Chapter 21.24
DEVELOPMENT STANDARDS – CRITICAL AREAS

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21.24.010 Purpose.

(1) Introduction. The purpose of this chapter is to designate and classify ecologically critical areas, to protect these areas and their functions and values, and to supplement the development regulations contained within the Woodinville Municipal Code through best available science and additional controls as required by the Growth Management Act. Additionally, this chapter is intended to encourage development that meets the goals and policies of the City of Woodinville Comprehensive Plan. These goals include:

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

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

(a) Protecting members of the public and public resources and facilities from injury, loss of life, property damage or financial loss due to flooding, erosion, landslides, seismic events, soil subsidence or steep slope failures;
Maintaining and protecting healthy, functioning ecosystems through the protection of unique, fragile, and valuable elements of the environment, including ground and surface waters, wetlands, and fish and wildlife and their habitats, and to conserve the biodiversity of plant and animal species;

direc\(\text{c}\) Directing activities not dependent on critical areas resources to less ecologically sensitive areas and mitigating unavoidable impacts to critical areas by regulating alterations in and adjacent to critical areas;

d) Preventing cumulative adverse environmental impact to water quality and availability, net loss of wetlands, streams, lakes, fish and wildlife habitat, and frequently flooded areas, and habitat conservation areas;

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

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

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

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

21.24.030 Critical area maps and inventories.

(1) Critical Areas Map. The approximate location and extent of critical areas are shown on the City's adopted critical areas map. The latest critical areas map is available from the Development Services Department. The maps do not provide a final critical area determination. Adopted critical areas maps include:

(a) Federal Emergency Management Administration flood insurance rate maps;
(b) US Geological Survey landslide hazard, seismic hazard, and volcano hazard maps;
(c) Department of Natural Resources seismic hazard maps for Western Washington;
(d) Department of Natural Resources slope stability map;
(e) National Wetlands Inventory;
(f) Locally adopted maps, including the Critical Aquifers Recharge Areas map and Geologically Hazardous map.

(2) Maps showing critical areas are to be used for guidance purposes only and may be continuously updated as new critical areas are identified. If there is a conflict among the maps, inventory and site-specific features, the actual presence or absence of the features defined in this chapter as critical areas shall govern.

21.24.040 Complete exemptions.
The following activities are exempt from the provisions of this chapter, provided they are otherwise consistent with the provision of other local, state, and federal law requirements:
(1) Emergency actions necessary to prevent an immediate threat to public health, safety and welfare or that pose an imminent risk of damage to public or private property. Alteration undertaken pursuant to this subsection is reported to the City immediately. The impacted critical areas and its buffers shall be fully restored in accordance with a critical areas report and mitigation plan;
(2) Agricultural activities in existence before March 31, 1993, as follows:
   (a) Mowing of hay, grass, or grain crops;
   (b) Tilling, dicing, planting, seeding, harvesting and related activities for pasture, food crops, grass seed or sod if such activities do not take place on steep slopes;
   (c) Normal and routine maintenance of existing irrigation and drainage ditches not used by fish species and do not drain directly into salmon-bearing waterbodies; and
   (d) Normal and routine maintenance of farm ponds, fish ponds, manure lagoons and livestock watering ponds;
(3) Local collection and distribution utility lines, mains, equipment, appurtenances, including electric facilities with an associated voltage of 55,000 volts or less, not including substations; public sewer local collection; public water local distribution; natural gas; cable communications; or telephone facilities. Local collection and distribution utilities may be allowed in critical areas or their buffers, as follows:
   (a) Normal and routine maintenance or repair of existing utility structures;
   b) Relocation of local collection and distribution utility lines when required by a local governmental agency; and
   c) Replacement, operation, repair, modification, installation, or construction in an improved public road right-of-way of local collection and distribution utility lines, when such facilities are located within an improved public road right-of-way or City-authorized private roadway.
(4) Maintenance, operation, repair or replacement of publicly improved roadways or recreation areas, provided any such alteration does not involve the expansion of structures or related improvements into previously unimproved areas of rights-of-way;
(5) Removal of non-native invasive species. Work shall be limited to hand removal of non-native invasive species, unless permits from affected regulatory agencies have been obtained for approved biological or chemical treatments.
(6) Passive recreation, educational and scientific research that do not degrade critical areas or buffers, such as fishing, hiking and bird watching, not including trail building or clearing.

