Chapter 16.55
CRITICAL AREAS

Sections:

16.55.010 Purpose.

A. The purpose of this chapter is to designate and classify environmentally sensitive and hazardous areas as critical areas and to protect, maintain and restore these areas and their functions and values, while also allowing for reasonable use of public and private property.

B. This chapter is to implement the goals, policies, guidelines, and requirements of the city comprehensive plan and the Growth Management Act (Chapter 36.70A RCW).

C. Critical areas provide a variety of valuable and beneficial biological and physical functions that benefit the city and its residents, and/or may pose a threat to human safety or to public and private property. The beneficial functions and values provided by critical areas include, but are not limited to, water quality protection and enhancement, fish and wildlife habitat, food chain support, flood storage, conveyance and attenuation of flood waters, ground water recharge and discharge, erosion control, wave attenuation, protection from hazards, historical, archaeological, and aesthetic value protection, and recreation.

D. By limiting adverse impacts and alteration of critical areas, this chapter seeks to accomplish the following goals:

1. Protect members of the public and public resources and facilities from injury, loss of life, or property damage due to landslides and steep slope failures, erosion, seismic events, or flooding;

2. Protect, maintain and restore healthy, functioning ecosystems through the protection of unique, fragile, and valuable elements of the environment, including, but not limited to, ground and surface waters, wetlands, fish and wildlife and their habitats; and to conserve the biodiversity of plant and animal species;

3. Direct activities not dependent on critical area resources to less environmentally sensitive sites and mitigate unavoidable impacts to critical areas by regulating alterations in and adjacent to critical areas;

4. Prevent cumulative adverse environmental impacts to water quality, wetlands, and fish and wildlife habitat, and the overall net loss of wetlands, frequently flooded areas, and habitat conservation areas; and

5. Alert owners, potential purchasers, real estate agents, appraisers, lenders, builders, developers and other members of the public to natural conditions that pose a hazard or otherwise limit development.

E. The regulations of this chapter are intended to protect critical areas in accordance with the Growth Management Act and through the application of the best available science, as determined according to WAC 365-195-900 through 365-195-925, and in consultation with state and federal agencies and other qualified professionals.

F. This chapter is to be administered with flexibility and attention to site-specific characteristics in the context of the watershed or other relevant ecosystem unit. It is not the intent of this chapter to make a parcel of property unusable by denying its owner all reasonable economic use of the property. It is not intended to prevent the provision of public facilities and services necessary to support existing and planned development for/by the community. [Ord. 2005-11-092].

16.55.020 Authority.

A. As provided herein, the director of the planning and community development department (director) is given the authority to interpret and apply, and the responsibility to enforce this chapter to accomplish the stated purpose.

B. The city may withhold, condition, or deny development permits or activity approvals to

ensure that the proposed action is consistent with this chapter. [Ord. 2005-11-092].

16.55.030 Jurisdiction.

A. The city shall regulate all clearing, grading, land use, construction and final occupancy within critical areas and their required buffers consistent with best available science and the provisions of this chapter.

Critical areas regulated by this chapter include:

1. Wetlands as designated in BMC 16.55.270;

2. Critical aquifer recharge areas as designated in critical aquifer recharge areas (BMC 16.55.360);

3. Frequently flooded areas as designated in frequently flooded areas (BMC 16.55.370);

4. Geologically hazardous areas as designated in geologically hazardous areas (BMC 16.55.410); and

5. Fish and wildlife habitat conservation areas as designated in fish and wildlife habitat conservation areas (BMC 16.55.470).

6. Critical Areas of Local Significance. Critical areas of local significance and the criteria to adopt same, as defined herein, may be designated by city council resolution. In order to designate a critical area of local significance, city council must find that the area meets the following criteria:

a. Designation of the critical area is consistent with specific adopted Bellingham comprehensive plan goals and policies; and one or more of the following:

i. The habitat or species could be extirpated from Bellingham if protection measures are not applied;

ii. The effect of the critical area designation on the remaining buildable vacant land supply can be demonstrated;

iii. The species and/or critical area represents a unique and highly valued attribute to the community.

The city council resolution shall include specific protection measures for the critical area of local significance based on best available science.

B. All areas within the city meeting the definition of one or more critical areas, regardless of

any formal identification, are hereby designated critical areas and are subject to the provisions of this chapter.

C. Areas adjacent to critical areas shall be considered to be within the jurisdiction of these requirements and regulations to support the intent of this chapter and ensure protection of the functions and values of critical areas. “Adjacent” shall include lands within a distance equal to the required buffer for the critical area as determined by the provisions of this chapter. [Ord. 2005-11-092].

16.55.040 Enforcement and penalties.

A. Rights of Entry.

1. For Permitting or Inspection of Work Conducted Under Permit. Whenever a person applies for a permit or approval under any section of this chapter, the director’s designee shall have a limited right of entry during the city’s normal business hours to conduct studies necessary to determine whether to approve the proposal or to inspect work being conducted under the permit or approval. The property owner’s failure to grant permission for the designee to enter the property shall be grounds for denial of the permit or issuance of a stop work order.

2. To Investigate Violations and Corrections. The director’s designee is authorized to enter upon property to determine whether the provisions of this chapter are being obeyed and to make any examinations, surveys, and studies as may be necessary in the performance of his or her duties. The designee shall obtain the property owner’s permission prior to entry. If the property owner declines to give permission or cannot be located, the designee shall enter upon the property only in a manner consistent with the constitutions and laws of the United States and the state of Washington. If so required by the constitutions and laws of the United States and the state of Washington, the designee shall apply to a court of competent jurisdiction for a search warrant authorizing access to such property for such purpose.

3. Search Warrants. Both Bellingham municipal court and Whatcom County superior court are authorized to issue search warrants under this chapter.

B. Civil Violations and Penalties.

1. Any person who violates any provision of this chapter shall be subject to a civil infraction not to exceed $1,000 for each violation. The minimum civil penalty shall be $100.00.

2. Each violation of this chapter shall be a separate offense, and in the case of a

continuing violation, each day's continuance shall be deemed to be a separate and distinct violation.

3. Civil infractions under this chapter shall be issued and processed in accordance with Chapter 7.80 RCW.

4. All civil infractions under this chapter shall be heard by municipal court.

C. Criminal Violations and Penalties.

1. Any person who intentionally, knowingly, recklessly, or criminally negligently violates any provision of this chapter shall be guilty of a gross misdemeanor.

2. Any person convicted of a crime under subsection (C)(1) of this section shall be punished by a fine of not more than $5,000 and/or imprisonment of not more than 364 days. In no case shall such a violation be punished by a fine of less than $250.00.

D. Stop Work Orders.

1. Whenever any work or development is being done or use is being conducted contrary to the provisions of this chapter, the director's designee may issue a stop work order requiring that all work on the project be stopped or that the use be discontinued.

2. Issuance of a stop work order shall not bar the imposition of a civil or criminal penalty under this chapter or the use of any other provision of this chapter.

3. It is unlawful for any person with actual or constructive knowledge of the issuance of a stop work order pursuant to this chapter to do work or an activity prohibited by the order until the director's designee has removed or lifted the order and issued written authorization for the work or activity to be continued. Violation of a stop work order shall be a gross misdemeanor and, upon conviction thereof, shall be punished by a fine of not more than $5,000 and/or imprisonment for not more than 364 days. Each day or part thereof during which any violation is committed shall constitute a separate offense.

4. The designee may immediately seek issuance of a criminal citation through the Bellingham police department where there is a violation of a stop work order. Any violator of a stop work order may be subject to arrest if the violation is committed in the presence of an officer per RCW 10.31.100.

E. Critical area and Buffer Restoration. In the event of a violation of this chapter, the director shall have the authority to order critical area or buffer restoration measures for the damaged or destroyed area by the person and/or property owner responsible for the

violation. The party responsible for the violation shall restore, or otherwise mitigate for, the damaged area by obtaining a critical area permit conditioned such to meet the provisions of this chapter. The critical area permit application shall include all the critical area report requirements, including compensatory mitigation, for the specific critical area. If the responsible party does not comply, the city may either issue a civil infraction or restore the affected critical area and/or buffer to its prior condition.

F. Recovery of Enforcement and Other Costs.

1. In addition to other remedies available under this chapter, the city may charge any property owner who violates any provision of this chapter with the costs of enforcement, restoration, abatement, and bringing the violations into compliance.

2. The city may collect these costs by turning the debt over to a collection agency, filing a civil lawsuit, filing a lien against the property, or any other legal means. [Ord. 2016-02-005 § 2; Ord. 2013-02-006 § 15; Ord. 2005-11-092].

16.55.050 Relationship to other regulations.

A. These critical areas regulations shall apply in addition to zoning, development code and any other regulations adopted by the city.

B. Any individual critical area adjoined by another type of critical area shall have the buffer and meet the requirements that provide the most protection to the critical areas involved. When any provision of this chapter or any existing regulation, easement, covenant, or deed restriction conflicts with this chapter, generally that which provides more protection to the critical areas shall apply.

Shorelines of the state and shorelands as defined in the Shoreline Master Program, BMC Title 22, and other critical areas occurring within the jurisdiction of shorelines of the state and shorelands shall be regulated by BMC Title 22, Shoreline Master Program.

C. These critical areas regulations shall apply concurrently with review conducted under the State Environmental Policy Act (SEPA), per Chapter 16.20 BMC.

D. Compliance with the provisions of this chapter does not constitute compliance with other federal, state, and local regulations and permit requirements that may be required (for example, shoreline substantial development permits, Hydraulic Permit Act (HPA) permits, U.S. Army Corps of Engineers Section 404 or 401 permits, National Pollution Discharge Elimination System permits). The applicant is responsible for complying with these requirements apart from the process established in this chapter. [Ord. 2016-02-005 § 3; Ord. 2008-04-036; Ord. 2005-11-092].

16.55.060 Applicability.

A. The provisions of this chapter shall apply to all lands, all land uses, development activity, and all structures and facilities in the city, whether or not a permit or authorization is required. This chapter shall apply to every person, partnership, firm, corporation, group, governmental agency, or other entity that owns, leases, or administers land within the city. No person, company, agency, or applicant shall alter a critical area or buffer except as consistent with the purposes and requirements of this chapter.

B. The city shall not approve any permit or otherwise issue any authorization to alter the condition of any land, water, or vegetation, or to construct or alter any structure or improvement in, over, or on a critical area or associated buffer, without first ensuring compliance with the requirements of this chapter.

C. Approval of a permit or development proposal pursuant to the provisions of this chapter does not discharge the obligation of the applicant to comply with the provisions of this chapter. [Ord. 2005-11-092].

16.55.070 Determination of requirement for critical area permit.

A. Any proposal to alter any critical area and/or required buffer including, but not limited to, clearing, grading, draining, removal of vegetation, construction of buildings, facilities, utilities and related infrastructure shall require a critical area permit unless it qualifies as a minor activity or is an exception, as provided in BMC 16.55.085.

B. Request for Determination. Any person who wants to know whether a proposed activity or an area is subject to this chapter may request in writing a determination from the director. The director may request additional information as necessary in order to make the determination. The director shall ordinarily respond within 15 days of the date that the request or additional information was received. [Ord. 2016-02-005 § 4; Ord. 2005-11-092].

16.55.080 Minor critical area permits.

A. Minor critical area permits are for minor activities that occur in critical areas and/or their buffers and have little or no impact. Minor activities are described in subsection (C) of this section. The applicant shall provide a critical area evaluation, per BMC 16.55.205, for the activity. The director may issue, deny, or condition a minor critical area permit for the activity or activities.

B. All minor activities described in subsection (C) of this section shall be conducted using best management practices to protect critical area functions and values. Mitigation shall be provided if functions and values are affected by the activity.

C. Minor Activities. The following activities shall be construed as minor; provided, that they are consistent with the intent and purpose of this chapter and are consistent with the provisions of other local, state, and federal laws and requirements.

1. Emergencies. Those activities necessary to prevent an immediate threat to public health, safety, or welfare, or that pose an immediate risk of damage to public or private property and that require remedial or preventative action in a time frame too short to allow for obtaining approval before the emergency action. Emergency actions shall minimize any potential impact to a critical area or its buffer. The entity undertaking such action shall notify the city within one week following commencement of the emergency activity. Within 30 days of the notification, the director shall determine if the activity taken was within the scope of the emergency actions allowed in this subsection.

If the activity is determined to be an emergency by the director, then within 30 days of said determination the entity who performed the emergency work shall apply for a minor critical area permit and submit all the necessary application materials, including a mitigation plan if there were impacts to the critical area. Mitigation activities shall commence within one year of the emergency and in the appropriate season.

If the director determines that the action taken, or any part of the action taken, was beyond the scope of an allowed emergency action, then enforcement provisions shall apply.

Within 30 days of permit issuance for 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 in accordance with an approved critical area report and mitigation plan. The person or agency undertaking the action shall apply for review, and the alteration, critical area report, and mitigation plan shall be reviewed by the city in accordance with the review procedures contained herein. Restoration and/or mitigation activities must be initiated within one year of the date of the emergency, and completed in a timely manner.

2. Normal Operation, Maintenance, Demolition and Deconstruction or Repair. Normal maintenance, or repair of lawfully established existing buildings, demolition and deconstruction, improvements, utilities, public or private roads, dikes, levees, and drainage systems and landscaping that do not require construction permits, provided the activity does not increase the impact to, or encroach further within, the critical area or buffer and there is no increased risk to life or property as a result of the proposed activity except as specified in subsection (C)(2)(a) of this section. Normal maintenance

includes activities performed in accordance with best management practices that are part of normal ongoing maintenance and do not expand further into the critical area and do not directly impact an endangered or threatened species.

a. For instances where any of the activities specified above results in an expansion to an existing structure and said activity is located partly or wholly within the regulated buffer of a geologically hazardous area, as defined, but not within the critical area itself, said activity may be exempt, provided:

i. The subject activity is attached to a legally established structure; or

ii. If the proposed structure is self-supporting (not attached) and requires a building permit, it may not be a new primary or accessory use building; and

iii. A qualified professional, as defined, demonstrates that there will be no impact to the critical area and that there is no increased risk to health, safety and welfare of the subject property and adjacent properties based upon submittal of the required information in BMC 16.55.205 or as required by the director.

