



# CASTLE ROCK PLANNING COMMISSION

Regular Meeting: Tuesday, March 17, 2026  
6:00 PM

**Location**  
Castle Rock Senior Center  
222 Second Ave SW  
Castle Rock, WA 98611

## AGENDA

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### 1. CALL TO ORDER

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- a. Roll Call

### 2. CITIZEN COMMENTS

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### 3. REPORTS

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### 4. CONSENT AGENDA

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- a. Approval of Minutes — January 20, 2026 Planning Commission Regular Meeting

### 5. OLD BUSINESS

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- a. Critical Areas Ordinance (CAO)
- b. STEP Zoning Code Amendments (Emergency Shelter, Transitional Housing, Emergency Housing, Permanent Supportive Housing)

### 6. NEW BUSINESS

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- a. Organic Materials Siting (PUG Compliance)

### 7. ADJOURNMENT

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#### UPCOMING MEETINGS:

**April 21, 2026**

**May 19, 2026**

**June 16, 2026**

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Planning Commission may add and take action on other items not listed on this Agenda.



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**1. CALL TO ORDER**

Chairperson Matt Rasmussen called the regular meeting to order at 6:02 PM.

a. Roll Call

Members present: Commissioners Matt Rasmussen, Ryane Olin, Richard Skreen, David VanCamp, Robert Frazier, Boyd Owen, and Frank Lovejoy

Staff present: Contracted Planner Rachel Granrath, Secretary Karlene Akesson

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**2. CITIZEN COMMENTS**

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**3. REPORTS**

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**4. CONSENT AGENDA**

a. Approval of Minutes — October 21, 2025 Planning Commission Regular Meeting & Continued Public Hearings

Commissioner Richard Skreen motioned, seconded by Commissioner Ryane Olin, to approve the October 21, 2025, Planning Commission Regular Meeting & Continued Public Hearings minutes. Motion carried by roll call vote. Commissioners Matt Rasmussen, Ryane Olin, Richard Skreen, David VanCamp, Robert Frazier, Boyd Owen, and Frank Lovejoy voted 'Aye'.

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**5. OLD BUSINESS**

a. Critical Areas Ordinance (CAO) - Key Changes Discussion

Planner Rachel Granrath presented.

Commissioner Frank Lovejoy asked for clarification on the Wetland Buffer Tables comparison. Commissioner Frank Lovejoy and Planner Rachel Granrath provided comment. There were no proposed changes to the Wetland Buffer Tables suggested at this time. Planner Rachel Granrath stated the WDFW (Washington Department of Fish and Wildlife) is strongly suggesting a Site Potential Tree Height Methodology for the riparian buffers. Commissioner Matt Rasmussen requested additional information regarding the process of Site Potential Tree Height Methodology. Planner Rachel Granrath provided an example scenario. Planner Rachel Granrath provided comments regarding the Functional Isolation Method and the Buffer Averaging and Reduction table provided in the Ecological Land Services (ELS) report (pages 33 and 34 of the packet). Planner Rachel Granrath stated she may be able to find a way to demonstrate what these tables would look like in a development scenario. The hope is to address these types of situations before we adopt the new code. Planner Granrath stated looking at a couple of case studies may be helpful. Commissioner Ryane Olin provided comment on the Buffer Averaging Method and how complicated the process appears to be. Planner Granrath provided additional comment regarding Buffer Averaging and how rarely it is used. Commissioner Ryane Olin and Planner Rachel Granrath provided additional comments. Planner Rachel Granrath stated ELS may be able to establish what the best available science could be for Castle Rock as it relates to this. Commissioner Ryane Olin and Planner Rachel Granrath provided additional comment regarding how other communities in the area are addressing these issues. Commissioner Ryane Olin provided additional comment, followed by comments from Commissioner David VanCamp and Matt Rasmussen. Planner Rachel Granrath provided comment.

Commissioner Ryane Olin provided comment. Commissioner Matt Rasmussen requested clarification on how often the WDFW's standard changes or if it is a case by case standard. Planner Rachel Granrath provided comments. Commissioner Ryane Olin asked how other jurisdictions were addressing this and whether they had adopted different codes. Planner Rachel Granrath provided comment. Commissioner Matt Rasmussen provided comment. Planner Rachel Granrath provided comment. Commissioner Ryane Olin requested more information on the options for adopting the recommended best available science. Planner Rachel Granrath provided comment. Commissioner Frank Lovejoy and Planner Rachel Granrath provided comments. Commissioners Matt Rasmussen and Robert Frasier and Planner Rachel Granrath provided comments. Commissioner Matt Rasmussen inquired about the comparisons found at the end of the packet. Planner Rachel Granrath provided comments regarding the comparison information found on pages 37 and 38 of the packet. Commissioners Frank Lovejoy and Ryane Olin, provided comments. Commissioner Ryane Olin inquired about WDFW's comments. Planner Rachel Granrath provided comment. Commissioners Ryane Olin, Robert Frazier, and Matt Rasmussen provided comment. Planner Rachel Granrath stated she would check into what Cowlitz County has. Commissioner Ryane Olin and planner Rachel Granrath provided comment. Planner Rachel Granrath stated they could maybe mirror Chehalis and show a map of impact, then asked the Commissioners if that sounded like a good path forward. The Commissioners expressed agreement with that path forward. Commissioner Matt Rasmussen asked if they could see a mock-up development. Planner Rachel Granrath asked if that would be helpful. Commissioner Matt Rasmussen stated it would be. Commissioner Matt Rasmussen and Planner Rachael Granrath provided comment.

## **6. NEW BUSINESS**

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## **7. ADJOURNMENT**

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Commissioner Ryane Olin motioned, seconded by Commissioner David VanCamp, to adjourn the regular meeting. All were in favor.

There being no further business, Chairperson Matt Rasmussen adjourned the regular meeting at 6:45 PM.

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Karlene Akesson, Secretary

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New Edits

From Manual

From Working CAO

From Toledo

PLACEHOLDER TEXT

# Chapter 18.10 Critical Areas Protection

## Article 1. General Provisions

### 18.10.010 Title

- A. This chapter shall be known as the Critical Areas Protection Ordinance of the City of Castle Rock. This chapter is adopted pursuant to the authority granted by the Washington State Growth Management Act, including RCW 36.70A.060, and is intended to protect critical areas and their functions and values while allowing for reasonable use of private property consistent with state law.

### 18.10.015 Purpose and Intent

- A. The purpose of this chapter is to protect critical areas and their functions and values as required by the Washington State Growth Management Act. This chapter establishes development standards and review procedures that apply to land use and development activities in or near critical areas.
- B. It is the intent of this chapter to:
1. Designate and protect critical areas, including wetlands, fish and wildlife habitat conservation areas, [special flood hazard](#) (frequently flooded) areas, geologically hazardous areas, and critical aquifer recharge areas;
  2. Apply best available science to the identification, classification, and protection of critical areas;
  3. Prevent the degradation or loss of critical area functions and values and reduce risks to public health, safety, and property;
  4. Provide clear and predictable standards for development while allowing for reasonable use of private property;
  5. Avoid, minimize, and mitigate impacts to critical areas through the application of mitigation sequencing;
  6. Coordinate critical area protection with other local, state, and federal regulations; and
  7. Establish an administrative framework for review, enforcement, and long-term protection of critical areas.

### 18.10.020 Authority

- A. This chapter is adopted under the authority of the Washington State Constitution, the Washington State Growth Management Act (RCW 36.70A), and the police powers granted to cities under RCW Titles 35 and 36. The City is authorized to designate and protect critical areas and to regulate land use and development activities to protect public health, safety, and welfare.
- B. This chapter implements the requirements of RCW 36.70A.060 and is intended to be applied in a manner consistent with state law, applicable administrative rules, and controlling case law.

### 18.10.025 Applicability & Relationship to Other Regulations

- A. General Applicability. The provisions of this chapter apply to all land use and development activities, including new uses of land and buildings, changes of use, new construction, modification of existing buildings, structures, and infrastructure, clearing, grading, construction, and vegetation removal, that occur within critical areas or their required buffers, unless expressly exempted by this chapter.
- B. Critical areas subject to the provisions of this Chapter include:
1. Critical aquifer recharge areas.
  2. \_\_\_\_\_—Special flood hazard (frequently flooded) areas.
  3. Geologic hazard areas.
  4. Wetlands.
  5. Fish and wildlife habitat conservation areas.
- C. ~~Scope of Regulation.~~ This chapter applies to both public and private actions and to all properties within the City limits.

- D. Relationship to Other Development Regulations. Compliance with this chapter is required in addition to compliance with all other applicable local, state, and federal regulations. Approval under this chapter does not relieve an applicant from the responsibility to obtain all other required permits or approvals.
- E. Where Most Restrictive Standard Applies. Where the provisions of this chapter conflict with other development regulations, the provision that provides greater protection to critical areas shall apply, unless otherwise provided by law.
- F. Mapped and Unmapped Critical Areas. The provisions of this chapter apply to critical areas and buffers whether or not they are shown on official maps.
- G. No Authorization of Impacts. Nothing in this chapter shall be construed to authorize impacts to critical areas except as expressly allowed under the standards of this chapter.

## Article 2. Definitions

### 18.10.030 Definitions

- A. For the purposes of this chapter, the following definitions shall apply unless the context clearly requires otherwise. It is further acknowledged that several of the following terms appear in other codes and those may be slightly different than those contained in this code.
  1. “Agricultural activities (existing and ongoing)” means those activities conducted on lands defined in RCW 84.34.020(2), Open space, agricultural, timber lands – Current use – Conservation futures, and those activities involved in the production of crops and livestock, including but not limited to operation and maintenance of existing farm and stock ponds or drainage systems, irrigation systems, changes between agricultural activities, and maintenance or repair of existing serviceable structures and facilities. Activities which bring an area into agricultural use are not part of an ongoing activity. An activity ceases to be ongoing when the area on which it was conducted has been converted to a nonagricultural use or, with the exception of forest practices, has been unattended for five years.
  2. “Alluvial fan” means a low, outspread, relatively flat to gently sloping mass of loose alluvium, shaped like an open fan, deposited by a stream where it issues from a narrow valley, or where a tributary stream issues into the main stream, or wherever a constriction in a valley abruptly ceases or the gradient of the stream suddenly decreases; it is steepest near the mouth of the valley where its apex points upstream, and it slopes gently and convexly outward with gradually decreasing gradient.
  3. “Alluvium” means sand, clay, etc., gradually deposited by moving water, as along a riverbed, stream or shore of a lake.
  4. “Alteration” means a human-induced action which materially affects a regulated critical area or associated buffer, such as a physical change to the existing condition of land or improvements, including but not limited to construction, clearing, filling, and grading.
  5. “Applicant” means the person, party, firm, corporation, Indian tribe, or federal, state, or local government, or any other entity that proposes any activity that could affect a critical area.
  6. “Aquifer recharge area” An area with a critical recharging effect on an aquifer that is vulnerable to contamination and is used as a sole source of potable water supply. Aquifer recharge areas are those areas designated pursuant to a) The Federal Safe Drinking Water Act, b) Chapter 90.44, 90.48 and 90.54 RCW; and c) WAC 173-100 and 173-200. means an area where precipitation or surface water infiltrates the ground and moves through soil and geologic materials to replenish groundwater. means areas where water infiltrates the soil and percolates through it and surface rocks to the groundwater.
  7. “Best available science” Current scientific information used in the process of designating, protecting, or restoring critical areas; that is, scientific information derived from a valid scientific process as defined by WAC 365-195-900 through 925 means scientific methodology that is the product of a valid scientific process. Such a process will have undergone peer review (see Appendix 18.10A), be replicable, contain logical conclusions and reasonable inferences, and be based on scientific research, inventories, surveys, assessments and/or statistical analysis conducted by a qualified scientific expert.
  - 1-8. “Best management practices” means Conservation practices or systems of practices and management measures that: (a) Control soil loss and reduce water quality degradation caused by high concentrations of nutrients, animal waste, toxics, or sediment; (b) Minimize adverse impacts to surface water and ground water flow and circulation patterns and to the chemical, physical, and biological characteristics of wetlands; (c) Protect trees, vegetation, and soils designated to be retained during and following site construction and use native plant species appropriate to the site for re-vegetation of disturbed areas; and (d) Provide standards for proper use of chemical herbicides within critical areas. systems of practices and management measures that: (1) control soil loss and reduce water quality degradation caused by nutrients, animal waste, and toxins; (2) control the movement of sediment and erosion caused by land alteration activities; (3) avoid adverse impacts to surface and groundwater quality, flow, and circulation patterns; and (4) avoid adverse

~~impacts to the chemical, physical, and biological characteristics of a critical area.~~

- ~~2-9. “Buffer or buffer area” Vegetated areas adjacent to wetlands or other aquatic resources that can reduce impacts from adjacent land uses through various physical, chemical, and/or biological processes. means an area of land adjacent to a critical area that is required to be retained, enhanced, or restored in a predominantly natural condition in order to protect the functions and values of the critical area from adverse impacts of development. Buffers are measured horizontally outward from the edge of the critical area as defined by this chapter.~~
- ~~3-10. “Buffer averaging” means a method of modifying the configuration of a required buffer in which portions of the buffer are reduced in width and other portions are increased in width, resulting in an overall buffer area that is equal to or greater than the area required by the standard buffer width, and that provides equal or greater protection of critical area functions and values.~~
- ~~4. “Buffer width” means the required horizontal distance of a buffer, measured in feet, extending outward from the edge of a critical area. Buffer widths are established by the standards and tables of this chapter based on critical area type, classification, and adjacent land use intensity.~~
- ~~5-11. “Critical area boundary” means the outer edge or limit of a critical area, as identified based on field conditions, best available science, and applicable classification criteria, from which required buffers and setbacks are measured. The critical area boundary shall be determined using site-specific information where available and shall not be based solely on mapped or generalized data.~~
- ~~6-12. “Critical area report” means a written technical report prepared by a qualified professional that identifies, evaluates, and documents the presence, extent, functions, and values of critical areas on or adjacent to a site, and assesses the potential impacts of a proposed activity. A critical area report includes recommended avoidance, minimization, and mitigation measures necessary to comply with the standards of this chapter.~~
- ~~7-13. "Critical areas" include the following areas and ecosystems: (a) Wetlands; (b) areas with a critical recharging effect on aquifers used for potable water; (c) fish and wildlife habitat conservation areas; (d) special flood hazard (frequently flooded) areas; and (e) geologically hazardous areas. "Fish and wildlife habitat conservation areas" does not include such artificial features or constructs as irrigation delivery systems, irrigation infrastructure, irrigation canals, or drainage ditches that lie within the boundaries of and are maintained by a port district or an irrigation district or company.~~
- ~~8-14. “Conservation easement” means an interest or right of use over a property, less than fee simple (means that the easement has been conveyed to the public by deed or other document, but the actual land stays with the original landowner), to protect, preserve, maintain, improve, restore, limit the future use of, or conserve for open space purposes any land or improvement on the land.~~
- ~~9-15. “Construction” means any act or process that requires a building or fill and grading permit, and/or that adds an addition onto an existing building or erects a new principal or accessory structure on a lot which is subject to the design standards for the district in which the property is located.~~
- ~~10-16. “Development” means a construction project involving property improvement or a change of physical character within the site; the act of using land for building or extractive purposes. “Development” shall include, but shall not be limited to, the activities identified in CRMC 18.10.060.~~
- ~~11-17. “Enhancement” The manipulation of the physical, chemical, or biological characteristics of a wetland or other critical area to heighten, intensify, or improve specific function(s). Enhancement results in the gain of selected function(s), but may also lead to a decline in other function(s). Enhancement does not result in a gain in area. means actions performed to improve the condition or functions and values of an existing viable wetland or buffer, or fish and wildlife habitat area or buffer. Enhancement actions include but are not limited to increasing plant diversity, increasing fish and wildlife habitat, installing environmentally compatible erosion controls, and removing invasive plant species such as milfoil and loosestrife.~~
- ~~12-18. “ESA” means the Endangered Species Act, specifically Section (4)(d), Protective Regulations.~~
- ~~13. “Excavation” means the mechanical removal of earth material.~~
- ~~14. Existing and Ongoing Agricultural Activities. See “agricultural activities.”~~
- ~~15-19. “Feasible” means capable of being accomplished in a successful manner within a reasonable period of time, taking into account site conditions, existing constraints, available technology, and the scale and scope of the proposed development. Feasible does not mean desirable or preferred by the applicant and does not include measures that would render a project incapable of reasonable use of the property.~~
- ~~16-20. “Filling” means the act of placing fill material (on any critical area) including temporary stockpiling of fill material.~~
- ~~17-21. “Fill material” means a deposit of earth or other natural or manmade material, placed by artificial means.~~
- ~~18-22. “Fish,” as used in this chapter, refers to resident game fish; anadromous fish and specified salmonoids listed as endangered or threatened under the Federal Endangered Species Act, Section (4)(d), or the Washington State List of Threatened and Endangered Species.~~
- ~~19-23. "Fish and wildlife habitat conservation areas" are areas that serve a critical role in sustaining needed~~

habitats and species for the functional integrity of the ecosystem, and which, if altered, may reduce the likelihood that the species will persist over the long term. These areas may include, but are not limited to, rare or vulnerable ecological systems, communities, and habitat or habitat elements including seasonal ranges, breeding habitat, winter range, and movement corridors; and areas with high relative population density or species richness. Counties and cities may also designate locally important habitats and species. Fish and wildlife habitat conservation areas do not include such artificial features or constructs as irrigation, delivery systems, irrigation infrastructure, irrigation canals, or drainage ditches that lie within the boundaries of and are maintained by a port district or an irrigation district or company. [Fish and wildlife habitat conservation areas may also include habitats of local importance.](#)

**20.24.** “Functions and values” means the physical, biological, chemical, and hydrologic processes and characteristics of a critical area that support ecological integrity, natural hazard reduction, and water quality, including but not limited to:

- a. Water storage, conveyance, and flood attenuation;
- b. Groundwater recharge and discharge;
- c. Water quality improvement through filtration, sediment retention, and nutrient cycling;
- d. Habitat for fish and wildlife, including breeding, rearing, migration, and refuge;
- e. Maintenance of hydrologic and ecological connections; and
- f. Reduction of risks to public health, safety, and property from flooding, erosion, or geologic hazards.

**21.25.** “Geologically hazardous areas” means areas that because of their susceptibility to erosion, sliding, earthquake, or other geological events, are not suited to the siting of commercial, residential, or industrial development consistent with public health or safety concerns. [Geologically hazardous areas are characterized by slopes greater than 15% and known erosion, landslides, settling, rockslide, debris flow, and/or seismic hazards as defined by the US Department of Agriculture Soil Conservation Service.](#)

**22.26.** “Geologist” means a person who is licensed as a professional geologist in Washington State in accordance with Chapter 18.220 RCW.

**23.27.** “Geotechnical assessment” means an assessment prepared by a geotechnical engineer licensed by the state of Washington, which evaluates the site conditions and the effects of a proposal, and identifies mitigating measures to ensure that the risks associated with geologic hazards will be substantially reduced. [See Appendix 18.10A.](#)

**24.28.** “Geotechnical engineer (engineering geologist)” means a ~~practicing geotechnical/civil engineer~~ licensed as a professional civil engineer with the state of Washington, who is also licensed as a professional geologist in Washington State in accordance with [Chapter 18.220 RCW.](#)

**25.29.** “Geotechnical report” means a report prepared by a geotechnical engineer including a description of the site geology, conclusions, and recommendations regarding the effect of geologic conditions on the proposed development, opinions and recommendations of the adequacy of the site to be developed, the effects of groundwater interception and infiltration, seepage, potential slip planes, and changes in soil bearing strength, and the impacts of the proposed development and appropriate mitigating measures. [See Appendix 18.10B.](#)

**26.30.** “Grading” means an excavating and/or filling of the earth’s surface or combination thereof [to achieve a desired slope or topography.](#)

**27.31.** “Habitat conservation area” means an area necessary for maintaining populations of fish and wildlife species, including areas with which such species have a primary association for breeding, feeding, rearing, migration, or refuge. Habitat conservation areas include, but are not limited to, streams, rivers, lakes, wetlands, riparian areas, and areas used by species of local, state, or federal importance.

**28.32.** “Habitats of local importance” designated as fish and wildlife habitat conservation areas include those areas found to be locally important by counties and cities.

**29.33.** “Hydric soils” means soils which are wet long enough to periodically produce anaerobic (reduced oxygen) conditions, thereby influencing plant growth.

**30.34.** “Hydrogeologist” means a person who is licensed as a professional hydrogeologist in Washington State in accordance with [Chapter 18.220 RCW.](#)

**31.35.** “Hydrologic function” means the role a critical area plays in the movement, storage, and quality of water within a watershed, including but not limited to the regulation of surface water flows, groundwater recharge and discharge, flood attenuation, erosion control, and the maintenance of natural hydrologic connections.

**32.36.** “Hydrologic unit (watershed)” means an area of land above or upstream from a specific point on a stream, which is enclosed by a topographic divide (i.e., hillsides, mountains, cliffs, etc.) such that direct surface runoff from precipitation normally drains by gravity into the stream or the area above the specified point on a stream.

**33.37.** “Indigenous” means any native species of plant or wildlife that occurs naturally on a particular site or area.

**38.** “Landfill” means a disposal facility or part of a facility at which solid waste is placed in or on land.

- 34.39.** “Landslide” means abrupt downslope movement of a mass of soil or rock.
- 35.40.** Landslide Hazard Area. See CRMC 18.10.150(C).
- 36.41.** “Liquefaction” means a process in which soil loses strength, and behaves like a liquid.
- 37.42.** “Mitigation” means compensating action designed to replace project-induced critical area losses or impacts; ~~including, but not limited to, avoiding, minimizing, or compensating for adverse wetland impacts.~~
- a. In-Kind Mitigation. Replacement of wetlands or surface water systems with substitute wetlands or surface water systems whose characteristics and functions and values closely approximate those destroyed or degraded by a regulated activity.
  - b. Out-of-Kind Mitigation. Replacement of surface water systems or wetlands with substitute surface water systems or wetlands whose characteristics do not closely approximate those destroyed or degraded by a regulated activity.
- 38.43.** “Mitigation plan” means a plan that outlines the activities that will be undertaken to alleviate project impacts. The plan generally contains: a site and project description; an environmental assessment of the functions and values of the site that will be impacted; a description of the proposed mitigation; the goals and objectives of the proposed mitigation; the performance standards against which success will be measured; monitoring of and reporting on the success of the mitigation; and a contingency plan in case of failure.
- 1-44.** “Mitigation sequencing” means A prescribed order of steps taken to reduce the impacts of activities on wetlands. As defined in WAC 197-11-768, mitigation means: (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 action and its implementation by using appropriate technology or by taking affirmative steps to avoid or reduce impacts; (c) Rectifying the impact to wetlands, critical aquifer recharge areas, and habitat conservation areas by repairing, rehabilitating, or restoring the affected environment; (d) Reducing or eliminating the impact or hazard 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 remedial action when necessary. the required order in which impacts to critical areas are addressed, beginning with avoidance of impacts where feasible, followed by minimization of unavoidable impacts, and then mitigation of remaining impacts. Mitigation sequencing includes, in order: avoiding the impact; minimizing the impact; rectifying the impact; reducing or eliminating the impact over time; compensating for the impact; and monitoring and maintaining mitigation measures to achieve no net loss of critical area functions and values.
- 2-45.** “Monitoring” means the periodic evaluation and documentation of mitigation measures or protected critical areas to determine whether required performance standards are being met over time and to identify the need for maintenance or corrective actions.
- 3-46.** “No net loss” means a standard requiring that the total extent, functions, and values of critical areas are maintained over time through the avoidance, minimization, and mitigation of impacts resulting from regulated activities. No net loss is evaluated based on the effectiveness of adopted development standards and required mitigation measures and does not require the complete elimination of all impacts.
- 4-47.** “Noxious weeds” means any plant which, when established, is highly destructive, competitive, or difficult to control. The county maintains a noxious weed list.
- 5-48.** “Open space” means land eligible for tax assessment at its current use value as authorized by Chapter 84.34 RCW.
- 6-49.** “Ordinary high water mark” or “OHWM” means the line on the shore of waters that is established by fluctuations of water and is indicated by physical characteristics such as a clear, natural line impressed on the bank; shelving; changes in the character of soil; destruction of terrestrial vegetation; the presence of litter or debris; or other appropriate means that consider the characteristics of the surrounding area.
- 7-50.** “Peer review” means the independent evaluation of a critical area report, mitigation plan, or other technical information by a qualified professional retained by the City to assess the accuracy, completeness, and consistency of the information with best available science and the standards of this chapter. Peer review does not replace the City’s decision-making authority and may be required at the applicant’s expense when determined necessary by the City.
- 8-51.** “Pond” means a naturally existing or artificially created body of standing water which exists on a year-round basis and occurs in a depression of land or expanded part of a stream.
- 9-52.** “Priority habitat” means those habitat types or elements with a unique or significant value to a diverse assemblage of species, typically defined by the Washington Department of Fish and Wildlife’s Priority Habitats and Species List. A priority habitat may consist of a unique vegetation type or dominant plant species, a described successional stage, or a specific structural element.
- 10-53.** “Priority species” means fish and wildlife species requiring protective measures and/or management guidelines to ensure their perpetuation as determined by the Washington State Department of Fish and Wildlife’s Priority Habitats and Species List, as now exists or is hereafter amended.
- 1-54.** “Qualified expert,” ~~or “qualified professional.”~~ A person with professional wetland and/or critical areas

experience that meets the following criteria: (a) A Bachelor of Science or Bachelor of Arts or equivalent degree in hydrology, soil science, botany, ecology, resource management, or related field, or four years of full-time work experience as a wetland or critical areas professional may substitute for a degree, and (b) At least two additional years of full-time work experience as a wetland or critical areas professional; including but not limited to delineating wetlands, preparing wetland reports, conducting function assessments, and developing and implementing mitigation plans, and (c) Completion of additional wetland-specific or critical areas training programs. This could include a more comprehensive program such as the University of Washington Wetland Science and Management Certificate Program or individual workshops on topics such as wetland delineation, function assessment, mitigation design, hydrophytic plant or hydric soil identification. A person certified as a Professional Wetland Scientist through the Society of Wetland Scientists professional certification program meets the above criteria for the purposes of these regulations, means a person who has received a degree from an accredited college or university in a field necessary to identify and evaluate a particular critical area, and/or a person who is professionally trained, licensed and certified in such field(s). Areas of technical expertise shall generally be as follows: wetlands biology or ecology (for wetlands); stream and/or fisheries biology or ecology (for streams); wildlife biology or ecology (for critical habitat); or a licensed geologist, hydrogeologist or engineering geologist (most frequently referred to as a geotechnical engineer) for geologic hazard areas in accordance with Chapter 18.220 RCW. When a landscape or planting plan is required by these regulations, a qualified expert is one who has demonstrated expertise in the use of indigenous plant species, slope stabilization, and arboricultural practices. Professionals shall be required to demonstrate the basis for their qualifications, and submit copies of past reports that have been accepted by other jurisdictions on critical area permit applications. A demonstration of qualifications may include, but shall not be limited to, submission of a copy of professional certification, such as either a graduate certificate or state license.