(1) The following are exempt from the provisions of this chapter and any administrative rules promulgated hereunder, except for the notice on title provisions, WMC 21.24.170 through 21.24.180, and the frequently flooded areas provisions, WMC 21.24.350 through 21.24.380:

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

(i) Expansion does not increase the existing footprint of the residence lying within the above-described buffer or building setback area by more than 1,000 square feet over that existing;

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

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

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

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

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

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

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

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

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

21.24.060 Public agency and utility critical areas exceptions.

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

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

(i) There is no other practical alternative to the proposed development with less impact on the critical area;

(ii) The application of this chapter would unreasonably restrict the ability to provide services to the public;

(iii) Any impacts permitted to the critical area are mitigated in accordance with WMC 21.24.140 to the greatest extent possible;

(iv) The proposed development protects critical areas and/or buffer functions and values consistent with best available science; and
(v) The proposed development is consistent with other applicable regulations and requirements.

(c) This exception shall not allow the use of the following critical areas for regional retention/detention facilities except where the applicant can clearly demonstrate that the facility will protect public health and safety or repair damaged natural resources:

(i) Class 1 stream buffers;

(ii) Category I wetland buffers with plant associations of infrequent occurrence; or

(iii) Category I or II wetland buffers, which provide critical or outstanding habitat for herons, raptors or State or Federal designated endangered or threatened species unless clearly demonstrated by the applicant that there will be no impact on such habitat.


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

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

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

(ii) The proposed development does not pose an unreasonable threat to the public health, safety or welfare on or off the development proposal site;

(iii) Any alterations to the critical area shall be the minimum necessary to allow for reasonable use of the property;

(iv) Any impacts permitted to the critical area are mitigated in accordance with WMC 21.24.140 to the greatest extent possible;

(v) The proposed development protects critical areas and/or buffer functions and values consistent with best available science; and

(vi) The proposed development is consistent with other applicable regulations and requirements.

(b) Any authorized alteration of a critical area under this subsection shall be subject to conditions established by the Hearing Examiner to safeguard public health, general welfare and safety..

21.24.080 Subdivisions and density calculations within critical areas.

(1) The intent of this section is to provide for the preservation of critical areas and critical area buffers, flexibility in design, and consistent treatment of different types of development proposals.

(2) The subdivision and short subdivision of land located in geologically hazardous areas, frequently flooded areas, wetlands, streams, and fish and wildlife habitat conservation areas shall be subject to the following:

(a) Land that is located wholly within the critical area or its buffer may not be subdivided.

(b) Land that is located partially within the critical area or its buffer may be divided; provided, that the developable portion of each new lot and its access is located outside of the critical area or its buffer. Each resulting lot shall meet the minimum lot size, and have sufficient buildable area outside of, and will not affect the critical area or its buffer.

(c) Access roads and utilities serving the proposed may be permitted within the critical area and associated buffers only if the city determines that no other feasible alternative exists and when consistent with this chapter.
(3) For single-family residential subdivisions and short plats on sites with critical areas and/or buffers, on-site density credits may be transferred from the critical area to a developable site area. In some cases, the maximum density credits may not be attainable due to other site constraints including but not limited to acreage constraints of the developable site area.

(a) For sites where up to 50 percent of the site is constrained by critical areas, up to 100 percent of the density that could be achieved on the constrained area portion of the site can be transferred to the developable portion of the property.