3. Modification to Existing Structures. Structural modification of, addition to, or replacement of an existing legally constructed structure. Said modification shall not further alter or increase any code nonconformity or impact to the critical area or buffer except as specified in subsection (C)(2)(a) of this section and in BMC 16.55.130(C) and there is no increased risk to life or property as a result of the proposed modification or replacement. Restoration of structures substantially damaged by fire, flood, or act of nature must be initiated within one year of the date of such damage, as evidenced by the issuance of a valid building permit, and diligently pursued to completion.

4. Activities within the Improved Portion Right-of-Way. Replacement, modification, installation, or construction of sidewalks, trails, minor road-related projects, utility facilities, lines, pipes, mains, equipment, or appurtenances, not including substations, when such facilities are located within the improved portion of the public right-of-way or a city authorized private roadway except those activities that alter a wetland or watercourse, such as culverts or bridges, or result in the transport of sediment or increased stormwater; subject to the following:

a. Retention and/or replanting of native vegetation shall occur along the right-of-way improvement and resulting disturbance, as determined by the director.

5. Minor Utility Projects. Utility projects which have minor or short-duration impacts to critical areas, as determined by the director in accordance with the criteria below, and

which do not significantly impact the function or values of a critical area(s); provided, that such projects are constructed with best management practices and additional restoration measures are provided. Minor activities shall not result in the transport of sediment or increased stormwater. Such allowed minor utility projects shall meet the following criteria:

a. There is no practical alternative to the proposed activity with less impact on critical areas;

b. The activity involves the placement of a utility pole, street signs, anchor, or vault or other small component of a utility facility; and

c. The activity involves disturbance of an area less than 500 square feet.

6. Select Vegetation Removal Activities. The following vegetation removal activities are allowed; provided, that no vegetation shall be removed from a critical area or its buffer without approval from the director:

a. Removal of noxious weeds using nonmotorized equipment or light equipment if approved by the director. If herbicides are used to control these weeds, a Washington State Department of Agriculture-licensed applicator is required, unless otherwise authorized by the director. For sites near water bodies, including wetlands, only products that are approved for use near and/or in water shall be used. All work shall comply with stormwater regulations, Chapter 15.42 BMC. Replanting with native vegetation shall occur as determined by the director.

b. Removal and pruning of hazard trees; provided, that an ISA (International Society of Arboriculture)-certified arborist documents the hazard and provides a report including a risk assessment, a site plan showing the location of the trees, and a replacement plan to the director for review and approval. The applicant shall replace any cut tree with three native replacement trees (3:1 replacement ratio), unless determined otherwise by the director, within six months of cutting. The applicant shall provide documentation to the city demonstrating that the replacement plantings were installed within six months of the tree removal. Cut trees and other vegetation may be left within the critical area or buffer where it does not pose a public threat or nuisance or damage significantly the surrounding vegetation.

c. Root systems and bases of cut trees shall be left intact and undisturbed. When possible the cut tree shall be left as a snag and be as tall as safely possible. The snag shall be retained as a habitat feature.

d. Hazard trees determined to pose an imminent threat or danger to public health or safety, to public or private property, or of serious environmental degradation may be removed or pruned by the landowner prior to receiving written approval from the director; provided, that within 14 days following such action, the landowner shall submit a restoration plan that demonstrates compliance with the provisions of this chapter.

7. Fences. The construction of fences within geologically hazardous areas and all other critical area buffers provided the location does not result in restricting wildlife movement, the location is the least impactful to the critical area as possible, and there is no alternative to fencing to achieve the purpose of the fence.

8. Chemical Applications. The application of herbicides, pesticides, fertilizers, as deemed necessary; provided, that their use shall be in accordance with State Department of Fish and Wildlife management recommendations and the regulations of the State Department of Agriculture and the U.S. Environmental Protection Agency.

9. Fish, Wildlife and Wetland Restoration Activities. Fish, wildlife, and/or wetland restoration or enhancement activities not required as project mitigation; provided, that the project is approved by the Washington State Department of Fish and Wildlife, Washington State Department of Ecology, Army Corps of Engineers, or other appropriate local, state, federal, or tribal jurisdiction. [Ord. 2016-02-005 § 5; Ord. 2010-08-050; Ord. 2008-07-067; Ord. 2005-11-092].

16.55.081 Essential public facilities.

A. Only those essential public facilities listed below are subject to provisions in this section.

1. Streets.

a. San Juan Boulevard.

b. Horton Road (between Northwest Avenue and Cordata Parkway).

2. Water.

a. Water treatment plant expansion.

b. Upper Yew Reservoir, pump station, access road and mains.

3. Trails.

a. Bay to Baker Trail from Roeder Avenue to city limits.

b. Interurban Trail improvements through Arroyo Park and proposed connections to Woodstock Farm.

c. West Bakerview Trails (between Eliza and Northwest).

d. Aldrich/Horton Trails.

e. Padden Creek Trail.

f. Samish Crest Trail.

g. Northridge Park neighborhood trail connectors.

h. Cordata Park (west of Cordata Parkway) neighborhood trail connectors.

4. Parks.

a. Northridge Park.

b. Cordata Park (west of Cordata Parkway).

B. Requirements. A critical area permit is not required for the essential public facilities listed above in subsection (A) of this section. However, the applicant for the proposed essential public facility has the burden of showing proof that:

1. There is no practical alternative to the proposed development with less impact on the city's critical areas;

2. Any proposed alteration of a critical area to construct the essential public facility is the minimum necessary to accommodate the essential public facility;

3. The construction of the essential public facility minimizes the adverse impacts on the critical area; and

4. The construction of the essential public facility utilizes best available science and results in no net loss of function to the type of critical area being impacted.

C. Decision. The applicant shall submit a critical area report and mitigation plan, if impacts occur, for each critical area type involved. The director's decision on an essential public facility listed above in subsection (A) of this section is a Type II decision and shall comply with the provisions of BMC 21.10.110. [Ord. 2016-02-005 § 6].

16.55.085 Exemptions.

A. Exemption Request and Responsibilities. Activities listed below in subsections (B) and (C)

of this section are exempt from obtaining a critical area permit or a minor critical area permit. The proponent of the activity shall submit a written request for an exemption to the director that describes the activity and shows the activity on a site plan. The director shall review the request to verify that it complies with this chapter and approve, condition, or deny the request. The proponent shall not begin the activity until director approval has been obtained. To be exempt from this chapter does not give permission to degrade a critical area or ignore risks from natural hazards. Any incidental damage to or alteration of a critical area that results from an exempt activity shall be restored or replaced at the expense of the responsible party with a period not to exceed one year.

B. The following activities are allowed within critical area buffers without any critical area permit as determined by the director:

1. Installation of diminutive, nonhabitable residential features that do not require a building permit or maintenance (excluding removal) of existing landscaping. Removal of hazard trees or noxious weeds shall be done in accordance with BMC 16.55.080(C)(6).

C. The following activities are allowed within a critical area and/or critical area buffer without any critical area permit as determined by the director:

1. Minor Site Investigative Work. Minimal site work expressly for the need to gather site information such as surveys, soil logs and borings, percolation tests, scientific research and other related activities necessary to provide documentation of critical areas and/or their buffers, where such activities do not require construction of new roads and only minimal amounts of excavation. Soil test pits for wetland determinations shall follow the methodology in BMC 16.55.290(A). In every case, disturbance to the critical area shall be minimized through best management practices and the use of low-impact equipment. Septic excavation pits are prohibited in wetlands or areas suspected of being wetlands. [Ord. 2016-02-005 § 7].

16.55.090 General requirements.

A. As part of this review, the city shall:

1. Verify the information submitted by the applicant;

2. Evaluate the project area and vicinity for critical areas;

3. Determine whether the proposed project is likely to impact the functions or values of critical areas; and

4. Determine if the proposed project adequately addresses the impacts and avoids impacts to the critical area associated with the project.

B. If the proposed project is within, adjacent to, or is likely to impact a critical area, the city shall:

1. Require a critical area report from the applicant that has been prepared by a qualified professional, to be reviewed and evaluated;

2. Determine whether the development proposal conforms to the purposes and performance standards of this chapter, including the criteria in BMC 16.55.200, Review criteria;

3. Assess the potential impacts to the critical area and determine if they can be avoided or minimized; and

4. Determine if any mitigation proposed by the applicant is sufficient to protect the functions and values of the critical area and public health, safety, and welfare concerns consistent with the goals, purposes, objectives, and requirements of this chapter. [Ord. 2005-11-092].

16.55.100 Public notice and administrative procedures.

All critical areas permit applications shall be processed in accordance with the notification and procedures described in Chapter 21.10 BMC. [Ord. 2005-11-092].

16.55.110 Completion of the critical area review.

The director shall make a determination as to whether the proposed activity and mitigation, if any, is consistent with the provisions of this chapter. The director's determination shall be based on the criteria of BMC 16.55.200, Review criteria.

The city's determination regarding critical areas pursuant to this chapter shall be final and concurrent with the final decision to approve, condition, or deny the critical area permit. [Ord. 2005-11-092].

16.55.120 Variances.

A. Variances from the standards of this chapter may be authorized by the city in accordance with the procedures set forth in Chapter 21.10 BMC. The hearing examiner shall review the request and make a written finding that the request meets or fails to meet the variance criteria.

B. Variance Criteria. A variance may be granted only if the applicant demonstrates that the requested action conforms to all of the criteria set forth as follows:

1. Special conditions and circumstances exist that are peculiar to the land, the lot, or

something inherent in the land, and that are not applicable to other lands in the same district;

2. The special conditions and circumstances do not result from the actions of the applicant;

3. A literal interpretation of the provisions of this chapter would deprive the applicant of all reasonable economic uses permitted to other properties in the vicinity and zone of the subject property under the terms of this chapter, and the variance requested is the minimum necessary to provide the applicant with such rights;

4. Granting the variance requested will not confer on the applicant any special privilege that is denied by this chapter to other lands, structures, or buildings under similar circumstances;

5. The granting of the variance is consistent with the general purpose and intent of this chapter, and will not have a significant adverse impact on functions and values of the associated critical area or otherwise be materially detrimental to the public welfare or injurious to the property or improvements in the vicinity of the subject property;

6. The decision to grant the variance includes the best available science and gives special consideration to conservation or protection measures necessary to preserve or enhance fish habitat; and

7. The granting of the variance is consistent with the general purpose and intent of the comprehensive plan and adopted development regulations.

C. Conditions May Be Required. In granting any variance, the city may prescribe such conditions and safeguards as are necessary to secure adequate protection of critical areas from adverse impacts, and to ensure conformity with this chapter.

D. Time Limit. The city shall prescribe a time limit within which the action for which the variance is required shall be begun, completed, or both. Failure to begin or complete such action within the established time limit shall void the variance.

E. Burden of Proof. The burden of proof shall be on the applicant to bring forth evidence in support of the application and upon which any decision has to be made on the application. [Ord. 2016-02-005 § 8; Ord. 2005-11-092].

16.55.130 Nonconformity and redevelopment.

A. All land uses, buildings, structures, parking, driveways, utilities, stormwater facilities, trails, landscaping and supporting facilities that were lawfully established prior to the

adoption of this chapter, but otherwise would be determined to be located within a critical area or minimum standard buffer for a critical area, shall be deemed as nonconforming as to this chapter but not in violation of this chapter. All of the facilities above may be continued, maintained and replaced in kind if damaged by fire, accident or natural disaster provided there is no further encroachment into a critical area or buffer, except as provided in subsection (C) of this section. If damaged, the replacement/reconstruction process shall commence within 12 months of the date of such damage.

B. Expansion, reconfiguration and/or intensification of any of the developed elements in subsection (A) of this section may be approved pursuant to the thresholds specified in subsection (C) of this section if it can be demonstrated that such activity will not result in impacts to the critical area and/or critical area buffer. Impacts may include but are not limited to clearing of native vegetation, additional impervious surfaces, generation of surface water runoff, discharge or risk of discharge of pollutants, increased noise, light or glare.

C. Expansion, reconfiguration and/or intensification of any of the developed elements in subsection (A) of this section as specified in this subsection for the following general use categories shall not exceed the following thresholds:

1. Five hundred square feet for residential single and multifamily;

2. One thousand square feet for commercial; and

3. Two thousand square feet for industrial and institutional.

D. Expansion, reconfiguration and/or intensification of any of the developed elements in subsection (A) of this section that are consistent with the thresholds specified above, may be approved through a minor critical area permit as specified in BMC 16.55.080(A).

E. Activities under this section that exceed the square footages in subsection (C) of this section may be approved through review and approval of a critical area permit.

F. Interior tenant improvements do not require critical area review unless such improvements result in impacts as determined by the director. [Ord. 2016-02-005 § 9; Ord. 2010-08-050; Ord. 2008-04-037; Ord. 2005-11-092].

16.55.140 Interpretation.

In the interpretation and application of this chapter, the provisions herein shall be considered to be the minimum requirements necessary, shall be liberally construed to serve the purpose of this chapter, and shall be deemed to neither limit nor repeal any other provisions under state statute. [Ord. 2005-11-092].

16.55.150 Appeals.

Any decision to approve, condition, or deny a development proposal or other activity based on the requirements of this chapter may be appealed according to the procedures contained in Chapter 21.10 BMC. [Ord. 2005-11-092].

16.55.160 Fees.

A. The city by resolution shall establish fees for filing of a critical area permit application inclusive of review, processing, determination and other services provided by the city as required by this chapter. These fees shall be based on the anticipated sum of direct costs incurred by the city for any individual development or action and may be established as a sliding scale that will recover all of the city costs including the enforcement of these code provisions. Basis for these fees shall include, but not be limited to, the cost of review time, inspection time, administration, and any other special costs attributable to the critical area review process.

