

Rock Island Shoreline Critical Areas Regulations

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1.04.010 Purpose.

The purpose of this chapter is to protect the functions and values of critical areas, and to protect the public health, safety, and welfare of the citizens of Rock Island. Additionally, this chapter is intended to protect public and private property and natural ecosystems found within city limits. The City of Rock Island finds that development in and/or near critical areas may pose a threat to public and private property, to natural ecosystems and to the public health, safety and welfare. This chapter aims to protect critical areas and to channel development to less ecologically sensitive areas.

1.04.020 Definitions

- ~~1. "Frequently flooded areas" include those flooded areas in the 100-year floodplain designations of the Federal Emergency Management Agency and the National Flood Insurance Program and other frequently flooded areas.~~
 - ~~2. "Geologically hazardous area" means an area that is not suited to commercial, residential, or industrial development because of its susceptibility to erosion, sliding, earthquakes, or other geological events hazardous to public health or safety.~~
- ~~1. See SMP Chapter 8 for definitions.~~

1.04.030 Designation of Critical Areas.

- A. The City of Rock Island shall regulate all uses, activities and developments within, adjacent to, or likely to affect, one or more critical areas, consistent with the best available science and the provisions herein.
- B. Critical areas regulated by this Chapter include:
 - I. **Wetlands** are those areas, designated in accordance with the ~~Washington State Wetland Identification and Delineation Manual (1997)~~ 1987 Federal Wetland Delineation Manual, and as defined in Section 8 Definitions of the RSMP. All areas within the City meeting the wetland designation criteria in the Identification and Delineation Manual are hereby designated critical areas and are subject to the provisions of this Chapter. Wetlands shall be rated according to the Washington State Department of Ecology wetland rating system ~~found in the Washington State Wetland Rating System documents (Eastern Wa 2014 rating system 14-06-030 Eastern Washington, Ecology Publication #04-06-15)~~ or as revised by Ecology. Other references for guidance and mitigations include "Wetland Mitigation in Washington State, Part 1: Agency Policies and Guidance" (Version 1, Pub. #06-06-01 Ia), "Wetland Mitigation in Washington State, Part 2: Developing Mitigation Plans" (Version 1, Pub #06-06-11 b), Wetlands in Washington State- Volume 1: A Synthesis of the Science. Washington State Department of Ecology. Publication #05-06-006; and Wetlands in Washington State- Volume 2: Guidance for Protecting and Managing Wetlands. Washington State Department of Ecology. Publication #05- 06-008.

