are possible, such as changes to site layout and/or reduction of impervious improvements;

(c) It is solely the implementation of this chapter, and not other factors, that preclude all reasonable use of the subject property;

(d) The applicant has in no way created or exacerbated the condition that forms the limitation on the use of the subject property, nor in any way contributed to such limitation; and

(e) The waiver or modification will not lead to, create nor significantly increase the risk of injury or death to any person or damage to improvements on or off the subject property.

(4) If the city grants a request under this section, it shall grant the minimum necessary to provide the applicant with some reasonable use of the subject property, considering the factors described in subsections (3)(a) through (e) of this section. Any approval or waiver of requirements shall result in the minimum possible impacts to the function and values and/or risks associated with proposed improvements on affected critical areas. The city may impose limitations, mitigation under an approved mitigation plan, conditions and/or restrictions it considers appropriate to reduce or eliminate any undesirable effects or adverse impacts of granting a request under this section.

(Ord. No. 15-797, § 22, 6-16-15.)

19.145.100 Bonds.

The city may require a bond under Chapter 19.25 FWRC to ensure compliance with any aspect of this chapter. (Ord. No. 15-797, § 22, 6-16-15.)

19.145.110 Exemptions.

The following activities and developments are exempt from the provisions of this chapter. All exempted activities shall use reasonable methods to avoid potential impacts to critical areas. An exemption from this chapter is not an endorsement to degrade a critical area; ignore risk from natural hazards; or otherwise limit the ability of the director to identify and abate such actions that may cause degradation to a critical area.

(1) Activities and development in response to emergencies that, in the opinion of the director, threaten public health, safety or welfare; or that pose an immediate risk of damage to property and that require remedial or preventative action in a timeframe too short to allow for compliance with the requirements of this chapter. In the event a person determines that the need to take emergency action is so urgent that there is insufficient time for review by the department, such emergency action may be taken immediately. The person undertaking such action shall notify the department within one working day of the commencement of the emergency activity. The director will determine what, if any, mitigation shall be required to protect health, safety, welfare, and environment and to repair any resource damage.

(2) Operation, maintenance, or repair of existing public improvements, utilities, public or private roads, parks, trails, or drainage systems if the activity does not further alter or increase impact to, or encroach further within, the critical area or buffer and there is no increased risk to life or property as a result of the proposed operation, maintenance, or repair, and no new clearing of native vegetation beyond routine pruning.

(3) Development involving or near artificially created wetlands or streams intentionally created from non-wetland sites, including but not limited to grass-lined swales, irrigation and drainage ditches, detention facilities, and landscape features, except wetlands, streams, or swales created as mitigation or that provide habitat for salmonids.

(4) Normal maintenance and repair, reconstruction or remodeling, and additions to existing structures that do not increase the previously approved building footprint.

(5) Development within the footprint of existing paved surfaces that were previously approved.

(6) Recreation, education, and scientific research activities that do not require grading or placement of structures.

(7) Removal by hand of invasive and noxious vegetation. Removal by hand does not include using mechanical equipment or the use of herbicides.
(Ord. No. 15-797, § 22, 6-16-15.)

19.145.120 Partial exemptions.

The following activities are partial exemptions to the provisions of this chapter and require written approval from the director:

(1) Essential public facilities, public utilities and other public improvements. The director may permit the placement of an essential public facility, public utility or other public improvements in a critical area if no practical alternative with less impact on the critical area(s) exists. The specific location and extent of the intrusion into the critical area must constitute the minimum necessary encroachment to meet the requirements

of the public facility or utility and not pose an unreasonable threat to the health, safety, or welfare on or off the subject property. The intrusion shall attempt to protect and mitigate impacts to the critical area function and values. The “public utility and other public improvements” shall not include improvements whose primary purpose is to benefit a private development, including without limitation interior roads or privately owned detention facilities installed within or during the construction of a residential subdivision, binding site plan, or other commercial development. The director may require supporting documentation to demonstrate compliance with partial exemptions.

(2) Site reconnaissance necessary for preparing land use or building permit applications. Any disturbance of the critical area shall be the minimum necessary to conduct the site reconnaissance and the area shall be restored to its previous condition immediately.

(3) Normal maintenance and continuation of existing landscaping and gardens that were legally established prior to city incorporation. This partial exemption shall be documented by photographs, statements, and/or other evidence provided by the applicant.

(4) Demolition of structures. The applicant shall submit a temporary erosion and sedimentation control plan and apply for applicable demolition permit(s).

(5) Restoration and enhancement that does not alter the location, dimensions, or size of the critical area or buffer and does not reduce the existing quality or functions of the critical area or buffer. The applicant shall submit a restoration and/or enhancement plan prepared by a qualified professional or as determined by the director.

(6) Removal of invasive and noxious vegetation with mechanized equipment and/or with the use of herbicides.

(7) Vegetation maintenance such as hazard tree removal, removal of nuisance vegetation, and limited pruning for view preservation. The applicant shall submit a vegetation maintenance plan prepared by a certified arborist or registered landscape architect that includes the following:

(a) A site plan at appropriate scale denoting the extent of the proposed vegetation maintenance activity;

(b) Tree and vegetation location, type, and caliper of each tree within the area subject to the proposed vegetation maintenance activity;

(c) Identification of methods of vegetation maintenance (limited to hand tools and hand powered tools); and

(d) Proposed tree and/or vegetation replacement shown on the site plan.

(Ord. No. 15-797, § 22, 6-16-15.)

19.145.130 Mitigation sequencing.

Applicants shall demonstrate that all reasonable efforts have been examined with the intent to avoid and minimize impacts to critical areas. When alteration to a critical area is proposed, such alteration shall be avoided, minimized, or compensated in the following order of preference:

- (1) Avoiding the impact altogether by not taking a certain action or parts of an action;
- (2) Minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology or by taking affirmative steps, such as project redesign, relocation, or timing, to avoid or reduce impacts;
- (3) Rectifying the impact to the critical area by repairing, rehabilitating, or restoring the affected environment to the conditions existing at the time of the initiation of the project;
- (4) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action;
- (5) Compensating for the impact by replacing, enhancing, or providing substitute resources or environments;
and
- (6) Monitoring the hazard or other required mitigation and taking remedial action when necessary.
(Ord. No. 15-797, § 22, 6-16-15.)

19.145.140 Mitigation plan requirements.

When mitigation is required, the applicant shall submit for approval by the city a mitigation plan as a component of the critical area report. The mitigation plan shall include the following as determined to be applicable by the director:

- (1) *Existing conditions and proposed impacts.* A description of existing critical area and/or buffer conditions, functions, and values and a description of the anticipated impacts;
- (2) *Proposed mitigation.* A description of the proposed mitigation actions and mitigation site selection criteria;
- (3) *Environmental goals and objectives.* A description of the goals and objectives of proposed mitigation. The goals and objectives shall be related to the function and values of the impacted critical area and provide an analysis of the likelihood of success of the compensation project;
- (4) *Best available science.* A review of the best available science supporting the proposed mitigation and a description of the report author's experience to date in restoring or creating the type of critical area proposed;

(5) *Performance standards.* A description of specific measurable criteria for evaluating whether the goals and objectives of the mitigation project have been successfully attained and whether the requirements of this chapter have been met;

(6) *Timing.* Mitigation shall be completed concurrently with project construction, unless a phased schedule that assures completion has been approved by the director;

(7) *Detailed construction plans.* Detailed site diagrams, scaled cross-sectional drawings, topographic maps with slope percentage and final grade elevations, and any other drawing appropriate to show construction techniques or anticipated final outcome. The plans shall include specifications and descriptions of the following:

- (a) Proposed construction sequence, timing, and duration;
- (b) Grading and excavation details;
- (c) Erosion and sediment control features;
- (d) Planting plan specifying plant species, quantities, locations, size, spacing, and density; and
- (e) Measures to protect and maintain plants until established;

(8) *Monitoring program.* The mitigation plan shall include a program for monitoring construction of the compensation project and for assessing a completed project. A protocol shall be included outlining the schedule for site monitoring and how the monitoring data will be evaluated to determine if the performance standards are being met. A monitoring report shall be submitted as needed to document milestones, success, problems, and contingency actions of the compensation project. The monitoring period shall be five years. The director may require a greater or lesser monitoring period depending on the overall scope of mitigation;

(9) *Contingency plan.* The mitigation plan shall include identification of potential courses of action, and any corrective measures to be taken if monitoring or evaluation indicates project performance standards are not being met; and

(10) *Financial guarantees.* The mitigation plan shall include financial guarantees, if necessary, to ensure that the mitigation plan is fully implemented. Financial guarantees ensuring fulfillment of the compensation project, monitoring program, and any contingency measures shall be posted in accordance with Chapter [19.25](#) FWRC. (Ord. No. 15-797, § 22, 6-16-15.)