B. Unless otherwise indicated in this chapter, the applicant shall be responsible for the initiation, preparation, submission, and expense of all required reports, assessment(s), studies, plans, reconnaissance(s), peer review(s) by qualified consultants, and other work prepared in support of or necessary to review the application. [Ord. 2005-11-092].

16.55.170 Severability.

If any clause, sentence, paragraph, section, or part of this chapter or the application thereof to any person or circumstances shall be judged by any court of competent jurisdiction to be invalid, such order or judgment shall be confined in its operation to the controversy in which it was rendered. The decision shall not affect or invalidate the remainder of any part thereof and to this end the provisions of each clause, sentence, paragraph, section, or part of this law are hereby declared to be severable. [Ord. 2005-11-092].

16.55.180 Best available science.

A. Protect Functions and Values of Critical Areas with Special Consideration to Anadromous Fish. Critical area reports and decisions to alter critical areas shall rely on the best available science to protect the functions and values of critical areas and must give special consideration to conservation or protection measures necessary to preserve or enhance anadromous fish, such as salmon, steelhead, cutthroat trout and their habitat.

B. Best Available Science to Be Consistent with Criteria. The best available science is that scientific information applicable to the critical area prepared by local, state, or federal natural resource agencies, a qualified scientific professional, or team of qualified scientific

professionals that is consistent with criteria established in WAC 365-195-900 through 365-195-925.

C. Characteristics of a Valid Scientific Process. In the context of critical areas protection, a valid scientific process is one that produces reliable information useful in understanding the consequences of a local government's regulatory decisions, and in developing critical areas policies and development regulations that will be effective in protecting the functions and values of critical areas. To determine whether information received during the permit review process is reliable scientific information, the director shall determine whether the source of the information displays the characteristics of a valid scientific process. Such characteristics are as follows:

1. Methods. The methods used to obtain the information are clearly stated and reproducible. The methods are standardized in the pertinent scientific discipline or, if not, the methods have been appropriately reviewed to ensure their reliability and validity;

2. Logical Conclusions and Reasonable Inferences. The conclusions presented are based on reasonable assumptions supported by other studies and consistent with the general theory underlying the assumptions. The conclusions are logically and reasonably derived from the assumptions and supported by the data presented. Any gaps in information and inconsistencies with other pertinent scientific information are adequately explained;

3. Quantitative Analysis. The data have been analyzed using appropriate statistical or quantitative methods. Data collection locations are accurately mapped or surveyed;

4. Context. The information is placed in proper context. The assumptions, analytical techniques, data, and conclusions are appropriately framed with respect to the prevailing body of pertinent scientific knowledge; and

5. References. The assumptions, analytical techniques, and conclusions are well referenced with citations to relevant, credible literature and other pertinent existing information.

D. Absence of Valid Scientific Information. Where there is an absence of valid scientific information or incomplete scientific information relating to a critical area leading to uncertainty about the risk to critical area function of permitting an alteration of or impact to the critical area, the director shall take a "precautionary approach," that strictly limits development and land use activities until the uncertainty is sufficiently resolved. [Ord. 2005-11-092].

16.55.190 Protection of critical areas.

Any action taken pursuant to this chapter shall result in equivalent or greater functions and values of the critical areas associated with the proposed action, as determined by the best available science. All actions and developments shall be designed and constructed in accordance with mitigation sequencing (BMC 16.55.250) to avoid, minimize, and restore all adverse impacts.

Applicants must first demonstrate an inability to avoid or reduce impacts, before restoration and compensation of impacts will be allowed. No activity or use shall be allowed that results in a net loss of the functions or values of critical areas.

Protection of critical areas that are part of an approved mitigation plan shall be achieved through a conservation easement recorded at the Whatcom County auditor's office, or similar means of protection in perpetuity. [Ord. 2016-02-005 § 10; Ord. 2005-11-092].

16.55.200 Review criteria.

A. Any alteration to a critical area, unless otherwise provided for in this chapter, shall be reviewed and approved, approved with conditions, or denied based on the proposal's ability to comply with all of the following criteria:

1. The proposal minimizes the impact on critical areas in accordance with mitigation sequencing (BMC 16.55.250);

2. The proposal does not pose an unreasonable threat to the public health, safety, or welfare on or off the development proposal site;

3. The proposal is consistent with the general purposes of this chapter and the public interest;

4. Any alterations permitted to the critical area are mitigated in accordance with mitigation requirements in BMC 16.55.240 and 16.55.260 and additional requirements as outlined in specific critical area sections;

5. The proposal protects the critical area functions and values consistent with the best available science and results in no net loss of critical area functions and values; and

6. The proposal is consistent with other applicable regulations and standards.

B. The city may condition the proposed activity as necessary to mitigate impacts to critical areas and to conform to the standards required by this chapter.

C. Except as provided for by this chapter, any project that cannot adequately mitigate its

impacts to critical areas in the sequencing order of preferences in BMC 16.55.250 shall be denied. [Ord. 2016-02-005 § 11; Ord. 2005-11-092].

16.55.205 Evaluation of critical areas and/or associated buffers.

A. An evaluation of critical areas and/or critical area buffers shall be prepared by a qualified professional as defined in BMC 16.55.510.

B. An evaluation of critical areas and/or critical area buffers shall include the following information:

1. Address of site or parcel number and date(s) evaluation occurred;

2. Purpose of the evaluation;

3. Scaled site plan of the site, the project area, a description of the proposed activity and the extent of the activity and/or disturbance area;

4. Confirmation, location and description of existing function of all critical areas and/or critical area buffers in relation to the proposed activity;

5. Determination and/or conclusion of the project's impact on the functional performance of the subject critical area and/or its buffer and, where applicable, on the protection of abutting properties; and

6. Recommendations for mitigation or best management practices where appropriate. [Ord. 2016-02-005 § 12].

16.55.210 Critical area report – Requirements.

A. Prepared by a Qualified Professional. The applicant shall submit a critical area report prepared by a qualified professional as defined in BMC 16.55.510, unless determined to be a minor or exempt activity.

B. Incorporation of Best Available Science. The critical area report shall use scientifically valid methods and studies in the analysis of critical area data and field reconnaissance and reference the source of science used. The critical area report shall evaluate the proposal and all probable impacts to critical areas in accordance with the provisions of this chapter.

C. Minimum Report Contents. At a minimum, the report shall contain the following:

1. The name and contact information of the applicant, a description of the proposal, and identification of the permit requested;

2. A copy of the site plan for the development proposal including:

a. A map to scale depicting critical areas and required buffers;

b. A map to scale of the development proposal and limits of construction overlaid on the critical areas map; and

c. A description of the proposed stormwater management plan for the development and consideration of impacts to drainage alterations;

3. The dates, names, and qualifications of the persons preparing the report and documentation of any fieldwork performed on the site;

4. Identification and characterization of all critical areas including their buffers, adjacent to the subject site and characterization of the ecological relationship of the critical area and buffers with any adjacent noncritical areas such as upland forest patches;

5. A statement specifying the accuracy of the report, and all assumptions made and relied upon;

6. An assessment of the probable cumulative impacts to critical areas resulting from development of the site and the proposed development;

7. The following are required only if there will be an impact to a critical area and/or its buffer, resulting in the requirement for mitigation:

a. An analysis of site development alternatives derived from mitigation sequencing;

b. A description of reasonable efforts made to apply mitigation sequencing pursuant to mitigation sequencing (BMC 16.55.250) to avoid, minimize, and mitigate impacts to critical areas;

c. Plans for adequate mitigation, as needed, to offset any impacts, in accordance with mitigation plan requirements and additional requirements specified for each critical area (BMC 16.55.260), including, but not limited to:

i. The impacts of any proposed development within or adjacent to a critical area or buffer on the critical area; and

ii. The impacts of any proposed alteration of a critical area or buffer on the development proposal, other properties and the environment;

iii. A discussion of the performance standards applicable to the critical area and proposed activity;

iv. A detailed, line-item estimate of the total costs to complete the proposed mitigation in accordance with mitigation requirements.

D. Unless otherwise provided, a critical area report may be supplemented by or composed, in whole or in part, of any reports or studies required by other laws and regulations or previously prepared for and applicable to the development proposal site, as approved by the director.

E. The director may require the report by the qualified professional and other documents to be reviewed by other agencies with jurisdiction. The director may also require peer review of any reports or documents at the expense of the applicant for the director's assurance that the materials are accurate and consistent with federal, state, and local regulations and guidelines. [Ord. 2016-02-005 § 13; Ord. 2005-11-092].

16.55.220 Critical area report – Modifications to requirements.

A. Limitations to Study Area. The director may limit the required geographic area of the critical area report as appropriate if:

1. The applicant, with assistance from the city, cannot obtain permission to access properties adjacent to the project area; or

2. The proposed activity will affect only a limited part of the subject site.

B. Modifications to Required Contents. The applicant may consult with the director prior to or during preparation of the critical area report to obtain city approval of modifications to the required contents of the report where, in the judgment of a qualified professional, more or less information is required to adequately address the potential critical area impacts and required mitigation.

C. Additional Information Requirements. The director may require additional information to be included in the critical area report when determined to be necessary to the review of the proposed activity in accordance with this chapter. Additional information that may be required, includes, but is not limited to:

1. Historical data, including original and subsequent mapping, aerial photographs, data compilations and summaries, and available reports and records relating to the site or past operations at the site;

2. Grading and drainage plans; and

3. Information specific to the type, location, and nature of the critical area. [Ord. 2005-11-092].

16.55.230 Signs and fencing.

A. Permanent Signs. As a condition of any permit or authorization issued pursuant to this chapter, the director may require the applicant to install permanent signs along the boundary of a critical area.

Permanent signs shall be made of a durable material and vandal-resistant, and shall be attached to a metal post, or other material of equal durability. Signs must be posted at an interval of 100 feet, or as the director deems necessary, and must be maintained and replaced by the property owner if the sign language is no longer visible. Any modification of the location or materials required for permanent signs shall be approved by the director. The sign shall be worded as follows, or as approved by the director:

> “Protected Critical Area”
>
> Do Not Disturb
>
> Contact City of Bellingham
>
> Regarding Uses and Restriction

B. Fencing.

> 1. The director may require the installation of a temporary construction fence along the construction limits adjacent to the critical area to prevent encroachment into the critical area during construction. The fencing shall be designed and installed to effectively prevent construction and related impacts. The fencing shall be installed and inspected prior to commencement of construction activities.
>
> 2. The director may condition any permit or authorization issued pursuant to this chapter to require the applicant to install a permanent fence at the edge of the critical area when fencing will prevent future impacts to these features. Fencing shall be designed to not interfere with the migration of wildlife species and to keep out domestic grazing animals. Fencing materials shall not be made or treated with toxic materials. [Ord. 2016-02-005 § 14; Ord. 2010-08-050; Ord. 2005-11-092].

16.55.240 Mitigation requirements.

A. The applicant shall avoid all impacts that increase risk to the general public and/or degrade the functions and values of a critical area or areas and their buffers. Unless otherwise provided in this chapter, and after mitigation sequencing in BMC 16.55.250 has been applied, if alteration to the critical area is unavoidable, all adverse impacts to critical areas and buffers resulting from a development proposal or alteration shall be mitigated

using the best available science in accordance with an approved critical area report and SEPA documents, so as to result in no net loss of critical area functions and values.

B. Mitigation site selection shall be focused on the site's ability to sustain a critical area over the long term. Mitigation design shall be based on replacing functions and values in the context of the watershed in order to compensate for loss. In some case, on-site mitigation may not be the best location.

C. Mitigation shall not be implemented until after city approval of a critical area report that includes a mitigation plan, and mitigation shall be in accordance with the provisions of the approved critical area report.

D. The applicant shall be required to submit a financial guarantee ("surety" or "assignment of funds") for 150 percent of the total costs of mitigation to ensure the mitigation requirements are met and the mitigation plan is fully implemented, including, but not limited to, the required monitoring and maintenance periods. [Ord. 2016-02-005 § 15; Ord. 2005-11-092].

16.55.250 Mitigation sequencing.

Applicants shall demonstrate that all reasonable efforts have been examined with the intent to avoid and minimize impacts to critical areas and buffers. When an alteration to a critical area is proposed, applicants shall follow the mitigation sequential order of preference below:

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, such as project redesign, relocation, or timing, to avoid or reduce impacts;

C. Rectifying the impact to wetlands, critical aquifer recharge areas, frequently flooded areas, and habitat conservation areas by repairing, rehabilitating, or restoring the affected environment to the historical conditions or the conditions existing at the time of the initiation of the project;

D. Minimizing or eliminating the hazard by restoring or stabilizing the hazard area through engineered or other methods;

E. Reducing or eliminating the impact or hazard over time by preservation and maintenance operations during the life of the action;

F. Compensating for the impact to wetlands, critical aquifer recharge areas, frequently

flooded areas, and habitat conservation areas by replacing, enhancing, or providing substitute resources or environments; and

G. Monitoring the hazard or other required mitigation and taking remedial action when necessary.

Mitigation for individual actions may include a combination of the above measures. [Ord. 2016-02-005 § 16; Ord. 2005-11-092].

16.55.260 Mitigation plan requirements.

When mitigation is required, the applicant shall submit a mitigation plan as part of the critical area report. The mitigation plan shall include:

A. Prepared by a qualified professional specializing in the type of critical area.

B. Report Requirements.

1. Detailed summary of the project, including the impacts to the critical area, and the proposed mitigation to compensate for lost functions and values.

2. Rationale for selecting the mitigation site.

3. Complete site characterization of the proposed mitigation site to include parcel size, ownership, soils, vegetation, hydrology, topography, and wildlife.

4. Goals, objectives, performance standards and dates of commencement and completion of the mitigation proposal.

5. Report and maps of the critical area to be impacted. (If it is a wetland, the report must include a functional assessment – see BMC 16.55.280.)