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2. **Critical aquifer recharge areas (CARAs)** are those areas with a critical recharging effect on aquifers used for potable water as defined by WAC 365-190-030(2). CARAs have prevailing geologic conditions associated with infiltration rates that create a high potential for contamination of ground water resources or contribute significantly to the replenishment of ground water. Aquifer recharge areas shall be rated as having high, moderate, or low susceptibility based on soil permeability, geologic matrix, infiltration, and depth to water as determined by the criteria established by the state Department of Ecology. These areas include the following:
 - a. Wellhead Protection Areas. Wellhead protection areas may be defined by the boundaries of the ten (10) year time of ground water travel or boundaries established using alternate criteria approved by the Washington State Department of Health in those settings where ground water time of travel is not a reasonable delineation criterion, in accordance with WAC 246-290-135.
 - b. Sole Source Aquifers. Sole source aquifers are areas that have been designated by the U.S. Environmental Protection Agency pursuant to the Federal Safe Water Drinking Act.
 - c. Susceptible Ground Water Management Areas. Susceptible ground water management areas are areas that have been designated as moderately or highly vulnerable or susceptible in an adopted ground water management program developed pursuant to WAC 173-100.
 - d. Special Protection Areas. Special protection areas are those areas defined by WAC 173-200-090.
 - e. Moderately or Highly Vulnerable Aquifer Recharge Areas. Aquifer recharge areas that are moderately or highly vulnerable to degradation or depletion because of hydrogeologic characteristics are those areas delineated by a hydrogeologic study prepared in accordance with the state Department of Ecology guidelines.
 - f. Moderately or Highly Susceptible Aquifer Recharge Areas. Aquifer recharge areas moderately or highly susceptible to degradation or depletion because of hydrogeologic characteristics are those areas meeting the criteria established by the state Department of Ecology.
3. **Frequently flooded areas** are those areas that have a one percent or greater chance of flooding in any given year. These areas may include, but are not limited to, streams (including intermittent ones), draws/ravines, rivers, wetlands, draws and the like;
4. **Geologically hazardous areas** include those with the following characteristics:
 - a. Erosion Hazard Areas. Erosion hazard areas are at least those areas identified by the U.S. Department of Agriculture's Natural Resources Conservation Service as having a "moderate to severe," "severe," or "very severe" rill and inter-rill erosion hazard. Erosion hazard areas are also those areas impacted by shore land and/or stream bank erosion and those areas within a river's channel migration zone.
 - b. Landslide Hazard Areas. Landslide hazard areas are areas potentially subject to landslides based on a combination of geologic, topographic, and hydrologic factors. They include areas susceptible because of any combination of bedrock, soil, slope (gradient), slope aspect, structure, hydrology, or other factors.
 - c. Seismic Hazard Areas. Seismic hazard areas are areas subject to severe risk of damage as a result of earthquake induced ground shaking, slope failure, settlement, soil liquefaction, lateral spreading, or surface faulting. Settlement and soil liquefaction conditions occur in areas underlain by cohesionless, loose, or soft-saturated soils of low density, typically in association with a shallow ground water table.

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- d. Mine Hazard Areas. Mine hazard areas are those areas underlain by or affected by mine workings such as adits, gangways, tunnels, drifts, or airshafts, and those areas of probable sink holes, gas releases, or subsidence due to mine workings. Factors that should be considered include: proximity to development, depth from ground surface to the mine working, and geologic material.
- e. Volcanic Hazard Areas. Volcanic hazard areas are areas subject to pyroclastic flows, lava flows, debris avalanche, and inundation by debris flows, lahars, mudflows, or related flooding resulting from volcanic activity
- f. Other Hazard Areas. Geologically hazardous areas shall also include areas determined by the [director] to be susceptible to other geological events including mass wasting, debris flows, rock falls, and differential settlement.

5. **Fish and wildlife habitat conservation areas** include those with the following characteristics:

- a. Federally designated endangered, threatened and sensitive species. Areas with which federally designated endangered, threatened and sensitive species have a primary association. Federally designated endangered and threatened species are those fish and wildlife species identified by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service that are in danger of extinction or threatened to become endangered. The U.S. Fish and Wildlife Service and the National Marine Fisheries Service should be consulted for current listing status.
- b. State designated endangered, threatened and sensitive species. Areas with which state designated endangered, threatened and sensitive species have a primary association. 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.
- c. 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.
- d. Habitats and Species of Local Importance. Habitats and species of local importance are those identified by the [city/county], 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 with which a species has a primary association, and which, if altered, may reduce the likelihood that the species will maintain and reproduce over the long-term.

C. All areas within the City meeting the definition of one or more critical areas defined above are hereby designated critical areas and are subject to the provisions of this Chapter.

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I.04.040 Permitting.

All applications for permits to conduct activities having a possible significant impact on critical areas that are located on or near a project site must identify the areas affected and make an estimate of the probable impact. The City of Rock Island shall deny all requests for permits which would result in a net loss of ecological functions, those activities degrading a wetland or fish and/or wildlife habitat conservation area, which would put people or property in a position of unacceptable risk with respect to floods or geologic hazards, which would tend to aggravate geologic hazards, or which would harm critical recharging areas for aquifers. The City of Rock Island may, however, grant permits which include mitigation measures if the mitigation measures adequately protect the ecological processes and functions of the critical area and people involved. In granting a permit that includes mitigation measures, best available science, which shall be determined utilizing the criteria set out in WAC 365-195-900 through 365-195-925, shall be used to develop and approve the mitigation measures.