(b) For sites that are over 50 percent constrained by critical areas, up to 50 percent of the density that could be achieved on the constrained area portion of the site can be transferred to the developable portion of the property;

(5) On-site density transfer is subject to the following:

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

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

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

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

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

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

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

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

(h) No panhandle lots are permitted.

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


(1) The applicant shall disclose to the City the presence of critical areas on the project area and any mapped or identifiable critical areas within 100 feet of the applicant's property.

(2) The owner of any property containing critical areas or buffers on which a development proposal is submitted, except a public right-of-way or the site of a permanent public facility, shall file for record with the King County Auditor a notice approved in form by the City. The
notice shall state the presence of critical areas or buffers on the property, of the application of this chapter to the property, and that limitations on actions in or affecting such critical areas or buffers may exist. The notice shall run with the land and failure to provide such notice to any purchaser prior to transferring interest in the property shall be a violation of this chapter.

(3) The applicant shall submit proof to the City that the notice has been filed prior to approval of a development proposal for the property or, in the case of subdivisions, short subdivisions, and binding site plans, at or before recording.

21.24.100 Critical area determination.

(1) The City shall perform a critical area review for any development permit application or other request for permission to proceed with an alteration on a site that includes a critical area or is within an identified critical area buffer.

(2) As part of the critical area determination, the City shall:
   (a) Determine whether any critical area exists on the property and confirm its nature and type;
   (b) Determine whether a critical area report is required;
   (c) Evaluate the critical area report;
   (d) Determine whether the development proposal is consistent with this chapter;
   (e) Determine whether any proposed alteration to the critical area is necessary; and
   (f) Determine if the mitigation and monitoring plans and bonding measures proposed by the applicant are sufficient to protect the public health, safety and welfare, consistent with the goals, purposes, objectives and requirements of this chapter.


(1) General. An application for a development proposal that includes a critical area buffer shall include a critical area report that uses the best available science to evaluate the proposal and all probable impacts.

(2) Waiver. The Development Services Director may waive the requirement for a report if the applicant demonstrates that:
   (a) There will be no alteration of the critical area or buffer;
   (b) The development proposal will not have an impact on the critical area in a manner contrary to the goals, purposes, objectives and requirements of this chapter; and
   (c) The minimum standards required by this chapter are met.

(3) Report format. The critical areas report shall be in the form of a written document. A critical area report may be combined with any studies required by other laws and regulations. If necessary to ensure compliance with this chapter, additional information from the applicant may be required, separate from the critical areas report. (4) If the development proposal will affect only a part of the development proposal site, the Development Services Director may limit the scope of the required special study to include only that part of the site that may be affected by the development.

(5) Report contents. A critical areas report shall evaluate the proposed project area and critical areas within 300 feet of the project area or have the potential to be affected by this proposal. A critical areas report shall include the following information:
   (a) Identification and characterization of all critical areas within 300 feet of the project area;
   (b) Existing conditions of the critical area, including an assessment of habitat and ecological functions and values;
   (c) Assessment of the impacts of any alteration proposed for a critical area or buffer;
   (d) A scale map of the project area. If only a portion of the development site has been mapped pursuant to WMC 21.24.130, the unmapped portion shall be clearly identified
and labeled on the site plans. The site plans shall be attached to the notice on title
required by WMC 21.24.090.(e) Development sequencing consistent with WMC
21.24.090;
(f) Project narrative describing the proposal; anticipated temporary and permanent impacts
to critical areas or its buffers; construction activities and sequencing; restoration,
enhancement, or mitigation measures; and other relevant information;
(g) Construction plans, including site diagrams, cross-sectional drawings, topographic
elevations at two-foot intervals; existing and final grade elevations; and other drawings to
demonstrate construction techniques and anticipated final outcomes;
(h) A description of proposed mitigation actions and mitigation site selection criteria.
Mitigation shall be design to achieve no net loss of ecological function consistent with
WMC 21.24.120 and mitigation requirements for each affected critical area;
(i) Evaluation of the proposal for the additional requirements for each critical area. Critical
areas reports for two or more types of critical areas must meet the report requirements
for each relevant type of critical area.