6. Monitoring, Maintenance, Contingency Plan and As-Built Report. The mitigation plan shall include the dates, frequencies, protocols, and submittal deadlines for the monitoring, maintenance, contingency and as-built report requirements. Monitoring and maintenance shall be required for at least five consecutive years unless otherwise stipulated by another government agency or the director.

7. Map of development, with scale, shown in relation to critical area.

8. A detailed, line-item estimate of the total cost to complete the approved mitigation plan, including a minimum of five years of maintenance and monitoring, shall be submitted for approval for the required financial surety for the project. The total estimate shall be multiplied by 150 percent. [Ord. 2016-02-005 § 17; Ord. 2005-11-092].

16.55.270 Wetlands – Applicability.

A. This chapter shall apply to:

1. All wetlands except as specified in subsection (B) of this section.

2. All upland buffers to wetlands within the standard buffer widths shown in the tables in BMC 16.55.340.

B. The following wetlands are exempt from the buffer provisions contained in this chapter and from mitigation sequencing as specified in BMC 16.55.250. They may be filled if impacts are fully mitigated based on provisions in BMC 16.55.350. In order to verify that the wetland meets this exemption, a critical area report for wetlands meeting the requirements in BMC 16.55.290 shall be submitted.

1. All isolated Category III and IV wetlands less than 1,000 square feet that:

a. Are not associated with riparian areas or buffers;

b. Do not contain habitat identified as essential for local populations of priority species identified by Washington Department of Fish and Wildlife or provide suitable habitat for breeding amphibian populations. Suitable breeding habitat may be indicated by adequate stable and seasonal inundation that is persistent from February to at least through April and presence of thin-stemmed emergent vegetation and/or clean water; and

c. Are not part of a mosaic of wetlands.

2. Wetlands and drainage structures, which were both artificially and intentionally created from nonwetland sites and were not required to be constructed as previous development wetland impact mitigation. These may include, but are not limited to: detention facilities, reservoirs, stormwater or wastewater treatment ponds, farm ponds, irrigation and drainage ditches, grass-lined swales, canals and landscape amenities. [Ord. 2016-02-005 § 18; Ord. 2010-08-050; Ord. 2005-11-092].

16.55.280 Wetland ratings.

Wetlands shall be rated according to the Washington State Wetland Rating System for Western Washington – 2014 Update (Ecology Publication No. 14-06-029, October 2014), and as revised. The wetland categories determined by the rating are as follows:

A. Category I. Category I wetlands are:

1. Relatively undisturbed estuarine wetlands larger than one acre;

2. Wetlands that are, or may be in the future, identified by scientists of the Washington Natural Heritage Program/Department of Natural Resources as wetlands of high conservation value;

3. Bogs;

4. Mature forested wetlands larger than one acre;

5. Wetlands in coastal lagoons; and

6. Wetlands that perform many functions well and score 23 points or more in the wetland rating. These wetlands are those that represent a unique or rare wetland type, are more sensitive to disturbance than most wetlands, or are relatively undisturbed and contain ecological attributes that are impossible to replace within one human lifetime.

B. Category II. Category II wetlands are:

1. Bogs between one-tenth acre (4,356 square feet) and one-fourth acre (10,890 square feet) in size;

2. Wetlands with a moderately high level of functions and score 20 to 22 points in the wetland rating.

3. Estuarine wetlands smaller than one acre or disturbed estuarine wetlands larger than one acre.

C. Category III. Category III wetlands are:

1. Bogs less than one-tenth acre (4,356 square feet) in size;

2. Wetlands with a moderate level of functions and score between 16 to 19 points in the wetland rating.

D. Category IV. Category IV wetlands are:

1. Wetlands with a low level of functions, scoring less than 16 points in the wetland rating.

E. Date of Wetland Rating. The wetland rating categories in this section shall be applied to wetland studies including but not limited to delineations, on or after the date of adoption of the ordinance codified in this chapter. The wetland rating shall be valid for five years unless the state rating system changes or the wetland and/or the wetland buffer have been altered since the rating. [Ord. 2016-02-005 § 19; Ord. 2005-11-092].

16.55.290 Critical area report – Additional requirements for wetlands and wetland buffers.

A. Wetland Determination and Mapping. Identification of wetlands and delineation of their boundaries pursuant to this chapter shall be done in accordance with the federal wetland delineation manual and applicable regional supplements (as updated), as required by RCW 36.70A.175. All areas meeting the wetland designation criteria in that procedure are hereby designated as wetlands and are subject to provisions of this chapter. The wetland boundary shall be marked in the field and surveyed by a licensed surveyor. The surveyed wetlands shall be sized and mapped on a scaled site plan. The director may require the wetland delineation to be verified in the field by the Army Corps of Engineers or the Washington State Department of Ecology when there is uncertainty in the wetland boundary or there was unauthorized wetland disturbance.

The requirement for a licensed surveyor to survey the wetland boundaries may be waived in limited circumstances, such as when there is no access to the wetland property or there is no proposed impact to the wetland and wetland buffer, with authorization from the director.

B. Wetland Delineation Requirements. The following are required components of a wetland delineation report:

1. Prepared by a Qualified Professional. The report shall be prepared by a qualified professional, in accordance with BMC 16.55.510.

2. Maps. The wetland delineation report shall include the following maps:

a. Vicinity map.

b. Parcel map, with scale, showing all wetlands on the site and within 150 feet of the parcel boundaries unless access is denied by the adjacent property owner. Parcel map shall include all streams and drainages (Type S, F, Np or Ns streams), shorelines, floodplains, flood prone areas and critical habitat for threatened and endangered species on the parcel and within 150 feet of the parcel boundaries.

c. Topographic map based on city or surveyed data.

d. Map of development proposal with scale.

3. Wetland Analysis. A wetland delineation report shall provide an analysis of all wetlands and buffers on site and within 150 feet of the lot or parcel boundaries including, at a minimum, the following information:

a. Wetland delineation.

b. The wetland boundaries shall be flagged using bright-colored flagging tape or pin flags and surveyed by a licensed surveyor using an equivalent method with an accuracy of plus or minus one foot of a survey, unless surveying is specifically waived by the director for a different method of mapping the wetland boundary.

c. Determination of each wetland size.

d. Description of each wetland class and category.

e. Description of overall water sources and drainage patterns on site.

f. Description of vegetation, hydrologic conditions, and soil and substrate conditions.

g. Description of wildlife and habitat.

h. Topographic elevation, at two-foot contours.

i. Functional assessment of the wetland and adjacent buffer using a local or state agency-recognized method and including the reference of the method and all data sheets.

j. Standard buffer requirements for each wetland.

C. Valid for Five Years. Wetland delineation reports conducted by a qualified wetland professional shall be valid for five years from the date of the delineation report if the wetland rating or the boundary has not changed. [Ord. 2016-02-005 § 20; Ord. 2008-04-037; Ord. 2005-11-092].

16.55.300 Wetland permit requirements.

A. Permit Requirements – Compliance. No regulated activity may be conducted within a regulated wetland or wetland buffer without a permit from the director.

B. Permit Applications. An application for a permit for a regulated activity shall include:

1. A description and purpose of the project and a description of how the project has avoided/minimized impacts to wetlands and buffers.

2. A wetland delineation report, in accordance with BMC 16.55.290.

3. Site plans depicting the entire parcel, drawn to scale, showing the following:

a. The location and dimensions of all proposed and existing buildings, roads,

utilities, stormwater facilities and other constructed or installed features.

4. Site plans depicting the location, extent (specific quantities), and methods of all clearing, grading, dredging, or drainage alterations for such activities, including:

a. Before and after topography at two-foot contours.

b. Drainage alterations.

5. A wetland mitigation plan in accordance with BMC 16.55.260.

6. The director may require additional information deemed necessary to verify compliance or to evaluate the proposed use with the provisions of this chapter. [Ord. 2016-02-005 § 21; Ord. 2005-11-092].

16.55.310 Regulated activities.

The following activities are regulated if they occur in a regulated wetland or its respective buffer:

A. The removal, excavation, grading, or dredging of soil, sand, gravel, minerals, organic matter, or material of any kind;

B. The dumping, discharge, or filling with any material;

C. The draining, flooding, or disturbing of the water level or water table;

D. The driving of pilings;

E. The placing of obstructions;

F. The construction, reconstruction, demolition, or expansion of any structure;

G. The destruction or alteration of vegetation through clearing, harvesting, shading, intentional burning, concentrated recreational or educational use, or planting of vegetation that would alter the character of a regulated wetland, or respective buffer; provided, that these activities are not part of a forest practice governed under Chapter 76.09 RCW and its rules; or

H. Activities that result in a significant change of water temperature, a significant change of physical or chemical characteristics of water entering a wetland, or respective buffer sources, including quantity and hydroperiod, or the introduction of pollutants, including pesticides and herbicides. [Ord. 2016-02-005 § 22; Ord. 2005-11-092].

16.55.320 Regulated activities in wetland buffers.

Regulated activities, such as trail construction and utility installation, are not outright prohibited in wetland buffers with the exception of stormwater facilities, as described in BMC 16.55.330. Approval of the activity shall be obtained in the appropriate critical area permit, minor critical area permit, or exception, depending on the activity. Mitigation shall be provided in accordance with the provisions in this chapter. [Ord. 2016-02-005 § 23; Ord. 2005-11-092].

16.55.330 Stormwater management implications to wetlands and wetland buffers.

A. Stormwater management facilities shall not be located within wetland buffers, with the following exceptions:

1. Conveyance systems may be located in wetland buffers on a case-by-case basis if deemed necessary and approved by the public works and planning and community development departments.

2. Full dispersion of flow, as defined in Chapter 15.42 BMC, may be allowed in a wetland buffer if approved by the public works and planning and community development departments.

3. The facilities or methods specified in subsections (A)(1) and (2) of this section are allowed only if impacts to the buffer, resulting from their installation, are avoided or mitigated.

B. Stormwater management design and facilities shall be consistent with Chapter 15.42 BMC, as amended, to protect wetland hydrology and wetland functions. Native vegetation enhancement in wetland buffers may be approved for both buffer enhancement and as part of a best management practice to meet low impact development stormwater standards required by the Washington State Department of Ecology. Any stormwater management facility or method associated with wetlands shall meet the state requirements adopted in Chapter 15.42 BMC, as amended. [Ord. 2016-02-005 § 24; Ord. 2010-08-050; Ord. 2008-04-037; Ord. 2005-11-092].

16.55.340 Wetland buffers.

Wetland buffers shall be established to protect the integrity, functions and values of the wetland.

A. Measurement of Wetland Buffers. All buffers shall be measured horizontally from edge of the wetland boundary as surveyed in the field. The width of the wetland buffer shall be determined according to Tables 16.55.340(A), (B) and (C).

B. Buffer Standards. The buffer standards required by this chapter presume the existence of

a dense vegetation community in the buffer adequate to protect the wetland functions and values. When a buffer lacks adequate vegetation, the director may increase the standard buffer, require buffer planting or other enhancements, and/or deny a proposal for buffer reduction or buffer averaging. Buffers may not include areas that are functionally and effectively disconnected from the wetland by an existing public or private road as determined by the director. Functionally and effectively disconnected means that the road blocks the protective measures provided by a buffer or it disrupts the life cycle of wildlife documented to be using the area.

The standard buffer shall be based on the wetland category, the adjacent land use, and the functions provided by the wetland. There are three sets of buffer standards, based on these parameters:

1. For wetlands that have a high level of function for wildlife habitat as indicated by a habitat function score of eight or nine points or more on the wetland rating form, the buffers shall be as follows:

Table 16.55.340(A)

	Buffer Width (feet)		
	High Intensity	**Moderate Intensity**	**Low Intensity**
Category I	200	190	150
Category II	200	150	100
Category III	150	110	75
Category IV	50	40	25

Note: Definitions for high, moderate and low intensity land use are provided in BMC 16.55.510.

2. For wetlands that have a moderate level of function for wildlife habitat as indicated by a habitat function score of five to seven points on the wetland rating form, the buffer shall be as follows:

Table 16.55.340(B)

	Buffer Width (feet)		

	High Intensity	Moderate Intensity	Low Intensity
Category I	150	110	75
Category II	150	110	75
Category III	150	100	60
Category IV	50	40	25

Note: Definitions for high, moderate and low intensity land use are provided in BMC 16.55.510.

3. For wetlands that have a low level of function for wildlife habitat as indicated by a habitat function score of less than three to four points on the wetland rating form, the buffers shall be as follows:

Table 16.55.340(C)

	Buffer Width (feet)		
	High Intensity	Moderate Intensity	Low Intensity
Category I	100	75	50
Category II	100	75	50
Category III	80	60	50
Category IV	50	40	25

Note: Definitions for high, moderate and low intensity land use are provided in BMC 16.55.510.

C. Modifications to Buffer Widths. Any modifications to the buffer width are to be based on the specific wetland functions, site and/or watershed characteristics, location of the wetland within the watershed or sub-basin, and the proposed land use.

1. Increasing Buffer Widths. The director shall have the authority to increase the standard buffer width on a case-by-case basis when a larger buffer is required by an approved habitat assessment as outlined in BMC 16.55.480(C); or such increase is necessary to:

a. Protect the function and value of that wetland, including but not limited to compensating for a poorly vegetated buffer that has a steep slope (greater than 30 percent); or

b. Prevent wind-throw damage; or

c. Maintain viable populations of species such as herons and other priority wildlife species; or

d. Protect wetlands or other critical areas from landslides, erosion or other hazards.