I.04.050 Determination.

- A. Each development permit shall be reviewed to determine if the proposal is within a critical area or critical area buffer. City staff shall use maps and data maintained by the City and a site inspection if appropriate.
- B. If it is determined that a critical area(s) is present additional assessments prepared by a qualified biologist best suited for the type of identified critical area(s) may be required.
- C. In cases related to geohazards, the assessment shall include a description of the geology of the site and the proposed development; an assessment of the potential impact the project may have on the geologic hazard; an assessment of what potential impact the geologic hazard may have on the project; appropriate mitigation measures, if any; a conclusion as to whether further analysis is necessary; and be signed by and bear the seal of the engineer or geologist that prepared it.
- D. When a geotechnical report is required it shall include a certification from the engineer preparing the report, including the engineer's professional stamp and signature, stating all of the following:
 1. The risk of damage from the project, both on- and off- site;
 2. The project will not materially increase the risk of occurrence of the hazard; and
 3. The specific measures incorporated into the design and operational plan of the project to eliminate or reduce the risk of damage due to the hazard.
- E. All mitigation measures, construction techniques, recommendations and technical specifications provided in the geotechnical report shall be applied during the implementation of the proposal. The engineer of record shall submit sealed verification at the conclusion of construction that development occurred in conformance with the approved plans.
- F. A proposed development cannot be approved if it is determined by the geotechnical report that either the proposed development or adjacent properties will be at risk of damage from the geologic hazard, or that the project will increase the risk of occurrence of the hazard, and there are no adequate mitigation measures to alleviate the risks.

I.04.060 Performance Standards.

The following general performance standards shall apply to activities permitted within critical areas or critical area buffers. Additional standards may be necessary based on site specific considerations or proposed development impacts.

- A. General Performance Standards
 1. Areas of new permanent disturbance and all areas of temporary disturbance shall be mitigated and/or restored pursuant to a mitigation and restoration plan.
 2. Mitigation plans shall include a discussion of mitigation alternatives (sequencing) as they relate to:

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- a. Avoiding the impact altogether by not taking a certain action or parts of an action;
 - b. Minimizing impacts by limiting the degree or magnitude of the actions and its implementation, by using appropriate technology, or by taking affirmative steps to avoid or reduce impacts;
 - c. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
 - d. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action;
 - e. Compensating for the impact by replacing, enhancing, or providing substitute resources or environments; and/or
 - f. Monitoring the impact and taking appropriate corrective measures.
3. Mitigation, maintenance, monitoring and contingency plans shall be implemented by the developer to protect critical areas and their buffers prior to the commencement of any development activities. Where mitigation is required herein, the following performance standards shall be met:
- a. Mitigation planting survival will be 100% for the first year, and 80% for each of the 4 years following.
 - b. Mitigation must be installed no later than the next growing season after completion of site improvements, unless otherwise approved by the Administrator.
 - c. Where necessary, a permanent means of irrigation shall be installed for the mitigation plantings that are designed by a landscape architect or equivalent professional, as approved by the Administrator. The design shall meet the specific needs of the vegetation, as may be applicable.
 - d. Onsite monitoring and monitoring reports shall be submitted to the City 1 year after mitigation installation; 3 years after mitigation installation; and 5 years after mitigation installation. The length of time involved in monitoring and monitoring reports may be increased by the Administrator for a development project on a case-by-case basis when longer monitoring time is necessary to establish or re-establish functions and values of the mitigation site. Monitoring reports shall be submitted by a qualified professional biologist. The biologist must verify that the conditions of approval and provisions in the wetland management and mitigation plan have been satisfied
 - e. Monitoring reports by the biologist must include verification that the planting areas have less than 20% total non-native /invasive plant cover consisting of exotic and/or invasive species. Exotic and invasive species may include any species on the state noxious weed list, or considered a noxious or problem weed by the Natural Conservation Services Department or local conservation districts.
 - f. Mitigation sites shall be maintained to ensure that the mitigation and management plan objectives are successful. Maintenance shall include corrective actions to rectify problems, include rigorous, as-needed elimination of undesirable plants; protection of shrubs and small trees from competition by grasses and herbaceous plants, and repair and replacement of any dead plants.
 - g. Prior to site development and or building permit issuance, a performance surety agreement shall be submitted by the applicant and shall be reviewed and approved by the City, including the City Attorney. The surety agreement must include the complete costs for the mitigation and monitoring which may include but not be limited to: the cost of installation, delivery, plant material, soil amendments, permanent irrigation, seed mix, and 3 monitoring visits and reports by a qualified professional biologist, including Washington State Sales Tax. The City must approve the quote for said improvements.
 - h. Sequential release of funds associated with the surety agreement shall be reviewed for conformance with the conditions of approval and the mitigation and management plan. Release of funds may occur in increments of 1/3 for substantial conformance with the