(6) A permit or approval sought as part of a development proposal for which multiple permits
are required may adopt a previously approved critical area report if:
(a) There is no material change in the development proposal since the prior review;
(b) There is no new information available that is important to the critical area review of
the site or particular critical area;
(c) The permit or approval under which the prior review was conducted has not expired,
or if no expiration date exists, no more than five years have lapsed since the
issuance of that permit or approval; and
(d) The prior permit or approval, including any conditions, has been complied with.

21.24.120 Mitigation requirements.
(1) General. Mitigation, maintenance and monitoring measures shall be in place to protect critical
areas and buffers from alterations resulting from proposed development.
(2) Mitigation. Mitigation shall be in-kind and on-site where feasible, and shall be designed to
maintain and enhance ecological functions and values, and to prevent risk from hazards
posed by the critical area. Mitigation measures shall evaluate goals and objectives of
proposed mitigation relating to impact to functions and values. Review of best available
science supporting the proposed mitigation is required.

(3) Mitigation sequencing. When an alteration to a critical area is proposed, such alteration shall
be avoided, minimized, or compensated for, as outlined by WAC 197-11-768, in the
following order of preference:
(a) Avoiding the impact altogether by not taking a certain action or parts of actions;
(b) Minimizing impacts by limiting the degree or magnitude of the action and its
implementation;
(c) Rectifying the impact by repairing, rehabilitating, or restoring the affected
environment;
(d) Reducing or eliminating the impact over time by preservation and maintenance
operations during the life of the action;
(e) Compensating for the impact by replacing or providing substitute resources or
environments; and/or
(f) Monitoring the impacts and compensation projects and taking appropriate corrective
measures.

(1) Maintenance and monitoring. A program shall be included as part of the mitigation plan, and
shall include the following:
(a) Performance standards, which shall include:
   (i) 100 percent survival of installed vegetation within the first two years of
   planting;
   (ii) At least 80 percent survival of installed vegetation for three years of more; and
   (iii) Less than 10 percent of the mitigation area covered in nonnative invasive
   species for five years or more.
(b) Contingency plan identifying courses of action and corrective measures to be taken if
    monitoring or evaluation indicates that the performance measures have not been
    met;
(c) A schedule for site monitoring, which includes at minimum one monitoring or
    inspection every 12 months;
(d) Monitoring period necessary to ensure that the performance standards have been
    met, not to be less than five years; and
(e) Information on maintenance bonds or financial guarantees to ensure that the
    mitigation plan is implemented.
(2) Performance guarantee. A performance bond or other security equal to or greater than
    150 percent of the actual cost of mitigation shall be posted in a form acceptable to the City
    prior to issuance of construction permits. Actual costs shall include all labor and materials
    associated with the mitigation activity. The security shall be sufficient to guarantee that all
    required mitigation measures will be completed in a timely manner in accordance with this
    chapter.
(3) Maintenance guarantee. A maintenance/monitoring bond or other security equal to or
    greater than 20 percent of the cost of mitigation shall be posted in a form acceptable to the
    City prior to final inspection, occupancy, or release of the performance bond, whichever is
    first. The security shall be sufficient to guarantee satisfactory workmanship on, materials in
    and performance of or related to structures and improvements allowed or required by this
    chapter for a period of up to five years. The duration of maintenance/monitoring obligations
    shall be established by the Development Services Director, based upon the nature of the
    proposed mitigation, maintenance or monitoring and the likelihood and expense of correcting
    mitigation or maintenance failures.
(4) Corrective measures. Where monitoring reveals a significant deviation from predicted
    impacts or a failure of mitigation or maintenance measures, the applicant shall be responsible
    for appropriate corrective action which, when approved, shall be subject to further monitoring.
(5) Restoration. Performance and maintenance/monitoring bonds or other security shall also be
    required for restoration of a critical area or buffer not performed as part of a mitigation or
    maintenance plan, except that no security shall be required for minor stream restoration
    carried out pursuant to this chapter. The bond or other security shall be in a form and amount
    deemed acceptable by the Development Services Director.
(6) Time limit. Performance and maintenance/monitoring bonds or other security authorized by
    this section shall remain in effect until the City determines, in writing, that the standards
    bonded for have been met.
(7) Obligation. Depletion, failure or collection of security funds shall not discharge the obligation
    of an applicant or violator to complete required mitigation, maintenance, monitoring or
    restoration.
21.24.140 Critical area markers and signs.
(1) Survey stakes. Permanent survey stakes delineating the boundary between adjoining
    property and critical area tracts shall be set, using iron or concrete markers as established by
    current survey standards.
(2) When required. Signage and fencing shall be required for all wetlands and fish and wildlife
    habitat conservation areas. The City shall determine if fencing and permanent signage is
necessary to protect other types of critical areas. Signage and fencing shall be located along
the outer boundary of a critical area buffer or tract in order to protect the critical area.