2. Reducing Wetland Buffer Widths. The director shall have the authority to reduce the standard buffer widths; provided, that all of the following apply:

a. The buffer of a Category I wetland shall not be reduced;

b. The buffer reduction shall not adversely affect the functions and values of the adjacent wetlands;

c. The buffer of a Category II or III wetland shall not be reduced to less than 75 percent of the required buffer or 50 feet, whichever is greater;

d. The buffer of a Category IV wetland shall not be reduced to less than 50 percent of the required buffer, or 25 feet, whichever is greater, provided the buffer reduction does not result in reducing the functions and values of the wetland; and

e. The applicant implements all reasonable measures to reduce the adverse effects of adjacent land uses and ensure no new loss of buffer functions and values. The specific measures that shall be implemented include, but are not limited to, the following:

i. Direct lights away from the wetland and buffer;

ii. Locate facilities that generate substantial noise (such as some manufacturing, industrial and recreational facilities) away from the wetland and buffer;

iii. Implement integrated pest management programs;

iv. Infiltrate or treat, detain and disperse runoff into buffer;

v. Construct a wildlife permeable fence around buffer and post signs at the outer edge of the critical area or buffer to clearly indicate the location of the critical area according to the direction of the city;

vi. Plant buffer with “impenetrable” native vegetation appropriate for the location;

vii. Use low impact development techniques to the greatest extent possible;

viii. Establish and record a permanent conservation easement to protect the wetland and the associated buffer and restrict the use of pesticides and herbicides in the easement.

3. Averaging Buffer Widths. The director has the authority to average wetland buffer widths on a case-by-case basis when all the following criteria are met:

a. The buffer averaging does not reduce the functions or values of the wetland;

b. The total area contained in the buffer area after averaging is no less than that which would be contained within the standard buffer, and all increases in buffer dimension for averaging must be parallel to the wetland boundary;

c. The wetland contains variations in sensitivity due to existing physical characteristics or the character of the buffer varies in slope, soils, or vegetation;

d. The buffer width is not reduced in any location to less than 50 percent of the standard width or 35 feet, whichever is greater, except for buffers for Category IV wetlands, and low intensity land uses in which case the narrowest buffer width can be determined on a case-by-case basis, using the best available science;

e. The buffer has not been reduced in accordance with this section. Buffer averaging is not allowed if the buffer has been reduced; and

f. There were no feasible alternatives to the site design without buffer averaging.

D. Buffer Maintenance. Final buffer conditions shall be maintained and undisturbed from future impacts.

E. Wetland Buffer Impacts. When buffer impacts occur, compensatory mitigation shall be provided at a square footage ratio of 1:1. The mitigation shall occur on the same site when feasible or within the same wetland system preferably. The mitigation shall ensure that the

wetland functions and values are not diminished due to the buffer impacts.

F. Buffers on Mitigated Sites. Buffer widths shall be applied to mitigation sites consistent with the wetland ratings and buffer requirements of this chapter for subsequent development proposals and based on expected category of the wetland once the mitigation actions are taken.

G. Building Setbacks from Buffers. Buildings, structures, paving, and other hard surfacing shall be set back a distance of 15 feet from the edge of the wetland buffer, or edge of the wetland if no buffer is required, unless otherwise determined by the director to be a shorter distance. This setback is to avoid conflicts with tree branches and/or critical root zones of trees that are in the buffer or will be planted in the buffer. The following may be allowed in the building setback from the buffer if they do not cause damage to the critical root zone of trees in the buffer:

1. Landscaping;

2. Uncovered decks, roof eaves and overhangs, unroofed stairways and steps;

3. Pervious ground surfaces, such as driveways, patios, and parking may be allowed; provided, that it is engineered as a pervious system as defined in BMC 16.80.050. Such improvements may be subject to the requirements in Chapter 15.42 BMC, Stormwater Management;

4. Above and below ground water conservation cisterns and associated infrastructure, used for residential rainwater catchment but not to exceed 300 square feet total; provided, that if above ground, the necessary foundation is engineered as a pervious system. [Ord. 2016-02-005 § 25; Ord. 2010-08-050; Ord. 2008-04-037; Ord. 2005-11-092].

16.55.350 Mitigation requirements specific to wetlands (see BMC 16.55.240, 16.55.250, and 16.55.260 for other mitigation requirements).

Compensatory mitigation for alterations to wetlands shall be used only for impacts that cannot be avoided or minimized and shall achieve equivalent or greater wetland functions. Mitigation plans shall be consistent with Wetland Mitigation in Washington State – Part 2: Developing Mitigation Plans (Ecology Publication No. 06-06-011b, Olympia, WA, March 2006 or as revised), and Selecting Wetland Mitigation Sites Using a Watershed Approach (Western Washington), (Ecology Publication No. 09-06-32, Olympia, WA, December 2009).

A. Preference of Mitigation Actions. Mitigation actions shall occur in the following order of preference after mitigation sequencing has been applied (see BMC 16.55.510 for full definitions of creation, enhancement, preservation, rehabilitation, reestablishment, and

restoration):

1. Restoration (reestablishment and rehabilitation) of wetlands. Reestablishing wetlands is returning natural or historic functions to a former wetland. Rehabilitation of wetlands is repairing natural or historic functions of a degraded wetland

2. Creation (establishment) of wetlands.

3. Enhancement of significantly degraded wetlands in combination with restoration or creation. Such enhancement should be part of a mitigation package that includes replacing the impacted area to meet appropriate ratio requirements.

4. Preservation of high quality, at-risk wetlands when done in combination with restoration, creation, or enhancement.

B. Specific Types of Mitigation. The following types of mitigation are fully defined in BMC 16.55.510, Definitions. In the interest of consistency, they are the definitions provided by the Army Corps of Engineers in its “Regulatory Guidance Letter 02-02.” They have also been adopted by the Washington State Department of Ecology. Each is considered a type of “restoration” as defined in BMC 16.55.510: reestablishment, rehabilitation, creation (establishment), enhancement, preservation (protection/maintenance).

For the purposes of this chapter, the mitigation categories are:

1. Restoration. This includes reestablishment or rehabilitation.

2. Creation (establishment). Wetlands on disturbed upland sites such as those with vegetative cover consisting primarily of nonnative introduced species. This should only be attempted when there is a consistent source of hydrology and it can be shown that the surface and subsurface hydrologic regime is conducive for the wetland community that is being created.

3. Enhancement. Unlike restoration activities, enhancement results in a change of wetland functions, not a net gain of function or wetland acres.

4. Preservation. Preservation in combination with other forms of mitigation is allowed. Preservation as the sole means of mitigation for wetland impacts may be allowed if the wetland area to be preserved meets all of the following criteria:

a. The preserved wetland and buffer are protected in perpetuity through a conservation easement, deed restriction, or dedication as a separate tract;

b. The area proposed for preservation is of high quality (scores between 20 and 27

points in the wetland rating system), is located in the same watershed, and is critical to the health of the watershed or sub-basin. Some of the other high quality features include:

i. Rare wetland types such as bogs, mature forested wetlands, estuaries, or vital wildlife habitat;

ii. High regional or watershed importance;

iii. Large size with high species diversity (plants and/or animals) and a high abundance;

c. Preservation is used as a form of compensation only after the standard sequencing of mitigation (BMC 16.55.250) has been applied;

d. Creation, restoration, and enhancement opportunities have also been considered and preservation is the best mitigation option;

e. Preservation sites include buffer areas adequate to protect the habitat and its functions from encroachment and degradation;

f. The impacts are to a Category II, III, or IV wetland;

g. The preservation site is determined to be under imminent threat, specifically sites with the potential to experience a high rate of undesirable ecological change due to on- and/or off-site activities;

h. Replacement ratios are listed in Table 16.55.350. Replacement ratios for preservation used in combination with other forms of mitigation are to be determined by the director.

C. Location of Compensatory Mitigation. Site selection for compensatory mitigation shall be based on a location that will provide the greatest ecological benefit and have the greatest likelihood of success. Where feasible, mitigation shall occur in the same sub-basin as the permitted wetland alteration. However, if it can be demonstrated that a mitigation site in an alternative sub-basin or watershed would provide a greater ecological benefit and offer a more successful replacement of wetland functions and values, compensatory mitigation may take place in an alternative sub-basin or watershed. If a mitigation bank or in-lieu fee program is proposed for the required mitigation, documentation shall be provided that demonstrates there is an ecological benefit. The documentation shall also include how locating the mitigation out of the sub-basin or watershed will not impact other nearby critical areas.

D. Mitigation Banking. Mitigation banking is allowed for compensatory mitigation when all of the following are met:

1. The bank is certified under state rules;

2. The proposal to use the mitigation bank meets the certified banking instrument criteria;

3. Documentation is provided with the proposal that an alternatives analysis pursuant to BMC 16.55.210(C)(7) has been completed;

4. Documentation that mitigation sequencing pursuant to BMC 16.55.250 has been adhered to;

5. Documentation is provided that the bank is ecologically preferable and will provide a more successful replacement of wetland functions and values; and

6. The director determines that the wetland bank provides appropriate compensation for impacts.

E. In-Lieu Fee Mitigation. Development or use of an in-lieu fee program is allowed if the program is established consistent with federal and state regulations and policies. Using credits from an approved in-lieu-fee program shall be consistent with mitigation sequencing pursuant to BMC 16.55.250 and with state criteria.

F. Mitigation Ratios. The following ratios in Table 16.55.350 and consideration of factors described in this section shall be used to determine the relative amount of created, reestablished, restored, or enhanced wetlands that will be required to replace impacted wetlands. The first number refers to the amount of wetland area providing mitigation and the second refers to the amount of wetland area impacted or altered. If a mitigation bank or in-lieu program is used for mitigation requirements, wetland replacement ratios are not applied. The mitigation bank credit system, or in-lieu fee program credit system, whichever applies, is used to determine the number and cost of the credits to be purchased to fulfill mitigation requirements.

Table 16.55.350 – Wetland Replacement Ratios

	Creation or Reestablishment	Restoration (Rehabilitation)	Enhancement	Preservation
Category I BMC 16.55.280(A)(4).	6:1	12:1	24:1	N/A

Mature forested wetland				
Category I BMC 16.55.280(A)(6) scores 23 points or more in wetland rating	4:1	8:1	16:1	N/A
Category I BMC 16.55.280(A), all others	Case-by-case basis; may not be possible	Case-by-case basis; may not be possible	Case-by-case basis; may not be possible	N/A
Category II	3:1	6:1	12:1	16:1
Category III	2:1	4:1	8:1	10:1 Case-by-case basis
Category IV	1.5:1	3:1	6:1	5:1 to 10:1 Case-by-case basis

1. Provisions for Increasing or Decreasing Ratios. The director may increase or decrease the ratios based on one or more of the following:

a. Replacement ratios may be increased under the following circumstances:

i. Uncertainty exists as to the probable success of the proposed restoration or creation;

ii. A significant period of time will elapse between impact and establishment of wetland functions at the mitigation site;

iii. Proposed compensation will result in a lower category wetland or reduced functions relative to the wetland being impacted; or

iv. The impact was an unauthorized impact.

b. Replacement ratios may be decreased under the following circumstances:

i. The proposed mitigation actions are conducted in advance of the impact and are shown to be successful;

ii. Documentation by the applicant demonstrates that the proposed compensation actions will provide functions and values that are significantly greater than the wetland being impacted; or

iii. Documentation by the applicant provides more certainty that the proposed compensation action will be successful. Documentation could include extensive hydrologic data to support the proposed water regime.

2. Credit/Debit Method. As an alternative to using mitigation ratios for calculating mitigation requirements, the director may allow mitigation based on the "credit/debit" method as described in Calculating Credits and Debits for Compensatory Mitigation in Wetlands of Western Washington: Final Report (Ecology Publication No. 10-06-011, Olympia, WA, March 2012, or as revised).

G. Mitigation Report Requirements.

1. Prepared by a Qualified Professional. A wetland mitigation report shall be prepared by a qualified professional in accordance with BMC 16.55.510.

2. Report Requirements.

a. Detailed summary of the project, including the wetland and buffer impacts and the proposed mitigation, to appear in the beginning of the report;

b. Complete site characterization to include parcel size, soils, vegetation, hydrology, wildlife, and topography;

c. Complete site characterization of the proposed mitigation site to include parcel size, soils, vegetation, hydrology, topography and wildlife;

d. Goals, objectives, and performance standards of the mitigation proposal;

e. A mitigation implementation schedule that includes the sequence and timelines of tasks to fully implement the mitigation plan;

f. Monitoring and maintenance for a minimum of five consecutive years, and a contingency plan;

g. Function assessment of wetland to be impacted;

h. Delineation report, with maps, of site to be impacted;

i. Map of development, with scale, overlaid on wetland delineation map; and

j. A detailed, line-item estimate of the total costs to complete the approved mitigation plan including, but not limited to, a minimum of five years of monitoring and maintenance, shall be submitted for approval for the required financial surety for the project. The total estimate shall be multiplied by 150 percent. [Ord. 2016-02-005 § 26; Ord. 2005-11-092].

16.55.360 Critical aquifer recharge areas designation.

Critical aquifer recharge areas (CARA) are those areas with a critical recharging effect on aquifers used for potable water as defined by WAC 365-190-030(2). CARA have prevailing geologic conditions associated with infiltration rates that create a high potential for contamination of ground water resources or contribute significantly to the replenishment of ground water. These areas include the following:

A. Wellhead Protection Areas. Wellhead protection areas may be defined by the boundaries of the 10-year time of ground water travel or boundaries established using alternate criteria approved by the Washington State Department of Health in those settings where ground water time of travel is not a reasonable delineation criterion, in accordance with WAC 246-290-135.

B. Sole Source Aquifers. Sole source aquifers are areas that have been designated by the U.S. Environmental Protection Agency pursuant to the Federal Safe Water Drinking Act.

C. Susceptible Ground Water Management Areas. Susceptible ground water management areas are areas that have been designated as moderately or highly vulnerable or susceptible in an adopted ground water management program developed pursuant to Chapter 173-100 WAC.

D. Special Protection Areas. Special protection areas are those areas defined by WAC 173-200-090.

E. Moderately or Highly Vulnerable Aquifer Recharge Areas. Aquifer recharge areas that are moderately or highly vulnerable to degradation or depletion because of hydrogeologic characteristics are those areas delineated by a hydrogeologic study prepared in accordance with the State Department of Ecology guidelines.