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plan and conditions of approval. If the standards that are not met are only minimally out of compliance and contingency actions are actively being pursued by the property owner to bring the project into compliance, the City may choose to consider a partial release of the scheduled increment. Non-compliance can result in one or more of the following actions: carry-over of the surety amount to the next review period; use of funds to remedy the nonconformance; scheduling a hearing with the appropriate hearing body to review conformance with the conditions of approval and to determine what actions may be appropriate

4. Trails and trail-related facilities.

Construction of commercial, public and private trails and trail-related facilities, such as picnic tables, benches, interpretive centers and signs, viewing platforms and campsites may be authorized within designated resource lands and critical areas, subject to the following minimum standards:

- a. Trail facilities shall, to the extent feasible, be placed on existing road grades, utility corridors, or any other previously disturbed areas;
- b. Trail facilities shall minimize the removal of trees, shrubs, snags and important habitat features. Vegetation management performed in accordance with best management practices as part of ongoing maintenance to eliminate a hazard to trail users is considered consistent with this standard;
- c. Viewing platforms, interpretive centers, campsites, picnic areas, benches and their associated access shall be designed and located to minimize disturbance of wildlife and/or critical characteristics of the affected conservation area;
- d. All facilities shall be constructed with materials complementary to the surrounding environment;
- e. Trail facilities that parallel the shoreline may be located in the outer 25 percent of the buffer area; and,
 - i. Commercial and Public trails shall not exceed 10 feet in width
 - ii. Private trails shall not exceed 4 feet in width;
- f. Trails that provide direct shoreline access shall not exceed 4 feet in width and shall be kept to the minimum number necessary to serve the intended purpose; and
- g. Review and analysis of a proposed trail facility shall demonstrate no net loss of ecological functions and values in conformance with this chapter.
- h. Trail facilities shall not be exempt from special report requirements, as may be required by this chapter.

B. Wetland Areas

1. Lights shall be directed away from the wetland.
2. Activities that generate noise shall be located away from the wetland, or noise impacts shall be minimized through design or insulation techniques.
3. Toxic runoff from new impervious surface area shall be directed away from wetlands.
4. Treated storm water runoff may be allowed into wetland buffers in accordance with the Eastern VVA Stormwater Manual. Channelized flow should be prevented.
5. Use of pesticides, insecticides and fertilizers within 150 feet of wetland boundary shall be limited and follow Best Management Practices (BMPs).
6. The outer edge of the wetland buffer shall be planted with dense native vegetation and/or fencing to limit pet and human disturbance.
- 6.7. Identification of wetlands and delineation of their boundaries shall be done in accordance with the approved federal wetland delineation manual and applicable regional supplements.
- 7.8. Wetland buffers will be determined by wetland category ~~and the wildlife habitat value~~ in the table below.