**2.** Regulation, Wetland. In understanding wetland regulation it is important to distinguish between “biological,” “jurisdictional,” and “regulated” wetlands.

- a.** Biological wetland: A biological wetland is one that is determined (by a qualified expert) to have the physical, biological and chemical characteristics to be called a “wetland” [see definition of “wetland” in this section];
- b.** Jurisdictional wetland: A jurisdictional wetland is one that a particular law has determined should be regulated by the provisions of the law. It may be the same as a biological wetland or it may represent a subset of biological wetlands. For example, the Shoreline Management Act has defined wetlands under its jurisdiction as being all wetlands associated with tidal waters and certain lakes and streams. Most freshwater wetlands in the state are not within the shoreline jurisdiction. The SMA definition further restricts jurisdictional wetlands by specifically excluding artificial wetlands intentionally created from nonwetland sites such as canals, farm ponds and landscape amenities. Thus, even though some of these areas may meet the above biological definition, the SMA would not regulate them;
- c.** Regulated wetland: While most jurisdictional wetlands are going to be regulated to some extent, there are always certain activities that are exempt from a given law. This results in some jurisdictional wetlands not being regulated. For example, a wetland may fall under SMA jurisdiction because it meets the specific criteria contained in the SMA wetland definition. However, if the wetland occurred in an area that had been historically farmed, a landowner could plow the wetland to plant a crop without having to get a shoreline permit because the activity is exempt. Thus, some people have been confused by the notion that an area may meet the above jurisdictional definition of a wetland, are delineated as such, and still be exempt from any regulation because of the particular activity proposed.

**3.55.** Resident Game Fish. “Game fish,” as described in the Washington Game Code, spend their life cycle in freshwater. Steelhead, Sea-Run Cutthroat and Dolly Varden trout are anadromous game fish and should not be confused with resident game fish.

**1.56.** “Restoration” means Measures taken to restore an altered or damaged natural feature, including: (a) Active steps taken to restore damaged wetlands, streams, protected habitat, or their buffers to the functioning condition that existed prior to an unauthorized alteration; and (b) Actions performed to re-establish structural and functional characteristics of a critical area that have been lost by alteration, past management activities, or catastrophic events. ~~efforts performed to reestablish functional values and characteristics of a critical area that have been destroyed or degraded by past alterations (e.g., filling or grading).~~

**2.57.** “Riparian habitat area (RHA)” means an area adjacent to aquatic streams with flowing water (e.g., rivers, perennial or intermittent streams, seeps, springs) that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.

**3.58.** “Riparian zone” means the upland area immediately adjacent to and paralleling a body of water and is usually composed of trees, shrubs and other plants. Riparian functions include bank and channel stability, sustaining water supply, providing flood storage, retainment of woody debris, leaf litter, nutrients, sediment

and pollutant filtering, while providing shade, shelter and other functions that are important to the survival of both fish and wildlife.

**59.** “Setback” means a required minimum horizontal distance, measured in feet, between a structure or development activity and a specified feature or line, within which structures or development are restricted or prohibited. A setback is separate from and in addition to any required critical area buffer unless expressly stated otherwise.

**4-60.** “Site potential tree height” or “SPTH” means the expected mature height, expressed in feet, of the tallest dominant tree species that would naturally occur on a particular site under normal ecological conditions, based on soil type, climate, hydrology, and vegetation potential, and determined using best available science. Site potential tree height is not based on the height of existing trees or current site conditions resulting from past disturbance.

**5-61.** “Slope” means an inclined earth surface, the inclination of which is expressed as the ratio of horizontal distance to vertical distance. In these regulations, slopes are generally expressed as a percentage; percentage of slope refers to a given rise in elevation over a given run in distance. ~~Slopes 15 to 30 percent constitute areas of geologic concern. Slopes greater than 30 percent constitute potential areas of geological hazard.~~

**6-62.** “Soil with severe erosion hazard” means any soil type having a degree of hazard or limitation of severe or very severe according to Table 3 of the Soil Survey of Cowlitz County Area, Washington, issued February 1974 by the U.S. Department of Agriculture, Soil Conservation Service.

**7-63.** “Top of bank” means the point along a stream, river, or watercourse where the slope of the land transitions from the relatively flat floodplain or terrace to the steeper slope descending to the water body, as identified by a distinct change in grade, vegetation, or soil characteristics. Where a distinct break in slope is not present, the top of bank shall be determined based on site-specific conditions using best available science.

**8-64.** “Undisturbed buffer” means a protective area left in its natural state, except for any access and/or utility crossings approved by the city planner, between land development and a critical area.

**9-65.** “Utility line” means pipe, conduit, cable, or other similar facility by which services are conveyed to the public or individual recipients. Such services shall include, but are not limited to, water supply, electric power, natural gas, communications, and sanitary sewer.

**10-66.** “Wetland” or “wetlands” means areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands do not include those artificial wetlands intentionally created from non-wetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. Wetlands may include those artificial wetlands intentionally created from non-wetland areas created to mitigate conversion of wetlands.

**11-67.** “Wetland evaluation technique” means a technique for evaluating wetlands as described in the Washington State Department of Ecology Publication Nos. 99-115 and 99-116 titled Methods of Assessing Wetland Functions (see [www.ecy.wa.gov](http://www.ecy.wa.gov)).

**12-68.** “Wetland functions” are determined by physical, chemical, and biological characteristics and include but are not limited to fish and wildlife habitat, aquifer recharge and discharge, water quality, shoreline stabilization, and flood and erosion control.

**13-69.** “Wetland rating” or “wetland classification” means the classification of a wetland based on its functions and values using an approved wetland rating system adopted or referenced by the City and consistent with best available science. Wetland rating is used to determine applicable buffer widths, development standards, and mitigation requirements under this chapter.

## Article 3. Best Available Science and Standards

### 18.10.045 Best Available Science

- A. The City shall use best available science in the designation, classification, and protection of critical areas, and required by RCW 36.70A.172.
- B. Best available science shall be applied in the development and interpretation of the standards of this chapter, including buffer widths, mitigation requirements, and critical area report standards. The City is not required to conduct an independent scientific analysis for individual development proposals.
- C. Best available science includes, but is not limited to, the following sources, as applicable:
  1. Peer-reviewed scientific studies and technical reports;

2. Guidance and technical manuals prepared or adopted by federal, state, and local agencies;
  3. Scientific information and data from recognized academic, professional, and governmental sources; and
  4. Site-specific technical information prepared by qualified professionals.
- D. Where site-specific conditions differ from mapped or generalized data, the City may rely on site-specific studies and critical area reports prepared by qualified professionals, provided such information is consistent with best available science.
- E. Decisions under this chapter shall be supported by the record and shall demonstrate consideration of best available science. The City may rely on adopted standards and regulations that were developed using best available science.

### 18.10.050 No Net Loss Standard

- A. Development and land use activities regulated by this chapter shall be designed and conducted to achieve no net loss of critical area function and values, consistent with best available science.
- B. No net loss shall be achieved through the application of avoidance, minimization, and mitigation measures, as required by this chapter. Compliance with adopted buffer standards, mitigation requirements, and development standards shall be presumed to achieve no net loss, unless demonstrated otherwise by site-specific conditions
- C. The City shall evaluate impacts to critical areas according to type, scale, and intensity of the proposed activities, as well as the functions and values of the affected critical area.
- D. Where impacts to critical areas cannot be completely avoided or minimized, mitigation shall be required to offset impacts and achieve no net loss of functions and values. Mitigation shall be proportional to the impact and based on best available science.

### 18.10.055 Mitigation Sequencing

~~A. Projects proposed in or adjacent to wetlands are required to utilize the mitigation sequence shown in 12.09.~~

~~B.A.~~ Property Owners and Project Applicants/Sponsors shall, when designing development activities that may affect geologic hazard areas, wetlands, and fish and wildlife habitat conservation areas, frequently flooded areas (i.e. special flood hazards), or critical aquifer recharge areas, use the following measures, referred to as mitigation sequencing, listed in priority order:

1. Avoid the adverse impact altogether by not taking a certain action or parts of an action or moving the proposed action.
2. Minimize 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.
3. Rectify the adverse impact by repairing, rehabilitating or restoring the affected environment to the conditions existing at the time of the initiation of the project.
4. Reduce or eliminate the adverse impact over time by preservation and maintenance activities during the life of the action.
5. Compensate for the adverse impact by replacing, enhancing, or providing similar substitute resources or environments.
6. Monitor the impact for a reasonable period of time and taking appropriate corrective measures. and
7. ~~Mitigate the adverse impact through a combination of measures.~~

~~B.~~ The mitigation of individual projects may include a combination of the above measures as needed to achieve the most effective protection or compensatory mitigation of the critical area functions and values.

~~7.~~

### 18.10.060 Use of Professional Judgement

- A. The ~~Director~~ Director or designee may apply professional judgement in administering this chapter to interpret standard, evaluate technical information, and address site-specific conditions, provided such determinations are consistent with best available science and documented in the record.

## Article 4. Classification and Mapping of Critical Areas

### 065 General Classification Standards

- A. The City designates the following as critical areas pursuant to RCW 36.70A.030 and RCW 36.70A.060:
  1. Wetlands;
  2. Fish and wildlife habitat conservation areas;

3. Special flood hazard ([frequently flooded](#)) areas;
  4. Geologically hazardous areas; and
  5. Critical aquifer recharge areas.
- B. Critical areas shall be classified according to the criteria and standards set forth in this chapter. Classification shall be based on best available science and may consider factors including, but not limited to, physical characteristics, ecological functions, hazard potential, and the presence ~~of~~ [of](#) regulated species or resources.
- C. Where applicable, critical areas shall be classified using standardized rating or classification systems adopted by the City or referenced in this chapter, including state or federal methods, manuals, or guidance.
- D. Critical area classifications apply regardless of whether or not a critical area is shown on official maps. Mapped information is intended to assist in the identification of potential critical areas and does not replace site-specific evaluations.
- E. The [Director or designee](#) shall make the final determination regarding the classification of critical areas for purposes of applying this chapter, based on the standards outlined herein.

## 070 Official Maps and Data Sources

- A. Official critical area maps and data are adopted for informational purposes only and do not replace site-specific evaluations. Where mapped information conflicts with site-specific data prepared by qualified professionals, site-specific data may be used for purposes of applying the provisions of this chapter.

## 075 Field Verification

- A. Field verification may be required to affirm the presence, extent, or classification of critical areas where mapped information is inconclusive or site conditions indicate a potential critical area. Field verification shall be conducted by qualified professionals using accepted methods and reviewed by the City.

## 080 Critical Area Boundaries

- A. Critical area boundaries shall be identified based on site-specific field conditions using best available science and the applicable classification standards of this chapter. Boundaries shall be established using physical, biological, and hydrologic indicators appropriate to the type of critical area.
- B. The ~~Director~~ shall [maintain the authority to approve or deny critical areas reports, determinations, and delineations completed by qualified professionals. If the director finds documentation of critical areas to be unsatisfactory they may request a third party review by the applicable resource agencies or through a third party consistent with the requirements of 125 "independent review".](#) ~~make the final determination of critical area boundaries for purposes of applying this chapter, based on the information in the record.~~

## 085 Interpretation of Mapped Areas

- A. Maps and data depicting the location of critical areas are intended to assist in identifying areas where critical areas may be present and where further investigation may be required. Such maps are not regulatory and do not establish the presence, absence, or boundaries of critical areas, [except as necessary for the classification of fish and wildlife habitat conservation areas \(XXX\)](#).
- B. The boundaries of critical areas shown on official maps are approximate and are based on available data at the time of map preparation.
- C. The presence, location, extent, and classification of critical areas shall be determined based on site-specific conditions using best available science, regardless of whether a critical area is shown on an official map.
- D. Where a critical area is shown on an official map but is not present on a site based on field verification, the mapped information shall not be controlling for purposes of applying this chapter.
- E. Where a critical area is not shown on an official map but is present based on field verification, the provisions of this chapter shall apply.
- F. The ~~Director~~ [Director or designee](#) shall make the final determination regarding the interpretation of mapped areas for purposes of applying this chapter, based on the information in the record.

# Article 5. Allowed, Exempt, and Prohibited Activities

## 090 Allowed [and Exempt](#) Activities

- A. [The activities not otherwise required to obtain a permit from the City of Castle Rock shall not require a critical area assessment, review or permit as part of this chapter, provided that they are conducted in a manner consistent with Best Available Science \(BAS\) and the Growth Management Act \(GMA\) to ensure no net loss of ecological](#)

functions and values."

**B. Activities Allowed without a City of Castle Rock Permit.** The activities in subsections (C) through (E) of this section are allowed without the submission of a City of Castle Rock critical areas permit or critical areas report; provided, that a critical area report shall be required for the activities when they are not specifically exempted from local review and the actions:

1. Result in the loss of the functions and values of a critical area and/or a critical area buffer;
2. Are proposed as part of a larger project that has other components that require the submission of a critical areas report.

**C. Permit Exempt Activities - Critical Areas and Buffers.** The following activities are allowed within critical areas and their buffers without a critical areas permit, when the activities meet the requirements of subsection (B) of this section:

1. Normal and routine maintenance and repair of existing public or private facilities within an existing right-of-way; provided, that the maintenance or repair does not increase the footprint of the facility or right-of-way.
2. Activities and uses conducted pursuant to the Washington State Forest Practices Act and its rules and regulations, WAC 222-12-030, where state law specifically exempts local authority. This exemption, however, shall not apply to developments that require local approval for a Class IV - General forest practice permit (conversions), as defined in Chapter 76.09 RCW and Chapter 222-12 WAC.
3. Existing and ongoing agricultural activities are not subject to this chapter.
4. The harvesting of wild crops in a manner that is not injurious to the natural reproduction of such crops, and does not require the tilling of soil, planting of crops, chemical applications, or the alteration of a critical area by changes to topography, water conditions, or water sources.
5. Conservation or restoration activities aimed at protecting the soil, water, vegetation, or wildlife.
6. Educational and scientific research activities.
7. The enhancement of a critical area or critical area buffer through the removal of noxious weeds and/or nonnative invasive plant species, so long as:
  - a. The removal of the noxious weeds and/or invasive plant species is done by hand, unless guidance by the Washington State or Lewis County Noxious Weed Control Board recommends an alternative approach to prevent, control or eradicate the species.
  - b. All removed plant material is taken away from the site and appropriately disposed.
  - c. Plants that appear on the Washington State Noxious Weed Control Board list of noxious weeds are handled and disposed of according to a noxious weed control plan appropriate to the species.
  - d. Revegetation of the site with appropriate native species and at natural densities is allowed in conjunction with the removal of invasive plant species.
8. Emergency actions, including those activities necessary to prevent an immediate threat to public health, safety, or welfare, or that pose an immediate risk of damage to private property and that require remedial or preventative action in a time frame too short to allow for compliance with the requirements of this chapter.
  - a. Emergency actions that create an impact to a critical area or its buffer shall use reasonable methods to address the emergency. In addition, they must have the least possible impact to the critical area or its buffer. The person or agency undertaking such action shall notify the administrator within 14 working days following commencement of the emergency activity, except for county-wide or regional disasters for which the director shall provide alternative deadlines.
  - b. After the emergency, the person or agency undertaking the action shall fully fund and conduct necessary restoration and/or mitigation for any impacts to the critical area and buffers resulting from the emergency action. The person or agency undertaking the action shall obtain all approvals required for this chapter. Restoration and/or mitigation activities must be initiated within one year of the date of the emergency and be completed as provided for in this chapter.
9. Passive recreational uses, sport fishing or hunting, hiking, canoeing, viewing, nature study, photography, scientific or educational review, or similar minimal impact, nondevelopment activities.
10. Site investigative work required by a city, county, state, or federal agency in conjunction with the preparation of a land use application submittal, or the monitoring of a restoration or mitigation site, such as surveys, soil logs, percolation tests, and other related activities. In any such activity, impacts on the critical areas must be avoided where possible, minimized where necessary, and disbursed to the extent possible. Critical areas shall be restored to the preexisting level of function and value within one year after tests are concluded.
11. Maintenance of existing, lawfully established landscaping and gardens within a critical area or its buffer, including, but not limited to, mowing lawns, weeding, removal of noxious and invasive species, harvesting and replanting of garden crops, pruning, and replanting and replacement of ornamental vegetation or indigenous native species to maintain the condition and appearance of such areas as they existed prior to adoption of this code. Home and garden herbicides, pesticides, and fertilizers may be used to maintain existing landscaping and gardens within critical area buffers, when applied at times and rates specified on

the label in accordance with Washington State Department of Agriculture and other applicable regulations. Home and garden herbicides, pesticides, and fertilizers may not be used in wetlands, streams, or other water bodies without the submittal of a critical areas permit.

12. Residential remodels that do not alter the footprint or increase the gross floor area of the structure.

**D. Permit Exempt Activities - Wetlands and their Buffers.** The following activities are additionally allowed within wetlands and their buffers without a critical areas permit, when the activities meet the requirements of subsection (B) of this section:

1. Drilling for utilities/utility corridors under a wetland buffer with entrance/exit portals located completely outside of the wetland boundary; provided, that the drilling does not interrupt the ground water connection to the wetland or stream or the percolation of the surface water through the soil column. Specific studies shall be submitted by a hydrologist to determine whether the ground water connection to the wetland, or the percolation of surface water through the soil column, will be disturbed.

2. Walkways and trails; provided that those pathways are generally parallel to the perimeter of the wetland, are located in the outer twenty five percent of the buffer area, are constructed with a surface which does not interfere with soil permeability, and the surface of which is no more than eight feet wide. The design and construction of walkways and trails shall avoid impacts to established native woody vegetation. Raised boardwalks utilizing non-treated pilings are acceptable.

3. Stormwater management facilities. A wetland or its buffer can be physically or hydrologically altered to meet the requirements of a low-impact development, runoff treatment or flow control best management practice if all of the following criteria are met:

a. The wetland is classified as a Category III or a Category IV wetland with a habitat score of three to five points.

b. There will be no net loss of the functions and values of the wetland.

c. The wetland does not contain a breeding population of any native listed or protected amphibian species.

d. The hydrologic functions of the wetland can be improved as outlined in questions 3, 4, 5 of Chart 4 and questions 2, 3, 4 of Chart 5 in the guidance: Selecting Wetland Mitigation Sites Using a Watershed Approach (Western Washington) (Ecology Publication No. 09-06-32, December 2009); or the wetland is part of a priority restoration plan that achieves the restoration goals identified in a shoreline master program or another local or regional watershed plan.

e. The wetland lies in the natural routing of the runoff, and the discharge follows the natural routing.

f. All regulations regarding stormwater management and wetlands are followed, including but not limited to local and state wetland and stormwater codes, manuals, and permits.

g. Alterations to the structure of the wetland or its soils obtain the necessary permits for the proposal.

h. Stormwater management facilities in wetland buffers (limited to stormwater dispersion outfalls and bioswales) are located within the outer twenty-five percent of the wetland buffer. Stormwater management facilities may encroach farther into the wetland buffer at discretion of the responsible official or designee, provided that no other location is feasible.

i. All lost functions and values of the wetland are compensated/replaced.

**E.** To determine if a low-impact development best management practice will be feasible at a project site, a site-specific characterization by a qualified professional is required. Wetlands may contain features that render low-impact development best management practices infeasible.

**F. Permit Exempt Activities - Buffers Only.** The following activities are allowed within critical area buffers without a critical areas permit, when the activities meet the requirements of subsection (1) of this section:

1. Repair and maintenance of nonconforming uses or structures, when legally established within the buffer; provided, that the activities do not increase the degree of nonconformity for the critical area or otherwise cause a net loss in the ecological functions of the critical area or buffer.

## 100 Prohibited Activities

**A.** Except as expressly allowed by this chapter, the following activities are prohibited within critical areas and required buffers:

1. Development, grading, filling, excavation, dredging, or vegetation removal that would result in a loss or degradation of critical area functions and values;
2. Placement of structures, impervious surfaces, or storage of materials not expressly allowed by this chapter;
3. Alteration of natural hydrologic patterns, including drainage, diversion, or obstruction of surface or groundwater flows, except as allowed in compliance with this chapter;
4. Discharge of pollutants, hazardous substances, or untreated stormwater into critical areas or buffers;
5. Removal, conversion, or degradation of native vegetation within required buffers, except as part of an approved mitigation, restoration, or enhancement plan;
6. Creation of new lots, parcels, or building sites that would result in increased impacts to critical areas or

buffers, except as allowed through compliance with this chapter;

7. Expansion of nonconforming uses or structures that would increase impacts to critical areas or buffers, except as expressly authorized.

~~B. Activities not listed as allowed or exempt by this chapter shall be considered prohibited within critical areas and required buffers.~~

~~C.B.~~ The absence of an activity from this section shall not be construed as authorization for that activity within a critical area or buffer. For a proposed action to be considered allowable it must be compliant with zoning, land use, and result in no-net-loss of critical areas functions and values.

## Article 6. Critical Area Reports

### 110 When Reports are Required

- A. A Critical area report is required when a proposed development or land use activity may affect a critical area or required buffer, or when needed to determine the presence, extent, or classification of a critical area.
- B. A critical area report shall be required when any of the following apply:
  1. Development, grading, filling, construction, or vegetation removal is proposed within a critical area or required buffer;
  2. A critical area is mapped on or ~~adjacent within 300 feet of to~~ the site and field verification is needed to confirm site conditions;
  3. The proposal involves alteration of hydrology, drainage, utilities, or infrastructure that may affect a critical area;
  4. The proposal requests buffer averaging, buffer modification, a reasonable use exception, or a variance under this chapter;
  5. Expansion, replacement, or modification of a nonconforming use or structure is proposed within or adjacent to a critical area or buffer; or
  6. Site conditions, project scale, or potential impacts warrant technical analysis to demonstrate compliance with this chapter, as determined by the Director or designee.
- C. The Director or designee may waive the requirement for a critical area report when impacts are clearly minimal or when sufficient existing information demonstrates compliance with this chapter.
- D. Previously approved critical area reports may be accepted when site conditions and proposed activities have not materially changed, the report is not more than five years old, and the report remains applicable, as determined by the Director or designee.
- ~~A.~~

### ~~XXX120 Report Content Requirements—General Critical Areas Report~~ ~~Requirements (Manual—General Requirements)~~

- (1) A critical areas report shall be required when a proposal is located within the areas specified in the following sections of this critical areas section:
  - (a) Wetlands
  - (b) Habitat Areas
  - (c) Geological Hazard Areas
  - (d) Critical Aquifer Recharge areas
- (2) The critical areas report shall include the required information as specified in the corresponding critical area section(s). The director may waive portions of the submittal requirements, if they determine that they are not applicable to the proposed activity.
- (3) Impacts to Critical Areas Known. When a project will impact critical areas and/or their buffers, beyond any standards allowed for buffer averaging and reduced buffer widths, the applicant may submit a report that consolidates the requirements for both the critical areas report and the mitigation plan.
- (4) Submittal of Electronic Information. Applicants shall provide the reports and maps in an electronic format that allows site data to be incorporated into the city geographic information system (GIS) database; provided, that the administrator may waive this requirement for single-family developments. Applicants are encouraged to coordinate the electronic submittal

guidelines with the administrator. Please note: this standard shall not be construed as a requirement to use a specific computer software.

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## **XXX General Mitigation Plan Requirements**

- (1) Mitigation Report. Where a proposal would alter or impact a critical area or buffer, the applicant shall submit a mitigation plan, critical aquifer recharge area report or geotechnical report in accordance with the following requirements:
  - (a) Wetlands
  - (b) Fish and wildlife habitat areas.
  - (c) Geologically hazardous areas.
  - (d) Critical aquifer recharge areas.
- (2) Mitigation Sequencing. The mitigation plan, critical aquifer recharge area report or geotechnical report 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 by 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, monitoring any adverse impact and mitigation, and taking appropriate corrective or adaptive management measures.
  - (f) Monitoring the impact and taking appropriate corrective measures.
- (3) The mitigation of individual projects may include a combination of the above measures as needed to achieve the most effective protection or compensatory mitigation of the critical area functions and values.
- (4) On-Site Versus Off-Site Mitigation. The order of preference for onsite versus offsite compensatory mitigation for wetland and fish and wildlife habitat areas is stated in Section 20.12(2) (Compensatory Mitigation Approaches) Section 20 (Wetlands) and Section 24.11 (Preferred locations of Permittee Responsible Mitigation). All other critical areas shall follow the onsite versus offsite preferences below:
  - (a) To assure that a mitigation report relieves the direct impacts of an action, on-site mitigation is preferred over off-site mitigation.
  - (b) Off-site mitigation is allowed:
    - (i) Where appropriate, adequate on-site mitigation is not reasonable or desirable to achieve; or
    - (ii) Where off-site mitigation better achieves the purposes of this chapter.

## **XXX Mitigation Monitoring**

- (1) Monitoring Required. The administrator shall require applicants to monitor mitigation projects to ensure that the performance standards are satisfactorily met. Monitoring reports shall be submitted to the city in accordance with the monitoring timetables articulated in the mitigation plan or geotechnical report, typically over a period of five to 10 years.

- (a) Monitoring should occur for at least five years from the date of plant installation and ten years where woody vegetation (such as in forested or shrub wetlands) is the intended result.
  - (b) The administrator may reduce the time frame for monitoring to three years for small mitigation projects that involve limited critical area or buffer revegetation or vegetation enhancement; provided, that this provision shall not apply to wetland mitigation sites.
  - (c) The administrator may waive the monitoring requirement for structural improvements, such as retaining walls, foundations or bulkheads, when located near critical areas or their buffers
- (2) Schedule for Monitoring. Monitoring reports for mitigation projects shall be submitted for a 10-year period, unless an alternative schedule is approved. A potential schedule for a 10-year monitoring period includes the submittal of reports in years one, three, five, seven and 10.
- (3) Monitoring Report. Monitoring reports shall include sufficient information to document and assess the degree of mitigation success or failure as defined by the performance standards articulated in the approved mitigation plan or geotechnical report. Information to be provided in monitoring reports shall include the following:
- (a) Methods used to document compliance with the performance standards;
  - (b) Measurements of the percent survival of planted material, plant cover, stem density, presence of invasive species, and/or other attributes;
  - (c) For sites that involve wetland creation, re-establishment or rehabilitation, hydrologic observations of soil saturation/inundation as needed to demonstrate that a site meets the wetland hydrology criterion;
  - (d) Representative photographs of the site;
  - (e) A written summary of the overall site conditions and recommendations for maintenance actions if needed; and;
  - (f) Other information that the administrator deems necessary to ensure the success of the mitigation.
- (4) Projects that fail to meet monitoring objectives. For projects that fail to meet the performance standards identified in the mitigation plan or geotechnical report, the administrator may (among other options):
- (a) Require corrective mitigation measures; and/or
  - (b) Extend the required monitoring period.
- (5) The permanent protection of mitigation areas or facilities shall be achieved through deed restriction and/or other protective covenant.