Based on the criteria and descriptions in subsections (A) through (E) of this section, the city concludes that there are no critical aquifer recharge areas within the city limits and its jurisdiction at the time of adoption of this chapter. Therefore, there are no express regulations affecting this type of critical area within the city.

Regulations pertaining to development within the city within the Lake Whatcom reservoir

watershed, a surface drinking water source, are found in Chapter 16.80 BMC. [Ord. 2005-11-092].

16.55.370 Designation of frequently flooded areas.

A. The purpose for the following designations, requirements and standards for frequently flooded areas shall be to:

1. Reduce the risk to life and safety, public facilities, and public and private property that result from floods;

2. Avoid and minimize impacts to fish and wildlife habitats that occur within frequently flooded areas;

3. To assure that flood loss reduction measures protect and are consistent with retaining natural floodplain functions related to protecting riparian habitat and the natural processes that create and maintain habitat for fish;

4. To assure maintenance of hydraulic, geomorphic, and ecological functions of floodplains;

5. Controlling filling, grading, dredging, and other development activities which may increase flood damage and alter beneficial natural stream processes; and

6. Preventing or regulating the construction of flood barriers which may unnaturally divert floodwaters in such a way as to block natural channel migration, or may increase flood hazards in other areas.

B. Frequently flooded areas shall include, but are not limited to:

1. Lands as defined in Chapter 17.76 BMC in which the floodplain is subject to a one percent or greater chance of flooding in any given year and those lands that provide important flood storage, conveyance, channel forming processes and attenuation functions, as determined by the city in accordance with WAC 365-190-080(3). Classifications of frequently flooded areas include, at a minimum, the 100-year floodplain designations of the Federal Emergency Management Agency and the National Flood Insurance Program;

2. Areas Identified by the Public Works Director. Those areas of special flood hazard identified by the public works director based on review of base flood elevation, floodway data, historical data, high water marks, photographs of past flooding, or similar information available from federal, state, county, city or other valid sources when base flood elevation data from FEMA has not been provided or is not accurate;

3. The approximate location and extent of frequently flooded areas are shown on the city's critical area maps. These maps are to be used as a guide and do not provide a definitive critical area designation. The city shall update the maps as new hazard areas are identified and as new information becomes available. This article does not imply that land outside mapped frequently flooded areas or uses permitted within such areas will be free from flooding or flood damages. This chapter shall not create liability on the part of the city of Bellingham, or any officer or employee thereof, for any flood damages that result from reliance on this chapter or any administrative decision lawfully made hereunder. [Ord. 2016-02-005 § 27; amended during 2013 recodification; Ord. 2005-11-092].

16.55.380 Critical area report – Additional requirements for frequently flooded areas.

In addition to the general critical area report requirements of BMC 16.55.210, critical area reports for frequently flooded areas must meet the requirements of this section. Critical area reports for two or more types of critical areas must meet the report requirements for each relevant type of critical area.

A. Prepared by a Qualified Professional. A critical areas report for a frequently flooded area shall be prepared by a qualified professional such as a hydrologist or fluvial geomorphologist.

B. Areas Addressed in Critical Area Report. The following areas shall be addressed in a critical area report for frequently flooded areas:

1. The project area of the proposed activity;

2. All shoreline areas, floodplains, other critical areas, and related buffers within 200 feet of the project area.

C. A critical area report for frequently flooded areas shall contain an assessment of the following site and proposal related information that describes the effects of proposed development on floodplain functions including but not limited to:

1. Storing and conveying floodwater;

2. Reducing peak flows and flow velocities;

3. Reducing redd scour and displacing rearing juvenile fish at the project site and downstream;

4. Maintaining sediment quality in streams;

5. Improving water quality;

6. Development within frequently flooded areas shall be allowed maintaining and improving fish access;

7. The reports shall also include mitigation for adverse effects on floodplain functions.

D. Planning director shall have the authority to require consultation with the Washington Department of Fish and Wildlife or other appropriate agencies. [Ord. 2008-04-037; Ord. 2005-11-092].

16.55.390 Frequently flooded areas – Performance standards – General requirements.

Pursuant to the mitigation sequence in BMC 16.55.250, the director shall have the authority to require mitigation for adverse impacts to floodplain ecological functions; provided, that such mitigation shall be consistent and compatible with the goal of protecting health and safety and minimizing risks to property. [Ord. 2005-11-092].

16.55.400 Frequently flooded areas – Development standards.

All land use and development including, but not limited to, clearing, grading, construction of infrastructure, buildings, facilities, accessories and appurtenances that are proposed, developed, occupied and operated within frequently flooded areas shall be in compliance with the following Bellingham Municipal Code sections:

A. Water and Sewers.

1. Chapter 15.40 BMC, Drainage.

2. Chapter 15.42 BMC, Stormwater Management.

B. Environment.

1. Chapter 16.20 BMC, SEPA.

2. Chapter 16.40 BMC, Shorelines.

3. Chapter 16.60 BMC, Land Clearing.

4. Chapter 16.70 BMC, Grading.

C. Buildings and Construction.

1. Chapter 17.10 BMC, Building Codes.

2. Chapter 17.76 BMC, Construction in Floodplains.

D. Subdivisions.

1. Chapter 18.12 BMC, Short Subdivisions.

2. Chapter 18.16 BMC, Preliminary Plats.

3. Chapter 18.20 BMC, Final Plat.

4. Chapter 18.24 BMC, Binding Site Plans.

5. BMC 18.28.160, Flood control.

E. Land Use Development.

1. BMC 20.10.090, Special conditions.

2. BMC 20.10.100, prerequisites.

3. Chapter 20.30 BMC, Residential Single Development.

4. Chapter 20.32 BMC, Residential Multi Development.

5. Chapter 20.34 BMC, Commercial Development.

6. Chapter 20.36 BMC, Industrial Development.

7. Chapter 20.38 BMC, Planned Development. [Ord. 2005-11-092].

16.55.410 Designation of geologically hazardous areas.

Geologically hazardous areas include areas susceptible to erosion, landslide, rock fall, subsidence, earthquake, or other geological events. They pose a threat to the health and safety of citizens when incompatible development is sited in areas of significant hazard. Such incompatible development may not only place itself at risk, but also may increase the hazard to surrounding development and use. Areas susceptible to one or more of the following types of hazards shall be designated as a geologically hazardous area:

A. Erosion hazard;

B. Landslide hazard;

C. Seismic hazard; or

D. Mine hazard. [Ord. 2005-11-092].

16.55.420 Designation of specific hazard areas.

A. Erosion Hazard Areas. Erosion hazard areas are prone to soil erosion. Specifically these areas include any area where the soil type is predominantly (greater than 50 percent) comprised of sand, clay, silt, and/or organic matter and slope is greater than 30 percent.

B. Landslide Hazard Areas. Landslide hazard areas may be prone to landslides and/or subsidence that could include slow to rapid movement of soil, fill materials, rock and other geologic strata resulting in risk of injury or damage to the public and environment. Landslides could result from any combination of soil, slope, topography, underlying geologic structure, hydrology, freeze-thaw, earthquake and other geologic influences. Specific landslide hazard areas include slopes with an incline that is equal to or greater than 40 percent grade (22 degrees) with a vertical elevation change of at least 10 feet. Slope shall be calculated by identifying slopes that have at least 10 feet of vertical elevation change within a horizontal distance of 25 feet or less.

Slope shall not include those lands that have 10 feet of vertical change by virtue of a legally established retaining wall(s), foundation wall, stairways or similar vertical structure or those land areas where public infrastructure and its supporting elements have been developed.

C. Seismic Hazard Areas. Seismic hazard areas are areas subject to severe risk of damage as a result of earthquake induced ground shaking, slope failure, settlement, soil liquefaction, lateral spreading, or surface faulting. Specific areas of very high response to seismic shaking include areas depicted as “fill” and “alluvial deposits” within Whatcom County’s Map Folio of Geologic Hazards, 1995.

D. Mine Hazard Areas. Mine hazard areas are those areas underlain by or affected by mine workings such as adits, gangways, tunnels, drifts, or airshafts, and those areas of probable sink holes, gas releases, or subsidence due to mine workings. Specific areas of known and suspected historical mining activity and hazards include:

1. Areas depicted as coal mine hazard areas within the Geologic Hazard Areas Map Folio, Bellingham, Washington, 1991. [Ord. 2016-02-005 § 28; Ord. 2010-08-050; Ord. 2008-04-037; Ord. 2005-11-092].

16.55.430 Critical area report – Additional requirements for geologically hazardous areas.

A. Prepared by a Qualified Professional. A critical areas report for a geologically hazardous area shall be prepared by a qualified professional, in accordance with BMC 16.55.510.

B. Area Addressed in Critical Area Report. The following areas shall be addressed in a critical area report for geologically hazardous areas:

1. The project area of the proposed activity; and

2. All geologically hazardous areas within zone or distance of potential significant influence as determined by a professional engineer/geologist.

C. Geological Hazards Assessment. A critical area report for a geologically hazardous area shall contain an assessment of geological hazards including the following site- and proposal-related information at a minimum:

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, any other critical areas, and buffers on, adjacent to, or within a zone or distance of potential significant influence as determined by a professional engineer/geologist;

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, if available;

c. The topography, as determined by a professional engineer or geologist, 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 of the soils, sediments, and/or rock of the project area and potentially affected adjacent properties, and a review of the site history regarding landslides, erosion, and prior grading. Soils analysis shall be accomplished in accordance with accepted 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 geologically hazardous areas; and

c. A description of the vulnerability of the site to seismic and other geologic events.

i. Analysis of Proposal. The report shall contain a hazards 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.

ii. Minimum Buffer and Building Setback. 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.

D. Incorporation of Previous Study. Where a valid critical areas report has been prepared, and where the proposed land use activity and surrounding site conditions are unchanged, said report may be incorporated into the required critical area report, if deemed still valid and appropriate by a professional engineer or geologist. The applicant shall submit a hazards assessment detailing any changed environmental conditions associated with the site based on best professional judgment of the engineer/geologist.

E. Mitigation of Long-Term Impacts. When hazard mitigation is required, the mitigation plan shall specifically address how the activity maintains or reduces the preexisting level of risk to the site and adjacent properties on a long-term basis (equal to or exceeding the projected life span 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 preexisting conditions following abandonment of the activity. [Ord. 2005-11-092].

16.55.440 Critical area report – Additional technical information requirements for specific hazards.

In addition to the general critical area report requirements of BMC 16.55.210 and 16.55.430, critical area reports for geologically hazardous areas must meet the requirements of this section. Critical area reports for two or more types of critical areas must meet the report requirements for each relevant type of critical area.

A. Erosion and Landslide Hazard Areas. In addition to the basic critical area report requirements, the technical information for an erosion hazard or landslide hazard area shall include the following information at a minimum:

1. Site Plan. The critical area report shall include a copy of the site plan for the proposal showing:

a. The height of slope, slope gradient, and cross-section of the project area;

b. The location of springs, seeps, or other surface expressions of ground water and a

zone of influence as determined by a professional engineer/geologist; and

c. The location and description of surface water runoff features.

2. Hazards Analysis. The hazards analysis component of the critical areas report shall specifically include:

a. A description of the extent and type of vegetative cover;

b. A description of subsurface conditions based on data from site-specific explorations;

c. Descriptions of surface and ground water conditions, public and private sewage disposal systems, fills and excavations, and all structural improvements;

d. 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;

e. An estimate of the bluff retreat rate that recognizes and reflects potential catastrophic events such as seismic activity or a 100-year storm event;

f. Consideration of the run-out hazard of landslide debris and/or the impacts of landslide run-out on down slope properties;

g. A study of slope stability including an analysis of proposed cuts, fills, and other site grading;

h. Recommendations for building siting limitations;

i. An analysis of proposed surface and subsurface drainage, and the vulnerability of the site to erosion;

j. All rock outcrops greater than 10 feet in vertical relief and lands lying adjacent, or in close proximity, and within the fall-line of potential falling, rolling or sliding rock and debris flows; and

k. Slopes that are parallel or sub-parallel to planes of weakness (such as bedding planes, joint systems, and fault planes) in subsurface materials.

3. Geotechnical Engineering Report. The technical information for a project within a landslide hazard area shall include a geotechnical engineering report prepared by a licensed engineer that presents engineering recommendations for the following:

a. 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;

b. Recommendations for drainage and subdrainage improvements;

c. 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

d. Mitigation of adverse site conditions including slope stabilization measures and seismically unstable soils, if appropriate.

4. Erosion and Sediment Control Plan. 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 Chapter 15.42 BMC.

5. Drainage Plan. The technical information shall include a drainage plan for the collection, transport, treatment, discharge, and/or recycle of water prepared in accordance with Chapter 15.42 BMC. The drainage plan should consider on-site septic system disposal volumes where the additional volume will affect the erosion or landslide hazard area.

6. Mitigation Plans. 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.

7. Monitoring Surface Waters. If the director 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 technical information 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.

B. Seismic Hazard Areas. In addition to the basic report requirements, a critical area report for a seismic hazard area shall also meet the following requirements:

1. The site map shall show all known and mapped faults within a zone or distance of potential significant influence as determined by a professional engineer/geologist;

2. The hazards analysis shall include a complete discussion of the potential impacts of seismic activity on the site (for example, forces generated and fault displacement); and

3. A geotechnical engineering report shall evaluate the physical properties of the subsurface soils, especially the thickness of unconsolidated deposits and their liquefaction potential. If it is determined that the site is subject to liquefaction, mitigation measures appropriate to the scale of the development shall be recommended and implemented.

C. Mine Hazard Areas. In addition to the basic report requirements, a critical area report for a mine hazard critical area shall also meet the following requirements:

1. Site Plan. The site plan shall delineate the following found within a zone or distance of potential significant influence as determined by a professional engineer/geologist:

a. The existence of mines, including all significant mine features, such as mine entries, portals, adits, mine shafts, air shafts, and timber shafts;

b. The location of any nearby mines that may impact or be affected by the proposed activities;

c. The location of any known sinkholes, significant surface depressions, trough subsidence features, coal mine spoil piles, and other mine-related surface features; and

d. The location of any prior site improvements that have been carried out to mitigate abandoned coal mine features.