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<u>Wetland Category</u>	<u>Standard Buffer Width</u>
<u>Category I</u>	<u>250'</u>
<u>Category II</u>	<u>200'</u>
<u>Category III</u>	<u>150'</u>
<u>Category IV</u>	<u>50'</u>

<u>Wetland Category</u>	<u>Standard Buffer Width</u>	<u>Additional buffer width if the wetland scores</u>	<u>Additional buffer width if the wetland scores</u>
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		20-28 habitat points	29-36 habitat points
Category I	100 feet	Add 50 feet	Add 100 feet
Category II	100 feet	Add 50 feet	Add 100 feet
Category III	80 feet	Add 70 feet	Not applicable
Category IV	50 feet	Not applicable	Not applicable

~~8.9.~~ Standard buffer widths may be modified by the review authority for a development proposal by averaging buffer widths based on a report submitted by the applicant and prepared by a qualified professional approved by the director (e.g. wetland biologist), and shall only be allowed where the applicant demonstrates all of the following:

- a. Averaging is necessary to avoid an extraordinary hardship to the applicant caused by circumstances peculiar to the property;
- b. The designated wetland contains variations in sensitivity due to existing physical characteristics;
- c. The width averaging will not adversely impact the designated wetland's functional value;
- d. The total area contained within the buffer after averaging is no less than that contained within the standard buffer prior to averaging.
- e. The buffer at its narrowest point is never less than three-quarters of the required width.

~~9.10.~~ Mitigation ratios shall be used when impacts to wetlands cannot be avoided. The mitigation ratios by wetland type are an area replacement ratio of:

- a. Wetland Type I- 6:1
- b. Wetland Type II- 3:1
- c. Wetland Type III- 2:1
- d. Wetland Type IV- 1.5:1
- e. Non-Wetland Buffer area only 1:1

~~10.11.~~ Wetland management and mitigation plan.

- a. Except as provided for by this chapter, a wetland management and mitigation plan shall be required when impacts associated with development within a wetland or wetland buffer are unavoidable, demonstrated by compliance with this Section and Section I.04.060(A) of Appendix H.
- b. Wetland management and mitigation plans shall be prepared by a qualified professional biologist who is knowledgeable of wetland conditions within North Central Washington.
- c. In determining the extent and type of mitigation appropriate for the development, the plan shall evaluate the ecological processes that affect and influence critical area structure and function within the watershed or sub-basin; the individual and cumulative effects of the action upon the functions of the critical area and associated watershed; and note observed or predicted trends regarding specific wetland types in the watershed, in light of natural and human processes.
- d. Where compensatory mitigation is necessary, the plan should seek to implement shoreline restoration objectives identified within the Douglas County Shoreline Restoration Plan, Appendix B.
- e. The wetland management and mitigation plan shall demonstrate, when implemented, that there shall be no net loss of the ecological functions of the wetland and buffer area.

~~11.12.~~ Water dependant uses, as defined by this Program, may be located within a wetland or wetland buffer when the applicant or property owner can demonstrate compliance with Section I.04.060 (A) of Appendix H.

~~(A) of Appendix H.~~

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- a. Developments authorized within a wetland buffer shall comply with the following minimum standards:
 - i. Designated wetlands and their associated buffers shall be delineated and disclosed on final plats, maps, documents, etc., as critical area tracts, non buildable lots, buffer areas or common areas. Ownership and control may be transferred to a homeowner's association or designated as an easement or covenant encumbering the property.
 - ii. All lots within a major subdivision, short plat or binding site plan shall have the outer edge of all required buffers clearly marked on site with permanent buffer edge markers. Buffer markers may be either buffer signs or steel posts painted with a standard color and label, as approved by the Administrator. The markers shall be field verified by the surveyor or biologist of record prior to final plat approval. Each lot shall contain a minimum of three buffer area markers located at the landward edge of the buffer perimeter for each habitat type; one located at each side property line and one midway between side property lines. Covenants for the subdivision shall incorporate a requirement stating that buffer area markers shall not be removed, or relocated, except as a may be approved by the Administrator.