## **XXX Mitigation Assurance**

- (1) A project applicant shall demonstrate sufficient capability to implement the mitigation project, monitor the site, and make corrections if the mitigation fails to meet projected goals. A surety to ensure the success of the mitigation may be required:
- (a) When deemed necessary by the administrator, the applicant shall post a mitigation surety in the amount of 125 percent of the estimated cost of the uncompleted mitigation actions. The value of the surety shall be based on an itemized cost estimate of the proposed mitigation activities, including clearing and grading, plant materials, plant installation, irrigation, weed management, monitoring, and other costs.
  - (b) The surety shall be in the form of an assignment of funds or other means approved by the administrator.
  - (c) The surety shall remain in effect until the administrator determines, in writing, that the standards that have been bonded for have been met. The surety shall generally be held by the county for a period of five years to ensure that the required mitigation has been fully implemented and demonstrated to function. The surety may be held for longer periods when necessary.
  - (d) After the initial completion of the mitigation, a surety for the construction of the mitigation may be reduced to an amount not to exceed the cost of the monitoring plus not less than 25 percent of the construction cost.

- (e) The depletion, failure, or collection of surety funds shall not discharge the obligation of an applicant or violator to complete the required mitigation, maintenance, or monitoring.
- (f) Public development proposals may be relieved from having to comply with the bonding requirements of this section if the agency demonstrates that: public funds have been committed to the mitigation, maintenance, or monitoring; and the funds will be available throughout the monitoring period.

(2) Default. Any failure to satisfy the critical area requirements established by law or condition, including but not limited to the failure to provide a monitoring report within 30 days of its due date or the failure to comply with other provisions of an approved mitigation plan, shall constitute a default of the surety. The jurisdiction may demand the payment of the financial guarantee or pursue some other remedy that is authorized by the county code or other applicable law. All funds recovered pursuant to this section shall be used to complete the required mitigation.

## **XXX Qualified Professional Required**

- (1) Technical analyses, including critical areas assessments, mitigation plans, and geotechnical reports, that are submitted as part of an application shall be completed by a qualified critical area professional.
- (2) Generally a qualified professional is defined as “Whether a person is a qualified scientific expert with expertise appropriate to the relevant critical areas is determined by the person's professional credentials and/or certification, any advanced degrees earned in the pertinent scientific discipline from a recognized university, the number of years of experience in the pertinent scientific discipline, recognized leadership in the discipline of interest, formal training in the specific area of expertise, and field and/or laboratory experience with evidence of the ability to produce peer-reviewed publications or other professional literature. No one factor is determinative in deciding whether a person is a qualified scientific expert. Where pertinent scientific information implicates multiple scientific disciplines, counties and cities are encouraged to consult a team of qualified scientific experts representing the various disciplines to ensure the identification and inclusion of the best available science.” WAC 365-195-905(4)
- (3) Further clarifications on each critical area requirements are as follows:
  - (a) Geologically Hazardous Areas
    - (i) A geologist, geotechnical engineer, or engineering geologist licensed in the State of Washington.
    - (ii) Must have demonstrated experience evaluating geological hazards and preparing geotechnical reports in compliance with WAC 365-190-120(3).
  - (b) Critical Aquifer Recharge Areas
    - (i) A hydrogeologist licensed in the State of Washington, or a professional with equivalent expertise in groundwater hydrology, contamination risk assessment, and mitigation planning.
    - (ii) Must have demonstrated experience evaluating impacts to groundwater in compliance with WAC 173-200-080.
  - (c) Wetlands and Fish and Wildlife Habitat Conservation Areas
    - (i) A specialist who has received a degree from an accredited college or university in the pertinent scientific discipline, and at least two years of full-time work experience as an ecological professional with experience conducting function assessments and developing and implementing mitigation plans.
    - (ii) A wetland professional has appropriate education or training in the pertinent scientific discipline, including training from Ecology in the wetland rating system, and specific experience in delineating wetlands and preparing wetlands delineation reports.
  - (d) Fish and Wildlife Habitat Conservation Areas
    - (i) A habitat biologist with experience in conservation biology, fish and wildlife management, and habitat restoration planning.
    - (ii) Must meet standards outlined in WAC 365-195-905(4).

(4) Peer Review Allowed. During the course of review, the administrator may retain, at the applicant's expense, a qualified professional to perform a peer review of the assessment and mitigation reports. The administrator may similarly consult outside agencies with expertise that pertains to the proposal when necessary.

## Guidelines for Preparing Geologic Hazard Area Reports

- A.** A Critical Area ~~Authorization or~~ Permit is required before any construction or development activity may be initiated on a site with areas that meet the criteria for designation as a designated Geologic Hazard Area(s) or an associated buffer, in accordance with the provisions of ~~CRMC Chapter 18.10~~ [this chapter](#).
1. A Critical Area Authorization shall be issued based on a finding that the proposed activity is exempt, or that City has adequate information to determine that the proposal will not have an adverse impact on Critical Areas and otherwise complies with the provisions of ~~CRMC and this manual~~ [this chapter](#).
  2. A Critical Area Permit shall be based on the findings and recommendations contained in a Geologic Hazard Area Report.
- B.** Reports for geologic hazard areas shall be prepared by a geotechnical engineer or geologist, licensed in the State of Washington, with experience analyzing geologic, hydrologic, and ground water flow systems; or by a geologist who earns his or her livelihood from the field of geology and/or geotechnical analysis, with experience analyzing geologic, hydrologic and ground water flow systems, who has experience preparing reports for the relevant type of hazard. Preparation of these reports by a State of Washington registered geologist is preferred.
- C.** The City shall determine the scope, content, and format for the required Geologic Hazard Area Report based on pre-application consultation with the Applicant, resource agencies, and qualified professionals. The following guidelines are provided as a resource to Applicants. Please note however, that these guidelines are subject to periodic review and update by the City. The most recent version of these guidelines may be obtained at City Hall, or on the City's website.
- D.** Typically, a Geologic Hazard Area Report should include:
1. Site and Construction Plans. The report shall include a copy of the site plans for the proposal showing:
    - a. The type and extent of geologic hazard areas, and any other critical areas, and buffers on, adjacent to, or within 200 feet of, or that are likely to impact the proposal;
    - b. Proposed development, including the location of existing and proposed structures, fill, storage of materials, and drainage facilities, with dimensions indicating distances to the floodplain;
    - c. The topography, in two-foot contours, of the project area and all hazard areas addressed in the report; and
    - d. Clearing limits.
  2. Assessment of Geological Characteristics. The report shall include an assessment of the geologic characteristics and engineering properties of the soils, sediments, and/or rock of the project area and potentially affected adjacent properties, and a review of the readily available site history regarding landslides, erosion, and prior grading. Soils analysis shall be accomplished in accordance with accepted taxonomic classification systems in use in the region. The assessment shall include, but not be limited to:
    - a. A description of the surface and subsurface geology, hydrology, soils, and vegetation found in the project area and in all hazard areas addressed in the report;
    - b. A detailed overview of the field investigations, published data and references; data and conclusions from past assessments of the site; and site-specific measurements, test, investigations, or studies that support the identification of geologic hazard areas; and
    - c. A description of the vulnerability of the site to seismic and other geologic events.
  3. The report shall contain a geotechnical analysis including a detailed description of the project, its relationship to the geologic hazard(s), and its potential impact upon the hazard area, the subject property and affected adjacent properties; and
  4. The report shall make a recommendation for the minimum no-disturbance buffer and minimum building setback from any geologic hazard based upon the geotechnical analysis.
  5. Where a valid geotechnical report has been prepared within the last five years for a specific site, and where the proposed land use activity and surrounding site conditions are unchanged, said report may be incorporated into the required critical area report. The applicant shall submit a geotechnical assessment detailing any changed environmental conditions associated with the site.
  6. When hazard mitigation is required, the mitigation plan shall specifically address how the activity maintains

or reduces the pre-existing level of risk to the site and adjacent properties on a long-term basis (equal to or exceeding the projected lifespan of the activity or occupation). Proposed mitigation techniques shall be considered to provide long-term hazard reduction only if they do not require regular maintenance or other-actions to maintain their function. Mitigation may also be required to avoid any increase in risk above the pre-existing conditions following abandonment of the activity.

7. A report for an erosion hazard or landslide hazard area shall include the following information:
  - a. A site plan for the proposal showing:
    - i. The height of slope, slope gradient, and cross section of the project area;
    - ii. The location of springs, seeps, or other surface expressions of ground water on or within 200 feet of the project area or that have potential to be affected by the proposal; and
    - iii. The location and description of surface water runoff;
  - b. The geotechnical analysis shall specifically include:
    - i. A description of the extent and type of vegetative cover,
    - ii. An estimate of load capacity including surface and ground water conditions, public and private sewage disposal systems, fills and excavations and all structural development;
    - iii. An estimate of slope stability and the effect construction and placement of structures will have on the slope over the estimated life of the structure;
    - iv. An estimate of the bluff retreat rate that recognizes and reflects potential catastrophic events such as seismic activity or a 100-year storm event;
    - v. Consideration of the run-out hazard of landslide debris and/or the impacts of landslide run-out on down slope proper ties.
    - vi. A study of slope stability including an analysis of proposed angles of cut and fill and site grading;
    - vii. Recommendations for building limitations, structural foundations, and an estimate of foundation settlement;
    - viii. An analysis of proposed surface and subsurface drainage, and the vulnerability of the site to erosion;
  - c. The hazards analysis component of the report shall specifically include:
    - i. A description of the extent and type of vegetative cover,
    - ii. A description of subsurface conditions based on data from site-specific explorations;
    - iii. Descriptions of surface and ground water conditions, public and private sewage disposal systems, fills and excavations, and all structural improvements;
    - iv. An estimate of slope stability and the effect construction and placement of structures will have on the slope over the estimated life of the structure;
    - v. An estimate of the bluff retreat rate that recognizes and reflects potential catastrophic events such as seismic activity or a 100-year storm event;
    - vi. Consideration of the run-out hazard of landslide debris and/or the impacts of landslide run-out on down slope properties;
    - vii. A study of slope stability including an analysis of proposed cuts, fills, and other site grading;
    - viii. Recommendations for building siting limitations; and
    - ix. An analysis of proposed surface and subsurface drainage, and the vulnerability of the site to erosion;
  - d. The technical information for a project within a landslide hazard area shall include a geotechnical engineering report prepared by an engineer licensed in the State of Washington that presents engineering recommendations for the following:
    - i. Parameters for design of site improvements including appropriate foundations and retaining structures. These should include allowable load and resistance capacities for bearing and lateral loads, installation considerations, and estimates of settlement performance;
    - ii. Recommendations for drainage and subdrainage improvements;
    - iii. Earthwork recommendations including clearing and site preparation criteria, fill placement and compaction criteria, temporary and permanent slope inclinations and protection, and temporary excavation support, if necessary; and
    - iv. Mitigation of adverse site conditions including slope stabilization measures and seismically unstable soils, if appropriate;

- e. For any development proposal on a site containing an erosion hazard area, an erosion and sediment control plan shall be required. The erosion and sediment control plan shall be prepared in compliance with requirements set forth in the City's construction standards;
  - f. The report shall include a drainage plan for the collection, transport, treatment, discharge and/or recycle of water. The drainage plan should consider on-site septic system disposal volumes where the additional volume will affect the erosion or landslide hazard area.
  - g. Hazard and environmental mitigation plans for erosion and landslide hazard areas shall include the location and methods of drainage, surface water management, locations and methods of erosion control, a vegetation management and/or replanting plan and/or other means for maintaining long term soil stability.
  - h. If the City determines that there is a significant risk of damage to downstream receiving waters due to potential erosion from the site, based on the size of the project, the proximity to the receiving waters, or the sensitivity of the receiving waters, the critical area report shall include a plan to monitor the surface water discharge from the site. The monitoring plan shall include a recommended schedule for submitting monitoring reports to the city.
8. In addition to the basic report requirements, a report for a seismic hazard area shall also meet the following requirements:
- a. The site map shall show all known and mapped faults within 200 feet of the project area, or that have potential to be affected by the proposal.
  - b. The hazards analysis shall include a complete discussion of the potential impacts of seismic activity on the site (for example, forces generated, fault displacement and liquefaction potential).
  - c. Where liquefaction risks of high, moderate to high or moderate exist, the report shall address soil and structural mitigation measures.
9. Other Geologic Hazard Areas. In addition to the basic report requirements, the City may require the following information to be included in the report when determined to be necessary to the review of the proposed activity and the hazard in question,
- a. Site Plan. The site plan shall show all hazard areas located within 200 feet of the project area or that have potential to be affected by the proposal; and
  - b. Geotechnical Analysis. The geotechnical analysis shall include a complete discussion of the potential impacts of the hazard on the project area and of the proposal on the hazard area.

## **Guidelines for Preparing Wetlands Reports** **Guidelines for Preparing Special Flood Hazard Area Reports**

- A.** A Critical Area Authorization or Permit is required before any construction or development activity may be initiated on a site with a designated Special Flood Hazard Area(s) in accordance with the provisions of **CRMC Chapter 18.10.050**.
- 1. A Critical Area Authorization shall be issued based on a finding that the proposed activity is exempt, or that City has adequate information to determine that the proposal will not have an adverse impact on Critical Areas and otherwise complies with the provisions of **Chapter 18.10**, [this chapter](#).
  - 2. A Critical Area Permit shall be based on the findings and recommendations contained in a Special Flood Hazard Area Report.
- B.** **Reports for Special Flood Hazard Areas shall be prepared by a professional engineer, architect, or qualified professional, as determined by the City.**
- C.** The City shall determine the scope, content, and format for a required Special Flood Hazard Area Report based on pre-application consultation with the Applicant, resource agencies, and qualified professionals. The following guidelines are provided as a resource to Applicants. Please note however, that these guidelines are subject to periodic review and update by the City. The most recent version of these guidelines may be obtained at City Hall, or on the City's website.
- D.** Typically, a Special Flood Hazard Area Report should include:
- 1. A written report that may include, but is not limited to:
    - a. A narrative description of the proposed development;
    - b. Characterization of the Special Flood Hazard Area;
    - c. A description of proposed flood proofing measures, and the basis for those measures;
    - d. Other measures proposed to avoid or minimize potential adverse impacts; and
    - e. A description of the extent to which any watercourse will be altered or relocated as a result of

- proposed development and proposed mitigating measures; and
  - f. Certification that the proposed floodproofing methods and mitigating measures comply with the applicable standards for the Special Flood Hazard Zone.
2. A map of the proposed site, drawn to scale, depicting:
- a. Property lines and ownership;
  - b. The boundaries of any Special Flood Hazard Areas and any other critical areas and their buffers on or adjacent to the site;
  - c. Existing and proposed contour lines;
  - d. Base flood elevation data available on or near the site;
  - e. The location of existing and proposed utilities, impervious surfaces, and easements;
  - f. The location and elevations of existing structures;
  - g. The location of proposed structures and the elevation of the lowest habitable floor (including basements); and
  - h. Proposed areas where no, or limited development, shall occur.

### Guidelines for Preparing Critical Aquifer Recharge Area Reports

- A. Development activities that have the potential to negatively impact the quality or quantity of groundwater, shall not be permitted, unless a hydrogeologic testing and site evaluation satisfactorily demonstrates that significant adverse impacts can be avoided, minimized, or mitigated. **The required hydrogeologic testing and site evaluation shall be conducted by a qualified expert, as determined by the City.** A written report shall be submitted for City review and should include:
1. Characterization of the site and its relationship to the aquifer and an analysis of:
    - a. The geologic setting and soils information of site and surrounding area.
    - b. Water quality data, including pH, temperature, conductivity, nitrates, and bacteria.
    - c. Location and depth to perched water tables.
    - d. Recharge potential of facility site (permeability/transmissivity).
    - e. Local groundwater flow, direction and gradient.
    - f. Surface water locations within one thousand feet of the site.
- B. An evaluation of the ability of the site to accommodate the proposed activity including a discussion of the effects of the proposed project on groundwater quality and quantity.
- C. Recommendations on appropriate mitigation, if any, to assure that there shall be no significant degradation of groundwater quality or quantity.

## 125 Independent Review

- A. The City may require independent technical review of critical area reports or mitigation plans when necessary to evaluate compliance with this chapter. Independent review shall be conducted by a qualified professional at the applicant's expense.

## 130 Validity and Use of Existing Reports

- A. Previously approved critical area reports may be accepted when site conditions and proposed activities have not materially changed and the report remains applicable, and is less than five years old, as determined by the Director or designee.

## Article 7. Wetlands

### 131 Purpose

- A. The purposes of this section are to:
1. Regulate land use to avoid adverse effects on wetlands and maintain the functions and values of wetlands by ensuring that the proposal results in no net loss of wetland functions and values.
  2. Protect the beneficial functions performed by wetlands, which include, but are not limited to: providing food, breeding, nesting and/or rearing habitat for fish and wildlife; providing habitat for endangered, threatened and sensitive species; recharging and discharging ground water; contributing to stream flow

during low flow periods; stabilizing stream banks and shorelines; storing storm and flood waters to reduce flooding and erosion; and improving water quality through biofiltration, adsorption, and the retention and transformation of sediments, nutrients, and toxicants.

3. Establish review procedures for development proposals, which are consistent with Best Available Science, in and adjacent to wetlands.

## 132 Other Provisions Apply

- A. Compliance with the provisions of this article does not constitute compliance with other federal, state, and local regulations and permit requirements that may be required. The applicant is responsible for complying with those requirements, in addition to the process established in this article.

## 133 Administration

- A. Administration of this article shall occur in accordance with 12.05.
- B. When a project is subject to these requirements and does not fall within the activities listed in 12.06 of this chapter, the following reports shall be required to review the projects:
  1. A wetland assessment report is required for projects within 300 feet of a mapped wetland or wetland buffer. This report will be prepared based on the standards in Section 22.
  2. A wetland mitigation report, which complies with Section 23 is required for projects that submits a proposal for impacts to a wetland or wetland buffer in which the wetland buffers are less than that is less than what is allowed under the standards for buffer width reductions or buffer width averaging 20.10. The mitigation plan provided must meet the requirements in Section 23 and include evidence that the proposal will result in no net loss of wetland functions and values.
- C. State and federal permits may be required even when a wetland is exempt from City requirements.

## 135 Wetland Identification

- (1) Wetlands shall be identified and delineated in accordance with the requirements of RCW 36.70A.175 and 20.05
- (2) The administrator may accept a written determination by the U.S. Army Corps of Engineers and the Washington State Department of Ecology (Ecology) that a specific parcel is not a wetland, as long as the determination is consistent with current local, state, or federal law.

## ~~XXX Wetland and Rating/Classification (Manual Standards for Classifying and Protecting Wetlands)~~

~~A. Wetlands in the City of Castle Rock are rated according to the requirements of RCW 36.70A.175 and the Washington Department of Ecology wetland rating system, as set forth in the Washington Department of Ecology wetland rating system, Publication No. 23-06-009, Washington State Wetland Rating System for Western Washington: 2014 Update, published July 2023, Washington State Wetland Rating System for Eastern Washington: 2014 Update (Ecology Publication #14-06-030, October 2014), or as revised.~~

~~B. The administrator may accept a written determination by the U.S. Army Corps of Engineers and the Washington State Department of Ecology (Ecology) that a specific parcel is not a wetland, as long as the determination is consistent with current local, state, or federal law.~~

~~C.A. Rating. Wetlands shall be identified and rated according to the Washington Department of Ecology wetland rating system, Publication No. 23-06-009, Washington State Wetland Rating System for Western Washington: 2014 Update, published July 2023 (or as revised by Ecology), which contains the definitions and methods for determining whether the criteria below are met.~~

~~D.B. The descriptions of wetland categories according to the Rating System are generally as follows:~~

1. ~~Category 1 Wetlands include alkali wetlands, wetlands that are identified by scientists of the Washington Natural Heritage Program (DNR) as wetlands with high conservation value, bogs, mature old-growth forested wetlands over one-quarter acre with slow-growing trees, forests with stands of aspen, and wetlands that perform many functions very well function at a very high level (score twenty-five to twenty-seven points). They meet at least one of the following criteria: (a) represent a unique or rare wetland type; or (b) are more sensitive to disturbance than most wetlands; or (c) are relatively undisturbed and contain ecological attributes that are impossible to replace within a human lifetime; (d) provide a high level of functions (score of 22 or more points using the Eastside rating system); or (e) are documented wetlands of~~

~~local significance. Generally, these wetlands are not common and make up a small percentage of the wetlands in the region.~~

- ~~2.1.~~ Category I. Category I wetlands represent a unique or rare wetland type, are more sensitive to disturbance than most wetlands, are relatively undisturbed and contain some ecological attributes that are impossible to replace within a human lifetime, or provide a very high level of functions. Category I wetlands are:
- a. Wetlands of high conservation value that are identified by scientists of the Washington Natural Heritage Program of the Department of Natural Resources;
  - b. Bogs;
  - c. Mature and old-growth forested wetlands, as defined by WDFW priority habitat and species provisions, larger than one acre; or
  - d. Wetlands that function at high levels, as characterized by a score of 23 points or more on the rating form.

~~3. Category II wetlands provide high levels of some functions (scores between 19 and 21 points). These wetlands occur more commonly than Category I wetlands but still need a relatively high level of protection.~~

- ~~4.2.~~ Category II. Category II wetlands are wetlands that perform with a moderately high level of functions and are difficult, though not impossible to replace, scoring between 20 and 22 points on the rating form).

~~5. Category III wetlands are: 1) vernal pools that are isolated, and 2) wetlands with a moderate level of functions (scores between 16 and 18 points). Wetlands scoring between 16 and 18 points generally have been disturbed in some ways, and are often smaller, less diverse and/or more isolated from other natural resources in the landscape than Category II wetlands.~~

- ~~6.3.~~ Category III. Category III wetlands have generally been disturbed in some way and are often less diverse or more isolated from other natural resources in the landscape than Category II wetlands. Category III wetlands:

- a. Have a moderate level of functions and **scoring between 16 and 19 points**; and
- b. can often be adequately replaced with a well-planned mitigation project.

~~7. Category IV wetlands have the lowest levels of functions (scores less than 16 points) and are often heavily disturbed. These wetlands may provide some important functions and need protection as well.~~

- ~~8.4.~~ Category IV. Category IV wetlands have the lowest levels of functions (**scoring fewer than 16 points**) and are often heavily disturbed. These wetlands are often able to be replaced, or in some cases improved. However, experience has shown that replacement cannot be guaranteed in any specific case. The wetlands may provide some important functions and should be protected to some degree.

**C.** Illegal Modifications. Illegal modifications to a wetland made by the applicant or with the applicant’s knowledge shall not change a wetland’s rating.

## XXX Mitigation Sequencing

~~E.~~ Projects proposed in or adjacent to wetlands are required to utilize the mitigation sequence shown in XXXX

## 145 Buffer Widths and Land Use Intensity

- A.** The land use intensities in Table 1 shall be used in connection with the standards to classify wetlands in 20.05 to determine required buffers. Land use intensity is determined by the highest intensity in Table 1. —Land Use Intensity Table.

~~Table 1. Land Use Intensity Table~~ ABLE ~~(Manual Land Use Level of Impact) or (00 scratch land use intensity table)~~

Land Use Intensity	Common Types of Land Use*
High	<ul style="list-style-type: none"> <li>• Commercial</li> <li>• Residential (Density greater than 1 unit per acre)<sup>1</sup></li> <li>• Institutional</li> <li>• Retail Sales</li> <li>• Railroads</li> </ul>

	<ul style="list-style-type: none"> <li>• Roads: federal and state highways, including on-ramps and exits, state routes, and other roads associated with high-impact land uses</li> <li>• High-intensity recreation (golf courses, ball fields, etc.)</li> <li>• Hobby farms</li> </ul>
Moderate	<ul style="list-style-type: none"> <li>• Residential (density between 1 unit per acre and 1 unit per 4.99 acres)<sup>1</sup></li> <li>• Moderate-intensity open/recreational space (parks with paved trails of playgrounds, biking, jogging, etc.)</li> <li>• Conversion to moderate-intensity agriculture (orchards, hay fields, etc.)</li> <li>• Forest Service Roads and roads associated with moderate impact land uses</li> <li>• Utility corridor or right-of-way shared by several utilities, including access/maintenance roads</li> </ul>
Low	<ul style="list-style-type: none"> <li>• Residential (Five acres or greater)<sup>1,2</sup></li> <li>• Low-intensity open space (hiking, birdwatching, preservation or natural resources, etc.)</li> <li>• Unpaved trails</li> <li>• Utility corridor without a maintenance road and little or no vegetation management</li> </ul>

<sup>1</sup>Measured as density averaged over a development site, not individual lot sizes within a site.

<sup>2</sup> Use of low land use intensity for residential use requires: 1) No greater than 10% total effective impervious surface on the site, 2) 65% native or naturalized cover retained on site, and 3) less than 300 sq. ft. developed area for public roads and utilities, located within a right-of-way, easement, or tract.

\*The above list of land use types are examples and not an exhaustive list; other similar uses may be included in each category at the discretion of the City.

**B.** Wetland buffers are required in order to protect wetland functions and values. The buffer standards in Tables 2 and 3 shall be used as the standard to designate wetland buffers.

1. Utilizing the impact levels specified above, the buffer widths in Tables 2 and 3 have been established in accordance with Best Available Science.
2. Buffer widths are established by comparing the wetland rating habitat score, wetland rating category, and the intensity of land uses proposed on development sites per Tables 1, 2 and 3. For Category IV wetlands, the required water quality buffers in Table 3 are adequate to protect habitat functions.
3. All wetland buffers shall be measured horizontally outward from the wetland boundary.

**C.** Functionally Isolated Wetland Buffers. Preexisting roads, structures, and other impervious surfaces, or vertical separation shall be considered areas which provide functional isolation of the wetland buffer and shall be excluded from buffers otherwise required by this chapter. Vertical separation is defined as an area having a vertical topographical feature, human-made or natural, that exceeds thirty (30) percent slope and may include, but is not limited to, bluffs, cliffs, retaining walls and steep slopes. For the purpose of establishing the outer limit of a buffer width of a wetland containing vertical separation, the greater of the two distances shall apply: the top of slope or highest point of other similar feature (bluff, cliff, retaining wall); or fifty (50) percent of the base buffer width of the regulated wetland.

**D.** Increased or Enhanced Wetland Buffer Widths.

1. In addition to the buffer widths based on the criteria in [Section 20.08 Tables 1, 2, and 3 \(Land Use Intensity and Determination of Buffer Width, Tables 2 and 3\)](#), the department may require increased buffer widths or enhanced buffer vegetation on a case-by-case basis when necessary, as applicable:
  - a. To protect wetland functions and values to meet the “no net loss” objective of this section.
  - b. When the standard buffer has sparsely vegetated cover or is vegetated with non-native or invasive species that do not perform needed functions.
  - c. When required, buffer enhancement is preferred to increasing the buffer width. Enhancement of the buffer through native planting or invasive species removal shall be demonstrated infeasible or ineffective prior to buffer width increases.