2. Hazards Analysis. The hazards analysis shall include a discussion of the potential for subsidence on the site and classify all mine hazards areas within a zone or distance of potential significant influence as determined by a professional engineer/geologist, as either low, moderate, or severe. The hazards analysis shall include a mitigation plan containing recommendations for mitigation of the potential for future trough subsidence, as appropriate, for the specific proposed alteration and recommendations for additional study, reports, and development standards if warranted.

D. Other Geologically Hazardous Areas. In addition to the basic requirements, the director may require additional technical information to be submitted when determined to be necessary to the review of the proposed activity and the subject hazard. Additional technical information that may be required, includes, but is not limited to:

1. Site Plan. The site plan shall show all hazard areas located within 300 feet of the

project area or that have potential to be affected by the proposal; and

2. Hazards Analysis. The hazards analysis shall include a complete discussion of the potential impacts of the hazard on the project area and of the proposal on the hazard. [Ord. 2016-02-005 § 29; amended during 2013 recodification; Ord. 2005-11-092].

16.55.450 Performance standards – General requirements.

A. Alterations of geologically hazardous areas or associated buffers may only occur for activities that:

1. Will not increase the threat of the geological hazard to adjacent properties beyond predevelopment 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 predevelopment conditions; and

4. Are certified as safe as designed and under anticipated conditions by a qualified engineer or geologist, licensed in the state of Washington.

B. Essential public facilities shall not be sited within geologically hazardous areas unless there is no other practical alternative. [Ord. 2005-11-092].

16.55.460 Performance standards – Specific hazards.

A. Erosion and Landslide Hazard Areas. Activities on sites containing erosion or landslide hazards shall meet the standards of Performance standards – General requirements (BMC 16.55.450) and the specific following requirements:

1. Buffer Requirement. A buffer shall be established from all edges of 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 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. Minimum Buffer. The minimum buffer shall be equal to the height of the slope or 50 feet, whichever is greater.

b. Buffer Reduction. The buffer may be reduced to a minimum of 10 feet when a qualified professional demonstrates to the director’s satisfaction that the reduction will adequately protect the proposed development, adjacent developments, and uses and the subject critical area.

c. Increased Buffer. The buffer may be increased where the director determines a larger buffer is necessary to prevent risk of damage to proposed and existing development.

2. Alterations. Alterations of an erosion or landslide hazard area and/or buffer may only occur for activities for which a hazards analysis is submitted and certifies that:

a. The development will not increase surface water discharge or sedimentation to adjacent properties beyond predevelopment conditions;

b. The development will not decrease slope stability on adjacent properties; and

c. Such alterations will not adversely impact other critical areas.

3. Design Standards. 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. The basic development design standards are:

a. The proposed development shall not decrease the factor of safety for landslide occurrences below the limits of one and one-half 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 shall be clustered to avoid geologically hazardous 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 shall be located to preserve the most critical portion of the site and its natural land forms 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; and

g. Development shall be designed to minimize impervious lot coverage.

4. Vegetation Retention. 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.

a. Seasonal Restriction. Clearing shall be allowed only from May 1st to September 30th, except as specified in Chapter 16.80 BMC, Lake Whatcom Reservoir Regulatory Provisions, of each year; provided, that the city may extend or shorten the dry season on a case-by-case basis depending on actual weather conditions, except that timber harvest, not including brush clearing or stump removal, may be allowed pursuant to an approved forest practice permit issued by the city or the Washington State Department of Natural Resources.

5. Utility Lines and Pipes. 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 only through a high-density polyethylene pipe with fuse-welded joints, or similar product that is technically equal or superior.

6. Point Discharges. 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. If appropriate, as determined by a qualified professional, an erosion and sediment control plan may include a recommended monitoring and reporting schedule for

specified phases of the development or activity.

8. Subdivisions. The division of land in landslide hazard areas and associated buffers is subject to the following:

a. Land that is located wholly within a landslide hazard area or its buffer may not be subdivided. Land that is located partially within a landslide hazard area or its buffer may be divided; provided, that each resulting lot has sufficient buildable area outside of, and will not affect, the landslide hazard or its buffer.

b. Access roads and utilities may be permitted within the landslide hazard area and associated buffers if the city determines that no other feasible alternative exists.

9. Prohibited Development. On-site sewage disposal systems, including drain fields, shall be prohibited within erosion and landslide hazard areas and related buffers.

B. Seismic Hazard Areas. Activities proposed to be located in seismic hazard areas shall meet the standards of Performance standards – General requirements (BMC 16.55.450).

C. Mine Hazard Areas. Activities proposed to be located in mine hazard areas shall meet the standards of Performance standards – General requirements (BMC 16.55.450) and the specific following requirements:

1. Alterations. Alterations of a mine hazard area and/or buffer are allowed, as follows:

a. All alterations are permitted within a mine hazard area with a low potential for subsidence.

b. Within a mine hazard area with a moderate potential for subsidence and at coal mine byproduct stockpiles, all alterations are permitted subject to a mitigation plan to minimize risk of structural damage using appropriate criteria to evaluate the proposed use, as recommended in the hazard analysis.

c. Within a mine hazard area with a severe potential for subsidence, no structural activities shall be permitted without an effective settlement mitigation strategy.

2. Subdivisions. The division of land in mine hazard areas and associated buffers is subject to the following:

a. Land that is located within 200 feet of a mine hazard area with a severe potential for subsidence may not be subdivided. Land that is located partially within a mine hazard area may be divided; provided, that each resulting lot has sufficient buildable area that is 200 feet away from the mine hazard area with a severe

potential for subsidence. Land that is located within a mine hazard area with a low or moderate potential for subsidence may be subdivided.

b. Access roads and utilities may be permitted within 200 feet of a mine hazard area with a moderate or severe potential for subsidence if the city determines that no other feasible alternative exists.

3. Reclamation Activities. For all reclamation activities, including grading, filling, and stockpile removal, as-built drawings shall be submitted to the city in a format specified by the director. [Ord. 2016-02-005 § 30; Ord. 2010-08-050; Ord. 2005-11-092].

16.55.470 Designation of fish and wildlife habitat conservation areas.

A. Fish and wildlife habitat conservation areas include:

1. Areas with Which State or Federally Designated Endangered, Threatened, and Sensitive Species Have a Primary Association.

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

b. State designated endangered, threatened, and sensitive species are those fish and wildlife species native to the state of Washington identified by the Washington Department of Fish and Wildlife, that are in danger of extinction, threatened to become endangered, vulnerable, or declining and are likely to become endangered or threatened in a significant portion of their range within the state without cooperative management or removal of threats. State designated endangered, threatened, and sensitive species are periodically recorded in WAC 232-12-014 (state endangered species) and WAC 232-12-011 (state threatened and sensitive species). The State Department of Fish and Wildlife maintains the most current listing and should be consulted for current listing status.

c. State priority habitats and areas associated with state priority species are considered to be priorities for conservation and management. Priority species require protective measures for their perpetuation due to their population status, sensitivity to habitat alteration, and/or recreational, commercial, or tribal importance. Priority habitats are those habitat types or elements with unique or significant value to a diverse assemblage of species. A priority habitat may consist of a unique vegetation type or dominant plant species, a described successional

stage, or a specific structural element. Priority habitats and species (PHS) are identified and listed by the State Department of Fish and Wildlife.

2. Commercial and recreational shellfish areas.

3. Naturally Occurring Ponds under 20 Acres. Naturally occurring ponds are those ponds under 20 acres and their submerged aquatic beds that provide fish or wildlife habitat, including those artificial ponds intentionally created from upland areas for mitigation purposes. Naturally occurring ponds do not include ponds deliberately designed and created from dry sites, such as detention facilities, wastewater treatment facilities, temporary construction ponds, and landscape amenities. To distinguish between ponds and wetlands, refer to current state or federal definitions and guidance.

4. Waters of the State. Waters of the state include lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses, including wetlands, within the jurisdiction of the state of Washington, as classified in WAC 222-16-031 (or WAC 222-16-030 depending on classification used).

5. State Natural Area Preserves and Natural Resource Conservation Areas. Natural area preserves and natural resource conservation areas are defined, established, and managed by the Washington State Department of Natural Resources.

6. Areas of Rare Plant Species and High Quality Ecosystems. Areas of rare plant species and high quality ecosystems are identified by the Washington State Department of Natural Resources through the Natural Heritage Program.

7. Land useful or essential for preserving connections between habitat blocks and open spaces.

B. All areas within the city meeting one or more of these criteria, regardless of any formal identification, are hereby designated critical areas and are subject to the provisions of this chapter and shall be managed consistent with the best available science.

C. The approximate location and extent of habitat conservation areas are shown on the following maps adopted by the city, as revised:

1. Washington Department of Fish and Wildlife Priority Habitat and Species maps;

2. Washington State Department of Natural Resources, Official Water Type Reference maps;

3. Washington State Department of Natural Resources Puget Sound Intertidal Habitat Inventory maps;

4. Washington State Department of Natural Resources Shore Zone inventory;

5. Washington State Department of Natural Resources Natural Heritage Program mapping data;

6. Washington State Department of Health Annual Inventory of Shellfish Harvest Areas;

7. Anadromous and resident fish distribution maps contained in the habitat limiting factors reports published by the Washington Conservation Commission and others;

8. Washington State Department of Natural Resources State Natural Area Preserves and Natural Resource Conservation Area maps; and

9. City official habitat maps such as the Bellingham Habitat Restoration Technical Assessment maps.

These maps are to be used as a guide for the city, project applicants, and/or property owners and should be continuously updated as new critical areas are identified. They are a reference and do not provide a final critical area designation. [Ord. 2016-02-005 § 31; Ord. 2005-11-092].

16.55.480 Critical area report – Additional requirements for habitat conservation areas.

In addition to the general critical area report requirements of BMC 16.55.210, critical area reports for habitat conservation areas must meet the requirements of this section. Critical area reports for two or more types of critical areas must meet the report requirements for each relevant type of critical area.

A. Prepared by a Qualified Professional. A critical areas report for a habitat conservation area shall be prepared by a qualified professional in accordance with BMC 16.55.510.

B. Areas Addressed in Critical Area Report. The following areas shall be addressed in a critical area report for habitat conservation areas:

1. The project area of the proposed activity;

2. All habitat conservation areas and recommended buffers within 300 feet of the project area; and

3. All shoreline areas, floodplains, other critical areas, and related buffers within 300 feet of the project area.

C. Habitat Assessment. A habitat assessment is an investigation of the project area to evaluate the potential presence or absence of designated critical fish or wildlife species or habitat. A critical area report for a habitat conservation area shall contain an assessment of habitats including the following site- and proposal-related information at a minimum:

1. Detailed description of vegetation on and adjacent to the project area and its associated buffer;

2. Identification of any species of local importance, priority species, or endangered, threatened, sensitive, or candidate species that have a primary association with habitat on or adjacent to the project area, and assessment of potential project impacts to the use of the site by the species;

3. A discussion of any federal, state, or local special management recommendations, including Washington Department of Fish and Wildlife habitat management recommendations, that have been developed for species or habitats located on or adjacent to the project area;

4. A detailed discussion of the direct and indirect potential impacts on habitat by the project, including potential impacts to water quality;

5. A discussion of measures, including avoidance, minimization, and mitigation, proposed to preserve existing habitats and restore any habitat that was degraded prior to the current proposed land use activity and to be conducted in accordance with mitigation sequencing (BMC 16.55.250); and

6. A discussion of ongoing management practices that will protect habitat after the project site has been developed, including proposed monitoring and maintenance programs.

D. Additional Information May Be Required. When appropriate due to the type of habitat or species present or the project area conditions, the director may also require the habitat management plan to include:

1. An evaluation by an independent qualified professional regarding the applicant’s analysis and the effectiveness of any proposed mitigating measures or programs, to include any recommendations as appropriate;

2. A request for consultation with the Washington Department of Fish and Wildlife or other appropriate agency; and

3. Detailed hydrologic features both on and adjacent to the site. [Ord. 2005-11-092].

16.55.490 Performance standards – General requirements.

A. Nonindigenous Species. 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.

B. Mitigation and Contiguous Corridors. Mitigation sites shall be located to preserve or achieve contiguous wildlife habitat corridors in accordance with a mitigation plan that is part of an approved 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.

C. Approval of Activities. The director shall condition approvals of activities allowed within or adjacent to a habitat conservation area and its buffers, as necessary to minimize or mitigate any potential adverse impacts. Conditions shall be based on the best available science and may include, but are not limited to, the following:

1. Establishment of buffer zones;

2. Preservation of critically important vegetation and/or habitat features such as snags and downed wood;

3. Limitation of access to the habitat area, including fencing to deter unauthorized access;

4. Seasonal restriction of construction activities;

5. Establishment of a duration and timetable for periodic review of mitigation activities; and

6. Requirement of a performance bond, when necessary, to ensure completion and success of proposed mitigation.

D. Mitigation and Equivalent or Greater Biological Functions. Mitigation for 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.

E. Approvals and the Best Available Science. Any approval of alterations or impacts to a habitat conservation area shall be supported by the best available science.

F. Buffers.

1. Establishment of Buffers. The director shall require the establishment of buffer areas for activities adjacent to habitat conservation areas when needed to protect habitat conservation areas. Buffers shall consist of an undisturbed area of native vegetation or areas identified for restoration established to protect the integrity, functions, and values of the affected habitat. Required buffer widths shall reflect the sensitivity of the habitat and the type and intensity of human activity proposed to be conducted nearby.

2. Seasonal Restrictions. When a species is more susceptible to adverse impacts during specific periods of the year, seasonal restrictions may apply. Larger buffers may be required and activities may be further restricted during the specified season.