19.145.150 Critical area tracts and designation on site plans.

(1) Critical area tracts shall be used to delineate and protect critical areas and buffers for subdivision, short subdivision, or binding site plan proposals. The tracts shall also be recorded on all documents of title of record for the affected lots. The following critical areas are subject to this section:

(a) All landslide hazard areas and buffers, except those subdivisions utilizing lot size averaging methods pursuant to FWRC [19.120.110](#);

(b) All wetlands and buffers; and

(c) All fish and wildlife habitat conservation areas and buffers.

(2) Critical area tracts shall be designated on the plat. A plat note shall include the following restriction:

Native preservation shall be preserved for the purpose of preventing harm to property and the environment, including but not limited to, controlling surface water runoff and erosion, maintaining slope stability, buffering, and protecting plants, fish, and animal habitat. Removal or disturbance vegetation and landscaping within the tract is prohibited, except as necessary for maintenance or replacement with approval by the City of Federal Way.

(3) The city may require that any required critical area tract be dedicated to the city; held in an undivided interest by each property owner within the development with the ownership interest passing with the ownership of the lot; or held by an incorporated homeowners' association or other legal entity that ensures the ownership, maintenance, and protection of the tract.

(4) Site plans submitted as part of development proposals use processes I through V and building permits shall include and delineate all critical areas with their associated buffers and building setbacks. Site plans shall be attached to the notice on title required by FWRC 19.145.170.
(Ord. No. 15-797, § 22, 6-16-15.)

19.145.160 Building setbacks.

Unless otherwise provided, structures shall be set back a distance of five feet from the edges of a critical area buffer. The following may be allowed in the building setback area:

(1) Landscaping;

(2) Building overhangs; and

(3) Fences and railings six feet and less in height.
(Ord. No. 15-797, § 22, 6-16-15.)

19.145.170 Notice on title.

The owner of any property containing critical areas or buffers on which a development proposal is submitted or any property on which mitigation is established as a result of development, except a public right-of-way or the site of a permanent public facility, shall file a notice approved by the city with the King County recorder's office.

The required contents and form of the notice shall be determined by the director. The notice shall inform the public of the presence of critical areas, buffers or mitigation sites on the property, and that limitations on actions in or affecting such critical areas or buffers may exist. The notice shall run with the land.
(Ord. No. 15-797, § 22, 6-16-15.)

19.145.180 Critical area markers, signs, and fences.

(1) *Markers.* Permanent survey stakes delineating the boundary between adjoining property and critical area tracts shall be set, using markers capable of being magnetically located and as established by current survey standards.

(2) *Signs.* Development proposals approved by the city shall require that the boundary between a critical area buffer and contiguous land shall be identified with permanent signs. Permanent signs shall be a city-approved type designed for high durability. Signs must be posted at an interval of one per lot or every 150 feet, whichever is less, and must be maintained by the property owner or homeowners' association in perpetuity. The wording, number and placement of the signs may be modified by the director based on specific site conditions.

(3) *Fencing.* Permanent fencing shall be required at the outer edge of the critical area buffer under the following circumstances:

(a) As part of any development proposal for:

(i) Plats;

(ii) Short plats;

(iii) Parks;

(iv) Other development proposals, including but not limited to multifamily, mixed use, and commercial development where the director determines that such fencing is necessary to protect the functions of the critical area;

(b) When buffer reductions are employed as part of a development proposal;

(c) When buffer averaging is employed as part of a development proposal; and

(d) At the director's discretion to protect the values and functions of a critical area.

(Ord. No. 15-797, § 22, 6-16-15.)

19.145.190 Physical barriers.

The applicant shall install a berm, curb, or other physical barrier during construction to prevent direct runoff and erosion from any disturbed area onto or into a critical area. If necessary, the applicant shall install a berm, curb,

or other physical barrier following completion of development of the subject property to prevent direct runoff and erosion from any disturbed area onto or into a critical area.
(Ord. No. 15-797, § 22, 6-16-15.)

19.145.200 Time limitation.

The city may limit development activities that involve any clearing and grading to specific months of the year and to a maximum number of continuous days or hours in order to minimize adverse impacts.
(Ord. No. 15-797, § 22, 6-16-15.)

19.145.210 Other requirements.

The city may require other construction techniques, conditions, and restrictions on development in order to minimize adverse impacts on critical areas.
(Ord. No. 15-797, § 22, 6-16-15.)

Article II. Geologically Hazardous Areas

19.145.220 Applicability and designation.

- (1) This article regulates development activities on or within 50 feet of a geologically hazardous area.
- (2) Geologically hazardous areas include areas susceptible to erosion, land sliding, seismic, or other geological events. Areas susceptible to one or more of the following types of hazards shall be designated as geologically hazardous areas:
 - (a) Landslide hazard;
 - (b) Erosion hazard; and
 - (c) Seismic hazard.

(3) The director may permit development activities on or within 50 feet of a geologically hazardous area if the development will not be at risk of damage due to the geologic hazard and will not lead to or create any increased slide, seismic or erosion hazard.
(Ord. No. 15-797, § 22, 6-16-15.)

19.145.230 Landslide hazard areas protection measures.

- (1) Landslide hazard areas shall have a standard buffer of 50 feet.
- (2) Landslide hazard area buffers shall be measured from the top and toe, and along the sides of the slope.

(3) The width of the buffer shall reflect the sensitivity of the landslide hazard area and the types and density of uses proposed on or adjacent to the hazard. In determining the appropriate buffer width, the director shall consider the recommendations contained in the critical areas report.

(4) Buffers and setbacks may be reduced or improvements may be located in a landslide hazard area when a qualified professional demonstrates to the director's satisfaction that the improvements will not lead to or create any increased slide hazard or be at risk of damage by the landslide hazard.

(5) The buffer may be increased where the director determines a larger buffer is necessary to prevent risk of damage to proposed and existing improvements.
(Ord. No. 15-797, § 22, 6-16-15.)

19.145.240 Erosion and seismic hazard areas protection measures.

(1) Erosion hazard areas and seismic hazard areas do not contain standard buffers.

(2) All proposed improvements within an erosion hazard area or seismic hazard area shall follow the recommendations within the critical area report to ensure the improvements will not adversely affect geologic hazards and the improvements are at minimal risk by the geologic hazard as stated by a geotechnical engineer or engineering geologist licensed in the state, as designed under anticipated conditions.

(3) Proposed improvements within an erosion hazard area shall also demonstrate all of the following via the critical area report:

(a) The improvement will not increase surface water discharge or sedimentation to adjacent properties and/or stormwater systems beyond predevelopment conditions;

(b) The improvement will not decrease slope stability on adjacent properties; and

(c) The improvement will not adversely impact other critical areas.

(Ord. No. 15-797, § 22, 6-16-15.)

19.145.250 Additional report requirements – Geologically hazardous areas.

(1) Before approving any development under this article, the city may require the applicant to submit the following information in addition to the critical areas report:

(a) A geotechnical report prepared by a geotechnical engineer or engineering geologist licensed in the state that describes how the proposed development will impact or be impacted by each of the following on the subject property and nearby properties:

(i) Slope stability, landslide hazard, and sloughing;

(ii) Seismic hazards;

- (iii) Groundwater;
- (iv) Seeps, springs and other surface waters; and
- (v) Existing vegetation.

(b) A site plan, in two-foot contours, that identifies the type and extent of geologically hazardous areas on site and off site that are likely to impact or be impacted by the proposal.

(c) Recommended foundation design and optimal location for roadway improvements.

(d) Recommended methods for mitigating identified impacts and a description of how these mitigating measures may impact adjacent properties.

(e) Any other information the city determines is reasonably necessary to evaluate the proposal.

(2) If the city approves any development under this section, it may, among other appropriate conditions, impose the following conditions of approval:

(a) The recommendations of the geotechnical report are followed;

(b) A geotechnical engineer or engineering geologist be present on site during all development activities. As an alternative, the city may require minimal site visits by the geotechnical engineer or engineering geologist to establish proper methods, techniques and adherence to plan drawings;

(c) Trees, shrubs and groundcover are retained except where necessary for approved development activities on the subject property;

(d) Additional vegetation is planted in disturbed areas; and

(e) Submit a letter by the geotechnical engineer or engineering geologist stating that they have reviewed the project plan drawings and in their opinion the plans and specifications meet the intent of the geotechnical report.