**E.** When the standard buffer is exempt as stated in Section 12.07 (Activities Allowed Without A Permit In Critical Areas And Buffers), the buffer will not be required to be increased or enhanced.

Table 2. Buffers Required to Protect Habitat Functions in Category I, II, and III Wetlands

	Land Use Intensity		
Habitat Score in the Rating Form	Low	Moderate	High
8 or 9 points	150 ft.	225 ft.	300 ft. <sup>1</sup>
Wetland of high conservation value with a habitat score of 7 points or less	125 ft.	190 ft.	250 ft.
6 or 7 points	75 ft.	110 ft.	150 ft.

5 points or less	See Table 3	See Table 3	See Table 3
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Table 3. Buffers Required to Protect Water Quality Functions

Wetland Rating	Land Use Intensity		
	Low	Moderate	High
Category I or II	50 ft.	75 ft.	100 ft.
Category III	40 ft.	60 ft.	80 ft.
Category IV	25 ft.	40 ft.	50 ft.

## 146 Buffer Width Reduction

A. The following buffer widths reductions are permitted:

1. Minimum buffer width. Wetland buffer widths shall not, at any location, be reduced to less than seventy-five (75) percent of the required buffer, except as allowed in 20.11, or as outlined in Item (B3) of this section.
2. Reduction in Buffer Width by Reducing the Intensity of Land Use Impacts. The widths of buffers recommended for proposed land uses with high-intensity impacts can be reduced to the buffers recommended for moderate-intensity impacts under the following conditions:

**B.a.** For wetlands that score moderate or high for habitat (five points or more for the habitat functions), the width of the buffer can be reduced if both of the following criteria are met:

- i. A relatively undisturbed, vegetated corridor at least one-hundred (100) feet wide is protected between the wetland and any other priority habitats as defined by the Washington State Department of Fish and Wildlife in their most recent guidance documents. The corridor must be protected for the entire distance between the wetland and the priority habitat by some type of legal protection such as a conservation easement.

~~C.(A)x.~~ A corridor as narrow as 50 feet wide may be allowed, at the discretion of the responsible official, if vegetation enhancement and/or the installation of habitat features is included in the proposal for corridor development and if a qualified professional can demonstrate the use of a narrower corridor will result in an increase in critical area functions and values. Monitoring, if determined to be necessary and is recommended by a qualified professional will be consistent with XXXXXXXX.

- ii. Measures to minimize the impacts of different land uses on wetlands, such as the examples summarized in Table 4, are applied; provided, that the administrator may approve of alternative impact reduction measures that are demonstrated to have equivalent effectiveness in reducing impacts on wetland functions.

**E.3.** For wetlands that score five or less points for habitat, the buffer width can be reduced to that required for moderate land-use impacts by applying the measures to minimize the impacts of the proposed land uses (see examples in Table 4).

**F.B.** If an applicant impacts a wetland or its buffer and submits a proposal in which the wetland buffers are less than what is allowed under the standards for buffer width reductions or buffer width averaging in this section and Section 20.11. The proposal shall include a mitigation plan that meets the requirements in Section 23 and includes evidence that the proposal will result in no net loss of wetland functions and values.

Table 4. Measures to Reduce Impacts from Land Use

Impact Type	Activities and Uses that Cause Disturbances	Examples of Measures to Reduce Impacts
Stormwater runoff	<ul style="list-style-type: none"> <li>• Parking lots</li> <li>• Roads</li> <li>• Manufacturing</li> <li>• Residential areas</li> <li>• Commercial</li> <li>• Landscaping</li> <li>• Other impermeable surfaces, compacted soil, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Provide stormwater detention and treatment meeting the latest adopted Stormwater Management Manual for all impervious surfaces that drain to the wetland</li> <li>• Provide infiltration, except where soil conditions preclude</li> <li>• Prevent flow from lawns that</li> </ul>
Lights	<ul style="list-style-type: none"> <li>• Residential</li> <li>• Warehouse</li> </ul>	<ul style="list-style-type: none"> <li>• Direct lights away from wetland</li> <li>• Only use lighting where necessary</li> </ul>

	<ul style="list-style-type: none"> <li>• Manufacturing</li> <li>• Parking lots</li> <li>• Recreation</li> </ul>	<p>for public safety and keep lights off when not needed</p> <ul style="list-style-type: none"> <li>• Use motion-activated lights</li> <li>• Use lower-intensity LED lighting</li> <li>• Dim light to the lowest acceptable intensity</li> </ul>
Noise	<ul style="list-style-type: none"> <li>• Residential</li> <li>• Commercial</li> <li>• Warehouse</li> <li>• Manufacturing</li> <li>• Agriculture</li> </ul>	<ul style="list-style-type: none"> <li>• Locate activity that generates noise away from wetland</li> <li>• Place loading areas, garbage pickup, and other pickup/delivery functions on the building side furthest from the wetland</li> </ul>
Toxic runoff	<ul style="list-style-type: none"> <li>• Parking lots</li> <li>• Roads</li> <li>• Manufacturing</li> <li>• Residential areas</li> <li>• Application of agricultural pesticides</li> <li>• Landscaping</li> <li>• Pesticides</li> </ul>	<ul style="list-style-type: none"> <li>• Route all new, untreated runoff away from wetland while ensuring wetland is not dewatered</li> <li>• Establish covenants limiting use of pesticides within 150 feet of wetland</li> <li>• Require development and implementation of integrated pest management plan to reduce chemical use</li> </ul>
Pets and human disturbance	<ul style="list-style-type: none"> <li>• Residential areas</li> <li>• Recreation</li> </ul>	<ul style="list-style-type: none"> <li>• Fence buffer area with privacy fencing</li> <li>• Plant dense native vegetation to delineate buffer edge</li> </ul>
Dust	<ul style="list-style-type: none"> <li>• Tilled fields</li> <li>• Roads</li> </ul>	<ul style="list-style-type: none"> <li>• Use Best Management Practices to control dust</li> </ul>

## 150 Buffer Averaging

An applicant may request to average the width of a wetland buffer, thereby reducing the width of a portion of the buffer and increasing the width of another portion, if all of the following requirements are met:

(1) Averaging to improve wetland protection may be permitted when all of the following conditions are met:

- (a) The wetland has significant differences in characteristics that affect its habitat functions, such as a wetland with a forested component adjacent to a degraded emergent component, or a “dual-rated” wetland with a Category I area adjacent to a lower rated area.
- (b) The buffer is increased adjacent to the higher-functioning habitat area or more sensitive portion of the wetland and decreased adjacent to the lower functioning or less sensitive portion as demonstrated by a critical area report from a qualified wetland professional.
- (c) Buffer averaging cannot be paired with buffer reduction methodology on the same wetland.

(2) Averaging to allow the reasonable use of a parcel may be permitted when all of the following are met:

- (a) Buffer averaging is necessary to accommodate existing conditions, such as topography, existing roads, public facilities, or similar features that prevent reasonable development in compliance with standard buffers.
- (b) There are no feasible site design alternatives that could be accomplished without buffer averaging.
- (c) Averaging will not impair or reduce the habitat, water quality purification and enhancement, stormwater detention, ground water recharge, shoreline protection, erosion protection, and other functions of the wetland and buffer as demonstrated by a report from a qualified wetland professional.
- (d) The inability to derive reasonable economic use is not the result of the applicant’s actions, such as by segregating or dividing the property and creating an undevelopable condition.

(3) Buffer averaging must meet the following criteria:

- (a) The total area of the buffer on the subject property is not less than the buffer that would be required if averaging was not allowed.
- (b) No part of the width of the buffer is less than 75 percent of the required width.

## 156 Wetland Exemptions from the Requirement to Avoid Impacts

- A. The wetlands that meet the following criteria are not subject to the avoidance and minimization requirements of the mitigation sequence as defined in the mitigation sequence in 12.09. The wetlands may be filled if the remaining actions in the mitigation sequence and general mitigation requirements in Section 20.03 ensure that no net loss of wetland functions and values will occur from the activity.
1. All isolated Category IV wetlands less than 4,000 square feet that:
    - a. Are located in the areas covered by the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (U.S. Army Corps of Engineers, 2010);
    - b. Are not associated with riparian areas or their buffers;
    - c. Are not associated with Shorelines of the State or their associated buffers;
    - d. Are not part of a wetland mosaic;
    - e. Do not score 6 or more points for habitat function based on Publication No. 23-06-009, Washington State Wetland Rating System for Western Washington: 2014 Update, published July 2023 (or as revised by Ecology), or as revised by Ecology) and;
    - f. Do not contain a Priority Habitat or a Priority Area for a Priority Species identified by the Washington Department of Fish and Wildlife and do not contain state or federally listed species or their critical habitat or species of local importance identified in Section 24.
  2. Wetlands less than 1,000 square feet that meet the above criteria are exempt from the buffer provisions contained in this chapter.
- B. To ensure that no reduction of wetland values and functions occurs as a result of this section, a wetland assessment report and mitigation plan meeting the requirements in Section 22 and Section 23 must be submitted.

## 160 ~~Wetland Mitigation (Manual—Page 13)~~ Compensatory Mitigation

- (1) Requirements for compensatory mitigation. The following requirements must be met for all types of compensatory mitigation:
- (a) Before being authorized to impact any wetland or its buffer, an applicant must demonstrate that they have utilized the mitigation sequencing shown in 12.09.
  - (b) The alteration of wetlands shall only be used for impacts that cannot be avoided or minimized and shall achieve equivalent or greater functions and values. Permittees shall compensate for unavoidable impacts by taking actions to restore, replace, preserve, or enhance ecological functions to the extent necessary to ensure no net loss of functions and values.
  - (c) Compensatory mitigation plans shall be consistent with Wetland Mitigation in Washington State—Part 2: Developing Mitigation Plans— Version 1 (Ecology Publication #06-06-011b, or as revised), and Selecting Wetland Mitigation Sites Using a Watershed Approach (Ecology Publication #09-06-32, or as revised).
- (2) Compensatory Mitigation Approaches. If, through mitigation sequencing in accordance with 12.09, it is determined that compensatory mitigation is necessary, the applicant must provide an alternative approach to compensation. Compensation is prioritized as follows:
- (a) Mitigation Bank Credits: Allows applicants to compensate for wetland loss by purchasing credits from a bank that is commissioned to restore, create, enhance, or preserve wetland areas in order to provide compensatory mitigation for authorized impacts to wetlands. Mitigation bank credits may be used to provide compensatory mitigation as follows:
    - (i) The administrator determines that the credits provide ecologically appropriate compensation for the proposed impacts:

- (ii) The impact site is located in the service area, or an out-of-service area credit purchase has been authorized as specified in the establishing instrument; and
- (iii) The calculation of debits and proposed use of credits are consistent with the terms and conditions of the establishing instrument.
- (b) Permittee-responsible mitigation (PRM). The permittee constructs, installs, and maintains compensatory mitigation after the permit is issued and is held responsible for completion and performance for an established maintenance period. Concurrent mitigation may occur at the site of the permitted impacts, or at an off-site location, usually within the same watershed.
- (3) Types of wetland mitigation actions for permittee-responsible mitigation (PRM). The following are types of mitigation actions used for compensatory mitigation, in the order of preference:
  - (a) Creation. The manipulation of the physical, chemical, or biological characteristics present to develop a wetland where a biological wetland did not previously exist. Activities typically involve excavation of upland soils to elevations that will produce a wetland hydroperiod, create hydric soils, and support the growth of hydrophytic plant species. Creation results in a gain in wetland acres and functions.
  - (b) Reestablishment. The manipulation of the physical, chemical or biological characteristics of a site with the goal of returning natural or historic functions and environmental processes to a former wetland. Activities could include removing fill material, plugging ditches, or breaking drain tiles. Reestablishment results in a gain in wetland acres and functions.
  - (c) Rehabilitation. The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural or historic functions and processes of a degraded wetland. Activities could involve breaching a dike to reconnect wetlands to a floodplain, restoring tidal influence to a wetland, or breaking drain tiles and plugging drainage ditches. Rehabilitation results in a gain in wetland functions but not in wetland acres.
  - (d) Preservation. The removal of a threat to, or preventing the decline of, wetland conditions by an action in or near a wetland. This term includes activities commonly associated with the protection and maintenance of wetlands through the implementation of appropriate legal and physical mechanisms (such as recording conservation easements and providing structural protection like fences and signs). Preservation does not result in a gain of wetland area and functions (but may result in a gain in functions over the long term).
  - (e) Enhancement. The manipulation of the physical, chemical, or biological characteristics of a biological wetland to increase or improve specific functions or to change the growth stage or composition of the vegetation present. Enhancement is undertaken for specified purposes such as water quality improvement, flood water retention or wildlife habitat. Activities typically consist of planting vegetation, controlling nonnative or invasive species, modifying site elevations or the proportion of open water to influence hydroperiods, or some combination of these. Enhancement results in a change in certain wetland functions and can lead to a decline in other wetland functions. It does not result in a gain in wetland acres.
  - (f) Mixed Compensatory Mitigation. Involves more than one of the listed types of compensatory
- (4) Standard permittee-responsible mitigation ratios. The following mitigation ratios listed in Table 5 – Permittee Responsible Mitigation Ratios apply and are based on wetland mitigation actions as listed in (list the code number for the previous item (3)) and wetland category.

**Table 5. Permittee Responsible Mitigation Ratios**

	<b><u>Wetland Mitigation Type and Replacement Ratio<sup>1*</sup></u></b>			
<b><u>Impacted Wetland Category or Type</u></b>	<b><u>Creation or Re-establishment</u></b>	<b><u>Rehabilitation</u></b>	<b><u>Preservation<sup>2</sup></u></b>	<b><u>Enhancement</u></b>

<u>Wetland of High Conservation Value</u>	<u>Consult with DNR<sup>3</sup></u>	<u>Consult with DNR<sup>3</sup></u>	<u>24:1</u>	<u>Consult with DNR<sup>3</sup></u>
<u>Category I: Forested</u>	<u>6:1</u>	<u>12:1</u>	<u>24:1</u>	<u>24:1</u>
<u>Category I: Based on Functions</u>	<u>4:1</u>	<u>8:1</u>	<u>16:1</u>	<u>16:1</u>
<u>Category II</u>	<u>3:1</u>	<u>6:1</u>	<u>12:1</u>	<u>12:1</u>
<u>Category III</u>	<u>2:1</u>	<u>4:1</u>	<u>8:1</u>	<u>8:1</u>
<u>Category IV</u>	<u>1.5:1</u>	<u>3:1</u>	<u>6:1</u>	<u>6:1</u>

<sup>1</sup>Ratio is the replacement area: impact area.

<sup>2</sup>Preservation area may include both wetlands and associated priority habitat uplands and buffers.

<sup>3</sup>Washington Department of Natural Resources

(5) Buffer/Indirect Impact Mitigation. Impacts to wetland buffers for permittee-responsible mitigation sites shall be mitigated as indirect impacts to the wetland, using fifty percent of the recommended ratio for permanent impacts as shown in Table 5. The recommended ratio for indirect impacts which are mitigated at a wetland mitigation bank shall be determined by the agency responsible for approval of the project.

(6) Increasing or Decreasing Replacement Ratios. Mitigation ratios may be increased or decreased based on the following circumstances:

- (a) The degree of uncertainty as to the probable success of the proposed mitigation;
- (b) The period of time between the alteration of the wetland or buffer and the replacement of lost functions and values; and
- (c) The projected gains or losses in functions and values; provided, that the findings of special studies coordinated with agencies with expertise demonstrate that no loss of wetland functions or values will result from a reduced ratio.

(7) Replacement of Functions and Values. In lieu of mitigation based on land area, as provided above, an applicant may alternatively propose mitigation based on the credit/debit methodology established by the Washington Department of Ecology. Such a proposal shall follow the process and provide the details established in Calculating Credits and Debits for Compensatory Mitigation in Wetlands of Western Washington (Ecology Publication #10-06-011, or as revised) and note:

- (a) The degree of uncertainty as to the probable success of the proposed mitigation;
- (b) The period of time between the alteration of the wetland or buffer and the replacement of lost functions and values;
- (c) Projected gains or losses in functions and values; provided, that findings of special studies, coordinated with agencies with expertise, demonstrate that no loss of wetland functions or values will result from the proposal.

## **165 Monitoring and Maintenance (Manual) Standard Mitigation Requirements**

The following standard requirements shall apply to mitigation plans except where certain provisions may not be applicable due to approved mitigation through the purchase of bank or in-lieu fee credits:

- (1) Approved construction limits shall be clearly marked on the site prior to construction and markings shall be maintained until construction is completed.
- (2) Permanent physical demarcation along the outer extent of wetlands, and wetland buffers shall be installed and thereafter maintained. Such demarcation may consist of logs, a tree or hedgerow, fencing, or other prominent physical marking approved by the responsible official.

- (3) Signs shall be posted at an interval of one per lot or one sign every one hundred (100) feet, whichever is less. Signs shall be maintained in perpetuity and shall read “Protected Critical Areas – Leave in Natural State”
- (4) All wetlands, and wetland buffers shall be subject to a conservation covenant or other legal protection mechanism unless waived by the responsible official.
- (+)(5) All mitigation reports shall be completed in compliance with Section 23.

## **XXX References to Mapping**

The approximate location and extent of wetlands and hydric soils are shown on the Cowlitz County critical area maps. These maps should only be used as possible indications of potential wetland and hydric soils areas. The actual critical area boundaries must be determined by an approved wetland assessment, which follows the requirements outlined in XXXX. Sources that have contributed to the development of the Cowlitz County’s critical areas maps include:

- (1) United States Fish and Wildlife Service National Wetland Inventory.
- (2) Natural Resources Conservation Service soils map for Cowlitz County, hydric soils designations.

## **XXX Wetland Assessment Reports**

A wetland assessment describes the characteristics of the subject property and adjacent areas. The assessment shall include the following:

- (1) A site plan that shows:
  - (a) A vicinity map with the site clearly defined.
  - (b) Existing physical features of the site including buildings, fences, and other structures, roads, parking lots, utilities, water bodies, etc.
  - (c) A detailed depiction of the proposed development, if known and available at the time of the assessment, including features such as utility location (well, septic, drainfield, etc.); parking and access location; the limits of grading and vegetation removal; and the location of any proposed building(s).
  - (d) An identification and delineation of critical areas, including wetlands, and their buffers within 300 feet of the site and an estimate of the existing approximate acreage for each. Assessment of off-site wetlands and other critical areas shall be based on available information and shall not require access to off-site properties.
- (2) The following additional information:
  - (a) The wetland category and standard wetland buffers.
  - (b) All data sheets and rating forms used to assess the wetland conditions.
  - (c) Wetland inventory map showing the site from the National Wetland Inventory and any available Lewis County wetland mapping.
  - (d) Natural Resources Conservation Service soils mapping for the site.
- (3) A mitigation plan, if applicable, meeting the requirements outlined in XXXXX

## **XXX Wetland Mitigation Plan**

When required, a mitigation plan for wetland and wetland buffer impacts shall meet the following requirements:

- (1) The plan shall be based on applicable portions of the Wetland Mitigation in Washington State–Part 2: Developing Mitigation Plans (Version 1) (Ecology Publication #06-06-011b, or as revised).
- (2) The plan shall contain sufficient information to demonstrate that the proposed activities are logistically feasible, constructible, ecologically sustainable, and likely to succeed. Specific information to be provided in the plan shall include:

- (a) Basic Requirements. The plan shall include the name and contact information of the applicant; the name, qualifications, and contact information of the primary author(s); a description of the proposal; a summary of the impacts and proposed compensation concept; identification of all required local, state, and/or federal wetland-related permit(s); and a vicinity map for the project.
- (b) Project Description. A project description that includes:
- (i) Existing Conditions. An explanation of the existing wetland and buffer areas proposed to be altered including acreage (or square footage), water regime, vegetation, soils, landscape position, surrounding land uses, and functions and values.
  - (ii) Plan Goals. Overall goals for the plan, including future wetland function, value, and acreage.
  - (iii) Mitigation Sequencing. A description of how the project design has been modified to avoid, minimize, or reduce adverse impacts to wetlands.
  - (iv) Type and Location of Mitigation Activities. A narrative that describes the nature of mitigation activities including:
    - (A) Site Treatment. A description of measures that are proposed to protect existing wetlands and desirable vegetation on the site including planting, invasive species removal, use of mulch and fertilizer, placement of erosion and sediment control devices, and other best management practices.
    - (B) Hydrology. An analysis of existing and proposed hydrologic regimes for enhanced, created, or restored compensatory mitigation areas. The narrative shall include illustrations of how data for existing hydrologic conditions were used to determine the estimates of future hydrologic conditions.
    - (C) Buffers. A description of the appropriateness of the buffer widths to protect the wetland functions into perpetuity.
    - (D) Impacts to Ecological Functions. A description of the ecological functions and values that the proposed alteration will affect and the specific ecological functions and values that the proposed mitigation area(s) will provide, together with a description of the required or recommended mitigation ratios and an assessment of factors that may affect the success of the mitigation program.
    - (E) Expected Future Conditions. Conditions expected from the proposed actions on site, including future hydrogeomorphic types, vegetation community types by dominant species (wetland and upland), and future water regimes.
    - (F) Performance Standards. Specific measurable performance standards that the proposed mitigation action(s) will achieve together with a description of how the mitigation action(s) will be evaluated and monitored to determine if the performance standards are being met; and an identification of potential courses of action, and any corrective measures to be taken if monitoring or evaluation indicates that project performance standards are not being met. The performance standards shall be tied to and directly related to the mitigation goals and objectives.
  - (v) Scaled Drawings for the Project. Scaled drawings of the activities proposed including, but not limited to:
    - (A) Existing site conditions, including the location of the wetlands and associated buffers.
    - (B) Extent of clearing, grading, excavation, and construction impacts.
    - (C) Development plan (site plan, plat, plot plan)
    - (D) All proposed impacts to wetlands and wetland buffers.
    - (E) Stormwater and utility plans
    - (F) Existing hydrological features and proposed alterations.

(G) Overall plan for mitigation, including grading, mitigation types and locations, proposed planting, invasive plant management, installation of habitat structures, irrigation, and other site treatments associated with the development and proposed mitigation action(s).

(H) Existing topography, ground-proofed, at two-foot contour intervals in the area of the proposed compensation actions, if any grading activity is proposed. Also existing cross-sections (estimated one-foot intervals) of wetland areas on the development site that are proposed to be altered, or used as wetland or buffer compensation sites.

## Article 8. Fish and Wildlife Habitat Conservation Areas

### XXX Purpose

(1) The purpose of this article is to allow the reasonable use of private property, while:

(a) Encouraging no net loss of habitat functions and values within designated habitat areas; and

(b) Conserving the functional integrity of the habitats that are necessary to perpetually support fish and wildlife populations.

(2) Key priorities of the article are to:

(a) Identify and protect areas with which endangered, threatened, and sensitive species have a primary association;

(b) Identify and protect habitats and species of local importance, including waters of the state, lakes, ponds, and terrestrial and riparian habitats that are essential to their protection; and

(c) Give special consideration to conservation or protection measures that are necessary to preserve or enhance anadromous fisheries.

### 170 Classification of Habitat Areas

Critical fish and wildlife habitat conservation areas are designated according to the classifications in the following **Table X**.

**Table X. Fish and Wildlife Habitat Conservation Area Classifications**

<u>Classification</u>	<u>Definition</u>
<u>(1) Priority habitats and those areas associated with primary species</u>	<u>Habitat areas which, if altered, may reduce the likelihood that the species will reproduce over the long term. Habitats associated with these species are those identified by the Washington Department of Fish and Wildlife’s current system for mapping species of concern and priority habitats, or by the U.S. Fish and Wildlife Services Information for Planning and Consultation. These habitats are designated as critical areas, where endangered, threatened, candidate, and sensitive species are verified to have a primary associate or suitable habitat.</u>
<u>(2) Habitats and species of local importance</u>	<u>Habitats and species of local importance are fish and wildlife habitat conservation areas which are not designated as priority habitats and species by the state but are designated as locally significant by the City of Castle Rock.</u>
<u>(3) Commercial and recreational shellfish areas</u>	<u>As defined in WAC-365-190-130, counties and cities should consider both commercial and recreational shellfish as critical</u>

	<u>areas. These areas are defined as all public and private tidelands and bedlands that are suitable for shellfish harvest and are located in vulnerable areas according to the Washington State Department of Health’s classifications of commercial and recreational shellfish growing areas.</u>
<u>(4) Kelp and eelgrass beds; herring and smelt spawning areas.</u>	<u>As defined in WAC 365-190-130, locations and classifications of kelp and eelgrass beds are compiled in the Washington Coastal Atlas published by the Washington Department of Ecology. Herring, smelt, and other forage fish spawning times and locations are outlined in WAC-220-110-240 through 220-110-271.</u>
<u>(5) Waters of the state</u>	<u>Waters of the state shall be those defined in WAC 222-16-030 and 031, Forest Practices Board, and Definitions.<sup>1</sup> Special consideration must be applied to anadromous fisheries based on best available science and as defined in WAC 365-195-925</u>
<u>(6) Naturally occurring ponds under 20 acres and their submerged aquatic beds that provide fish or wildlife habitat;</u>	<u>As defined in WAC 365-190-130, naturally occurring ponds are waters with a surface area of less than twenty acres but greater than one acre and man-made ponds developed as mitigation as part of a permitting process or mitigation agreement. Naturally occurring ponds do not include ponds deliberately designed and created from dry sites, such as canals, detention facilities, wastewater treatment facilities, farm ponds, temporary construction ponds (of less than three years duration) and landscape amenities. However, naturally occurring ponds may include those artificial ponds intentionally created from dry areas in order to mitigate conversion of ponds, if permitted by a regulatory authority.</u>
<u>(7) Lakes, ponds, streams, and rivers planted with game fish by a governmental or tribal entity;</u>	<u>Includes game fish planted in these water bodies under the auspices of a federal, state, local, or tribal program or which supports priority fish species as identified by the Washington State Department of Fish and Wildlife.</u>
<u>(8) State natural area preserves, natural resource conservation areas, and state wildlife areas.</u>	<u>Natural area preserves and natural resource conservation areas are defined, established, and managed by the Department of Natural Resources. State wildlife areas are defined, established, and managed by the Washington State Department of Fish and Wildlife, which provides information about state wildlife areas for each county.</u>

1. Type S Streams, inventories as "shorelines of the state" under RCW 90.58 are regulated under the City of Castle Rock Shoreline Master Program

## **XXXX Development and Habitat Classification Performance Standards**

- (1) Regulated development shall conform and be governed by subsections 2 through 4 in this section. When impacts to critical fish and wildlife habitat areas as detailed in Table X cannot be avoided, the performance standards contained in this section shall be used to develop plans submitted for regulated activities. In addition to the performance standards listed in subsections 2 through 4 the responsible official shall defer to WDFW in regard to classification and interpretation of priority habitats and species. The responsible official shall follow WDFW recommendations in the interpretation of site-specific conditions as they relate to the definitions of priority habitat and species and water types. The administrator shall, however, determine habitat mitigation sufficiency guidelines and may solicit recommendations from WDFW and/or a qualified professional, if deemed necessary. The administrator shall not permit a development where a net loss of habitat functions and values will occur.
- (2) Habitat Protection for Classifications 1, 2, 3, and 4 (Table X). A habitat management plan that meets the requirements of Section 23 and Section 24.15 will be required if the regulated activity is within these classifications. Currently, no Classification 3 and 4 (Table 1) habitat areas are not known to be present within Castle Rock city limits.
- (3) Habitat Protection for Classifications 5, 6, and 7 (Table 1). These classifications shall require riparian habitat areas as shown on Table X unless bordered by a wetland, in which case the riparian habitat area shall consist of the buffer that affords the greatest resource protection, the riparian management zone (RMZ) or the wetland and buffer required by Table X (insert chapter citation for wetlands after 'Table X') of this chapter, whichever is larger. Within Classification 5—Types F, Np, and Ns waters shall be classified by the criteria defined in WACs 222-16-030 and 031. Type S waters are regulated by the City of Castle Rock Shoreline Master Program. A habitat management plan that meets the requirements of Section 23 and Section 24.15 will be required if the regulated activity is within these classifications.
- (4) Habitat Protection for Classification 8 (Table X). Protection for State natural area preserves, natural resource conservation areas, and state wildlife areas will require development of a habitat management plan which meets the requirement of Section 23 and Section 24.15. Currently, no Classification 8 habitat areas are known to be present within Castle Rock city limits.