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

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

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

21.24.150 Native growth protection areas and designations on site plans.
(1) Tracts. A native growth protection area (NGPA) in the form of a shall be used to delineate
and protect those critical areas and buffers listed below in development proposals for
subdivisions, short subdivisions or binding site plans and shall be recorded on all documents
of title of record for all affected lots:
   (a) All geological hazard areas and buffers which are one acre or greater in size;
   (b) All fish and wildlife conservation areas;
   (c) All wetlands and buffers;
   (d) All streams and buffers.
(2) Tract interest. Any required NGPA tract shall be held in an undivided interest by each owner
of a building lot within the development with this ownership interest passing with the
ownership of the lot or shall be held by an incorporated homeowner’s association or other
legal entity, which assures the ownership, maintenance, and protection of the tract.
(3) Site plans submitted as part of development proposals for building permits and clearing and
grading permits shall include and delineate all flood hazard areas (if they have been
mapped by FEMA, King County or the City of Woodinville or if a special study is required),
geological hazard areas, streams and wetlands, buffers and building setbacks and native
growth protection easements. If only a part of the development site has been mapped
pursuant to WMC 21.24.130, the part of the site which has not been mapped shall be clearly
identified and labeled on the site plans. The site plans shall be attached to the notice on title
required by WMC 21.24.170.(3) Easements. If a NGPA tract is not required in accordance
with subsection (1), a NGPA in the form of an easement may be required over delineated
critical areas to protect them in perpetuity.
(4) Recording. NGPAs shall be recorded on all documents of the title of record and shall be
designated on the face of the plat or recorded drawing.
(5) Native growth protection areas shall be marked with critical area signage and/or fencing to
protect wildlife corridors and to discourage human intrusion into the critical area pursuant to
WMC 21.24.140.
(6) Native growth protection areas may be enhanced as part of a mitigation or restoration
project. The NGPA shall be designated as protected habitat for fish and wildlife and shall be
left in its natural state (with the exception of mitigation to enhance habitat). Any downed
trees shall remain in the NGPA to provide habitat for wildlife.

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

(2) Designation. Identification of CARAs shall be made in based on the City’s adopted Critical Aquifer Recharge Areas map. Areas meeting the CARA designation are critical areas subject to the provisions of this chapter.

(3) Category. Critical aquifer recharge areas are categorized as follows:

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

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

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

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

(4) An applicant can request that the City declassify a specific area included in the map adopted under subsection (2) of this section. The request must be supported by a critical areas report that includes a hydro-geologic assessment. The request to declassify an area shall be reviewed by the Development Services Director following the procedure in WMC 21.24.110.