C. Fish and Wildlife Habitat Conservation Areas (FWHCA)

1. Flora (plant life) and Fauna (animal life) identified as protected, shall be sheltered from construction activities using Best Management Practices.
2. Except where permitted by this Program, habitat conservation areas and buffers will be left undisturbed, unless the development proposal demonstrates that impacts to the habitat conservation area and/or buffer are unavoidable, demonstrated by compliance with Section D. below.
3. Habitat Conservation Areas:
 - a. Development occurring within a one thousand foot radius of a state or federal threatened, endangered, or sensitive species den, nesting, or breeding site, migration corridors or feeding areas of terrestrial species shall require a habitat management and mitigation plan.
 - b. Cliff, cave and talus slope habitats shall have at least a fifty-foot buffer for safety and resource protection.
 - c. Bald Eagles: an approved bald eagle management plan by the Washington Department of Fish and Wildlife meeting the requirement and guidelines of the Bald Eagle Protection Rules, WAC 232-12-292, as amended, satisfies the requirements of a habitat management and/or mitigation plan.
 - d. Rocky Mountain Mule Deer Habitat: habitat connectivity and migration corridors for mule deer shall be considered in habitat management and/or mitigation plans.
 - e. Development in or over all surface waters shall require a habitat mitigation plan.

4. Riparian buffers for lakes and the Columbia River within the City of Rock Island

Environment Designation	Feet
High Intensity	50- Lakes 75- Col River
Mixed Use	50- Lakes 75- Col River
Shoreline Residential	50- Pit Lakes 75- Col River
Urban Conservancy	100
Natural	150

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5. Pre-designation in the Urban Growth Area

The following table applies to the UGA outside of the City Limits when an annexation of the City Limits may occur:

Environment Designation	Feet
High Intensity	50- Lakes 75- Col River
Mixed Use	50- Lakes 75- Col River
Shoreline Residential	50- Lakes 75- Col River
Urban Conservancy	100- Lakes
Natural	150

View Corridors. The development or maintenance of view corridors can provide the general public and property owners of single family residences, opportunities for visual access to water bodies associated with shoreline lots. One view corridor may be permitted per lot, when consistent with the provisions of this Chapter. A mitigation and management plan as required by this chapter must be submitted for review and approval; either with a complete building permit application for a new single family residence or associated with an existing single family residence.

- a. In addition to the submittal of a complete mitigation and management plan, an applicant must submit the following materials:
 - i. A signed application form by the property owner of the shoreline proposed for vegetation alterations.
 - ii. A scaled graphic which demonstrates a side, top and bottom parameter for the view corridor with existing vegetation and proposed alterations. The view corridor shall be limited to 25% of the width of the lot, or 25', whichever distance is less.
 - iii. A graphic and/or site photos for the entire shoreline frontage which demonstrates that the homesite and proposed or existing home does or will not when constructed have a view corridor of the water body, taking into account site topography and the location of shoreline vegetation on the parcel.
 - iv. Demonstration that the applicant does not have an existing or proposed shoreline access corridor or dock access corridor.
- b. Applications for view corridors must also be consistent with the following standards:
 - i. Native vegetation removal shall be prohibited.
 - ii. Pruning of native vegetation shall not exceed 30% of a tree's limbs, and shrubs shall not be pruned to a height less than 6'. No tree topping shall occur. Pruning of vegetation waterward of the ordinary high water mark is prohibited.
 - iii. Non-native vegetation within a view corridor may be removed when the mitigation and management plan can demonstrate a net gain in site functions, and where impacts are mitigated at a ratio of 2:1.
 - iv. Whenever possible, view corridors shall be located in areas dominated with non-native vegetation and invasive species.
 - v. Pruning shall be done in a manner that shall ensure the continued survival of vegetation.
 - vi. The applicant's biologist shall clearly establish that fragmentation of fish and wildlife habitat will not occur, and that there is not a net loss of site ecological functions. .
 - vii. View corridors are not permitted in the Natural Environment Designation.
 - viii. A view corridor may be issued once for a property. No additional vegetation pruning for the view corridor is authorized except as may be permitted to maintain the approved view corridor from the regrowth of pruned limbs. Limitations and guidelines

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for this maintenance shall be established in the mitigation and management plan by the applicant's biologist, to be reviewed and approved by the Administrator.