## **XXX Riparian Management Zones**

- (1) Establishment of RMZ. Riparian Management Zones shall be established for habitats that include aquatic and terrestrial ecosystems that mutually benefit each other, and that are located adjacent to rivers, perennial or intermittent streams, drainage ways, seeps, and springs.

RMZ Widths. RMZ widths shall be based on the estimated average two hundred (200) year site potential tree height, extending outward on each side of the stream from the ordinary high water mark to the distances in Table 2 for each site class (defined in WAC 222-16-010) by water type (defined in WAC 222-16-030). In cases where there are multiple site classes on a property, the site class which is closest to the development area within the site applies. When a development area or site bisects multiple site classes, the predominant site class on the site shall apply.

**Table X. Riparian Management Zone Widths – Average 200 Year Site Potential Tree Height**

<u>Site Class<sup>1</sup></u>	<u>Type F Waters<sup>2</sup></u>	<u>Type Np Waters</u>	<u>Type Ns Waters<sup>2</sup></u>
<u>II</u>	<u>235</u>	<u>155</u>	<u>100</u>
<u>III</u>	<u>205</u>	<u>135</u>	<u>100</u>
<u>IV</u>	<u>165</u>	<u>105</u>	<u>100</u>
<u>V</u>	<u>150</u>	<u>100</u>	<u>100</u>

<sup>1</sup>Type S streams, inventoried as "shorelines of the state" under RCW 90.58 are regulated under the City of Castle Rock Shoreline Master Program, and therefore are not included in Table 2.

<sup>2</sup>No Site Class 1 soils are mapped in the City of Castle Rock.

<sup>3</sup>Type Ns Streams must have a minimum channel width of one foot, be supported by groundwater (and not solely precipitation), and have a defined bank and bed to warrant buffers required using site potential tree height methodology. Type Ns streams which do not meet these minimum conditions shall be considered ephemeral and will be allocated a standard 25-foot buffer to be measured landward from the edge of the channel.

## **XXX Functionally Isolated Riparian Management Zones (RMZ)**

Pre-existing impervious surfaces, except for roads and driveways, and pre-existing structures shall be considered areas which provide functional isolation of a RMZ. In the case of existing roads and driveways, RMZ's which are at least one hundred (100) feet from the ordinary high water mark and disconnected from the water body by permanent continuous public or private roadways, shall be excluded from fish and wildlife habitat conservation areas. Vertical separation may also result in functional isolation of RMZ. Vertical separation is defined as an area having a vertical topographical feature, human-made or natural, that exceeds 30 percent slope and may include, but is not limited to, bluffs, cliffs, retaining walls and steep slopes. For the purpose of establishing the outer limit of a buffer width of a RMZ containing vertical separation, the greater of the two distances shall apply: the top of slope or highest point of other similar feature (bluff, cliff, retaining wall); or 50 percent of the buffer width of the RMZ.

## **XXX Increased RMZ Widths**

The recommended riparian management zone widths shall be increased, as follows:

- (1) When the environmental review determines that the recommended width is insufficient to prevent habitat degradation and to protect the structure and functions of the habitat area;
- (2) When the frequently flooded area exceeds the recommended riparian habitat area width, the riparian habitat area shall extend to the outer edge of the frequently flooded area;
- (3) When the channel migration zone exceeds the recommended riparian habitat area width, the riparian habitat area shall extend from the outer edge of the channel migration zone;
- (4) When the habitat area is with an erosion or landslide hazard area, or buffer, the riparian habitat area shall be the recommended distance, or the erosion or landslide hazard area or buffer, whichever is greater.

## **XXX Decreased RMZ Widths**

- (1) The administrator may also allow an RMZ buffer width to be reduced when all of the following can be demonstrated:
  - (a) The buffer reduction is supported by one or more of the following justifications:
    - (i) The smaller buffer, in conjunction with site design and buffer enhancement, will provide equal or better habitat and pollution removal functions than the larger buffer, as demonstrated by a fish and wildlife habitat management plan pursuant to **Section 24.15**.
    - (ii) The buffer reduction is necessary to allow reasonable use of the property and the remaining buffer is enhanced in accordance with a fish and wildlife habitat management plan pursuant to **Section 24.15**; and,
  - (b) The need for buffer width reduction is not due to the property owners' actions;
  - (c) There are no feasible alternatives to the site design that could be accomplished without buffer reduction.
  - (d) The standard buffers listed in Table 2 are not reduced by more than twenty-five (25) percent for Type F and NP waters, and fifty (50) percent for Type Ns waters, except as allowed in **Section 24.08**.
- (2) The recommended riparian management zones may also be decreased in the following instances:
  - (a) Native landscaping, lawn/decks, and non-pollutant generating low impact uses such as woodchip trails may be located within the outer fifty (50) percent of the buffer of all site class and water types so long as all impervious and pollutant generating surfaces maintain the minimum required 100 feet to reduce pollutants.
  - (b) If steep slopes (thirty (30) to sixty (60) percent) are located in the RMZ then the applicant may reduce the site potential tree height required width by ten (10) percent. The applicant will be responsible for demonstrating the potential for generating woody debris in the RMZ is still present. Steep slope RMZ buffer reduction cannot be combined with buffer reductions allowed in **24.07(1)(d)**.

## **XXX RMZ Width Averaging**

The responsible official may allow reduction of riparian management zone width in one location and replacement in another on the site such that the total area of the RMZ increases or remains unchanged and habitat functions and values within the site are maintained. Areas to be averaged cannot be reduced to a width less than fifty percent (50) of the required site potential tree height. RMZ width averaging cannot be combined with the RMZ width reduction allowed in Section 24.07(1). Land beyond the maximum two hundred (200) year site potential tree height width of 235 feet that is not part of the RMZ cannot be used for averaging unless warranted by soil type

## **XXX Mitigation Sequencing**

Projects proposed in or adjacent to fish and wildlife conservation areas are required to utilize the mitigation sequence shown in XXXX.

## **XXX Mitigation of Adverse Impacts**

RMZ mitigation and mitigation to other Fish and Wildlife Habitat Conservation Areas that may not be considered RMZ (i.e. priority habitats, etc.) shall result in equivalent functions and values on a per function basis, be located as near the alteration as feasible, and be located in the same sub-drainage basin as the habitat impacted. Types of habitat mitigation actions allowed are listed below:

- (1) Restoration and enhancement. Restoring native plant communities or physical habitat characteristics in an ecologically appropriate manner within existing fish and wildlife habitat conservation areas to improve or restore habitat functions and values.
- (2) Creation. Altering native plant communities of physical habitat characteristics in a manner designed to add new or increase the total area of an existing fish and wildlife habitat conservation area.
- (3) Long term habitat protection: Use of legal instruments to identify and protect fish wildlife habitat conservation areas, such as conservation covenants or conservation easements.
- (4) Site specific mitigation actions: The responsible official may authorize other mitigation actions to replace fish and wildlife habitat conservation areas functions and values.
- (5) Purchase of mitigation bank or in-lieu fee credits. Certified mitigation bank or approved in-lieu fee program (ILF) credits may be used to provide compensatory mitigation if the following applies:
  - (a) The responsible official determines that the credits provide ecologically appropriate compensation and the proposed credit purchase is consistent with the goals and objectives of the approved mitigation banking instrument (MBI).
  - (b) The impact site is located in the service area or an out-of-service area credit purchase has been authorized by the appropriate agency
  - (c) There is no practicable form of onsite or offsite compensatory mitigation in the same watershed as the impact site.

## **XXX Preferred Locations of Permittee Responsible Mitigation**

Compensatory mitigation actions shall be designed based on the preferred locations outlined below:

- (1) Onsite Mitigation. compensatory mitigation actions shall generally be conducted onsite except when the applicant can demonstrate that:
  - (a) Onsite mitigation is not practicable; or
  - (b) Offsite mitigation is ecologically preferable; or
  - (c) The use of established mitigation banks or in-lieu fee programs are ecologically preferable.

## **XXX Designation of Locally Important Habitat**

The City of Castle Rock may use a legislative process to designate or de-designate locally important habitats and species.

- (1) Criteria. The classification of locally important habitats and species shall consider unusual or unique habitats that warrant protection because of the qualitative species diversity or habitat system health indicators; or local species that demonstrate a need for special consideration based on:
  - (a) Declining population;
  - (b) Sensitivity to habitat manipulation;

- (c) Commercial, recreational, cultural, or other special value; and
- (d) The availability of linkages between existing habitat areas.
- (2) Recommendation. Recommendations for designating or de-designating areas with habitats or species that meet these criteria may be submitted by any person or group, and be included for potential review on the planning commission annual docket.
- (3) Review. Review of the proposal, if deemed to merit formal consideration by the planning commission and the City Council, shall progress as an amendment in Section 34.
- (4) Notice. Notice of proposals to designate or de-designate locally important habitat or species shall be forwarded to impacted property owners in a manner similar to the standards for noticing in Section 28.02.
- (5) Not allowed as part of other proposals. Designation or de-designation of locally important habitats or species may not occur concurrent with or as part of an associated development request.

## **XXX Classification and Mapping of Fish and Wildlife Habitat Conservation Areas**

- (1) Definitions and maps of fish and wildlife habitat conservation areas are based on the following documents:
  - (a) The 2014 Washington Department of Fish and Wildlife Priority habitats and species list, as amended.
  - (b) Priority Habitat and Species (PHS) on the Web (online), WA State Department of Fish and Wildlife, as amended.
  - (c) SalmonScape (online), WA State Department of Fish and Wildlife, as amended.
  - (d) Statewide Integrated Fish Distribution (SWIFD) Web Map (online), Northwest Indian Fisheries Commission
  - (e) Hydric soils (Natural Resources Conservation Service of U.S. Department of Agriculture (NRCS))
  - (f) Forest Practices Application Mapping Tool (online), WA State Department of Natural Resources, as amended.
  - (g) Washington National Heritage Program (WNHP) Data Explorer – Rare Plant and Ecosystem Locations (online), Department of Natural Resources
  - (h) U.S. Fish and Wildlife Service (USFWS) Information for Planning Consultation (IPaC) (online)
  - (i) Associated GIS data files maintained by Lewis County GIS department.
- (2) Updated as Needed. Maps supporting this chapter may be updated and/or reevaluated as new information comes available

## **XXX Inconsistencies Between Conditions on Ground and Mapping**

- (1) Determining Site-Specific Applicability. In the event of inconsistencies, official fish and wildlife habitat conservation area definitions shall prevail over maps in determining applicability of this chapter. The City shall follow the recommendations of WDFW in the interpretation of site-specific conditions as they relate to the definition of priority habitat and species.

## **XXX Fish and Wildlife Habitat Management Plan**

When required, a management plan for impacts to fish and wildlife habitat conservation areas and buffers shall meet the following requirements:

- (1) The plan shall contain sufficient information to demonstrate that the proposed activities are logistically feasible, constructible, ecologically sustainable, and likely to succeed. Specific information to be provided in the plan shall include:
  - (a) Basic Requirements. The plan shall include the name and contact information of the applicant; the name, qualifications, and contact information of the primary author(s); a description of the proposal; a summary of the impacts and proposed compensation concept; identification of all related permit(s) required for the project; and a vicinity map for the proposal. The plan will be prepared by a qualified professional as specified in (code number for Qualified Professional Required Section in main CAO).
  - (b) Project Description. A project description that includes:
    - (i) Existing Conditions. An explanation of the existing habitat, critical area types (i.e., stream type), and buffer areas proposed to be altered including items such as acreage (or square footage), vegetation, soils, landscape position, water bodies, surrounding land uses, and functions.
    - (ii) Management Plan Goals. Overall mitigation goals for the plan, including future habitat functions and values, and acreage.
    - (iii) Mitigation Sequencing. A description of how the project design has been modified to avoid, minimize, or reduce adverse impacts to fish and wildlife habitat.

- (c) A detailed description including the effects on fish and wildlife species including those state or federally designated endangered, threatened or sensitive fish or wildlife species, or species of local importance, on-site or adjacent to the subject property within a distance typical of the normal range of the species, if applicable, to include:
  - (i) Any areas of direct or indirect disturbance;
  - (ii) Effects of stormwater management; if applicable, and;
  - (iii) Temporary construction impacts
- (d) Type and Location of Mitigation Activities. A narrative that describes the nature of mitigation activities applicable to the proposal including:
  - (i) Mitigation Site Treatment. A description of measures that are proposed to protect existing habitat areas on the site including native vegetation retention, planting, invasive species removal, placement of erosion and sediment control devices, and other best management practices.
  - (ii) Buffers. A description of the appropriateness of the buffer widths to protect the habitat functions into perpetuity.
  - (iii) Impacts to Ecological Functions. A description of how the proposed mitigation will result in no net loss of ecological functions, and the expected future conditions from the proposed mitigation site treatment.
  - (iv) Performance Standards. Specific measurable performance standards that the proposed mitigation action(s) will achieve, together with a description of how the mitigation action(s) will be evaluated and monitored to determine if the performance standards are being met; and an identification of potential courses of action, and any corrective measures or adaptive management to be taken if the monitoring or evaluation indicates that the project performance standards are not being met. The performance standards shall be tied to and directly related to the mitigation goals and objectives.
- (e) Scaled Drawings for the Project. Scaled drawings of the activities proposed including, but not limited to:
  - (i) The location of the habitat area and its buffer.
  - (ii) Existing physical features of the site, including but not limited to, buildings, fences, and other structures, roads, parking lots, utilities, existing habitat features, and water bodies.
  - (iii) A detailed depiction of the proposed development including, but not limited to, features such as lot location (for land divisions); utility location (well, septic, drainfield, etc.); parking and access location; the limits of clearing, grading, and vegetation removal; construction impacts, and the location of any proposed building(s).
  - (iv) Proposed planting, invasive plant management, installation of habitat structures, irrigation, and other site treatments associated with the development and the proposed mitigation action(s).

**Standards for Classifying and Protecting Fish and Wildlife Habitat**

~~C. Areas within the City meeting one or more of the following criteria, may be designated as Fish and Wildlife Habitat Conservation Areas, subject to the provisions of this Section, and shall be managed consistent with the principles of best available science, such as the Washington State Department of Fish and Wildlife's Management Recommendations for Priority Habitat and Species.~~

~~Table 2: Minimum Recommended Widths of Riparian Habitats~~

<del>Stream</del>	<del>RHA Width (ft)<sup>a</sup></del>
<del>Type S water</del>	<del>See SMP</del>
<del>Type F water, channel width greater than 20 feet</del>	<del>150</del>
<del>Type F water, channel width less than or equal to 20 feet</del>	<del>100</del>
<del>Type Np water</del>	<del>50</del>
<del>Type Ns water</del>	<del>50</del>

~~<sup>a</sup>RHA widths shall be measured horizontally from the ordinary high water mark (Source: Cowlitz County Code Section 19.15.130 Fish and Wildlife Habitat Conservation Areas)~~

**~~175 Streams, Lakes, and Marine Waters~~**

~~A. Fish and wildlife habitat conservation areas—Water bodies—Buffer averaging.~~

- ~~1. The City may permit a proposal to reduce the standard buffer on a portion of the site if the buffer is increased on another portion of the site, so that the total buffer area has not been reduced, based on a written finding that there will be no net loss of ecological function provided that:~~

- ~~a. Averaging is necessary to avoid an extraordinary hardship to the applicant caused by circumstances peculiar to the property;~~
- ~~b. Supporting documentation may be required from a qualified professional;~~
- ~~c. The site has not applied buffer width reduction or modification by any prior action administered by Castle Rock. Sites which utilize this provision are not eligible for any future buffer width modifications, under any provision of this Program, except as part of an approved variance.~~
- ~~d. Additional conditions of approval and/or mitigation measures including but not limited to such as requirements to increase native vegetation, limit native vegetation removal, limit the use of fertilizers and pesticides, further protect steep slopes, and/or the payment of a mitigation fee may be required; and~~
- ~~e. At no point along the shoreline may the buffer be reduced by more than 35% of the standard buffer for the applicable designation, provided that:
 
  - ~~i. On lots less than 300 feet in depth which are encumbered by a public transportation corridor, the buffer may be reduced through averaging up to 50% of the applicable standard buffer. and~~
  - ~~ii. All structures are located as far landward as practical, and not closer than 50 feet from the ordinary high water mark.~~~~

~~**B. Fish and wildlife habitat conservation areas—Water bodies—Buffer increase.**~~

- ~~1. The City may increase the width of the standard buffer on a case by case basis, based on a critical area report, when a larger buffer is required to protect critical habitats, or such increase is necessary to:
 
  - ~~a. Protect native fish and wildlife habitat, maintain water quality, ensure adequate flow conveyance; provide adequate recruitment for large woody debris, maintain adequate stream temperatures, or maintain in-stream conditions.~~
  - ~~b. Compensate for degraded vegetation communities or steep slopes adjacent to the stream.~~
  - ~~c. Maintain areas for channel migration.~~
  - ~~d. Protect adjacent or downstream areas from erosion, landslides, or other hazards.~~~~

~~**C. Fish and wildlife habitat conservation areas—Water bodies—Buffer decrease.**~~

- ~~1. The City may decrease the width of the standard buffer on a case by case basis, based on a critical area report, when a larger buffer is required to protect critical habitats, or such increase is necessary to:
 
  - ~~a. The buffer reduction shall not adversely affect the habitat functions and values of an adjacent habitat conservation area or other critical area~~
  - ~~b. The slopes adjacent to the habitat conservation area within the buffer area are stable and the gradient does not exceed 30 percent.~~
  - ~~c. The buffer shall not be reduced to less than 50 percent of the standard buffer as defined in Chapter 18.10this chapter. A 35-foot buffer cannot be decreased.~~~~
- ~~2. The following table identifies potential buffer reductions with accompanying riparian habitat enhancement.~~
- ~~3. Habitat enhancement plans prepared by a qualified professional must be provided to the City identifying existing conditions, and how the enhancement plan will improve riparian functions over existing conditions. A five year monitoring plan must be included. The plan must also address how land outside a reduced buffer would protect surface water quality.~~
- ~~4. When compensatory mitigation is required, the applicant shall submit a compensatory mitigation plan with sufficient information to demonstrate that the proposed activities are logistically feasible, constructible, ecologically sustainable, and likely to succeed. In addition to the requirements of Section 18.10.115, Specific information to be provided in the plan shall include:
 
  - ~~a. General description and scaled drawings of the activities proposed including clearing, grading/excavation, drainage alterations, planting, invasive plant management, installation of habitat structures, irrigation, and other site treatments associated with the development activities and proposed mitigation action(s);~~
  - ~~b. A description of the functions and values that the proposed mitigation area(s) shall provide, together with a description of required and an assessment of factors that may affect the success of the mitigation program; and~~
  - ~~c. A description of known management objectives for the native species or habitat.~~
  - ~~d. Required mitigation shall be completed as soon as possible following activities that will disturb fish and wildlife habitat conservation areas and during the appropriate season. Mitigation shall be~~~~

completed prior to use or occupancy of the activity or development. Construction of mitigation projects shall be timed to reduce impacts to existing native wildlife and flora.

5. The City may require monitoring of mitigation activities and submittal of annual monitoring reports to ensure and document that the goals and objectives of the mitigation are met.

a. The frequency and duration of the monitoring shall be based on the specific needs of the project, as determined by the City.

## 180 Riparian Buffers

A. Fish and wildlife habitat conservation areas— Piped streams.

1. Building over a natural stream that is located in an underground pipe or culvert, except as allowed in Section 18.10 for transportation or utility crossings, is prohibited. Relocation of the piped stream system around structures is allowed. The relocated system shall be sized to convey the 100-year future land use condition runoff from the total upstream tributary area as determined from a hydrologic and hydraulic analysis performed in accordance with standards determined by the city.

2. No riparian buffers are required along segments of piped or culverted streams unless designated by the City for removal. Any easements or setbacks from pipes or culverts shall be consistent with adopted city regulations or design standards as administered by the city public works department. Setback requirements will include an easement over the piped stream system and a building setback from the edge of the easement. The city will determine the setback requirement during the permit review process. The setback size will be dependent upon the amount of space that would be needed for maintenance, operation, and future replacement of the piped stream system.

B. Habitat Specific Performance Standards.

1. Endangered, Threatened, and Sensitive Species. No development shall be allowed within a habitat conservation area or buffer with which state or federal endangered, threatened, or sensitive species have a primary association.

C. Whenever activities are proposed adjacent to a habitat conservation area with which state or federally endangered, threatened, or sensitive species have a primary association, such area shall be protected through the application of protection measures in accordance with a critical area report prepared by a qualified professional and submitted to the city. Approval for alteration of land adjacent to the habitat conservation area or its buffer shall not occur prior to consultation with the department of fish and wildlife and the appropriate federal agency.

D. Wetland Habitats. All proposed activities within or adjacent to habitat conservation areas containing wetlands shall, at a minimum, conform to the wetland development performance standards set forth in this critical areas manual document, in addition to meeting the habitat conservation area standards in this Chapter.

E. Riparian Habitat Areas. Unless otherwise allowed in this Chapter, all structures and activities shall be located outside of the riparian habitat buffers;

F. Buffers shall be established for habitats that include aquatic systems.

G. Recommended buffer widths are identified in the critical areas designation map. A riparian habitat shall have at least the buffer width recommended in Table 6, unless a greater width is required pursuant to Section 18.10 and the standards outlined in this manual. Widths shall be measured outward, on the horizontal plane, from the ordinary high water mark or from the top of bank if the ordinary high water mark cannot be identified;

H. The required buffer shall be extended to include any adjacent regulated wetland(s), landslide hazard areas and/or erosion hazard areas and required buffers, but shall not be extended across roads or other lawfully established structures or hardened surfaces that are functionally and effectively disconnected from the stream.

I. Buffers in conjunction with other critical areas. Where other critical areas defined in this chapter fall within the water body buffer, the buffer area shall be the most beneficial of the buffers applicable to any applicable critical area.