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

(a) Hazardous liquid transmission pipelines;

(b) Sand and gravel, and hard rock mining on land;

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

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

(e) Hydrocarbon extraction;

(f) Commercial wood treatment facilities on permeable surfaces;

(g) Golf courses;

(h) Cemeteries;

(i) Wrecking yards;

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

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

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

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

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

(c) Hydrocarbon extraction;

(d) Commercial wood treatment facilities on permeable surfaces;

(e) Wrecking yards;

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

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

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

(a) All storage tanks proposed to be located in a critical aquifer recharge area must comply with local building code requirements and must conform to the International Fire Code requirements for secondary containment.

(b) Commercial vehicle repair and servicing must be conducted over impermeable pads and within a covered structure capable of withstanding normally expected weather conditions. Chemicals used in the process of vehicle repair and servicing must be stored in a manner that protects them from weather and provides containment should leaks occur.

(c) No dry wells shall be allowed in critical aquifer recharge areas on sites used for vehicle repair and servicing. Dry wells existing on the site prior to facility development must be abandoned using techniques approved by the Washington State Department of Ecology prior to commencement of the proposed activity.

(d) The activities listed below shall be conditioned in accordance with the applicable State and Federal regulations as necessary to protect critical aquifer recharge areas.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Applicable State and Federal Regulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above-ground storage tanks</td>
<td>WAC 173-303-640</td>
</tr>
<tr>
<td>Animal feedlots</td>
<td>Chapter 173-216 WAC, Chapter 173-220 WAC</td>
</tr>
<tr>
<td>Chemical treatment storage and disposal facilities</td>
<td>WAC 173-303-182</td>
</tr>
<tr>
<td>Hazardous waste generator (boat repair shops, biological research facility, dry cleaners, furniture stripping, motor vehicle service garages, photographic processing, printing and publishing shops, etc.)</td>
<td>Chapter 173-303 WAC</td>
</tr>
<tr>
<td>Injection wells</td>
<td>Federal 40 CFR Parts 144 and 146, Chapter 173-218 WAC</td>
</tr>
<tr>
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21.24.240 Critical aquifer recharge areas – Critical areas report additional requirements.

(1) In addition to the general critical report requirements in WMC 21.24.110, critical areas reports for CARAs must address the requirements of this section.

(a) Prepared by a qualified professional. A critical areas report for CARAs shall be prepared by a qualified professional who is a hydrogeologist, geologist, or engineer who is licensed in the State of Washington with a minimum of five years of experience in the field and with experience in preparing hydrogeologic assessments.

(b) Hydrogeologic Assessment. For all proposed activities to be located in a critical aquifer recharge area, a critical area report shall contain a Level I hydrogeologic assessment. A Level 2 hydrogeologic assessment shall be required for any of the following proposed activities:

(i) Activities that result in five percent (5%) or more impervious site area;

(ii) Activities that divert, alter, or reduce the flow of surface or ground waters, or reduce the recharging of the aquifer;

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

(iv) The use of injection wells, including on-site septic systems, except those domestic septic systems releasing less than 14,500 gallons of effluent per day and that are limited to a maximum density of one (1) system per one (1) acre; or

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

(c) Level 1 Hydrogeologic Assessment. A level one hydrogeologic assessment shall include the following site- and proposal-related information at a minimum:

(i) Available information regarding geologic and hydrogeologic characteristics of the site including the surface location of all critical aquifer recharge areas
located on site or immediately adjacent to the site, and permeability of the
unsaturated zone;
(ii) Ground water depth, flow direction, and gradient based on available
information;
(iii) Currently available data on wells and springs within 1,300 feet of the project
area;
(iv) Location of other critical areas, including surface waters, within 1,300 feet of
the project area;
(v) Available historic water quality data for the area to be affected by the
proposed activity; and
(vi) Best management practices proposed to be utilized.
(d) Level 2 Hydrogeologic Assessment. A level two hydrogeologic assessment shall
include the following site- and proposal-related information at a minimum, in addition
to the requirements for a level one hydrogeologic assessment:
(i) Historic water quality data for the area to be affected by the proposed activity
compiled for at least the previous five (5) year period;
(ii) Ground water monitoring plan provisions;
(iii) Discussion of the effects of the proposed project on the ground water quality
and quantity, including:
   (A) Predictive evaluation of ground water withdrawal effects on nearby
   wells and surface water features; and
   (B) Predictive evaluation of contaminant transport based on potential
   releases to ground water; and
(iv) A spill plan that identifies equipment and/or structures that could fail, resulting
   in an impact. Spill plans shall include provisions for regular inspection, repair,
   and replacement of structures and equipment that could fail.

21.24.350 Frequently flooded areas - Designation.
(1) Definition and location.
   (a) Frequently flooded areas consist of the following components:
      (i) Floodplain;
      (ii) Flood fringe;
      (iii) Zero-rise floodway; and
      (iv) FEMA floodway.
   (b) Location. Frequently flooded areas shall include the following areas:
      (i) Areas identified on the flood insurance map(s). Those areas of special flood
      hazard identified by the Federal Insurance and Mitigation Administration
      (FIMA) in the most current version of the Flood Insurance Study for King
      County dated with accompanying flood insurance maps (FIRM). The Flood
      Insurance Study and accompanying maps are hereby adopted by reference.
      (ii) Areas identified by the City. Those areas of special flood hazard identified by
      the City based on a review of base flood elevation and floodway data
      available from federal, state, county or other agency sources when base flood
      elevation data has not been provided from FIMA, identified as A and V zones
      of the flood insurance maps.
   (2) Use of additional information. The City may use additional flood information that is more
restrictive or detailed than that provided in the Flood Insurance Study to designate
frequently flooded areas, including data on channel migration, historical data, high water
marks, photographs of past flooding, location of restrictive floodways, maps showing future
build-out conditions, maps that show riparian habitat areas, or similar information.
(3) Flood elevation data. When base flood elevation data is not available (A and V zones), the City shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a federal, state, or other source, in order to administer this Chapter.

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

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

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

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

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

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


(1) Base flood storage volume. Development shall not reduce the effective base flood storage volume of the floodplain. Grading or other activity that would reduce the effective storage volume shall be mitigated by creating compensatory storage on the site or off the site. Legal arrangements shall be made to assure that the effective compensatory storage volume will be preserved in perpetuity.

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

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

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


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

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

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

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

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

(iii) Base flood data and flood hazard notes shall be shown on the face of the recorded subdivision, short subdivision or binding site plan including, but not limited to, the base flood elevation, required flood protection elevations and the boundaries of the floodplain and the zero-rise floodway, if determined; and
(iv) The following notice shall also be shown on the face of the recorded subdivision, short subdivision, or binding site plan for all affected lots:

NOTICE

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

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

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

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

(i) The lowest floor, including basement, shall be elevated between 1 to 1.5 feet above the base flood elevation.

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

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

(B) The bottom of all openings shall be no higher than one foot above grade; and

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

(iii) Materials and methods that are resistant to and minimize flood damage shall be used;

(iv) All electrical, heating, ventilation, plumbing, air conditioning equipment and other utility and service facilities shall be flood-proofed to or elevated above the flood protection elevation;

(v) The structures shall be certified by a professional civil or structural engineer licensed by the State of Washington that the flood-proofing methods are adequate to withstand the flood depths, pressures, velocities, impacts, uplift forces and other factors associated with the base flood. After construction, the engineer shall certify that the permitted work conforms with the approved plans and specifications; and

(iv) Approved building permits for flood-proofed nonresidential structures shall contain a statement notifying applicants that flood insurance premiums shall be based upon rates for structures that are one foot below the flood-proofed level.

(v) All new construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure.