- ix. Sites which have had buffer widths reduced or modified by any prior action consistent with this Program are not eligible for the provisions of this section. Sites which utilize this provision are not eligible for any future buffer width reductions, under any provision of this Program, except as administered under Section 6.8 Variances.

§. 6. Water ~~dependant~~dependent uses, as defined by this Program, may be located within a ~~wetland-FWHCA~~ or wetland-FWHCA buffer when the applicant or property owner can demonstrate compliance with Section I.04.060 (A) of Appendix H.

- a. Developments authorized within a wetland-FWHCA buffer shall comply with the following minimum standards:
 - i. Designated wetlands and their associated buffers shall be delineated and disclosed on final plats, maps, documents, etc., as critical area tracts, non buildable lots, buffer areas or common areas. Ownership and control may be transferred to a homeowner's association or designated as an easement or covenant encumbering the property.
 - ii. All lots within a major subdivision, short plat or binding site plan shall have the outer edge of all required buffers clearly marked on site with permanent buffer edge markers. Buffer markers may be either buffer signs or steel posts painted with a standard color and label, as approved by the Administrator. The markers shall be field verified by the surveyor or biologist of record prior to final plat approval. Each lot shall contain a minimum of three buffer area markers located at the landward edge of the buffer perimeter for each habitat type; one located at each side property line and one midway between side property lines. Covenants for the subdivision shall incorporate a requirement stating that buffer area markers shall not be removed, or relocated, except as a may be approved by the Administrator.

D. Fish/wildlife habitat management and mitigation plan.

1. A fish/wildlife habitat management and mitigation plan shall be prepared by a qualified professional biologist who is knowledgeable of fish and wildlife habitat within North Central Washington.
2. In determining the extent and type of mitigation appropriate for the development, the plan shall evaluate the ecological processes that affect and influence critical area structure and function within the water shed or sub-basin; the individual and cumulative effects of the action upon the functions of the critical area and associated watershed; and note observed or predicted trends regarding specific wetland types in the watershed, in light of natural and human processes.
3. Where compensatory mitigation is necessary, the plan should seek to implement shoreline restoration objectives identified within the Douglas County Shoreline Restoration Plan, Appendix B.
4. The fish/wildlife habitat management and mitigation plan shall demonstrate, when implemented, no net loss of ecological functions of the habitat conservation area and buffer.
5. The fish/wildlife habitat management and mitigation plan shall identify how impacts from the proposed project shall be mitigated, as well as the necessary monitoring and contingency actions for the continued maintenance of the habitat conservation area and any associated buffer.
6. Mitigation Sequence.

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When an alteration or impact to a critical area is proposed, the biologist shall demonstrate that all reasonable efforts have been taken to mitigate impacts in the following prioritized order:

- a. Avoiding the adverse impact altogether by not taking a certain action or parts of an action, or moving the action.
- b. Minimizing adverse impacts by limiting the degree or magnitude of the action and its implementation by using appropriate technology and engineering, or by taking affirmative steps to avoid or reduce adverse impacts.
- c. Rectifying the adverse impact by repairing, rehabilitating or restoring the affected environment.
- d. Reducing or eliminating the adverse impact over time by preservation and maintenance operations during the life of the action.
- e. Compensating for the adverse impact by replacing, enhancing, or providing similar substitute resources or environments and monitoring the adverse impact and the mitigation project and taking appropriate corrective measures.

Mitigation for development may include a sequenced combination of the above measures as needed to achieve the most effective protection or compensatory mitigation for critical area functions.