(Ord. No. 15-797, § 22, 6-16-15.)

Article III. Fish and Wildlife Habitat Conservation Areas

19.145.260 Applicability, designation, and classification.

(1) This article regulates development in fish and wildlife habitat conservation areas (“FWHCA”) and their associated buffers. FWHCAs in the city include subsections (2) through (6) of this section. All areas within the city meeting one or more of these criteria, regardless of any formal identification, are hereby designated critical areas and are subject to the provisions of this chapter and shall be managed consistent with best available

science, such as the Washington Department of Fish and Wildlife's Management Recommendations for Priority Habitats and Species.

(2) *Streams*. Streams shall be classified in accordance with the Washington Department of Natural Resources water typing system (WAC 222-16-030), which is hereby adopted in its entirety by reference and summarized as follows:

- (a) Type S: streams inventoried as "shorelines of the state" under Chapter 90.58 RCW and the rules promulgated pursuant to Chapter 90.58 RCW;
- (b) Type F: streams that contain fish habitat;
- (c) Type Np: perennial non-fish habitat streams; and
- (d) Type Ns: seasonal non-fish habitat streams.

(3) *Regulated lakes*. Those lakes that are less than 20 acres in size and not regulated as shorelines of the state.

(4) *Areas with state or federally designated endangered, threatened, and sensitive species have a primary association*.

(a) Federally designated endangered and threatened species are those fish and wildlife species identified by the U.S. Fish and Wildlife Service and the NOAA Fisheries that are in danger of extinction or threatened to become endangered. The U.S. Fish and Wildlife Service and the National Marine Fisheries Service should be consulted for current listing status.

(b) 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 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. State-designated endangered, threatened, and sensitive species are periodically recorded in WAC 232-12-014 (state endangered species) and WAC 232-12-011 (state threatened and sensitive species). The State Department of Fish and Wildlife maintains the most current listing and should be consulted for current listing status.

(5) *State priority habitats and areas associated with state priority species*. Priority habitats and species are considered to be 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 State Department of Fish and Wildlife.

(6) *Habitats and species of local importance.* Habitats and species of local importance are those identified by the city of Federal Way, including but not limited to those habitats and species that, due to their population status or sensitivity to habitat manipulation, warrant protection. Habitats may include a seasonal range or habitat element where a species has a primary association, and, if altered, may reduce the likelihood that the species will maintain and reproduce over the long term.

(Ord. No. 15-797, § 22, 6-16-15.)

19.145.270 Stream buffers.

(1) No development may take place within a stream or within the following buffer areas except as allowed within this chapter. Buffer widths shall be measured outward on a horizontal plane from the ordinary high water mark or top of bank if the ordinary high water mark cannot be identified:

(a) Type F stream – 100 feet.

(b) Type Np stream – 50 feet.

(c) Type Ns stream – 35 feet.

(2) The buffer areas established by this section do not apply to any segment of a stream that is presently within a culvert, unless that stream will be taken out of the culvert as part of development of the subject property.

(3) *Trails.* The director may provide written approval for passive pedestrian recreation facilities designed in accordance with an approved critical area report and the following standards:

(a) Trails are composed of pervious surfaces no more than five feet in width. Raised boardwalks and wildlife viewing structures composed of nontreated pilings may also be considered;

(b) Trails are generally located within the outer 25 percent of the buffer; and

(c) Trails shall avoid the removal of mature trees.

(4) *Permanently altered buffer.* The director may provide written approval for a buffer reduction when existing conditions are such that portions of the required buffer exist in a permanently altered state (e.g., roadways, paved parking lots, and permanent structures) and do not provide any buffer function. The buffer may be reduced up to the area where the altered conditions exist.

(5) The director may require increased buffer widths that are necessary to protect habitat, health, safety, and welfare on site specific areas as follows:

- (a) When the director determines that the buffer width is insufficient to prevent habitat degradation;
- (b) When a channel migration zone is present. The stream buffer width shall be measured from the outer edge of the channel migration zone; or
- (c) When the stream buffer area is within an erosion or landslide hazard area.

(Ord. No. 15-797, § 22, 6-16-15.)

19.145.280 Stream relocation.

(1) Relocation of a stream will be permitted only as part of a public project for which an essential public facility, public utilities, or other public improvements have been granted a partial exemption from the director or if the relocation is associated with compensatory mitigation or restoration project. Any proposed relocation is subject to all of the conditions and restrictions of this section.

(2) As part of any request under this section, the applicant must submit a stream relocation plan with the critical areas report that shows the following:

- (a) The creation of a natural meander pattern;
- (b) The formation of gentle side slopes, at least two feet horizontally to one foot vertically, and the installation of erosion control features for stream side slopes;
- (c) The creation of a narrow sub-channel, where feasible, against the south or west bank;
- (d) The utilization of natural materials, wherever possible;
- (e) The use of vegetation normally associated with streams, including primarily native riparian vegetation;
- (f) The creation of spawning and nesting areas, wherever appropriate;
- (g) The re-establishment of the fish population, wherever feasible;
- (h) The restoration of water flow characteristics compatible with fish habitat areas, wherever feasible;
- (i) The filling and revegetation of the prior channel; and
- (j) A proposed phasing plan specifying time of year for all project phases.

(3) The city will allow a stream to be relocated only if water quality, habitat and stormwater retention capability of the streams will be the equivalent or improved by the relocation. Convenience to the applicant in order to facilitate general site design shall not be considered.

(4) Prior to diverting water into the new channel, a qualified professional shall inspect the new channel following its completion and issue a written report to the director stating that the channel complies with the requirements of this section.

(5) The amount of flow and velocity of the stream may not be increased or decreased as the stream enters or leaves the subject property.

(Ord. No. 15-797, § 22, 6-16-15.)

19.145.290 Streambank stabilization.

(1) Streambank stabilization may not be located in or along a stream except as established in this section.

(2) A request for streambank stabilization in or along the stream will be reviewed and decided upon using process III in Chapter 19.65 FWRC.

(3) A request to install streambank stabilization in or along the stream will only be granted if the naturally occurring movement threatens existing improvements, unique natural resources, or the only feasible access to the subject property.

(4) Streambank stabilization shall be achieved through bioengineering or soft armoring techniques in accordance with an approved critical area report.

(Ord. No. 15-797, § 22, 6-16-15.)

19.145.300 Culverts.

(1) Culverts are permitted in streams only if approved under this section. This section applies to culverts not associated with a stream crossing that is regulated under FWRC 19.145.320.

(2) The city will review and decide upon applications under this section using process IV in Chapter [19.70](#) FWRC. Responses to decisional criteria and design requirements within this section shall be included in the critical areas report.

(3) The city will allow a stream to be put in a culvert only if:

(a) Mitigation habitat is equivalent or improved from the preexisting condition; and

(b) It is necessary for some reasonable use of the subject property. Convenience to the applicant in order to facilitate general site design will not be considered. The applicant must

demonstrate, by submitting alternative site plans showing the stream in an open condition, that no other reasonable site design exists.

(4) The culvert must be designed and installed consistent with the requirements of the Washington Department of Fish and Wildlife (WDFW, 2013, Water Crossing Design Guidelines, as amended). The culvert must be large enough to accommodate a 100-year storm.

(5) The applicant shall, at all times, keep all culverts on the subject property free of debris so as to allow free passage of water and, if applicable, fish. The city may require a bond under Chapter 19.25 FWRC to ensure maintenance of the culvert approved under this section.

(Ord. No. 15-797, § 22, 6-16-15.)

19.145.310 Removal of streams from culverts.

If development of the subject property requires city approval, the city may require the stream to be taken out of the culvert and restored to a natural-like configuration as part of the city's approval of development of the subject property.

(Ord. No. 15-797, § 22, 6-16-15.)

19.145.320 Stream crossings.

(1) Stream crossings will be reviewed and decided upon using process III in Chapter 19.65 FWRC. Responses to decisional criteria and design requirements in this section shall be included in the critical areas report.