(d) Mobile and manufactured homes shall meet the following requirements:

(i) New mobile and manufactured homes or substantial improvements of existing mobile and manufactured homes shall be elevated on a permanent foundation such that the lowest floor of the manufactured or mobile home is elevated one foot above the base flood elevation.
(ii) All new or substantially improved manufactured and mobile homes shall be securely anchored to prevent flotation, collapse, or lateral movement, and shall be installed using methods and practices that minimize flood damage. Anchoring methods may include, but are not limited to, use of over-the-top or frame ties to ground anchors (reference FEMA’s “Manufactured Homes Installation in Flood Hazard Areas” guidebook for additional techniques).

(iii) Compliance with this chapter shall be required for new construction or expansion of a mobile home park, or reconstruction of streets, utilities or pads in an existing mobile home park exceeding 50 percent of the assessed value of such structures.

(e) Recreational vehicles shall meet one of the following requirements:

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

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

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

(f) Utilities shall meet the following requirements:

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

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

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

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

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

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

(g) Essential public facilities may be allowed within the flood fringe of the floodplain, but only when no feasible alternative site is available. Essential public facilities constructed within the flood fringe shall have the lowest floor elevated to three or more feet above the base flood elevation. Flood-proofing and sealing measures shall be taken to ensure that hazardous substances will not be displaced by or released into floodwaters. Access routes elevated to or above the base flood elevation shall be provided to all essential public facilities from the nearest maintained public street or roadway.

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

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

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

(b) A development proposal including, but not limited to, new or reconstructed structures shall not cause any increase in the base flood elevation unless the following requirements are met:
(i) Amendments to the Flood Insurance Rate Map are adopted by FEMA, in accordance with 44 CFR 70, to incorporate the increase in the base flood elevation; and

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

(c) The following are presumed to produce no increase in base flood elevation and shall not require a critical area report to establish this fact:

(i) New residential structures outside the FEMA floodway on lots in existence before March 31, 1993, which contain less than 5,000 square feet of buildable land outside the zero-rise floodway and which have a total building footprint of all proposed structures on the lot less than 2,000 square feet;

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

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

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

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

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

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

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

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

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

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

(ii) Construction of sewage treatment facilities shall be prohibited.

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

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

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

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

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

(v) Boat launches and related recreation structures;

(vi) Bridge piers and abutments; and

(vii) Other fisheries enhancement or stream restoration projects.
21.24.380 Frequently flooded areas – Critical areas report additional requirements.

(1) In addition to the general critical report requirements of WMC 21.24.120, critical areas reports for frequently flooded areas shall include a flood hazard assessment and must address the requirements of this section.

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

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

(i) The site area of the proposed activity;
(ii) All areas of a special flood hazard, as indicated in the flood insurance maps within 200 feet of the project area; and
(iii) All other flood areas indicated on the flood insurance maps within 200 feet of the project area.

(c) Site and construction plans. A copy of the site and construction plans for the development proposal showing:

(i) Floodplain (100-year flood elevation), 10- and 50-year flood elevations, floodway, other critical areas, buffers, and shoreline areas;
(ii) Proposed development, including the location of existing and proposed structures, fill, storage of materials, and drainage facilities, with dimensions indicating distances to the floodplain;
(iii) Clearing limits; and
(iv) Elevation of the lowest floor of all structures, and the level to which any nonresidential structure has been floodproofed.

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

(i) Extent of Watercourse Alteration. A description of and plan showing the extent to which a watercourse will be altered or relocated as a result of proposal;
(ii) Maintenance program required for watercourse alterations. A maintenance program that provides maintenance practices for the altered or relocated portion of the watercourse to ensure that the flood carrying capacity is not diminished; and
(iii) Compliance documentation. Information describing and documenting how the proposed watercourse alteration complies with the requirements of WMC 21.24.400 through 21.2.440, the adopted Shoreline Master Program, and other applicable state or federal permit requirements.
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