J. Anadromous Fish.

K. All activities, uses, and alterations proposed to be located in water bodies used by native anadromous fish or in areas that affect such water bodies shall give special consideration to the preservation and enhancement of native anadromous fish habitat, including adhering to the following standards:

L.—

M.—

N. Activities shall be timed to occur only during the allowable work window as designated by the Washington

- Department of Fish and Wildlife for the applicable species;
- ~~Q. An alternative alignment or location for the activity is not feasible;~~
- ~~P. The activity is designed so that it will not degrade the functions or values of the native fish habitat or other critical areas;~~
- ~~Q. Shoreline erosion control measures shall be designed to use bioengineering methods or soft armoring techniques, according to an approved critical area report, and~~
- ~~R. Any impacts to the functions or values of the habitat conservation area are mitigated in accordance with an approved mitigation plan.~~
- ~~S. b. Structures that prevent the migration of native salmonids shall not be allowed in the portion of water bodies currently used by anadromous fish. Fish bypass facilities shall be provided that allow the upstream migration of adult fish and shall prevent fry and juveniles migrating downstream from being trapped or harmed.~~
- ~~T. C. Fills shall not adversely impact native anadromous fish or their habitat or shall mitigate any unavoidable impacts.~~
- ~~U. Wetland Habitats. All proposed activities within or adjacent to habitat conservation areas containing wetlands shall conform to the wetland development performance standards set forth in the wetland **section of this manual and Section 18.10.**~~
- ~~V. In areas designated as high density of wintering birds of prey, tree and perch removal shall be discouraged, and limited to hazard tree removals unless otherwise approved by the director.~~
- ~~W. In areas designated as hawk habitat tree removal will be restricted to the non-nesting season August through January and limited to hazard tree removal unless otherwise approved by the City.~~
- ~~X. In areas designated as hawk habitat, and in areas where a hawk nest is known to occur, noise generating activities should be restricted during the nesting season, specifically from March 1 through June 30. Noise generating activities that may be restricted include construction activities that generate more than 100 decibels (like pile-driving, blasting or other intense, short duration impacts).~~

## ~~185 Habitat Management Plans~~

## ~~190 Crossings and Utilities~~

- ~~A. The following activities or uses may be permitted in streams and/or their buffers when all reasonable measures have been taken to avoid adverse effects on species and habitats, the amount and degree of the alteration are limited to the minimum needed to accomplish the project purpose, and compensatory mitigation is provided for all adverse impacts that cannot be avoided.~~
- ~~1. Restoration of streams previously piped or channeled into a new or relocation streambed when part of a restoration plan that will result in equal or better habitat and water quality and quantity, and that will not diminish the flow capacity of the stream or other natural stream processes; provided, that the relocation has a state **hydraulic** project approval and all other applicable permits.~~
  - ~~2. Road, trail, bridge, and right of way crossings, provided they meet the following criteria:~~
    - ~~a. There is no other feasible alternative route with less impact on critical areas.~~
    - ~~b. The crossing minimizes interruption of natural processes such as the downstream movement of wood and gravel and the movement of all native fish and wildlife. Bridges are preferred for all stream crossings and should be designed to maintain the existing stream gradient and substrate, provide adequate horizontal clearance on each side of the ordinary high water mark and adequate vertical clearance above ordinary high water mark for animal passage. If a bridge crossing is not feasible, culverts shall be designed according to applicable state and federal guidance criteria for native fish passage as identified in Fish Passage Design at Road Culverts, WDFW March 1999, and/or the National Marine Fisheries Service Guidelines for Salmonid Passage at Stream Crossings, 2000 (and subsequent revisions), and in accordance with a state hydraulic project approval. The applicant or property owner shall maintain passage for native fish through the bridge or culvert~~
    - ~~c. The city may require that existing culverts be removed, repaired, or modified as a condition of approval if the culvert is detrimental to native fish habitat or water quality, and a feasible alternative exists.~~

- d. ~~Crossings shall be limited to the minimum width necessary. Common crossings are the preferred approach where multiple properties can be accessed by one crossing.~~
  - e. ~~Access to private development sites may be permitted to cross streams, if there are no feasible alternative alignments. Alternative access shall be pursued to the maximum extent feasible, including through the provisions of Chapter 8.24 RCW. Exceptions or deviations from technical standards for width or other dimensions, and specific construction standards to minimize impacts may be specified, including placement on elevated structures as an alternative to fill, if feasible.~~
3. ~~Passive outdoor recreational or educational activities which do not significantly affect the function of the water body or regulated buffer' (including wildlife management or viewing structures, outdoor scientific or interpretive facilities, trails, hunting blinds, etc.) and meet the following criteria:~~
- a. ~~Trails shall not exceed six feet in width and shall be surfaced with gravel or pervious material, including boat dwalk.~~
  - b. ~~The trail or facility shall be located in the outer 75 percent of the buffer area unless a location closer to the water body edge is required for interpretive purposes.~~
  - e. ~~The trail or facility shall be constructed and maintained in manner that minimizes disturbance of the water body or buffer.~~
4. ~~Utility lines and facilities providing local delivery service, not including facilities such as electrical substations, water and sewage pumping stations, water storage tanks, petroleum products pipelines and transformers or other facilities containing hazardous substances, may cross water bodies or be located in buffers, if the following criteria are met:~~
- a. ~~There is no reasonable location or route that does not cross the water body or outside the buffer based on analysis of system needs, available technology and alternative routes. Locations within a buffer shall be preferred over locations within a water body. Crossings shall be contained within the footprint of an existing road or utility crossing where possible.~~
  - b. ~~Impacts to native fish and wildlife habitat shall be avoided to the maximum extent possible and mitigated when avoidance is not feasible.~~
  - e. ~~Utilities that cross water bodies shall be as close to perpendicular to the channel as possible to minimize disturbance. Boring under the water body may be required.~~
  - d. ~~If not a crossing, the utility line shall be located as far from the water body as possible.~~
  - e. ~~The utility installation shall maintain the existing stream gradient and substrate.~~
  - f. ~~Clearing, grading, and excavation activities shall be limited to the minimum necessary to install the utility line, and the area is restored following utility installation.~~
5. ~~Stormwater conveyance or discharge facilities such as infiltration systems, dispersion trenches, level spicadeis, and outfalls may be permitted in a fish and wildlife habitat conservation area buffer on a case-by-case basis when all of the following are met:~~
- a. ~~There are no feasible locations for these facilities outside the buffer.~~
  - b. ~~The discharge is located as far from the ordinary high water mark as possible and in a manner that minimizes disturbance of soils and vegetation.~~
  - e. ~~The discharge outlet is in an appropriate location and is designed to prevent erosion and promote infiltration.~~
  - d. ~~The discharge meets stormwater flow and water quality standard as provided in the 2004 Ecology Stormwater Manual for Eastern Washington, as amended, or the equivalent.~~
6. ~~Stream bank stabilization, shoreline protection, and public or private launching ramps may be permitted subject to all of the following standards:~~
- a. ~~Natural shoreline processes will be maintained to the maximum extent practicable. The activity will not result in increased erosion and will not alter the size or distribution of shoreline or stream substrate, or eliminate or reduce sediment supply from feeder bluffs;~~
  - b. ~~Adverse impact to native fish or wildlife habitat conservation areas, specifically juvenile and adult native fish migration corridors, or associated wetlands will be mitigated;~~
  - e. ~~Nonstructural measures, such as placing or relocating the development further from the shoreline, planting vegetation, or installing on-site drainage improvements, are not feasible or not sufficient;~~
  - d. ~~Stabilization is achieved through bioengineering or soft armoring techniques in accordance with an applicable hydraulic project approval issued by the Washington Department of Fish and Wildlife;~~

- e. ~~Hard bank armoring may occur only when the property contains an existing permanent structure(s) that is/are in danger from shoreline erosion caused by riverine processes; armoring shall not increase erosion on adjacent properties and shall not eliminate or reduce sediment supply.~~
- 7. ~~New public flood protection measures and expansion of existing measures may be permitted; provided, that bioengineering or soft armoring techniques shall be used where feasible. Hard bank armoring may occur only in situations where soft approaches do not provide adequate protection, and shall be subject, where applicable, to hydraulic project approval, and other permits.~~
- 8. ~~New docks shall be permitted as an accessory to water dependent uses or associated with a single-family residence; provided, that it is designed and used only as a facility for access to watercraft.~~
  - a. ~~To limit the effects on ecological functions, the number of docks should be limited, and new subdivisions should employ shared moorage whenever feasible.~~
  - b. ~~Docks shall be located and designed to minimize adverse effects on ecological processes through location where they will interfere with fluvial and limnal processes including gradient and substrate; recruitment of woody debris; and native fish habitat, including that related to native anadromous fish.~~
  - c. ~~Docks shall minimize reduction in ambient light level by limiting width to the minimum necessary and shall not exceed four feet in width, except where specific information on use patterns justifies a greater width. Materials that will allow light to pass through the dock may be required including grating on walkways or gangplanks in near shore areas.~~
  - d. ~~Approaches shall utilize piers or other structures to span the entire upper foreshore to the point of intersection with stable upland soils and shall be designed to avoid interfering with stream processes.~~
  - e. ~~Pile spacing shall be the maximum feasible to minimize shading and avoid a wall effect that would block or baffle currents, sediment movement or movement of native aquatic life forms, or result in structure damage from driftwood impact or entrapment.~~
  - f. ~~Docks should be constructed of materials that will not adversely affect water quality or native aquatic plants and animals in the long term.~~
- 9. ~~Launch ramps may be permitted for access to the water for the public or for residents of a development or for water dependent use subject to the following criteria:~~
  - a. ~~Launch ramps shall be located and designed to minimize adverse effects on fluvial and limnal processes including stream gradient and substrate; recruitment of woody debris; and native fish habitat, including that related to anadromous fish.~~
  - b. ~~Ramps shall be placed and maintained near flush with the bank slope. Preferred ramp designs, in order of priority, are:~~
    - i. ~~Open grid designs with minimum coverage of beach substrate;~~
    - ii. ~~Seasonal ramps that can be removed and stored upland;~~
    - iii. ~~Structures with segmented pads and flexible connections that leave space for natural shoreline substrate and can adapt to changes in shoreline profile.~~
- 10. ~~In stream structures, such as high flow bypasses, dams, and weirs, other than those regulated exclusively by the Federal Energy Regulatory Commission (FERC) shall be permitted only when the multiple public benefits are provided and ecological impacts are fully mitigated. Dams on shorelines of the state shall be regulated in accordance with the shoreline master program.~~
  - a. ~~In stream facilities locations shall avoid areas of high habitat value for native aquatic organisms, specifically indigenous anadromous fish.~~
  - b. ~~In stream facilities shall be designed to produce the least feasible effect on fluvial processes and shall minimize change in gradient.~~
  - c. ~~In stream facilities shall provide mitigation of all impacts on native aquatic species and habitat.~~
  - d. ~~In stream facilities shall provide native fish passage, in accordance with Chapter 77.57~~
  - e. ~~A construction bond for 150 percent of the cost of the structure and all mitigation measures shall be filed prior to construction and a maintenance agreement shall specify responsibility for maintenance, shall incorporate the maintenance schedule specified by the design engineer, shall require annual inspections by a civil engineer licensed in the State of Washington and shall stipulate abandonment procedures which shall include, where appropriate, provisions for site restoration.~~
- 11. ~~Facilities permitted as shoreline dependent or shoreline oriented uses in accordance with the city shoreline~~

master program, if applicable, may be located in water bodies and buffers; provided, that only those facilities that are water dependent or water oriented and facilities for necessary access may be located in water bodies and buffers; and provided, that the facility is located, designed, constructed and operated to minimize and, where possible, avoid critical area disturbance to the maximum extent feasible.

12. Clearing and grading, when allowed as part of an authorized use or activity or as otherwise allowed in these standards, may be permitted; provided, that the following shall apply:

- a. Appropriate erosion and sediment control measures shall be used at all times. The soil duff layer shall remain undisturbed to the maximum extent possible. Where feasible, disturbed topsoil shall be redistributed to other areas of the site.
- b. The moisture holding capacity of the topsoil layer shall be maintained by minimizing soil compaction or reestablishing natural soil structure and infiltrative capacity on all areas of the project area not covered by impervious surfaces.

13. Repairs to failing on-site sewage systems associated with an existing structure shall be accomplished by utilizing one of the following methods that result in the least impact:

- a. Connection to an available public sanitary sewer system;
- b. Replacement with a new on-site sewage system located in compliance with City of Castle Rock applicable standards; and the Walla Walla County Health Department.
- c. Repair to the existing on-site septic system.

B. Activities that adversely affect native fish and wildlife habitat conservation areas and/or their buffers should generally be avoided through site design, including clustering. Unavoidable impacts to designated native species or habitats shall be compensated for through habitat creation, restoration and/or enhancement to achieve no net loss of habitat functions and values in accordance with the purpose and goals of this chapter.

## 200 Mitigation and Enhancement

A. General Performance Standards.

1. A habitat conservation area may be altered only if the proposed alteration of the habitat or the mitigation proposed does not degrade the quantitative and qualitative functions and values of the habitat. All new structures and land alterations shall be prohibited from habitat conservation areas, except in accordance with this Chapter.
2. No plant, wildlife, or fish species not indigenous to the region shall be introduced into a habitat conservation area unless authorized by a state or federal permit or approval.
3. Mitigation sites shall tip to achieve contiguous functioning habitat corridors in accordance with a mitigation plan that is part of the critical area report to minimize the isolating effects of development on habitat areas, so long as mitigation of aquatic habitat is located within the same aquatic ecosystem as the area disturbed.
4. The City shall condition approvals of activities allowed within or adjacent to a habitat conservation area or its buffers, as necessary to minimize or mitigate any potential adverse impacts. Conditions shall be guided by best available science and may include:
  - a. Establishment of buffer zones;
  - b. Preservation of critically important native vegetation and/or habitat features such as snags and downed wood;
  - c. Limitation of access to the habitat area, including fencing to deter unauthorized access;
  - d. Seasonal restriction of construction activities;
  - e. Establishment of a duration and timetable for periodic review of mitigation activities; and
  - f. Requirement of a performance bond, when necessary, to ensure completion and success of proposed mitigation, pursuant to Section 15.10.120.
5. Mitigation of alterations to habitat conservation areas shall achieve equivalent or greater biologic and hydrologic functions and shall include mitigation for adverse impacts upstream or downstream of the development proposal site. Mitigation shall address each function affected by the alteration to achieve functional equivalency or improvement on a per function basis.
6. Any approval of alterations or impacts to a habitat conservation area shall be guided by best available science.
7. The City shall require the establishment of buffer areas for activities adjacent to habitat conservation areas when needed to protect habitat conservation areas. Buffers shall consist of an undisturbed area of native

~~vegetation or areas identified to protect the integrity, functions, and values of the affected habitat. Required buffer widths shall reflect the sensitivity of the habitat and the type and intensity of human activity proposed to be conducted nearby and shall be consistent with the management recommendations issued by the Washington Department of Fish and Wildlife.~~

~~a. When a species is more susceptible to adverse impacts during specific periods of the year, activities may be further restricted during the specified season.~~

~~8. The subdivision and short subdivision of land in fish and wildlife habitat conservation areas and associated buffers is subject to the following:~~

~~a. A habitat conservation area or its buffer may not be subdivided.~~

~~b. The buildable portion of each lot meets the minimum lot size requirements.~~

~~c. Access roads and utilities serving the proposed development may be permitted within the habitat conservation area and associated buffers only if, the City determines that no other feasible alternative exists and when consistent with this Chapter, and subject to any applicable mitigation requirements.~~

## Article 9. Geologically Hazardous Areas

### 205 Types of Geologic Hazards

A. Geologic hazard areas in the City of Castle Rock shall include those areas that are susceptible to one or more of the following types of hazards:

1. El OSlon hazard;
2. Landslide hazard;
3. Seismic hazard; or
4. Other' geological events including, mass wasting, debris flows, i oclr falls, and differential settlement.

B. Erosion hazard areas include sites which:

1. Contain soils or soils complexes identified by the U.S. Department of Agriculture's Natural Resource Conservation Service or the Soil Survey for City of Castle Rock as having "moderate to severe," "severe" or "very severe" erosion hazard potential; or
2. Are impacted by stream bank erosion; or
3. Areas with a slope greater than 15 percent.

C. Landslide hazard areas include sites which are susceptible to landslides because of any combination of bedrock, soil, slope (gradient), slope aspect, structure, hydrology, or other physical factors. Potential landslide hazard areas exhibit one or more of the following characteristics:

1. Slopes exceeding 35 percent with a vertical relief of ten or more feet except areas composed of competent rock and properly engineered slopes designed and approved by a geotechnical engineer licensed in the State of Washington and experienced with the types of conditions present at the site in question;
2. Areas mapped by the Washington State Department of Natural Resources (slope stability mapping) as unstable ("U"), unstable old slides ("UOS"), or unstable recent slides ("URS");
3. Areas designated by the U.S. Department of Agriculture's Natural Resource Conservation Service as having "severe" limitation for building site development;
4. Areas that have shown evidence of hlStO1'ic failure or instability, including back-rotated benches on slopes; areas with structures that exhibit structural damage such as settling and caching of building foundations; and areas that have toppling, leaning, or bowed trees caused by ground surface movement;
5. Slopes greater than 15 percent that have a relatively permeable geologic unit overlying a relatively impermeable unit and having springs or groundwater seepage;
6. Areas potentially unstable as a result of rapid stream incision, stream bank erosion, and undercutting by wave action;
7. Areas located in a canyon or active alluvial fan, presently or potentially subject to inundation by debris flows or catastrophic flooding; and
8. Areas designated as quaternary slumps, earthflows, mudflows, laliars, or landslides on maps published by the U.S. Geological Survey or Washington State Department of Natural Resources;
9. Areas that are at risk of mass wasting due to seismic forces; and
10. Slopes having gradients steeper than 80 percent subject to rocli fall during seislulc Shaking.

- D.** Seismic hazard areas include sites identified in Washington State Department of Natural Resources seismic hazard and liquefaction susceptibility maps for Eastern Washington and other geologic resources. Seismic hazard areas are those areas subject to severe risk of damage as a result of earthquake-induced ground shaking, slope failure, soil liquefaction or surface faulting including:
1. Areas subject to surface faulting during a seismic event;
  2. Areas with underlying deposits indicative of a risk of liquefaction during a seismic event, including those areas mapped as "inadequate", "Inadequate to high" and "high" by the Washington State Department of Natural Resources;
  3. Areas subject to slope failure during a seismic event;
  4. Areas that are at risk of mass wasting due to seismic forces.
- E.** Geologic hazard areas shall also include sites with other geologic hazards determined by a qualified professional to be subject to severe risk of damage as a result of other geological events including mass wasting, debris flows, rock falls and differential settlement.

## 210 Development Standards

### Standards for Identifying and Protecting Geologic Hazard Areas

- A.** Development activities proposed for sites that contain Geologic Hazard Areas shall comply with the following Performance Standards, unless otherwise provided:
- B.** Alterations of geologic hazard areas or associated buffers may only occur for activities that:
1. Will not increase the threat of the geological hazard to adjacent properties beyond pre-development conditions;
  2. Will not adversely impact other critical areas;
  3. Are designed so that the hazard to the project is eliminated or mitigated to a level equal to or less than pre-development conditions; and
  4. Are determined to be safe as designed and under anticipated conditions by a qualified engineer or geologist, licensed in the State of Washington.
- C.** Critical facilities shall not be located in seismic hazard areas unless mitigation shall be provided which renders the proposed development as stable as if it were not located within a seismic hazard area.
- D.** In addition to the provisions of this Chapter, alterations of geologic hazard areas or associated buffers must conform to city construction standards and building codes.
- E.** Development may be allowed in seismic hazard areas when all of the following apply:
1. If evaluation of site-specific subsurface conditions by a qualified professional demonstrates that the proposed development site is not subject to the conditions indicating seismic risk, the provisions of this Subsection shall not apply.
  2. If a site is subject to seismic risk, the applicant shall implement appropriate engineering design based on analysis by a qualified professional of the best available engineering and geological practices that either eliminates or minimizes the risk of structural damage or injury resulting from seismically induced settlement or soil liquefaction, including compliance with the following criteria:
    - a. Subdivision within a seismic hazard areas shall assure that each resulting lot has sufficient buildable area outside of the hazard area or that appropriate limitations on building and reference to appropriate standards are incorporated into subdivision approval and may be placed as restrictions on the face of the plat;
    - b. Structures in seismic hazard areas shall conform to applicable analysis and design criteria and provisions of building and construction codes as currently adopted by the city.
    - c. Public roads, bridges, utilities and trails shall be allowed when there are no feasible alternative locations and geotechnical analysis and design are provided that ensure the roadway, bridge and utility structures and facilities will not be susceptible to damage from seismic induced ground deformation. Mitigation measures shall be designed in accordance with the most recent version of the American Association of State Highway and Transportation Officials (AASHTO) Manual or other appropriate document.
- F.** Activities on sites containing erosion or landslide hazards shall also meet the following requirements:
1. A buffer shall be established from all edges of erosion or landslide hazard areas. The size of the buffer shall

be determined by the director to eliminate or minimize the risk of property damage, death or injury resulting from erosion and landslides caused in whole or part by the development, based upon review of and concurrence with a critical area report prepared by a qualified professional.

- a. The minimum buffer shall be equal to the height of the slope or 50 feet, whichever is greater.
  - b. The buffer may be reduced to a minimum of ten feet when a qualified professional determines to the City's satisfaction that the reduction will adequately protect the proposed development, adjacent developments and uses and the subject critical area.
  - c. The buffer may be increased where the director determines that a larger buffer is necessary to prevent risk of damage to proposed and existing development; provided that information supporting a buffer increase shall be provided to the applicant in writing and shall contain a specific explanation regarding the need and purpose of the increase.
2. Alterations of an erosion or landslide hazard area and/or buffer may only occur for activities for which a geotechnical analysis is submitted and determines that:
    - a. The development will not increase surface water discharge or sedimentation to adjacent properties beyond pre-development conditions;
    - b. The development will not decrease slope stability on adjacent properties; and
    - c. Such alterations will not adversely impact other critical areas.
3. Development within an erosion or landslide hazard area and/or buffer shall be designed to meet the following basic requirements unless it can be demonstrated that an alternative design that deviates from one or more of these standards provides greater long-term slope stability while meeting all other provisions of this Chapter. The requirement for long-term slope stability shall exclude designs that require regular and periodic maintenance to maintain their level of function. In addition to those requirements outlined in Section 18.10, the basic development construction standards within geologic hazard areas are:
    - a. The proposed development shall not decrease the factor of safety for landslide occurrences below the limits of 1.5 for static conditions and 1.2 for dynamic conditions. Analysis of dynamic conditions shall be based on a minimum horizontal acceleration as established by the current version of the International Building Code.
    - b. Structures and improvements should be clustered to avoid geologic hazard areas and other critical areas.
    - c. Structures and improvements shall minimize alterations to the natural contour of the slope and foundations shall be tiered where possible to conform to existing topography.
    - d. Structures and improvements should be located to preserve the most critical portion of the site and its natural landforms and vegetation.
    - e. The proposed development shall not result in greater risk or a need for increased buffers on neighboring properties.
    - f. The use of retaining walls that allow the maintenance of existing natural slope area is preferred over graded artificial slopes.
    - g. Development shall be designed to minimize impervious lot coverage.
  4. Unless otherwise provided or as part of an approved alteration, removal of vegetation from an erosion or landslide hazard area or related buffer shall be prohibited;
  5. Utility lines and pipes shall be permitted in erosion and landslide hazard areas only when the applicant demonstrates that no other practical alternative is available. The line or pipe shall be located above ground and properly anchored and/or designed so that it will continue to function in the event of an underlying slide. Stormwater conveyance shall be allowed consistent with local design and construction standards.
  6. Point discharges from surface water facilities and roof drains onto or upstream from an erosion or landslide hazard area shall be prohibited except as follows:
    - a. Conveyed via continuous storm pipe downslope to a point where there are no erosion hazard areas downstream from the discharge;
    - b. Discharged at flow durations matching predeveloped conditions, with adequate energy dissipation, into existing channels that previously conveyed stormwater runoff in the predeveloped state; or
    - c. Dispersed discharge upslope of the steep slope onto a low-gradient undisturbed buffer demonstrated to be adequate to infiltrate all surface and stormwater runoff, and where it can be demonstrated that such discharge will not increase the saturation of the slope;
  7. The division of land in erosion and landslide hazard areas and associated buffers is subject to the following:

- a. An erosion or landslide hazard area or its buffer may not be subdivided.
- b. The buildable portion of each lot meets the minimum lot size requirements.
- c. Access roads and utilities may be permitted within the erosion or landslide hazard area and associated buffers if, based on the associated critical area report, the city determines that no other feasible alternative exists, and subject to any applicable mitigation requirements.
- 8. On-site sewage disposal systems, including drain fields, shall be prohibited within erosion and landslide hazard areas and related buffers.
- G. Sites containing extreme slope hazards as determined by a qualified professional shall be considered unbuildable. This includes construction of buildings, sewage disposal systems and roads.

## 215 Setbacks

- A. Setbacks are required to separate development from critical areas and required buffers to reduce the risk of indirect impacts and to protect public health and safety. Setbacks are not intended to replace or reduce required critical area buffers.
- B. Setbacks apply to structures and development activities as specified by this chapter and shall be measured in addition to any required critical area buffer unless expressly stated otherwise.
- C. Setbacks shall be measured horizontally from the edge of the required buffer or from the critical area boundary where no buffer is required, unless otherwise specified by this chapter.
- D. Structures, impervious surfaces, and other development activities are prohibited within required setbacks unless expressly allowed by this chapter. Minor features such as fences or utilities may be allowed where specifically authorized and where impacts are minimized.
- E. Where setbacks required by this chapter differ from setbacks required by zoning or other development regulations, the greater setback shall apply unless otherwise provided by law.
- F. Setbacks may be modified only where expressly authorized by this chapter and where such modification does not result in increased impacts to critical areas or buffers.

## **Article 10. Special Flood Hazard Areas**

### **230 Flood Hazard Identification**

### **235 Development Standards**

### **240 Floodways**

### **245 Compensatory Storage**

### **250 Floodplain Restoration**

## **Article 11. Critical Aquifer Recharge Areas**

### **255 Classification of Recharge Areas**

### **260 Land Use Restrictions**

### **265 Stormwater and Infiltration**

### **270 Hazardous Materials**

### **275 Monitoring and Protection Measures**

## **Article 12. Buffers and Setbacks**

### **280 Measurement of Buffers**

### **285 Land Use Restrictions**

### **290 Buffer Uses and Prohibitions**

### **295 Vegetation Protection and Restoration**

### **300 Fencing and Signage**

## **Article 14. Reasonable Use Exceptions and Variances**

### **330 Reasonable Use Exception**

**A.** Project review: If the application of this title would deny all reasonable use of the subject property, the property owner may apply for an exception pursuant to this section. To qualify for an exception the applicant must demonstrate all of the following:

1. That no other reasonable use can be made of the property that will have a lesser adverse impact on the critical area and adjoining and neighboring lands;
2. That the proposed use does not pose a threat to the public health, safety or welfare;
3. Any alteration is the minimum necessary to allow reasonable use of the property; and,
4. The inability of the proponent to derive reasonable use of the property is not the result of actions by the applicant after the effective date of this chapter.

5. A request for a reasonable use exception shall be submitted to the City with the application materials for the particular development proposal. The application shall be supplemented with an explanation as to how the reasonable use exception criteria are satisfied. The City may require additional information or studies to supplement the reasonable use exception request.

### 335 Variance Criteria

- A. A variance from the standards of this chapter may be granted only when the applicant demonstrates that strict application of the standards would deny reasonable use of the property and that the variance is consistent with the purposes of this chapter.
- B. A variance may be approved only when all of the following criteria are met:
  1. The property contains critical areas or buffers that, due to their size, shape, location, or configuration, prevent reasonable use of the property;
  2. The need for the variance is not the result of actions by the applicant or property owner;
  3. The variance is the minimum necessary to allow reasonable use of the property;
  4. The variance will not result in a net loss of critical area functions and values;
  5. The variance will not create a public safety hazard or increase risks to adjacent properties; and
  6. Impacts to critical areas and buffers are avoided and minimized to the maximum extent feasible and mitigated in accordance with this chapter.
- C. The City may impose conditions on an approved variance to minimize impacts, require mitigation, and achieve compliance with this chapter.
- D. Approval of a variance shall not establish precedent for future variances.

### 340 Burden of Proof

- A. The applicant bears the burden of demonstrating compliance with all applicable standards of this chapter.
- B. Where a variance, reasonable use exception, buffer modification, or mitigation is requested, the applicant shall demonstrate, through substantial evidence, that all applicable criteria and standards are satisfied.
- C. Failure to provide adequate information to demonstrate compliance shall be grounds for denial of the proposal or request.

### 345 Minimum Necessary Disturbance

- A. All development, land use activities, and mitigation approved under this chapter shall be limited to the minimum necessary disturbance to critical areas and required buffers.
- B. Minimum necessary disturbance shall be determined based on site conditions, project scale, and the feasibility of alternative design approaches, including changes to site layout, location, or construction methods.
- C. Disturbance beyond the minimum necessary to accommodate reasonable use of the property is prohibited.
- D. Determinations regarding minimum necessary disturbance shall be supported by the record and, where applicable, documented in a critical area report or mitigation plan.

## Article 15. Administration and Review Procedures

### 350 Review Authority

- A. The Director or designee is responsible for administering, interpreting, and enforcing the provisions of this chapter.
- B. The Director or designee has the authority to:
  1. Determine the applicability of this chapter to proposed development;
  2. Require critical area reports, mitigation plans, and supporting technical information;
  3. Approve, condition, or deny proposals subject to this chapter;
  4. Interpret critical area boundaries, buffer requirements, and development standards; and
  5. Require independent review or additional information as necessary to evaluate compliance.
- C. The Director may delegate review authority to qualified staff consistent with this chapter and other adopted development regulations.

## 355 Permit Types and Review Levels

- A. Review under this chapter shall be integrated with the review of other applicable permits to the maximum extent practicable.
- B. Activities regulated by this chapter shall be reviewed according to the permit type required by the underlying development proposal, which may include administrative, ministerial, or discretionary review.
- C. Approval under this chapter does not constitute approval of any other permit or authorization required by law.
- D. Approvals under this chapter may include conditions necessary to avoid or minimize impacts, require mitigation, or achieve compliance with the standards of this chapter.

## 360 Public Notice and Comment

- A. Public notice and comment shall be provided when required by the permit type under which a proposal is reviewed or as otherwise required by applicable law.
- B. Public notice related to critical area review shall describe the nature of the proposal and the opportunity to comment on potential impacts to critical areas.
- C. This chapter does not create an independent public notice requirement beyond those required by the applicable permit or review process.