(2) The use of existing crossings across streams or buffers is preferred to new crossings. New stream crossings may be allowed and may encroach on the required stream buffer if:

(a) Bridges, stream simulation culverts, or other appropriate methods demonstrated to provide fisheries protection shall be used for stream crossings and the applicant shall demonstrate that such methods and their implementation will pose no harm to the stream habitat or inhibit migration of fish;

(b) All crossings are constructed during the summer low flow and are timed to avoid stream disturbance during periods when use is critical to salmonids, if present;

(c) Crossings do not occur over spawning areas used by salmonids unless the city determines that no other possible crossing site exists;

(d) Bridge piers or abutments are not placed within the ordinary high water mark;

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

- (f) Crossings are consistent with design requirements of the Washington Department of Fish and Wildlife (WDFW, 2013, Water Crossing Design Guidelines, as amended);
- (g) Underground utility crossings are laterally drilled and located at a depth of four feet below the maximum depth of scour for the base flood predicted by a civil engineer licensed in the state of Washington. Temporary bore pits to perform such crossings may be permitted within the stream buffer established in this chapter;
- (h) The number of crossings is minimized and consolidated to serve multiple purposes and properties whenever possible;
- (i) Disturbances to the stream buffer are adequately compensated by a stream buffer enhancement plan; and
- (j) No reasonable alternative exists to access the subject property.

(Ord. No. 15-797, § 22, 6-16-15.)

19.145.330 Intrusion into stream buffers.

(1) A request for an intrusion into a stream buffer will be reviewed and decided upon using process III in Chapter 19.65 FWRC. Responses to decisional criteria and design requirements in this section shall be included in the critical areas report.

(2) Stream buffer intrusions may be permitted with a buffer enhancement plan. The applicant shall demonstrate that the remaining and enhanced reduced buffer will function at an equivalent or higher level than the standard buffer. The plan shall provide an assessment of the following existing functions and conditions of the buffer and the effects of the proposed modification on those functions:

- (a) Habitat;
- (b) Water quality;
- (c) Stormwater retention capabilities;
- (d) Groundwater recharge; and
- (e) Erosion protection.

(3) The city may approve a stream buffer intrusion based on the following criteria:

- (a) It will not adversely affect water quality;
- (b) It will not adversely affect the existing quality of wildlife habitat within the stream or buffer area;

- (c) It will not adversely affect drainage or stormwater retention capabilities;
- (d) It will not lead to unstable earth conditions nor create erosion hazards;
- (e) It will not be materially detrimental to any other property in the area of the subject property nor to the city as a whole; and
- (f) It is necessary for reasonable development of the subject property.

(Ord. No. 15-797, § 22, 6-16-15.)

19.145.340 Requirements for clearing and grading.

Any permitted clearing and grading activities within a stream or stream buffer area shall also comply with following requirements of this section.

- (1) Grading is allowed only during the dry season (May 1st to October 1st). The director may extend or shorten the dry season on a case-by-case basis, determined on actual weather conditions.
- (2) The soil duff layer shall remain undisturbed to the maximum extent possible. Where feasible, any soil disturbed shall be redistributed to other areas of the project area.
- (3) The moisture-holding capacity of the topsoil layer shall be maintained by minimizing soil compaction or reestablishing natural soil structure and infiltrative capacity on all areas of the project area not covered by impervious surfaces.
- (4) Erosion and sediment control that meets requirements of FWRC Title [16](#).
- (5) All fill material used must be nondissolving and nondecomposing. The fill material must not contain organic or inorganic material that would be detrimental to water quality or the existing habitat.
- (6) The applicant may deposit dredge spoils on the subject property only if part of an approved development on the subject property.
- (7) The applicant shall stabilize all areas left exposed after clearing and grading activities with native vegetation normally associated with the stream or buffer area.

(Ord. No. 15-797, § 22, 6-16-15.)

19.145.350 Regulated lake buffers.

- (1) No development may take place within regulated lakes or within buffer areas from regulated lakes except as allowed in this chapter.

(2) All areas landward 25 feet in every direction from the ordinary high water mark of a regulated lake are within the buffer area from a regulated lake.

(Ord. No. 15-797, § 22, 6-16-15.)

19.145.360 Development waterward of the ordinary high water mark of regulated lakes.

This section regulates structures, improvements and activities waterward of the ordinary high water mark of regulated lakes. Responses to decisional criteria and design requirements within this section shall be included in the critical areas report.

(1) *Dredging and filling.* Dredging activities necessary to prevent eutrophication may be authorized by the director with a critical areas report that demonstrates the appropriate need and method of dredging.

(2) *Structures and improvements.* The only structures or improvements that may be located waterward of the ordinary high water mark of a regulated lake are moorage structures. The city will review and decide upon any proposal for a moorage structure waterward of the ordinary high water mark using process III in Chapter [19.65](#) FWRC. The city may grant a request under this section if the moorage structure is accessory to a dwelling unit or public park on the subject property and no significant habitat area will be damaged by its construction or use. A moorage structure, if permitted, may not extend waterward further than is reasonably necessary to function properly, but in no event more than 200 feet waterward of the ordinary high water mark. Moorage structures may not be treated with creosote, oil base or other toxic substances. The top of the moorage structure may not be more than two feet above the elevation of the ordinary high water mark.

(Ord. No. 15-797, § 22, 6-16-15.)

19.145.370 Development within regulated lake buffers.

No development may be located or take place within the buffer area from a regulated lake except as allowed in this section. Responses to decisional criteria and design requirements within this section shall be included in the critical areas report.

(1) *Landscaping and clearing and grading.* Except as otherwise specifically permitted in this section, the buffer area from a regulated lake may not be covered with an impervious surface. Installation and maintenance of normal residential or park-like landscaping may take place within the required buffer area; provided, that no fertilizers, pesticides or other chemicals or substances are applied within the buffer area that will degrade water quality or hasten eutrophication of the lake. Development beyond installation and maintenance of normal residential or park-like landscaping may only be permitted within the buffer area if approved through use process III in Chapter [19.65](#) FWRC based on the following criteria:

(a) The proposed development is necessary for the reasonable use of the subject property.

(b) The proposed development will not increase or decrease the size of the regulated lake.

(c) The proposed development will not change the points where any water enters or leaves the subject property nor in any way change drainage patterns to or from adjacent properties.

(d) The proposed development will not be detrimental to water quality or habitats in or around the lake.

(2) *Minor structures and improvements.* Minor improvements such as walkways, benches, platforms for storage of boats and storage lockers for paddles, oars, life preservers and similar boating equipment may be located within the buffer area if approved through use process I in Chapter [19.55](#) FWRC based on the following criteria:

(a) The minor improvement will not adversely affect water quality.

(b) The minor improvement will not destroy nor damage a significant habitat area.

(c) The minor improvement will not adversely affect drainage or stormwater retention capabilities.

(d) The minor improvement will not be materially detrimental to any other property in the area of the subject property nor to the city as a whole.

(3) *Other intrusions.*

(a) Where the properties immediately abutting the subject property have dwelling units that extend into the buffer area, the applicant may construct a dwelling unit on the subject property that extends into this buffer area to the extent permitted in subsection (3)(b) of this section.

(b) Where subsection (3)(a) of this section applies, the dwelling unit on the subject property may be no closer to the ordinary high water mark of the regulated lake than the average of the distance of the two dwelling units on the properties immediately abutting the subject property. If one of the properties immediately abutting the subject property does not contain a dwelling unit or the dwelling unit on that abutting property is more than 25 feet from the ordinary high water mark of the regulated lake, the setback of the dwelling unit on that lot will be presumed to be 25 feet for the purposes of calculating the permissible location for the dwelling unit on the subject property under this section.

(4) *Revegetation.* The applicant shall stabilize all areas left exposed after land surface modification with appropriate vegetation.

(Ord. No. 15-797, § 22, 6-16-15.)

19.145.380 Regulated lake bulkheads.

(1) *General.* A bulkhead is permitted within or adjacent to a regulated lake subject to the provisions of this section.

(2) *Required permit.* The city will review and decide upon an application under this section using process III in Chapter 19.65 FWRC. Responses to decisional criteria and design requirements within this section shall be included in the critical areas report.

(3) *Criteria.* The city may permit a bulkhead to be constructed only if:

(a) The bulkhead is needed to prevent significant erosion.

(b) The use of vegetation or soft stabilization techniques will not sufficiently stabilize the shoreline to prevent the significant erosion.

(4) *Design features.* A bulkhead may not be located between a regulated lake and a wetland. Changes in the horizontal or vertical configuration of the land must be kept to a minimum. The bulkhead must be designed to minimize the transmittal of wave energy to other properties.

(Ord. No. 15-797, § 22, 6-16-15.)

19.145.390 Fish protection measures.

(1) All activities, uses, and alterations proposed to be located in water bodies used by 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, the following standards:

(a) Activities shall be timed to occur only during the allowable work window as designated by the Washington Department of Fish and Wildlife;

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

(c) Any impacts to the functions or values of the habitat conservation area are mitigated in accordance with an approved critical area report.

(2) Structures that prevent the migration of fish shall not be allowed in the portion of water bodies currently or historically used by 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.