7. Mitigation Ratios.

Mitigation ratios shall be used when impacts to riparian areas, aquatic habitat, and riparian buffers are unavoidable. Compensatory mitigation shall restore, create, rehabilitate or enhance equivalent or greater ecological functions. Mitigation shall be located onsite unless the biologist can demonstrate, and the County approves that onsite mitigation will result in a net loss of ecological functions. If offsite mitigation measures are determined to be appropriate, offsite mitigation shall be located in the same watershed as the development, within Douglas County.

The onsite mitigation ratio shall be at a minimum area replacement ratio of 1:1 for development within aquatic habitat, riparian areas and riparian buffers. An area replacement ratio of 2:1 shall apply to native vegetation removal within these areas. Mitigation for diverse, high quality habitat or offsite mitigation may require a higher level of mitigation. Mitigation and management plans shall evaluate the need for a higher mitigation ratio on a site by site basis, dependent upon the ecological functions and values provided by the habitat. Recommendations by resource agencies in evaluating appropriate mitigation shall be encouraged.

E. Critical Aquifer Recharge Areas (CARA)

1. All structures shall be placed to provide a maximum buffer to known CARA.
2. Impervious coverage of the lot shall be minimized.
3. Best Management Practices shall be used during construction.

F. Frequently Flooded Areas

1. All structures and other improvements shall be located on the buildable portion of the site out of the area of flood hazard. Where necessary residential buildings may be elevated
2. Utilities shall be located above the Base Flood Elevation (BFE), preferably three or more feet.
3. All new construction and substantial improvements shall be constructed using flood resistant materials and using methods and practices that minimize flood damage.
4. All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.
5. No rise in the BFE shall be allowed. Post and piling techniques are preferred and are presumed to produce no increase in the BFE.
6. Modification of stream channels shall be avoided.

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G. Geologically Hazardous Areas

1. Structures and improvements shall minimize alterations to the natural contour of the slope, and foundations shall be tiered where possible to conform to existing topography.
2. Structures and improvements shall be located to preserve the most critical portion of the site and its natural landforms and vegetation.
3. The proposed development shall not result in greater risk or a need for increased buffers on neighboring properties.
4. Development shall be designed to minimize impervious surfaces within the critical area and critical area buffer.

H. Additional Considerations

1. Site specific considerations may warrant additional performance standards, to be determined during the permit process, to ensure the protection of critical areas.
2. Development specific considerations may warrant additional performance standards based on level of impact to critical areas.

1.04.70 Drainage and erosion control plan.

During project development the following standards apply:

- A. All drainage and erosion control plans shall be prepared by an engineer or other qualified person as approved by the reviewing authority.
- B. All drainage and erosion control plans shall address methods to minimize and contain soil within the project boundaries during construction and to provide for stormwater drainage from the site and its surroundings during and after construction.
- C. All drainage and erosion control plans shall be prepared in conformance with the provisions of Section 4.2 Water Quality and the provisions of this Program; in addition to conformance with applicable state and local standards.

1.04.080 Grading and excavation plan.

All grading and excavation plans shall be prepared by a professional engineer licensed to practice in the State of Washington, and it shall contain the following information:

- A. A cover sheet showing the general vicinity and specific location of work, the name and address of the owner and the licensed civil engineer who prepared the plans;
- B. Property limits and accurate contours of existing ground and details of terrain and area drainage.
- C. Limits of proposed excavation and fill sites, finished contours and proposed drainage systems and/or facilities, including an estimated runoff served by the systems and/or facilities;
- D. Location of any buildings or structures on the property where the work is to be performed and the location of any buildings or structures on land of adjacent owners which are within fifteen feet of the property;
- E. Recommendations included in any soils engineering report and/or an engineering geology report shall be incorporated in the grading plans or specifications.

1.04.090 Reasonable Use

Where project proponents would seek a "Reasonable Use" exception to their proposal, they shall seek ~~exception process and~~ relief through the RSMP Conditional Use or Variance Permit process.