## 365 Appeals

- A. Any decision made under this chapter may be appealed in accordance with the appeal procedures applicable to the underlying permit or decision.
- B. Appeals shall be heard by the designated appeal body as established by the City's development regulations.
- C. Appeals shall be based on the record established at the time of the decision.
- D. The decision-maker shall be upheld unless it is shown to be clearly erroneous or inconsistent with applicable law.

# Article 16. Enforcement and Penalties

## 370 Violations

- A. Any development, land use activity, or action that is conducted in violation of this chapter, a permit condition issued under this chapter, or an approved critical area report or mitigation plan constitutes a violation.
- B. Each day a violation continues shall constitute a separate violation.
- C. Violations may be charged against the property owner, applicant, permit holder, contractor, or any other person responsible for the violation.
- D. Lack of knowledge, intent, or awareness of the requirements of this chapter shall not constitute a defense to a violation.

## 375 Stop Work Orders

- A. The Director or designee may issue a stop work order whenever work is being performed in violation of this chapter, a permit condition, or an approved mitigation plan.
- B. Upon issuance of a stop work order, all work subject to the order shall immediately cease, except work necessary to correct the violation or stabilize the site, as authorized by the City.
- C. Work may resume only after the City has verified that the violation has been corrected or that adequate corrective measures have been implemented.
- D. Failure to comply with a stop work order constitutes a separate violation subject to enforcement.

## 380 Civil Penalties

- A. Any person who violates this chapter shall be subject to civil penalties as provided by the City's general penalty provisions or as otherwise authorized by law.
- B. In determining the amount of a civil penalty, the City may consider the severity of the violation, the extent of environmental harm, the duration of the violation, prior violations, and the degree of cooperation in correcting the violation.
- C. Civil penalties may accrue on a per-day basis for each day a violation remains uncorrected.
- D. Civil penalties are cumulative and may be imposed in addition to any other remedies authorized by this chapter or

by law.

## 385 Restoration and Remedies

- A. In addition to any civil penalties, the City may require restoration of affected critical areas and buffers to conditions that achieve compliance with this chapter.
- B. Where restoration is required, the City may require submission and approval of a restoration or mitigation plan prepared by a qualified professional.
- C. Where full restoration is not feasible, the City may require alternative mitigation measures sufficient to address impacts and achieve no net loss of critical area functions and values.
- D. If a responsible party fails to complete required restoration or mitigation, the City may complete the work and recover costs as authorized by law.
- E. The remedies provided in this chapter are not exclusive and do not limit the City's authority to pursue any other legal or equitable remedies.

## Article 17. Nonconforming Uses and Structures

### 390 Existing Development

- A. Development, uses, and structures lawfully established prior to the effective date of this chapter and located within critical areas or required buffers may continue, subject to the provisions of this article.
- B. Existing development may not be expanded, enlarged, or intensified in a manner that increases impacts to critical areas or required buffers, except as expressly allowed by this chapter.
- C. Continuation of existing development is subject to compliance with any conditions of approval, recorded mitigation requirements, or other obligations previously imposed.

### 395 Alterations and Expansion

- A. Alteration, replacement, or modification of existing development within or adjacent to critical areas or required buffers may be permitted only when the activity does not increase impacts to critical areas or buffers and complies with the standards of this chapter.
- B. Expansion of an existing use or structure within a critical area or buffer is prohibited unless expressly authorized by this chapter and demonstrated to meet all applicable standards, including mitigation and no net loss.
- C. The City may require a critical area report or mitigation plan to evaluate proposed alterations or expansions.

### 400 Repair and Maintenance

- A. Normal repair and maintenance of existing structures, utilities, or facilities within critical areas or buffers may be allowed, provided that such activities do not expand the footprint, increase intensity, or result in additional impacts.
- B. Emergency repairs necessary to protect public health, safety, or property may be undertaken immediately. Any temporary impacts shall be restored as soon as practicable and in compliance with this chapter.
- C. Repair and maintenance activities shall not be used to justify expansion of development or increased impacts to critical areas or buffers.

## Article 18. Severability and Effective Date

### 405 Severability

- A. If any provision of this chapter or its application to any person or circumstance is held invalid, such invalidity shall not affect the remaining provisions or applications of this chapter.

### 410 Effective Date

- B. This chapter shall take effect on \_\_\_\_\_, as provided by law.

Summary of Riparian Buffer Comparison Figures:

1. Figures 1 and 2: These two figures depict the standard buffers which are currently allowed by Castle Rock’s municipal Code (<https://ecode360.com/46129191#46129470>), Table 8. Stream Buffer Widths. For the purposes of riparian buffer comparison figures ELS is assuming that Whittle Creek, where shown in comparison mapping, meets the Type 3 stream Criteria. ELS has also assumed the location of OHWM based on a review of aerial imagery. It should be noted that Castle Rock’s current online municipal code does not allow for modification of riparian buffers through averaging, or reduction.

<b>Streams</b>	<b>Buffer Widths</b>
Type 1 and 2	250 feet
Type 3 (5 - 20 feet wide)	200 feet
Type 3 (less than 5 feet wide)	150 feet
Type 4 and 5 (low mass wasting potential)	150 feet
Type 4 and 5 (high mass wasting potential)	225 feet

2. Figure 3: Figure 3 shows the potential riparian buffers which can be obtained using Site Potential Tree Height (SPTH) in the 4-corners area, on the north side of Highway 411. This side of Highway 411 has Site Class II soils, and because Whittle Creek is a Type F stream the standard riparian buffer width is 235 feet. Because of the Type II soil site class and Type F stream classification, buffer averaging can only be completed if a site specific soil study is completed, therefore buffer averaging in this location is extremely unlikely to occur and is not shown. Rather, ELS has provided examples of what buffer reduction could look like, and what functional isolation of riparian buffers could look like.

**Standard Riparian Buffers, Averaging, and Reduction Allowed using SPTH and BAS Supported Modification Mechanisms**






Site Class	Type F Waters (feet)	Buffer Averaging <sup>3</sup> Allowances Under SPTH (Type F/feet)	Buffer Reduction Allowances Under SPTH (Type F/feet)	Type Np Waters	Buffer Averaging Allowances Under SPTH (Type Np/feet)	Buffer Reduction Allowances Under SPTH (Type Np/feet)	Type Ns Waters	Buffer Averaging Allowances Under SPTH (Type Ns/feet)	Buffer Reduction Allowances Under SPTH (Type Ns/feet)
II	235	-- <sup>4</sup>	176.25	155	77.5	116.25	100	50	50
III	205	175 <sup>5</sup>	153.75	135	67.5	101.25	100	50	50
IV	165	95 <sup>6</sup>	123.75	105	52.5	78.75	100	50	50
V	150	75	112.5	100	50	75.00	100	50	50

3. Figure 4: Figure 4 shows the potential riparian buffers which can be obtained using SPTH in the 4-corners area, on the south side of Highway 411. This side of Highway 411 has the MFP soil site class, which receives riparian buffers based off Soil Site Class V. The soil site class V combined with a Type F stream warrants a standard buffer width of 150 feet. The limits of buffer averaging, and buffer reduction are demonstrated on this figure in accordance with the table shown above.
1. All Figures: For this exercise it should be noted that assumptions were heavily used for the purposes of demonstrating buffer modification abilities. You may see some riparian buffers overlapping with gravel roadways, existing structures, etc. Please also note that any OHWM will need field verified and mapped for the highest level of accuracy.



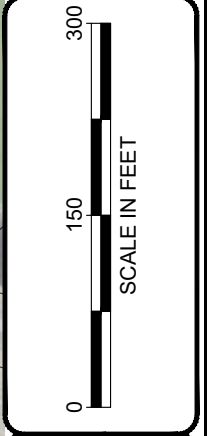
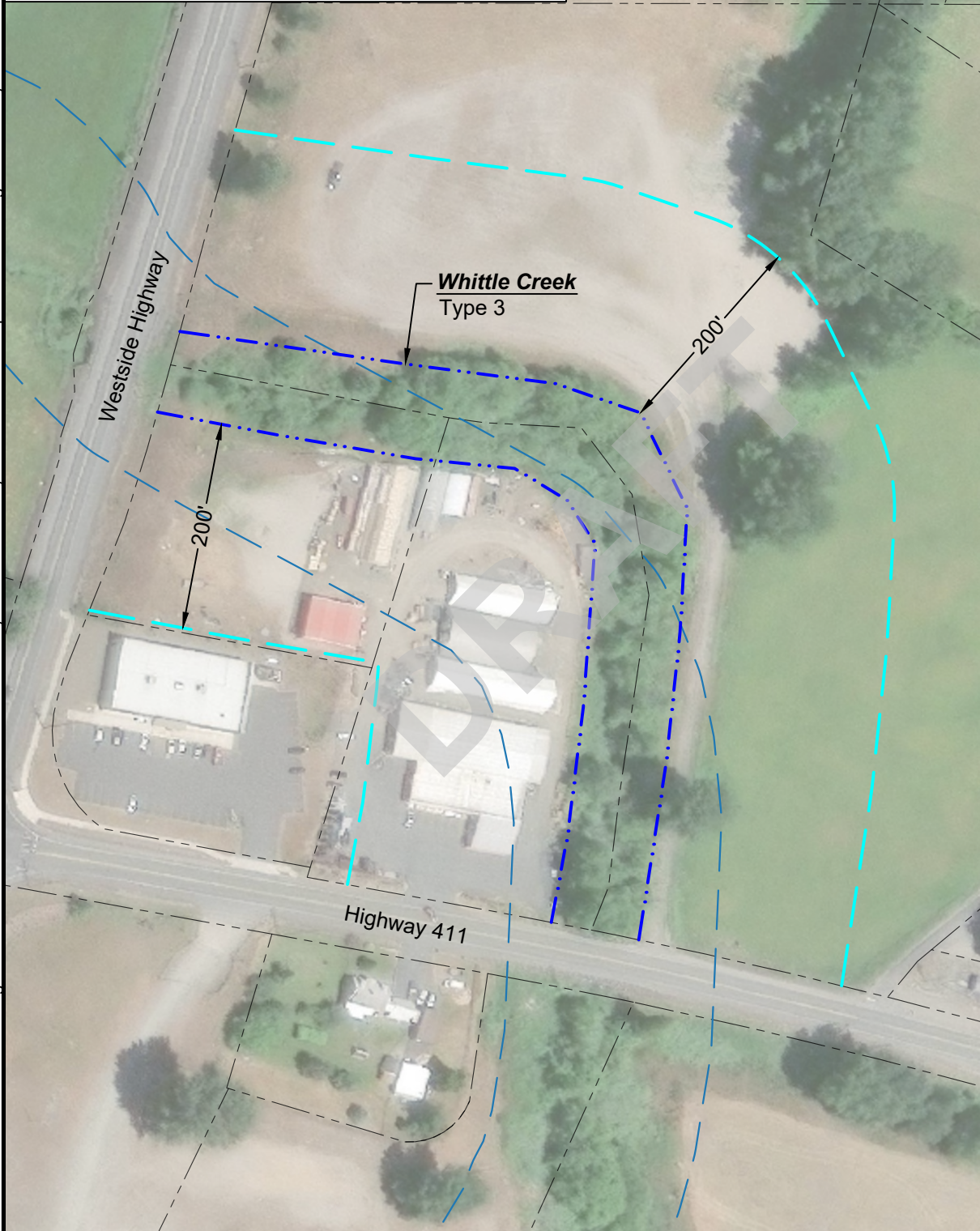
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**LEGEND:**

-  Site Boundary
-  Parcel Boundary
-  Type F streams as shown in EPIC Mapping
-  Assumed OHWM
-  Current CAO Stream Buffer

**NOTE(S):**

1. Aerial from ESRI.
2. Parcel data from Cowlitz County GIS.
3. Current CAO Stream Buffer Widths were obtained from CRMC Chapter 18.10.130 Table 8.




**Ecological  
Land Services**






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Figure 1  
 BUFFERS ACHIEVABLE UNDER CURRENT CAO - 4 CORNERS AREA 1 OF 2  
 City of Castle Rock CAO Update  
 Kimley-Horn  
 Cowlitz County, Washington  
 Section 10, Township 9N, Range 2W, W.M.

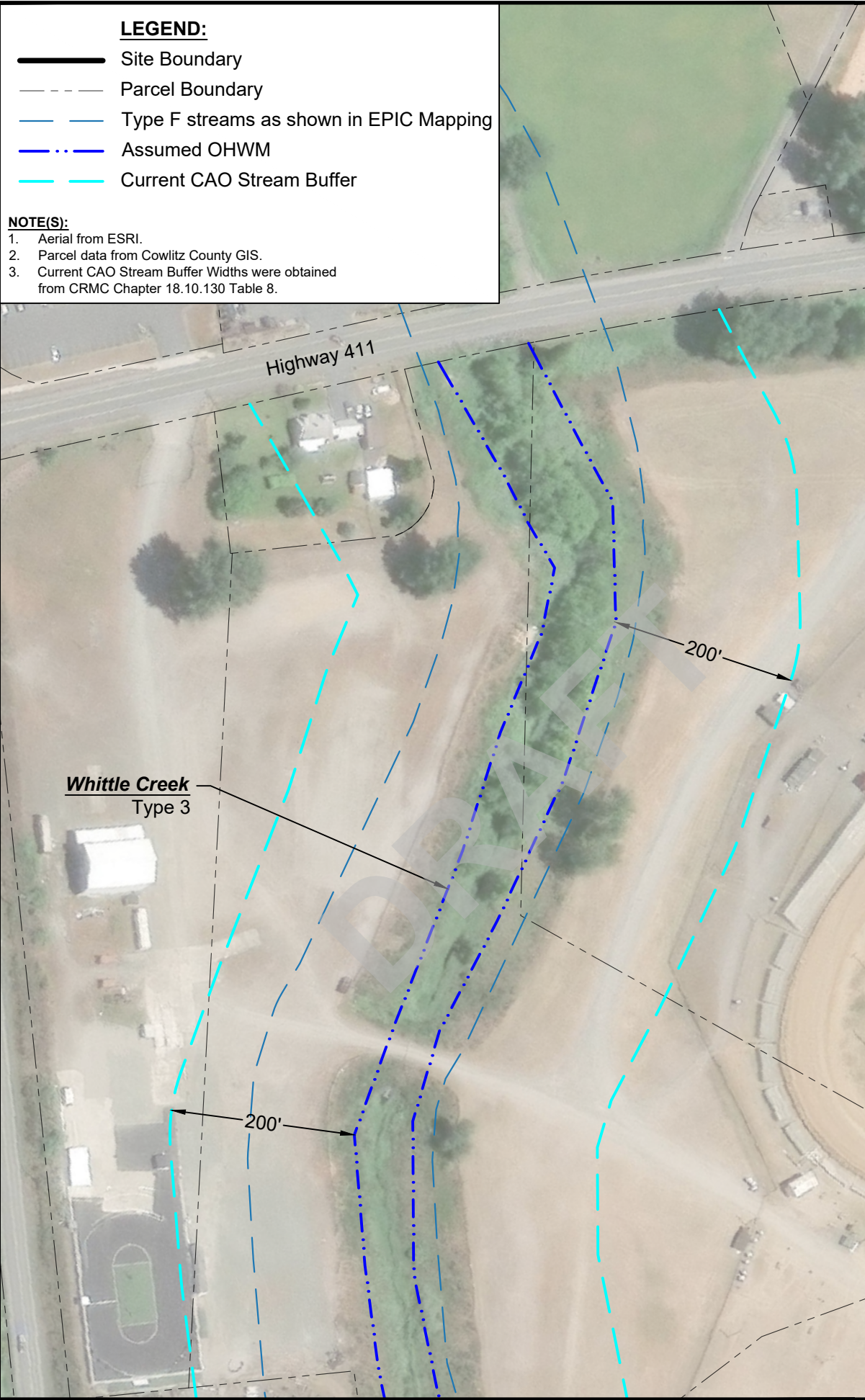
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**LEGEND:**

-  Site Boundary
-  Parcel Boundary
-  Type F streams as shown in EPIC Mapping
-  Assumed OHWM
-  Current CAO Stream Buffer

**NOTE(S):**


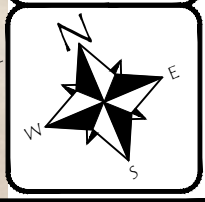
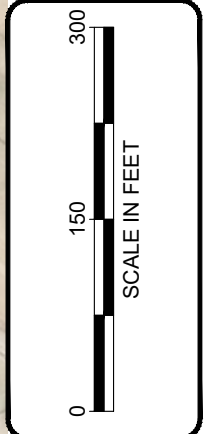
1. Aerial from ESRI.
2. Parcel data from Cowlitz County GIS.
3. Current CAO Stream Buffer Widths were obtained from CRMC Chapter 18.10.130 Table 8.



**Figure 2**  
**BUFFERS ACHIEVABLE UNDER CURRENT CAO - 4 CORNERS AREA 2 OF 2**  
 City of Castle Rock CAO Update  
 Kimley-Horn  
 Cowlitz County, Washington  
 Section 10, Township 9N, Range 2W, W.M.








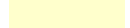
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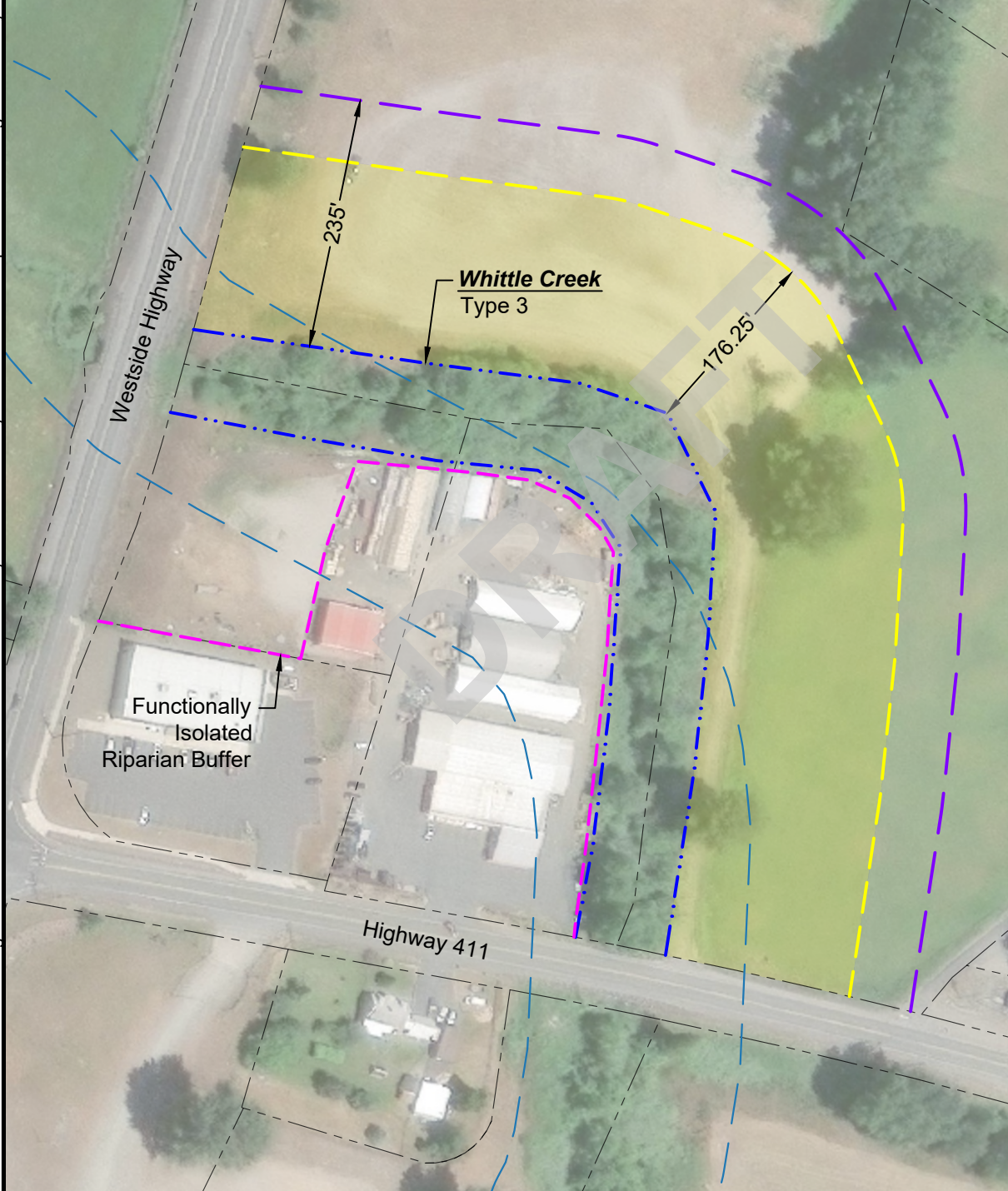
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**LEGEND:**

-  Site Boundary
-  Parcel Boundary
-  Type F streams as shown in EPIC Mapping
-  Assumed OHWM
-  SPTH Stream Buffer
-  Reduced Buffer
-  Functionally Isolated Riparian Buffer
-  Required Enhancement Area

**NOTE(S):**

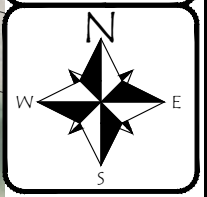
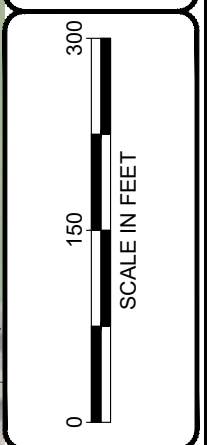
1. Aerial from ESRI.
2. Parcel data from Cowlitz County GIS.
3. SPTH buffer widths are based off soil site class and stream classification.



**Figure 3**  
**BUFFERS ACHIEVABLE USING SPTH - 4 CORNERS AREA 1 OF 2**  
 City of Castle Rock CAO Update  
 Kimley-Horn  
 Cowlitz County, Washington  
 Section 10, Township 9N, Range 2W, W.M.








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**LEGEND:**

-  Site Boundary
-  Parcel Boundary
-  Type F streams as shown in EPIC Mapping
-  Assumed OHWM
-  SPTH Stream Buffer
-  Reduced Buffer
-  Functionally Isolated Riparian Buffer

**NOTE(S):**

1. Aerial from ESRI.
2. Parcel data from Cowlitz County GIS.
3. SPTH buffer widths are based off soil site class and stream classification.

-  Required Enhancement Area
-  Buffer Averaging In
-  Buffer Averaging Out

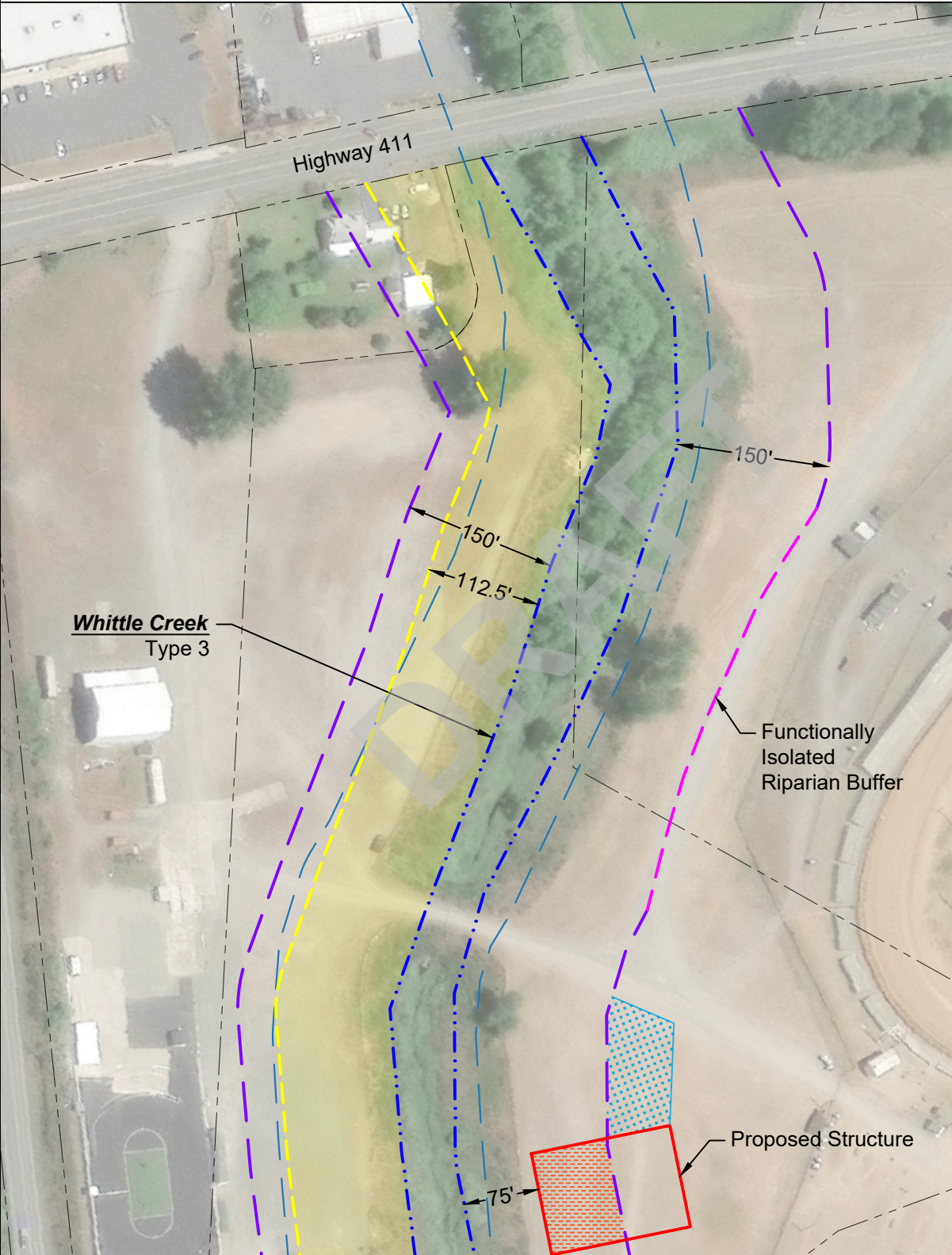

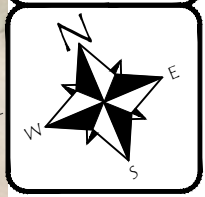
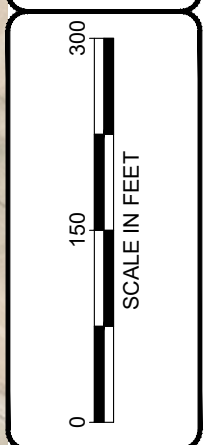


Figure 4  
**BUFFERS ACHIEVABLE USING SPTH - 4 CORNERS ARE 2 OF 2**  
 City of Castle Rock CAO Update  
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 Section 10, Township 9N, Range 2W, W.M.