(Ord. No. 15-797, § 22, 6-16-15.)

19.145.400 Endangered, threatened, and sensitive species protection measures.

(1) No development shall be allowed within a habitat conservation area or buffer where state or federally endangered, threatened, or sensitive species have a primary association, except that which is provided for by a management plan established by Washington Department of Fish and Wildlife or applicable state or federal agency.

(2) Whenever activities are proposed adjacent to a habitat conservation area where state or federally endangered, threatened, or sensitive species have a primary association, such area shall be protected through the application of protection measures in accordance with a critical area report prepared by a qualified professional and approved by the city. Approval for alteration of land adjacent to the habitat conservation area or its buffer shall not occur prior to consultation with the Washington Department of Fish and Wildlife and other appropriate federal or state agencies.

(Ord. No. 15-797, § 22, 6-16-15.)

Article IV. Wetlands

19.145.410 Wetland identification and delineation.

(1) *Generally.* Identification of wetlands and delineation of their boundaries pursuant to this chapter shall be done in accordance with the approved federal wetland delineation manual and applicable regional supplements. All areas within the city meeting the wetland designation criteria are hereby designated critical areas and are subject to the provisions of this chapter. Wetland delineations are valid for five years; after such date the city shall determine whether a revision or additional assessment is necessary.

(2) *Evaluation.* If the city determines that a wetland may exist on or within 225 feet of the subject property, the director may require the applicant to submit a wetland report prepared by a qualified professional. The written report and the accompanying plan sheets shall contain the following information:

(a) Critical area report information identified in FWRC 19.145.080.

(b) Identification of all local, state, and/or federal wetland related permit(s) required for the proposal.

(c) Documentation of fieldwork, including field data sheets, rating system forms, and baseline hydrologic data.

(d) Description of the methodologies used to conduct the wetland delineations, rating system forms, or impact analyses, including references.

(e) Identification and characterization of all wetlands and buffers on and within 225 feet of the subject property. For off-site areas with limited or no access, estimate conditions using best available information.

(f) Provide the following for each wetland identified on and/or within 225 feet of the subject property. Acreage estimates, classifications, and ratings shall be based on entire wetland complexes, not only the portion present on the subject property:

- (i) Wetland rating and score for each function;
- (ii) Required buffers;
- (iii) Hydrogeomorphic classification;
- (iv) Wetland acreage;
- (v) Cowardin classification of vegetation communities;
- (vi) Habitat elements;
- (vii) Soil conditions based on site assessment and/or soil survey information; and
- (viii) To the extent possible, hydrologic information such as location and condition of inlet/outlets, estimated water depths within the wetland, and estimated hydroperiod patterns based on visual cues (e.g., algal mats, drift lines, and flood debris).

(g) An evaluation of the functions of the wetland and adjacent buffer. Include reference for the method used and data sheets.

(Ord. No. 15-797, § 22, 6-16-15.)

19.145.420 Wetland rating and buffers.

(1) *Rating.* Wetlands shall be rated according to the Washington Department of Ecology wetland rating system, as set forth in the Washington State Wetland Rating System for Western Washington – 2014 Update (Ecology Publication No. 14-06-029, or as revised and approved by Ecology), which contains the definitions and methods for determining whether the criteria below are met:

(a) Category I wetlands represent a unique or rare wetland type; are more sensitive to disturbance than most wetlands; are relatively undisturbed and contain ecological attributes that are impossible to replace within a human lifetime; or provide a high level of function. The following types of wetlands are Category I:

(i) Wetlands of high conservation value that are identified by scientists of the Washington Natural Heritage Program/Department of Natural Resources;

(ii) Bogs;

(iii) Wetlands with mature and old growth forests larger than one acre; and

(iv) Wetlands that perform functions at high levels (wetlands that score 23 points or more based on functions).

(b) Category II wetlands are difficult, though not impossible, to replace, and provide high levels of some functions. Category II wetlands are those wetlands that score between 20 and 22 points based on functions.

(c) Category III wetlands are wetlands with a moderate level of functions that score between 16 and 19 points based on functions.

(d) Category IV wetlands are wetlands with the lowest level of functions (scoring less than 16 points based on functions) and are often heavily disturbed.

(2) Wetland buffers shall be measured perpendicular from the wetland boundary as delineated and marked in the field. Buffer widths are established as follows: ~~based upon the following requirements below:~~

Wetland Category	Minimum Buffer Width (wetland scores 3—4 habitat points)	Buffer Width (wetland scores 5 habitat points)	Buffer Width (wetland scores 6—7 habitat points)	Buffer Width (wetland scores 8—9 habitat points)
Category I: Bogs and wetlands of high conservation value	190 feet	190 feet	190 feet	225 feet
Category I: Forested and based on function score	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	40 feet	40 feet	40 feet	40 feet

Table 1

Wetland Category	Buffer Width (wetland scores 3-5 habitat points)	Buffer Width (wetland scores 6 – 7 habitat points)	Buffer Width (wetland scores 8 – 9 habitat points)
Category I: Bogs and wetlands of high conservation value	190 feet	190 feet	225 feet
Category I: Forested and based on function score	75 feet	110 feet	225 feet
Category II	75 feet	110 feet	225 feet
Category III	60 feet	110 feet	225 feet
Category IV	40 feet	40 feet	40 feet

(a) For wetlands that score 6 points or more for habitat function, the buffers under ~~FWRC 19.145.420(2)~~ Table 1 can be used if the following criteria are met:

(i) A relatively undisturbed, vegetated corridor at least 100 feet wide is protected between the wetland and any other Priority Habitats located on the subject property as defined by the Washington State Department of Fish and Wildlife. The latest definitions of priority habitats and their locations are available on the WDFW web site at: <http://wdfw.wa.gov/hab/phshabs.htm>. The corridor must be protected for the entire distance between the wetland and the Priority Habitat by some type of legal protection such as a conservation easement. Presence or absence of a nearby habitat must be confirmed by a qualified biologist.

(ii) If no option for providing a corridor is available, the buffers above may be used with the required buffer impact minimization measures in under FWRC 19.145.420(d) alone.

(iii) ~~Required~~ All wetland buffer impact minimization measures in Table 2, where applicable, ~~are as follows~~ required to be implemented.

(b) For wetlands that score 3-5 habitat points, only the measures in Table 2 are required for the use of buffer in Table 1.

If mitigation measures in Table 2 are not provided, or are unable to provide a protected corridor where available, then Table 3 buffers are required.

Table 2

Disturbance	Required Measures to Minimize Impacts
<u>Lights</u>	<ul style="list-style-type: none"> • <u>Direct lights away from wetland</u>
<u>Noise</u>	<ul style="list-style-type: none"> • <u>Locate activity that generates noise away from wetland</u> • <u>If warranted, enhance existing buffer with native vegetation plantings adjacent to noise source</u> • <u>For activities that generate relatively continuous, potentially disruptive</u>

<u>Disturbance</u>	<u>Required Measures to Minimize Impacts</u>
	<u>noise, such as certain heavy industry or mining, establish an additional 10' heavily vegetated buffer strip immediately adjacent to the outer wetland buffer</u>
<u>Toxic runoff</u>	<ul style="list-style-type: none"> <u>Route all new, untreated runoff away from wetland while ensuring wetland is not dewatered</u> <u>Establish covenants limiting use of pesticides within 150 feet of wetland</u> <u>Apply integrated pest management</u>
<u>Stormwater runoff</u>	<ul style="list-style-type: none"> <u>Retrofit stormwater detention and treatment for roads and existing adjacent development</u> <u>Prevent channelized flow from lawns that directly enters the buffer</u> <u>Use Low Intensity Development (LID) techniques where appropriate (for more information refer to the drainage ordinance and manual)</u>
<u>Change in water regime</u>	<ul style="list-style-type: none"> <u>Infiltrate or treat, detain, and disperse into buffer new runoff from impervious surfaces and new lawns</u>
<u>Pets and human disturbance</u>	<ul style="list-style-type: none"> <u>Use privacy fencing OR plant dense vegetation to delineate buffer edge and to discourage disturbance using vegetation appropriate for the ecoregion</u> <u>Place wetland and its buffer in a separate tract or protect with a conservation easement</u>
<u>Dust</u>	<ul style="list-style-type: none"> <u>Use best management practices to control dust</u>

(2) The following wetland buffer requirements if habitat corridor is not provided per FWRC 19.145.420(2)(a)(i) or minimization measures per ~~FWRC 19.145.420(2)(a)(iii)~~ Table 2 are not implemented:

Table 3

<u>Wetland Category</u>	<u>Buffer Width (wetland scores 3-5 habitat points)</u>	<u>Buffer Width (wetland scores 6 – 7 habitat points)</u>	<u>Buffer Width (wetland scores 8 – 9 habitat points)</u>
<u>Category I: Bogs and wetlands of high conservation value</u>	<u>250 feet</u>	<u>250 feet</u>	<u>300 feet</u>
<u>Category I: Forested and based on function score</u>	<u>100 feet</u>	<u>150 feet</u>	<u>300 feet</u>
<u>Category II</u>	<u>100 feet</u>	<u>150 feet</u>	<u>300 feet</u>
<u>Category III</u>	<u>80 feet</u>	<u>150 feet</u>	<u>225 feet</u>
<u>Category IV</u>	<u>50 feet</u>	<u>50 feet</u>	<u>50 feet</u>

- (3) No wetland buffer is required for those isolated wetlands 1,000 square feet or less in total area.
 - (4) All compensatory mitigation sites shall have buffers consistent with the buffer requirements of this section. Buffers shall be based on the expected or target category of the proposed wetland mitigation site.
 - (5) Lighting shall be directed away from wetland buffers unless otherwise determined by the director.
 - (6) All lots approved in a recorded subdivision or binding site plan that contain wetlands and their associated buffer in a native growth protection easement or tract may be improved pursuant to easement or tract boundaries established in the plat regardless of subsequent regulatory buffer increases or natural migration.
 - (7) All wetland and wetland buffer boundaries shown on an approved use process decision and/or building permit shall be honored regardless of subsequent regulatory buffer increases or natural migration.
- (Ord. No. 15-797, § 22, 6-16-15.)

19.145.430 Development within wetlands.

- (1) *Generally.* No development or improvement may be located within a wetland except as provided in this section.
- (2) *Development within wetlands.* The specific location and extent of development within a wetland must constitute the minimum necessary encroachment as determined through application of mitigation sequencing set forth in FWRC 19.145.130. The city will review and decide upon development within a wetland using process IV in Chapter 19.70 FWRC, based on the following criteria:
 - (a) It will not adversely affect drainage or stormwater retention capabilities;
 - (b) It will not lead to unstable earth conditions nor create erosion hazards;
 - (c) It will not be materially detrimental to any other property in the area of the subject property nor to the city as a whole, including the loss of open space;
 - (d) It will result in no net loss of wetland area, function or value upon completion of compensatory mitigation;
 - (e) The project is in the best interest of the public health, safety or welfare;
 - (f) The applicant has demonstrated sufficient scientific expertise and supervisory capability to carry out the project; and
 - (g) The applicant is committed to monitoring the project and to making corrections if the project fails to meet projected goals.

(3) *Requirements for compensatory mitigation.* Compensatory mitigation shall be used only for impacts that cannot be avoided or minimized and shall achieve equivalent or greater biologic functions. Compensatory mitigation plans shall be consistent with Wetland Mitigation in Washington State – Part 2: Developing Mitigation Plans – Version 1 (Ecology Publication No. 06-06-011b or as revised), and Selecting Wetland Mitigation Sites Using a Watershed Approach (Western Washington) (Ecology Publication No. 09-06-32).

(4) *Mitigation.* Acceptable methods to mitigate wetland impacts include creation, re-establishment, rehabilitation, and enhancement of in-kind wetland types within the same drainage basin that results in no net loss of wetland area, function, or value. If approved by the city, the applicant may locate a portion or all of the compensatory mitigation using alternative mitigation including, but not limited to, an approved and certified in-lieu fee program or mitigation bank, and/or advanced mitigation if it is determined that off-site, out-of-basin, and/or out-of-kind mitigation would provide a greater overall benefit to the watershed and not result in adverse impacts to the city's stormwater management system and/or wildlife habitat. Alternative mitigation methods are discretionary and may become an option following an operating agreement between the city and mitigation receiving area.

(a) *In-lieu fee.* Credits from an in-lieu fee program approved under state and federal rules may be used at the discretion of the city and when all of the following are met:

- (i) The city determines that it would provide environmentally appropriate compensation for the proposed impacts;
- (ii) The proposed use of credits is consistent with the terms and conditions of the approved in-lieu fee program instrument; and
- (iii) The compensatory mitigation agreement occurs in advance of the authorized impacts.

(b) *Mitigation bank.* Credits from a wetland mitigation bank that is certified under state rules may be used at the discretion of the city and when all of the following are met:

- (i) The city determines that it would provide environmentally appropriate compensation for the proposed impacts;
- (ii) The proposed use of credits and replacement ratios are consistent with the terms and conditions of the certified bank instrument; and
- (iii) The compensatory mitigation agreement occurs in advance of the authorized impacts.

(c) *Advance mitigation.* Mitigation for projects with pre-identified impacts to wetlands may be constructed in advance of the impacts at the discretion of the city and if the mitigation is

implemented according to federal rules, state policy on advance mitigation, and state water quality regulations.

(5) *Wetland mitigation ratios.* The following are ratios for providing creation, re-establishment, rehabilitation, or enhancement of impacted wetlands. Ratios for rehabilitation and enhancement may be reduced when combined with 1:1 replacement through creation or re-establishment pursuant to Table 1a, Wetland Mitigation in Washington State – Part 1: Agency Policies and Guidance –Version 1 (Ecology Publication No. 06-06-011a, or as revised). Creation, re-establishment, rehabilitation, and enhancement definitions and intent shall be pursuant to Ecology Publication No. 06-06-011a, or as revised.

Category and Type of Wetland	Creation or Re-establishment	Rehabilitation	Enhancement
Category I: High conservation value and bogs	Not considered possible	Case-by-case	Case-by-case
Category I: Mature and old growth forests greater than one acre	6:1	12:1	24:1
Category I: Based on functions	4:1	8:1	16:1
Category II	3:1	6:1	12:1
Category III	2:1	4:1	8:1
Category IV	1.5:1	3:1	6:1

Mitigation requirements may also be determined using the credit/debit tool described in Calculating Credits and Debits for Compensatory Mitigation in Wetlands of Western Washington: Final Report (Ecology Publication No. 10-06-011, or as revised) if approved by the director.

(6) *Compensatory mitigation plan.* As part of any request under this section, the applicant shall submit a mitigation plan prepared by a qualified professional that includes the following minimum standards:

- (a) Contents of wetland delineation report identified in FWRC 19.145.410(2).
- (b) Compensatory mitigation written report and plan sheets. Full guidance on the following report requirements can be found in Wetland Mitigation in Washington State – Part 2: Developing Mitigation Plans (Version 1) (Ecology Publication No. 06-06-011b, or as revised):
 - (i) Description of how the project design has been modified to avoid, minimize, or reduce adverse impacts to wetlands;

(ii) Description of the existing wetland and buffer areas proposed to be altered. Include acreage, water regime, vegetation, soils, landscape position, surrounding land uses, and functions. Describe impacts in terms of acreage by Cowardin classification, hydrogeomorphic classification, and wetland rating;

(iii) Description of the compensatory mitigation site, including location and rationale for selection. Include an assessment of existing condition: acreage of wetlands and uplands, water regime, sources of water, vegetation, soils, landscape position, surrounding land uses, and functions;

(iv) Description of the proposed actions for compensation of wetland and upland areas affected by the project. Include overall goals of the proposed mitigation, including a description of the targeted functions, hydrogeomorphic classification, and categories of wetlands;

(v) Description of the proposed mitigation construction activities and timing of activities;

(vi) Discussion of ongoing management practices that will protect wetlands after the subject property has been developed, including proposed monitoring and maintenance programs; and

(vii) Bond estimate for the entire compensatory mitigation project, including the following elements: site preparation, plant materials, construction materials, installation oversight, maintenance twice per year for up to five years, annual monitoring field work and reporting, and contingency action for a maximum of the total required number of years for monitoring.

(c) Scaled plan sheets for the compensatory mitigation that contains the following contents:

(i) Surveyed edges of the existing wetland and buffer, proposed areas of wetland impacts, location of proposed wetland compensation actions.

(ii) Existing and proposed topography measured at two-foot intervals in the proposed compensation area. Existing and proposed cross sections of the proposed compensation area and impact area measured in one-foot intervals.

(iii) Surface and subsurface hydrologic conditions, including an analysis of existing and proposed hydrologic regimes for enhanced, created, or restored compensatory mitigation areas. Illustrations of how data for existing hydrologic conditions were used to determine the estimates of future hydrologic conditions.

(iv) Conditions expected from the proposed actions on site, including hydrogeomorphic types, vegetation community types by dominant species (wetland and upland), and future water regimes.