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## Chapter 17.16 DEFINITIONS

### 17.16.275

“Emergency Housing” more explicitly to address the tax exemption qualifications for nonprofit entities: “provide[s] temporary or transitional shelter and supportive services to the homeless in general or to a specific population of the homeless for *no more than sixty days*.”

“Emergency Shelter” A facility that provides a temporary shelter for individuals or families who are currently homeless. Emergency shelter may not require occupants to enter into a lease or an occupancy agreement. Emergency shelter facilities may include day and warming centers that do not provide overnight accommodations (RCW 36.70A.030(15)).

“Permanent Supportive Housing” Subsidized, leased housing with no limit on length of stay that prioritizes people who need comprehensive support services to retain tenancy and utilizes admissions practices designed to use lower barriers to entry than would be typical for other subsidized or unsubsidized rental housing, especially related to rental history, criminal history, and personal behaviors (RCW 36.70A.030(31)).

### “Transitional Housing”

A facility that provides housing and supportive services to homeless individuals or families for up to two years and whose primary purpose is to enable homeless individuals or families to move into independent living and permanent housing (RCW 84.36.043 and WAC 458-16-320).

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**§ 17.26.010. Introduction.**

Land uses and development activities may be permitted in accordance with the following table of permitted uses; provided, that:

- A. Only those uses identified with a P (permitted), C (permitted only through the issuance of a conditional use permit), or S (permitted only through a special use permit) may be approved. Those uses identified with an X or a blank cell are not permitted in that zone.
  - 1. Uses not specifically listed in the table of permitted uses, or any questions about the interpretation of this table, shall be addressed through an administrative code interpretation utilizing the most recent edition of the North American Industry Classification System (NAICS) Manual, as determined by the city, and the intent of each zoning district.
    - a. In the event that more than one definition could apply to a use, the city will determine through an administrative code interpretation the most applicable definition.
  - 2. Uses not specifically identified as permissible (P, C, or S), or authorized through an administrative code interpretation, may not be approved.

Use	R-1	R-2	C-1	C-2	MX	I	PROS
Accessory Buildings (9)	P	P	C	C	P	P	P
Accessory Dwelling Unit	P	P	X	X	P	X	X
Accessory Uses	X	X	P	P	P	P	X
Animal Grooming	X	X	P	P (13)	P	P	X
Aquaculture	X	X	X	X	X	C	C
Arcade	X	X	P	P	P	X	X
Auto Repair	X	X	P (12)	P	P	P	X
Bakery	X	X	P	P	P	X	X
Bank	X	X	P	P	P	X	X
Beauty/Barber Shop	X	X	P	P	P	X	X

Use	R-1	R-2	C-1	C-2	MX	I	PROS
Bed and Breakfast Inn	C (2)	C (2)	X	X	C (2)	X	X
Boardinghouse	C	C	X	X	X	X	X
Boat Sales/ Service/Repair	X	X	X	P	P	P	X
Car Wash	X	X	P	P	P	P	X
Cemetery	X	C	C	C (13)	X	X	X
Child Day Care – Center (15)	X	P	P	P (13)	P	X	X
Child Day Care – Church/School (15)	P	P	P	P	P	X	X
Child Day Care – Home (15)	P	P	P	P	P	X	X
Church	C	C	C	C	C	C	X
Commercial Laundry	X	X	X	X	C	P	X
Community Club	X	X	P	P (13)	P	X	X
Contractor Yard	X	X	X	X	P	P	X
Convalescent Center	X	P	C	C (13)	C	X	X
Convenience Store	X	X	P	P	P	X	X
Crematory	X	X	X	X	X	C	X
<u>Emergency Housing (17)</u>	<u>PP</u>	<u>PP</u>	<u>P</u>	<u>P</u>	<u>P</u>	<u>X</u>	<u>X</u>
<u>Emergency Shelter (17)</u>	<u>PP</u>	<u>PP</u>	<u>P</u>	<u>P</u>	<u>P</u>	<u>X</u>	<u>X</u>
Farm Tool Sales/Rental	X	X	P	P	P	P	X
Farmers' Market	X	X	P	P	P	X	P
Food Cart/ Stand/Mobile Sales (14)	X	X	S	S	S	S	S
Food Processing	X	X	X	X	C	P	X
Fraternal Organization	X	X	P	P	P	X	X
Fruit Stand	X	X	P	P	P	X	X
Gallery/ Museum	X	X	P	P	P	X	X

Use	R-1	R-2	C-1	C-2	MX	I	PROS
Gambling/ Cardroom	X	X	P	P	P	X	X
Gas Station	X	X	P	P	P	P	X
Golf Course	C	C	X	X	C	X	C
Group Home	P	P	X	X	P	X	X
Hazardous Waste Storage/ Treatment	X	X	X	X	C	P	X
Health Care Facility	X	X	P	P	P	X	X
Heating Fuel Sales/Services	X	X	C	P (13)	C	P	X
Home Business (10)	P	P	P	P	P	X	X
Hotel/Motel	X	X	P	P	P	X	X
Incineration Facility	X	X	X	X	X	C	X
Industry	X	X	X	X	C	P	X
Kennel – Indoor	X	X	P	P (13)	P	P	X
Kennel – Outdoor	X	X	X	X	P	P	X
Laundromat/ Dry Cleaners	X	C	P	P (13)	P	P	X
Liquor Store	X	X	P	P	P	X	X
Manufactured Home Construction/ Sales	X	X	X	X	C	P	X
Manufacturing – Light	X	X	C (4)	C	C	P	X
Marijuana – Medical Cooperatives (1)	X	X	X	X	X	X	X
Marijuana – Processing (1)	X	X	X	X	C	P	X
Marijuana – Production (1)	X	X	X	X	C	P	X
Marijuana – Retail Sales (1)	X	X	X	P	P	P	X

Use	R-1	R-2	C-1	C-2	MX	I	PROS
Medical Offices	X	X	P	P	P	X	X
Microbrewery/ <a href="#">Micro distillery</a>	X	X	P	P	P	P	X
Mini-Storage	X	C	X	C	C	P	X
Mining	X	X	X	X	X	C	X
Mixed Use – Residential/ Commercial	X	X	P (16)	P (16)	P (16)	X	X
Mobile Home (6)	X	X	X	X	X	X	X
Mortuary	X	X	P	P (13)	P	X	X
Movie Theater	X	X	P	P	X	X	X
Neighborhood Commercial	C	C	X	X	X	X	X
New/Used Vehicle Sales	X	X	X	P	P	P	X
Outdoor Storage	X	X	X	C (13)	C	P	X
Park and Ride Lot	X	X	X	P (13)	X	P	X
Parking Lot	X	X	P	P (13)	X	X	X
Passenger Terminal	X	X	P	P (13)	X	P	X
Performing Arts Theater	X	X	P	P	P	X	X
<a href="#">Permanent Supportive Housing (17)</a>	<u>P</u>	<u>P</u>	<u>P</u>	<u>P</u>	<u>P</u>	<u>X</u>	<u>X</u>
Police/Fire Building	C	C	C	C	C	C	X
Power Plant	X	X	X	X	X	C	X
Printing	X	X	P	P	P	P	X
Professional Offices/ Services	X	X	P	P	P	C	X
Public Administration Building	C	C	C	C	C	C	C
Public Library	X	X	P	P	P	X	P
Public Maintenance Facility	X	X	X	X	P	P	X
Public Park	P	P	C	C	P	X	P
Public Post Office	X	X	P	P	P	X	X

Use	R-1	R-2	C-1	C-2	MX	I	PROS
Public Utilities	X	X	P	P	P	P	P
Recreation – Commercial (Indoor)	X	X	P	P	P	X	X
Recreation – Commercial (Outdoor)	X	X	X	X	P	X	P
Residential Treatment Facility	C	P	X	X	P	X	X
Restaurant	X	P (11)	P	P	P	P	X
Retail Sales	X	X	P	P	P	X	X
Reuse of Public Buildings	C	C	C	C	C	C	C
RV Park	X	X	X	P (3)	P (3)	X	C (3)
Residence – Duplex	P	P	X	X	P	X	X
Residence – Multifamily (3+)	X	P	X	X	X	X	X
Residence – Single-Family	P	P	X	X	X	X	X
Salvage Yard	X	X	X	X	X	P	X
Schools – Private (K-12)	C	C	X	X	C	X	X
Schools – Public (K-12)	C	C	X	X	X	X	C
Secure Community Transition Facility (8)	P	P	X	X	X	X	X
Sexually Oriented Business	X	X	X	X	X	C (5)	X
Specialty Housing	C	P	X	X	P	X	X
Spectator Sport Facility	X	X	X	X	X	X	C
Tavern	X	X	P	P	P	X	X
Taxi Terminal	X	X	X	P	P	P	X

Use	R-1	R-2	C-1	C-2	MX	I	PROS
Temporary Homeless Encampment (7)	P	P	P	P	P	P	X
<u>Transitional Housing (17)</u>	<u>P</u>	<u>P</u>	<u>P</u>	<u>P</u>	<u>P</u>	<u>X</u>	<u>X</u>
Temporary Uses (16)	S	S	S	S	S	S	S
Towing Service	X	X	X	P	P	P	X
Train Depot	X	X	X	C	X	C	X
Truck Terminal	X	X	X	C	C	C	X
Veterinarian	X	X	P	P (13)	P	X	X
Vocational School	X	X	P	P	C	C	X
Warehouse	X	X	X	X	X	P	X
Waste Transfer Site	X	X	X	X	X	P	X
Water/Sewer Treatment	C	C	C	C	C	C	C
Wireless Communications – Category 1	P	P	P	P	P	P	P
Wireless Communications – Category 2	C	C	C	C	C	C	C

Footnotes:

- (1) Marijuana uses must comply with the with the provisions of Chapter 17.57 CRMC.
- (2) Bed and breakfast inns must comply with the provisions of CRMC § 17.48.160.
- (3) RV parks must comply with the provisions of Chapter 17.63 CRMC.
- (4) Certain light manufacturing uses may be permitted in the C-1 district in accordance with the provisions of CRMC § 17.36.028(D).
- (5) Sexually oriented businesses must comply with the provisions of Chapter 17.83 CRMC.
- (6) Mobile homes and RVs may be permitted in mobile home parks in existence prior to June 12, 2008.
- (7) Temporary homeless encampments (hosted by religious organizations) may be permitted in accordance with the provisions of RCW 36.01.290.
- (8) Secure community transition facilities must be permitted in accordance with the provisions of WAC 365-196-570.
- (9) Accessory buildings must comply with the provisions of CRMC § 17.48.050.
- (10) Home businesses must comply with the provisions of CRMC § 17.48.120 through 17.48.150.
- (11) Only restaurants less than 500 square feet may be permitted in the R-2 district.

Footnotes:

(12) Repairs to the frame or body of vehicles, painting, or other activities that generate noise, vibrations, or odors are not permitted.

(13) May not front a designated arterial, as adopted or subsequently amended by the city of Castle Rock. This shall include, but is not limited to:

- a. Spirit Lake Memorial Highway (Mt. St. Helens Way NE);
- b. Huntington Avenue North and South;
- c. Dougherty Drive NE;
- d. Front Avenue (SW and NW);
- e. A Street SW;
- f. PH 10;
- g. Westside Highway;
- h. Cowlitz Street (west and east); and
- i. 3rd Avenue SW.

(14) Requires permission of the property owner, a city business license, and must comply with Cowlitz County health department regulations.

(15) All child care facilities must be licensed by the state of Washington and shall provide the city with evidence of compliance. Child day care facilities must also apply for, receive, and maintain in good standing a city business license. Failure to comply with the provisions of state or local laws, or conditions of approval, may result in the suspension or revocation of the city business license. All child care facilities shall comply with the provisions of the Castle Rock Municipal Code, including the zoning code (this title), and the provisions of the International Building Code, as adopted by the city. In addition:

- a. A minimum of one off-street parking space shall be provided for each on-shift employee, plus one space for each 12 persons served;
- b. An on-site vehicle turnaround or separate entrance and exit points, and a passenger loading area shall be provided. The city shall specifically consider the public safety and the location and appearance of the proposed turnaround or access in determining the compatibility with surrounding uses.

(16) Dwellings may be permitted as an accessory use; provided, that:

- a. All provisions of the International Building Codes, as adopted by the city of Castle Rock, are met;
- b. Residential uses must be on the upper floors in the C-1 and C-2 districts; and
- c. Residential uses may be on the ground floor in the MX district, but not fronting the street.

~~(17)~~ (17) Transitional housing, permanent supportive housing, indoor emergency housing, and indoor emergency shelters shall comply with the applicable use provisions of CRMC 17.48.170.

**Chapter 17.48 SUPPLEMENTARY USE PROVISIONS (new section)**

**17.48.170 Transitional Housing, Permanent Supportive Housing, Indoor Emergency Housing, and Indoor Emergency Shelters**

**A. Purpose.** The purpose of this chapter is to allow transitional housing, permanent supportive housing, indoor emergency housing, and indoor emergency shelters in a manner consistent with state law, while establishing reasonable standards to protect public health and safety. These regulations are intended to ensure safe operations for residents, staff, and the surrounding community and to support the City’s obligation to plan for and accommodate housing needs.

**B. Applicability.** This chapter applies to all new, expanded, or modified transitional housing, permanent supportive housing, indoor emergency housing, and indoor emergency shelter facilities located within buildings or permanent structures.

**C. Permitted Locations**

**1. Transitional Housing and Permanent Supportive Housing**

Transitional housing and permanent supportive housing are permitted in all zoning districts where residential dwelling units or hotels are allowed, consistent with RCW 35A.21.430 and with CRMC 17.26.010 Table of Permitted Uses.

**2. Indoor Emergency Housing and Indoor Emergency Shelters**

Indoor emergency housing and indoor emergency shelters are permitted in all zoning districts where hotels are allowed, consistent with state law consistent with CRMC 17.26.010 Table of Permitted Uses.

Nothing in this chapter shall be interpreted to prohibit these uses in a manner that conflicts with state law.

**D. Permit Type.**

1. Facilities subject to this chapter shall be reviewed through an administrative permit process.
2. Permit review shall be limited to compliance with applicable development standards and the operational requirements of this chapter.

**E. Operational Standards**

1. Operations Plan Required. An operations plan shall be submitted with the land use application and shall include, at a minimum:
  - a. Identification and contact information for the sponsor and managing agency;
  - b. Description of staff roles, staffing levels, and on-site supervision;
  - c. A security and emergency response plan;
  - d. Site and facility maintenance practices, including litter and waste management;

- e. Occupancy policies and a resident code of conduct addressing safety, cleanliness, and prohibited behavior;
- f. Description of services provided on site or through referral; and
- g. A community contact protocol identifying a local point of contact for concerns.
- h. Outreach with surrounding property owners and residents that at a minimum includes the following:
  - 1. A description of how the proposed facility will serve the population that will be accommodated by the use;
  - 2. Identification of a phone number and point of contact at the site of the proposed facility for the community to report concerns; and
  - 3. A plan for addressing reported concerns and documenting resolution, and making this information publicly available.

**F. Health and Safety Compliance.** All facilities shall comply with applicable building, fire, health, and safety codes, including county and state public health requirements.

**G. Indoor Operation.** All emergency housing and emergency shelter activities shall occur within a fully enclosed building.

**H. Development and Site Standards**

- 1. Facilities shall comply with all applicable zoning, development, parking, lighting, and building standards of the underlying zoning district.
- 2. Parking shall be provided consistent with the needs of the population served in accordance with parking standards, unless modified or reduced pursuant to applicable code provisions.
  - a. Design and site layout shall incorporate generally accepted safety and security practices, including lighting and visibility, following Crime Prevention Through Environmental Design (CPTED) standards for landscaping and plant maintenance.

**I. Occupancy, Spacing, and Intensity**

- 1. The City may impose reasonable occupancy, spacing, and intensity standards necessary to protect public health and safety including but not limited to:
  - a. Permanent supportive housing and Transitional housing shall not be located within a quarter mile of emergency housing and emergency shelters as measured by the nearest point on one such property to the nearest point on another.
- 2. Any such standards shall not prevent the siting of a sufficient number of transitional housing units, permanent supportive housing units, indoor emergency housing, or indoor emergency shelters needed to accommodate the City’s projected housing need as required

by RCW 36.70A.070(2)(a)(ii).

3. In the R-1 and R-2 zones, transitional housing and permanent supportive housing shall be limited to no more than 10 adults per dwelling unit, not including children under the age of 18.
4. In the C-1, C-2, and MX zones, emergency shelters, emergency housing, transitional housing sites, permanent supportive housing sites and transitional parking sites shall be limited to no more than 20 individuals being served.
5. No children under the age of 18 are allowed to stay overnight in emergency shelters, emergency housing, transitional housing, permanent supportive housing or transitional parking sites unless accompanied by a parent or guardian, or unless the facility is licensed to provide services to youth. If a child under the age of 18 without a parent or guardian present attempts to stay in a facility not specifically licensed for providing housing to youth, the sponsor and/or managing agency shall immediately contact Child Protective Services and actively endeavor to find alternative housing for the child.
6. The sponsor and/or managing agency shall designate points of contact and provide 24-hour accessible phone contact information to the patrol operations commander for the Castle Rock Police Department (CRPD). The names of the on-duty points of contact shall be posted on site daily, and their contact information shall be provided to the CRPD.

**J. Temporary Emergency Shelters.** The mayor or designee may authorize temporary indoor emergency shelters during declared emergencies or severe weather events when an immediate threat to life, health, or safety exists.

**K. Business License Requirement**

1. Transitional housing, permanent supportive housing, indoor emergency housing, and indoor emergency shelters shall obtain a City business license prior to operation, unless exempted by law.
2. Licensing shall be limited to verification of:
  - i. Operator contact information;
  - ii. Compliance with this chapter; and
  - iii. Compliance with applicable building, fire, and health regulations.
3. Nonprofit and governmental entities may be exempt from license fees.
4. Business License shall include record of how the facility addresses all requirements of CRMC 17.48.170.



# MEMORANDUM

To: City of Castle Rock, Planning Commission

From: Rachel Granrath, Contract Planner  
Kimley-Horn and Associates, Inc.

Date: March 12, 2026

Subject: Partially Planning GMA 2026 Periodic Update  
Siting of Organic Materials

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## Overview

As part of the Periodic Update Grant (PUG) ensuring Castle Rock is compliant with the Growth Management Act (GMA) relating to Partially Planning Communities, the City of Castle Rock is taking a look at the local and regional importance of siting Organic Materials facilities. This memo outlines considerations and opportunity areas for the Planning Commission to discuss and provide feedback.

## City of Castle Rock Organic Materials Siting

The state of Washington adopted a statewide food waste reduction goal through the Food Waste Reduction Act (RCW 70A.205.715), which requires the state to measure, plan for, and reduce food waste relative to a 2015 baseline. The statutory food waste goals are:

- Cut total food waste in half (50 % reduction) by 2030 compared with 2015 levels.
- Cut edible food waste by at least 50 % by 2030.
- Reduce edible food waste disposed in landfills by 20 % by 2025.

Washington's Department of Ecology developed the Use Food Well Washington Plan to guide how the state meets those goals by focusing on prevention, rescue (food redistribution), and recovery (composting, anaerobic digestion, etc.).

In addition to the food-waste-specific goal, broader organics management laws aim to reduce landfill disposal of all organic materials (including food waste) by 75 % by 2030, and require source separation of organics for curbside collection.

### **RCW 36.70A.142**

RCW 36.70A.142 requires comprehensive plans and development regulations to allow the siting of organic materials management facilities as identified in local solid waste management plans to the extent needed to meet required organics management capacity.

### **RCW 70A.205.040**

RCW 70A.205.040(C)(a)(i) designates organic material management facility priority areas as industrial, agricultural, or rural areas, and these priority areas may not be located in overburdened communities.

Castle Rock's zoning map indicates that the City's industrial zones are mainly located in the south of the city, with smaller industrial sites located elsewhere. (circled in the map below):

### RCW 36.70.330

RCW 36.70.300 requires local plans to address comprehensive land use. It ties organic materials infrastructure into the land use element, which helps jurisdictions plan for facilities needed to manage organic waste consistent with the state organics goals.

## County Document Review

### 2022–2027 Comprehensive Solid and Hazardous Waste Management Plan (CSHWMP)

A review of the County's Solid Waste Management Plan outlines facts which are relevant to Castle Rock.

- Organic waste such as wood, yard debris, and land-clearing waste is currently accepted at the Headquarters Landfill, located southeast of the City of Castle Rock.
- The Transfer Station accepts brush and leafy material.
- Swanson accepts yard waste.
- The County does not provide curbside organics collection.
- Castle Rock is the only city in Cowlitz County that does not have mandatory collection.

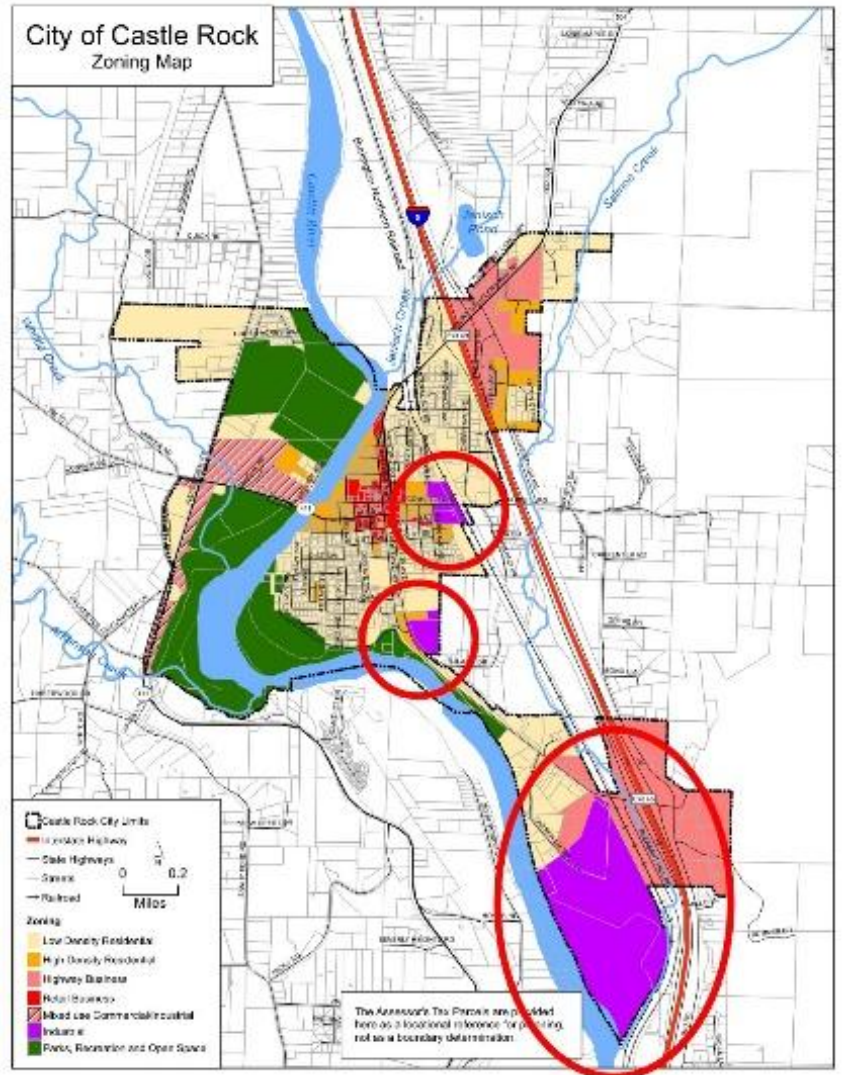
The plan also requires coordination with the cities, requires cities to adopt resolutions and interlocal agreements regarding solid waste disposal, and expects consistency with city comprehensive plans and ordinances.

## Recommendations

### Policy

Add a policy in the Utilities or Land Use section of the comprehensive plan to state:

“The City shall allow the siting of organic materials management facilities consistent with the Cowlitz County Comprehensive Solid and Hazardous Waste Management Plan.”



## Zoning Code

Ensure land use tables expressly list composting facilities, organic material processing, anaerobic digestion facilities, and yard debris processing. Permit these uses in Castle Rock's industrial districts. If necessary, prohibit these uses in residential or commercial districts.

## Development Standards

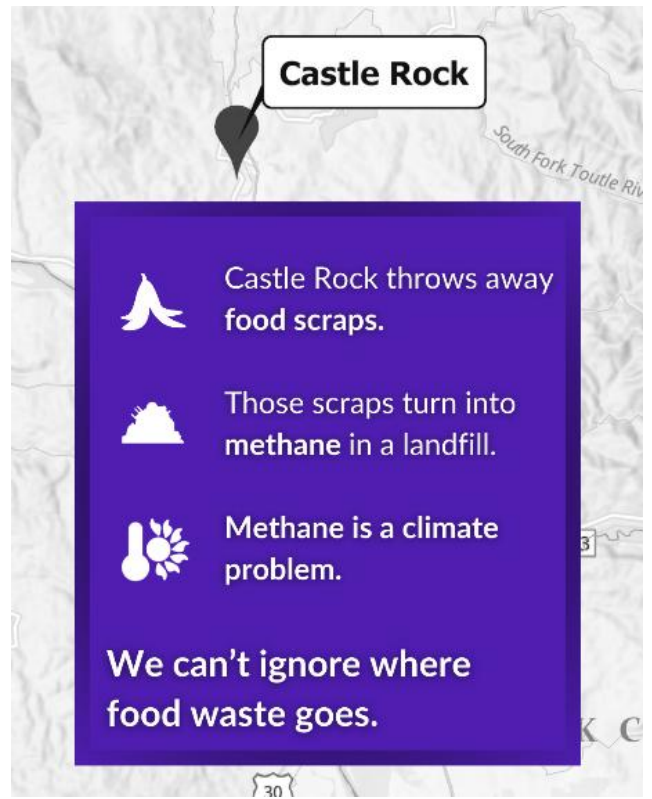
Include performance standards for these facilities which address odor, noise, and setbacks. Buffering and stormwater management controls may also be relevant to include.

## Coordinate With the County

Before adopting new standards or policies, confirm that Castle Rock doesn't have any specific siting areas adopted by the County. Ensure that standards do not contradict any existing policies or agreements

## Educate the Public

Create social media collateral to post on public-facing channels, with the intention to receive community feedback and better engage with City residents. Below is a sample 3-page Instagram post:



<p><b>Here's how we address this in the Comprehensive Plan:</b></p> <ul style="list-style-type: none"><li>• Acknowledge how much organic waste our community generates</li><li>• Coordinate with Cowlitz County on regional composting capacity</li><li>• Make sure our zoning actually allows composting or digestion in appropriate industrial areas</li><li>• Keep facilities away from incompatible uses, with clear standards for odor and truck access</li><li>• Connect compost to climate goals and soil health</li></ul>		<p><b>OUR PRACTICAL APPROACH:</b></p> <ul style="list-style-type: none"><li>Plan for organic material capacity.</li><li>Create a clear path for compost.</li><li>Avoid scrambling for space in the future.</li></ul>
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