(v) Required wetland buffers for existing wetlands and proposed compensation areas.

(vi) Plant schedule for compensation area, including all species by proposed community type and water regime, size and type of plant material to be installed, spacing of plants, typical clustering patterns, total number of each species by community type, and timing of installation.

(vii) Performance standards that provide measurable benchmarks reflective of years post-installation for upland and wetland communities, monitoring schedule, and maintenance schedule.

(d) Alternative mitigation plans (in-lieu fee, mitigation banks, and advanced mitigation) shall provide items (6)(a), (b)(i) and (ii) from this section, responses to subsection (4)(a), (b), or (c) of this section, and any other information deemed necessary by the city to adequately consider the alternative mitigation proposal.

(7) *Monitoring.* Mitigation monitoring shall be required for a minimum of five years to establish that performance standards have been met. The mitigation plan shall include monitoring elements that ensure certainty of success for the proposal's natural resource values and functions. The applicant remains responsible for restoration of the natural resource values and functions if the mitigation goals are not obtained with the five-year monitoring period. Additional monitoring and corrective actions may be required by the director in order to meet goals within the approved mitigation plan.

(Ord. No. 15-797, § 22, 6-16-15.)

19.145.440 Development within wetland buffers.

(1) *Generally.* Except as allowed in this section, no development or improvement may be located within a wetland buffer.

(2) *Trails.* The director may provide written approval for passive pedestrian recreation facilities designed in accordance with an approved critical area report and the following standards:

(a) Trails are composed of pervious surfaces no more than five feet in width. Raised boardwalks and wildlife viewing structures composed of non-treated pilings may also be considered;

(b) Trails are generally located parallel to the perimeter of the wetland and within the outer 25 percent of the buffer; and

(c) Trails shall avoid the removal of mature trees.

(3) *Stormwater management facilities.* The director may provide written approval for stormwater management facilities limited to stormwater dispersion outfalls and bioswales within the outer 25 percent of the buffer of category III and IV wetlands if the location of such facilities will not degrade the functions or values of the wetland.

(4) *Permanently altered buffer.* The director may provide written approval for a buffer reduction when existing conditions are such that portions of the required buffer exist in a permanently altered state (e.g., roadways, paved parking lots, and permanent structures) and do not provide any buffer function. The buffer may be reduced up to the area where the altered conditions exist.

(5) *Buffer averaging.* The city will review and decide upon buffer averaging using process III in Chapter 19.65 FWRC, based on the following criteria that shall be added to the critical areas report:

(a) The total area of the buffer after averaging is equal to the area required without averaging;

(b) The buffer is increased adjacent to the higher functioning area of habitat or more sensitive portion of the wetland and decreased adjacent to the lower functioning or less sensitive portion;

(c) The buffer at its narrowest point is not reduced to less than 75 percent of the required width; and

(d) Unless authorized in writing by a consenting neighboring property owner, the averaging will remain on the subject property.

~~(6) *Buffer reduction with enhancement.* Buffers may be reduced by up to 25 percent on a case-by-case basis if the project includes a buffer enhancement plan that clearly substantiates that an enhanced buffer will improve and provide additional protection of wetland functions and values. Buffer reductions may not be used in combination with buffer averaging. The city will review and decide upon buffer reductions using process III in Chapter 19.65 FWRC, based on the following criteria:~~

~~(a) It will not adversely affect water quality;~~

~~(b) It will not adversely affect the existing quality of the wetland or buffer wildlife habitat;~~

~~(c) It will not adversely affect drainage or stormwater retention capabilities;~~

~~(d) It will not lead to unstable earth conditions nor create erosion hazards;~~

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

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

A buffer enhancement plan, prepared by a qualified professional, shall be incorporated into the critical area report. The plan shall assess the habitat, water quality, stormwater retention, groundwater recharge, and erosion protection functions of the existing buffer; assess the effects of the proposed modification on those functions; and address the six approval criteria of this section.

(7) *Buffer increases.* The director shall require increased buffer widths, on a case-by-case basis, when a larger buffer is necessary to protect functions, values or hazards based on site-specific conditions. This determination shall be supported by appropriate documentation showing that additional buffer width is reasonably related to protection of the functions and values of the wetland, and/or protection of public health, safety and welfare. Such determination shall be attached as permit conditions. The determination must include but not be limited to the following criteria:

(a) The wetland contains habitat for species listed as threatened, endangered, candidate, sensitive, monitored, or documented priority species or habitats by state or federal agencies, and additional buffer is necessary to maintain viable functional habitat;

(b) The adjacent land is susceptible to severe erosion, and erosion control measures will not effectively prevent adverse wetland impacts; or

(c) The adjacent land has minimal vegetative cover or slopes greater than 30 percent.

(Ord. No. 15-797, § 22, 6-16-15.)

Article V. Critical Aquifer Recharge Areas

19.145.450 Designation.

This article regulates development located within designated capture zones. Six-month, one-year, five-year, and 10-year capture zones are designated as critical aquifer recharge areas under the provisions of the Growth Management Act (Chapter 36.70A RCW) and are established based on proximity to and travel time of groundwater to the city's public water source wells.

(Ord. No. 15-797, § 22, 6-16-15.)

19.145.460 Classification of capture zones.

As required by WAC 365-196-485(1)(d) (Critical Areas), the City shall protect the quality and quantity of ground water used for public water supplies.

The Lakehaven Utility District (“LUD”) has designated four capture zones based on proximity to and travel time of groundwater to the city’s public water source wells Group A and Group B public water supplies.

(1) Six-month capture zone represents the land area overlaying the six-month time-of-travel zone of any public water source well owned by LUD.

(2) One-year capture zone represents the land area overlaying the one-year time-of-travel zone of any public water source well owned by LUD, excluding the land area contained in the six-month capture zone.

(3) Five-year capture zone represents the land area overlaying the five-year time-of-travel zone of any public water source well owned by LUD, excluding the land area contained in the six-month and one-year capture zones.

(4) Ten-year capture zone represents the land area overlaying the 10-year time-of-travel zone of any public water source well owned by LUD, excluding the land area contained in the six-month, one-year, and five-year capture zones.

(Ord. No. 15-797, § 22, 6-16-15.)

19.145.470 General requirements.

(1) Development that will not cause contaminants to enter the aquifer may be permitted in critical aquifer recharge areas.

(2) The city shall impose development conditions to prevent degradation of critical aquifer recharge areas. Development conditions shall be based on all known, available, and reasonable methods of prevention, control and treatment (“AKART”).

(3) The proposed activity must comply with the water source protection requirements and recommendations of the Federal Environmental Protection Agency, State Department of Ecology, State Department of Health, and Public Health – Seattle and King County.

(4) The proposed activity must be designed and constructed in accordance with the King County Surface Water Design Manual (“KCSWDM”), the Federal Way Addendum to the KCSWDM, and the King County Stormwater Pollution Control Manual (“BMP Manual”), as amended.

(Ord. No. 15-797, § 22, 6-16-15.)

19.145.480 Prohibited development in six-month and one-year capture zones.

(1) Development that poses a significant hazard to the city’s groundwater resources resulting from storing, handling, treating, using, producing, recycling, or disposing of hazardous materials or other deleterious

substances shall be prohibited in six-month and one-year capture zones, except as specified in FWRC 19.30.170. These land uses and activities include, but are not limited to:

- (a) On-site community sewage disposal systems as defined in Chapter 248-272 WAC;
- (b) Hazardous liquid pipelines as defined in Chapter 81.88 RCW;
- (c) Solid waste landfills;
- (d) Solid waste transfer stations;
- (e) Liquid petroleum refining, reprocessing, and storage;
- (f) The storage or distribution of gasoline treated with the additive methyl tertiary butyl ether;
- (g) Hazardous waste treatment, storage, and disposal facilities (except those defined under permit by rule for industrial wastewater treatment processes per WAC 173-303-802(5)(c));
- (h) Chemical manufacturing, including but not limited to organic and inorganic chemicals, plastics and resins, pharmaceuticals, cleaning compounds, paints and lacquers, and agricultural chemicals;
- (i) Dry cleaning establishments using the solvent perchloroethylene;
- (j) Primary and secondary metal industries that manufacture, produce, smelt, or refine ferrous and nonferrous metals from molten materials;
- (k) Wood treatment facilities, including wood preserving and wood products preserving;
- (l) Mobile fleet fueling operations;
- (m) Mining (metal, sand, and gravel); and
- (n) Other land uses and activities that the city determines would pose a significant groundwater hazard to the city's groundwater supply.

(2) The uses listed in subsection (1)(a) through (n) of this section represent the state of present knowledge and most common description of said uses. As other polluting uses are discovered, or other terms of description become necessary, they will be added to the list of uses prohibited within these zones.

(Ord. No. 15-797, § 22, 6-16-15.)

19.145.490 Development within critical aquifer recharge areas.

(1) Any proposed development located in critical aquifer recharge areas shall submit a hazardous materials inventory statement with a permit, land use, or business license application. Ongoing operation and maintenance activities of public wells by public water providers are exempt from these requirements.

(2) The city will review the hazardous materials inventory statement along with the permit, land use, or business license application to determine whether hazardous materials will be used, stored, transported or disposed of in connection with the proposed activity. The city shall make the following determinations and apply the appropriate capture zone protection measures:

(a) No hazardous materials are involved;

(b) Hazardous materials are involved; however, existing laws or regulations adequately mitigate any potential impact, and documentation is provided to demonstrate compliance; or

(c) Hazardous materials are involved and the proposal has the potential to significantly impact critical aquifer recharge areas. The city may require a hydrogeologic assessment with a critical areas report to be prepared by a qualified professional in order to determine the potential impacts of contamination on the aquifer. The report shall include the following site and proposal-related information:

(i) Information regarding geologic and hydrogeologic characteristics of the site, including the surface location of the capture zone in which it is located and the type of infiltration of the site.

(ii) Groundwater depth, flow direction, and gradient.

(iii) Location of other critical areas, including surface waters, within 200 feet of the site.

(iv) Best management practices and integrated pest management proposed to be used, including:

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

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

(C) Predictive evaluation of changes in the infiltration/recharge rate.

(3) A spill containment and response plan may be required to identify equipment and/or structures that could fail, and shall include provisions for inspection as required by the applicable state regulations.

(4) A groundwater monitoring plan may be required to monitor quality and quantity of groundwater, surface water runoff, and/or site soils. The city may require the owner of a facility to install one or more groundwater monitoring wells to accommodate the required groundwater monitoring. Criteria used to determine the need for site monitoring shall include, but not be limited to, the proximity of the facility to production or monitoring wells, the type and quantity of hazardous materials on site, and whether or not the hazardous materials are stored in underground vessels.

(5) The city may employ an outside consultant at the applicant's expense for third-party review of the critical areas report, hydrogeologic assessment, the spill containment and response plan, and the groundwater monitoring plan.

(Ord. No. 15-797, § 22, 6-16-15.)

19.145.500 Capture zone protection measures.

(1) Any new or existing use applying for a building permit, land use, or subdivision approval within six-month and one-year capture zones that involves storing, handling, treating, using, producing, recycling, or disposing of hazardous materials or other deleterious substances shall comply with the following standards:

(a) *Secondary containment.*

(i) The owner or operator of any facility or activity shall provide secondary containment for hazardous materials or other deleterious substances in quantities specified in the International Fire Code.

(ii) Hazardous materials stored in tanks that are subject to regulation by the Washington State Department of Ecology under Chapter [173-360 WAC](#) (Underground Storage Tank Regulations) are exempt from the secondary containment requirements of this section; provided, that documentation is provided to demonstrate compliance with those regulations.

(b) Design and construction of new stormwater infiltration systems must address site-specific risks of releases posed by all hazardous materials on site. These risks may be mitigated by physical design means, or equivalent best management practices, in accordance with an approved hazardous materials management plan. Design and construction of said stormwater infiltration systems shall also be in accordance with the King County Surface Water Design Manual, as amended by the city of Federal Way, and shall be certified for compliance with the requirements of this section by a professional engineer or engineering geologist registered in the state of Washington.

(c) The following standards shall apply to construction activities occurring where construction vehicles will be refueled on site, and/or hazardous materials will be stored, dispensed, used, or handled on the construction site. As part of the city's project permitting process, the city may require any or all of the following items:

- (i) Detailed monitoring and construction standards;
- (ii) Designation of a person on site during operating hours who is responsible for supervising the use, storage, and handling of hazardous materials, and who has appropriate knowledge and training to take mitigating actions necessary in the event of a fire or spill;
- (iii) Hazardous material storage, dispensing, refueling areas, and use and handling areas shall be provided with secondary containment adequate to contain the maximum release from the largest volume container of hazardous materials stored at the construction site;
- (iv) Practices and procedures to ensure that hazardous materials left on site when the site is unsupervised are inaccessible to the public. Locked storage sheds, locked fencing, locked fuel tanks on construction vehicles, or other techniques may be used to preclude access;
- (v) Practices and procedures to ensure that construction vehicles and stationary equipment that are found to be leaking fuel, hydraulic fluid, and/or other hazardous materials will be removed immediately, or repaired on site immediately. The vehicle or equipment may be repaired in place, provided the leakage is completely contained;
- (vi) Practices and procedures to ensure that storage and dispensing of flammable and combustible liquids from tanks, containers, and tank trucks into the fuel and fluid reservoirs of construction vehicles or stationary equipment on the construction site are in accordance with the International Fire Code; and
- (vii) Practices and procedures, and/or on-site materials adequate to ensure the immediate containment and cleanup of any release of hazardous substances stored at the construction site. On-site cleanup materials may suffice for smaller spills whereas cleanup of larger spills may require a subcontract with a qualified cleanup contractor. Releases shall immediately be contained, cleaned up, and reported if required according to state requirements.

(2) Development within all capture zones, that involves storing, handling, treating, using, producing, recycling, or disposing of hazardous materials, or other deleterious substances, shall comply with the following standards:

(a) Fleet and automotive service station fueling, equipment maintenance, and vehicle washing areas shall have a containment system for collecting and treating all runoff from such areas and preventing release of fuels, oils, lubricants, and other automotive fluids into the soil, surface water, or groundwater. Appropriate emergency response equipment shall be kept on site during the transfer, handling, treatment, use, production, recycling, or disposal of hazardous materials or other deleterious substances.

(b) Secondary containment or equivalent best management practices, as approved by the director, shall be required at loading and unloading areas that store, handle, treat, use, produce, recycle, or dispose of hazardous materials, or other deleterious substances.

(c) Fill material shall not contain concentration of contaminants that exceed cleanup standards for soil as specified in the Model Toxics Control Act. An imported fill source statement is required for all projects where more than 100 cubic yards of fill will be imported to a site. The city may require analytical results to demonstrate that fill materials do not exceed cleanup standards. The imported fill source statement shall include:

- (i) Source location of imported fill;
- (ii) Previous land uses of the source location; and
- (iii) Whether or not fill to be imported is native, undisturbed soil.

(d) All development or redevelopment shall implement best management practices (“BMPs”) for water quality and quantity, as approved by the director. Such practices include biofiltration swales and use of oil-water separators, BMPs appropriate to the particular use proposed, cluster development, and limited impervious surfaces.

(Ord. No. 15-797, § 22, 6-16-15.)

19.145.510 Use of pesticides, herbicides, and fertilizers in critical aquifer recharge areas.

Proposed developments with maintained landscaped areas greater than 10,000 square feet in area shall prepare an operations and management manual using best management practices (“BMPs”) and integrated pest management for fertilizer and pesticide/herbicide applications. The BMPs shall include recommendations on the quantity, timing, and type of fertilizers applied to lawns and gardens to protect groundwater quality.

(Ord. No. 15-797, § 22, 6-16-15.)

Article VI. Frequently Flooded Areas

19.145.520 Frequently flooded areas.

(1) Frequently flooded areas include all areas of special flood hazard as mapped within the city, and other areas that could be threatened by flooding. The areas of special flood hazard are identified by the Federal Emergency Management Agency in a scientific and engineering report entitled "The Flood Insurance Study for Federal Way," dated May 16, 1995, and any revisions thereto, with an accompanying flood insurance rate map, and any revisions thereto. Based on the landscape of the city, frequently flooded areas occur only along the Puget Sound shoreline and are within the jurisdiction of the shoreline master program, Chapter 15.05 FWRC, Shoreline Management.

(2) Development in frequently flooded areas shall be subject to the provisions in FWRC ~~Title 15.~~[Chapter 19.142 Flood Damage Prevention.](#)

(Ord. No. 15-797, § 22, 6-16-15.)

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Cross references: Environmental policy of the city, FWRC Title 14; water quality requirements and surface water, stormwater and other waterways, Chapter 16.45 FWRC; public use easements, FWRC 19.05.330; rezoning of this district to be conducted under the quasi-judicial rezoning procedure, FWRC 19.35.050 et seq.; land modifications, Chapter 19.120 FWRC.