3. Habitat Buffer Averaging. The director may allow the recommended habitat area buffer width to be reduced in accordance with a critical area report and the best available science only if:

a. It will not reduce stream or habitat functions;

b. It will not adversely affect salmonid habitat;

c. It will provide additional natural resource protection, such as buffer enhancement; and

d. The total area contained in the buffer area after averaging is no less than that which would be contained within the standard buffer.

4. All land and shoreline uses, development, occupancy, and critical area resource management of any kind shall comply with the provisions of the city of Bellingham shoreline master program (SMP). The SMP shall establish all permitted uses adjacent to, and critical area buffers and setbacks from, the ordinary high water mark of marine waters and Lake Whatcom and Lake Padden. [Ord. 2016-02-005 § 32; Ord. 2008-04-036; Ord. 2005-11-092].

16.55.500 Performance standards – Specific habitats.

A. Endangered, Threatened, and Sensitive Species.

1. No development shall be allowed within a habitat conservation area or buffer with which state or federally endangered, threatened, or sensitive species have a primary association, unless a management plan consistent with applicable state or federal agency regulations or guidance is provided. Appropriate management measures shall be included in a critical areas report prepared by a qualified professional for review by the city. The city may require a consultation with the respective agency prior to approval.

2. Nesting bald eagles and bald eagle habitat shall be protected consistent with the U.S. Fish and Wildlife Service Bald Eagle Management Guidelines, or the state or federal regulations in place at the time of application. Whenever activities are proposed adjacent to a verified nest territory or communal roost, a bald eagle habitat management plan shall be developed by a qualified professional. Activities are adjacent to managed bald eagle sites when they are within 660 feet of a nest or within one-half mile (2,640 feet) of a shoreline foraging area. Approval of the activity shall not occur prior to consultation with the state or federal agency with authority on bald eagle pairs and their nest.

B. Anadromous and Resident Fish.

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

a. 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;

b. An alternative alignment or location for the activity is not feasible;

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

d. Shoreline erosion control measures shall be designed to use bioengineering methods or soft armoring techniques, according to an approved critical area report; and

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

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

3. Fills, when authorized by the shoreline master program, shall not adversely impact fish or their habitat or shall mitigate any unavoidable impacts and shall only be allowed for a water-dependent use.

C. 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 this chapter. If nonwetlands habitat and wetlands are present at the same location, the provisions of this chapter which provide the greater protection to the habitat apply.

D. Stream Buffers (Riparian Habitat Areas). Unless otherwise allowed in this chapter, all clearing, grading, structures, storage of materials and activities shall be located outside of the stream buffer.

Buffer Standards. The buffer standards required by this chapter presume the existence of a dense vegetation community in the buffer adequate to protect the stream functions and values. When a buffer lacks adequate vegetation, the director may increase the standard buffer, requiring buffer planting or enhancement, and/or deny a proposal for buffer reduction or buffer averaging. Buffers may not include areas that are functionally and effectively disconnected from the stream or buffer areas by a public or private road.

1. Stream Buffers Widths (Riparian Habitat Area Widths). Stream buffer widths are shown in Table 16.55.500(A). A stream buffer shall have the minimum width recommended, unless a greater width is required pursuant to subsection (D)(2) of this section, a lesser width is allowed pursuant to subsection (D)(3) of this section, or averaging is proposed, pursuant to subsection (D)(4) of this section. Widths shall be measured outward in each direction, 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. Riparian areas should be sufficiently wide to achieve the full range of riparian and aquatic ecosystem functions, which include but are not limited to protection of instream fish habitat through control of temperature and sedimentation in streams; preservation of fish and wildlife habitat; and connection of riparian wildlife habitat to other habitats.

Table 16.55.500(A)

Stream Buffer Widths by Stream Type

Creek	Segment	Minimum	Maximum
Padden	McKenzie to Donovan Avenue – Type F	75 feet	150 feet
Padden	Donovan Avenue to Old Fairhaven Parkway – Type F	100 feet	150 feet

Padden	Old Fairhaven Parkway to I-5 – Type F	100 feet	150 feet
Padden	I-5 to Lake Padden – Type F	150 feet	200 feet
Connelly	Mouth to Detention Dam – Type F	75 feet	150 feet
Baker	Mouth to I-5 – Type F	100 feet	150 feet
All Other Type F Streams	All	75 feet	150 feet
Type Np Streams	All	50 feet	150 feet
Type Ns Streams	All	50 feet	100 feet
Type Np and Ns Streams with high mass wasting risk		200 feet	225 feet

** Note that water and stream types are defined in BMC 16.55.510.

2. Increasing Buffer Widths. The director shall have the authority to increase the minimum buffer width up to the maximum width as follows:

a. When the director determines that the minimum width is insufficient to prevent habitat degradation and to protect the structure and functions of the habitat area as a result of a habitat assessment pursuant to BMC 16.55.480(C);

b. When the frequently flooded area exceeds the minimum stream buffer width, the stream buffer shall extend to the outer edge of the frequently flooded area;

c. When a channel migration zone is present, the stream buffer shall extend to the outer edge of the channel migration zone; or

d. When the stream buffer is within a landslide hazard area, or its buffer, the stream buffer width shall be determined by the director based on a recommendation from qualified professionals in the field of geology and stream ecology/wildlife;

3. Reducing Buffer Widths. The director shall have the authority to reduce the minimum buffer widths when all the following criteria are met:

a. The buffer reduction shall not adversely affect the functions and values of the stream and habitat;

b. The buffer of a Type F or Np stream shall not be reduced to less than 75 percent of the minimum buffer;

c. The buffer of Type Ns stream shall not be reduced to less than 50 percent of the minimum buffer; and

d. The applicant implements all reasonable measures to reduce the adverse effects of adjacent land uses and ensure no new loss of buffer functions and values. The specific measures below shall be implemented to the greatest extent possible and include, but are not limited to, the following:

i. Direct lights away from the stream and stream buffer;

ii. Locate facilities that generate substantial noise away from the stream and stream buffer;

iii. Construct a wildlife permeable fence around the buffer and post signs at the buffer to clearly indicate the location of the stream buffer area pursuant to BMC 16.55.230;

iv. Plant buffer with “impenetrable” native vegetation appropriate for the location;

v. Use low impact development techniques to the greatest extent possible; and

vi. Establish and record a permanent conservation easement to protect the stream and stream buffer and restrict the use of pesticides and herbicides in the easement.

4. Averaging Buffer Widths. The director has the authority to average stream buffer widths on a case-by-case basis when all the following criteria are met:

a. The buffer averaging does not reduce the functions or values of the stream or stream buffer; and

b. The total area contained in the buffer area after averaging is no less than that which would be contained within the standard buffer, and all increases in buffer dimension for averaging must be parallel to the stream; and

c. The stream or stream buffer contains variations in sensitivity due to existing physical characteristics or the character of the buffer varies in slope, soils, or vegetation; and

d. The buffer width is not reduced in any location to less than 50 percent of the standard width or 35 feet, whichever is greater, on a case-by-case basis as a result of a habitat assessment pursuant to BMC 16.55.480(C); and

e. The buffer has not been reduced in accordance with this section. Buffer averaging is not allowed if the buffer has been reduced; and

f. There were no feasible alternatives to the site design without buffer averaging.

5. Stream Buffer Impacts. When buffer width adjustments through buffer averaging or reduction do not remove the proposed activity from the buffer, then the activity is considered a buffer impact. When unavoidable buffer impacts occur, compensatory mitigation shall be provided at a ratio of 1:1. The mitigation shall occur on the same site when feasible or within the same stream system preferably. The mitigation shall ensure that the stream and stream buffer functions and values are not diminished due to the impacts.

6. Stream Buffers on Mitigation Sites. Stream buffer widths at mitigation sites shall comply with the buffer requirements of this chapter.

7. Building Setbacks from Stream Buffers. Buildings, structures, paving, and other hard surfacing shall be set back a distance of 15 feet from the edge of the stream buffer unless a smaller setback is approved by the director. This setback is to avoid conflicts with tree branches and/or critical root zones of trees that are in the buffer or will be planted in the buffer. The following may be allowed in the building setback from the buffer if they do not cause damage to the critical root zone of trees in the buffer.

a. Landscaping;

b. Uncovered decks, roof eaves and overhangs, unroofed stairways and steps;

c. Pervious ground surfaces, such as driveways, patios, and parking may be allowed; provided, that they are engineered as a pervious system as defined in BMC 16.80.050. Such improvements may be subject to the requirements in Chapter 15.42 BMC, Stormwater Management;

d. Above and below ground water conservation cisterns and associated infrastructure, used for residential rainwater catchment but not to exceed 300

square feet total; provided, that if above ground, the necessary foundation is engineered as a pervious system.

E. Aquatic Habitat. The activities listed below are allowed in stream buffers, and waters of the state with the exception of wetlands. Approval of the activity shall be obtained in the appropriate critical area permit, minor critical area permit, or exception, depending on the activity. Mitigation shall be provided in accordance with the provisions of this chapter.

1. Clearing and Grading. When clearing and grading is permitted as part of an authorized activity or as otherwise allowed in these standards, the following shall apply:

a. Grading is allowed only during the dry season, which is typically regarded as beginning on May 1st and ending on October 1st of each year; provided, that the city may extend or shorten the dry season on a case-by-case basis, determined on actual weather conditions.

b. The soil duff layer shall remain undisturbed to the maximum extent possible. Where feasible, any soil disturbed shall be redistributed to other areas of the project area.

c. 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.

d. Erosion and sediment control that meets or exceeds the standards set forth in Chapter 15.42 BMC shall be provided.

2. Shoreline Erosion Control Measures. New, replacement, or substantially improved shoreline erosion control measures may be permitted in accordance with an approved critical area report that demonstrates the following:

a. Natural shoreline processes will be maintained. The project will not result in increased beach erosion or alterations to, or loss of, shoreline substrate within one-quarter mile of the project area.

b. The shoreline erosion control measures will not degrade fish or wildlife habitat conservation areas or associated wetlands.

c. Adequate mitigation measures ensure that there is no net loss of the functions or values of intertidal habitat or riparian habitat as a result of the proposed shoreline erosion control measures.

d. The proposed shoreline erosion control measures do not result in alteration of intertidal migration corridors.

3. Stream Bank Stabilization. Stream bank stabilization to protect new structures from future channel migration is not permitted except when such stabilization is achieved through bioengineering or soft armoring techniques in accordance with an approved critical area report.

4. Roads, Trails, Bridges, and Rights-of-Way. Construction of trails, roadways, and bridges may be permitted in accordance with an approved critical area report subject to the following standards:

a. There is no other feasible alternative route with less impact on the fish populations, stream, or stream buffer, and mitigation sequencing has been applied;

b. The crossing minimizes interruption of downstream movement of wood and gravel;

c. Roads in riparian habitat areas or their buffers shall not run parallel to the water body;

d. Trails shall be located on the outer edge of the riparian area or buffer except for limited viewing platforms and crossings unless there is a location that has a lesser impact on the water body. Trails shall not be located in the channel migration zone and shall be the minimum width necessary for safe travel;

e. Crossings, where necessary, shall only occur as near to perpendicular with the water body as possible;

f. Mitigation for impacts is provided pursuant to a mitigation plan of an approved critical area report;

g. Road bridges are designed to be consistent with Washington State's Department of Fish and Wildlife "Water Crossing Design Guidelines" (2013) and the National Marine Fisheries Service "Anadromous Salmonid Passage Facility Design" (2011).

5. Utility Facilities. New utility lines and facilities may be permitted in accordance with an approved critical area report, if they comply with the following criteria:

a. There is no alternative location;

b. Fish and wildlife habitat areas shall be avoided to the maximum extent possible;

c. Installation shall be accomplished by boring beneath the scour depth and hyporheic zone of the water body and channel migration zone, where feasible;

d. If a utility is proposed to cross or span a stream, the utility shall cross at an angle greater than 60 degrees to the centerline of the channel in streams or perpendicular to the channel centerline whenever boring under the channel is not feasible;

e. Crossings shall be contained within the footprint of an existing road or utility crossing where possible;

f. The utility route shall avoid paralleling the stream or following a down-valley course near the channel; and

g. The utility installation shall not increase or decrease the natural rate of shore migration or channel migration.

6. Public Flood Protection Measures. New public flood protection measures and expansion of existing ones may be permitted, subject to the city's review and approval of a critical area report and the approval of a federal biological assessment by the federal agency responsible for reviewing actions related to a federally listed species.

7. Instream Structures. Instream structures, such as, but not limited to, high flow bypasses, sediment ponds, instream ponds, retention and detention facilities, tide gates, dams, and weirs, shall be allowed only as part of an approved watershed basin restoration project approved by the city and upon acquisition of any required state or federal permits. The structure shall be designed to avoid modifying flows and water quality in ways that may adversely affect habitat conservation areas.

8. Stormwater Management in Stream Buffers.

a. Stormwater management facilities shall not be located within stream buffers, with the following exceptions:

i. Conveyance systems may be located in stream buffers on a case-by-case basis if deemed necessary and approved by the public works and planning and community development departments.

ii. Full dispersion of flow, as defined in Chapter 15.42 BMC, may be allowed in a stream buffer if approved by the public works and planning and community development departments.

b. The facilities specified above in subsections (E)(8)(a)(i) and (ii) of this section are

allowed only if impacts to the buffer, resulting from their installation, are avoided or mitigated.

c. Stormwater management design and facilities shall be consistent with Chapter 15.42 BMC, as amended, to protect stream conditions and functions.

9. Restoration. Restoration, relocation, alteration and/or realignment of a stream channel to improve ecological functions provided such action is concurrently reviewed and approved by the Washington State Department of Fish and Wildlife, the United States Army Corps of Engineers and if required, the Department of Ecology. [Ord. 2016-02-005 § 33; Ord. 2005-11-092].

16.55.510 Definitions.

Words not defined in this chapter shall be as defined in the city code, the Washington Administrative Code, or the Revised Code of Washington. Words not found in either code shall be as defined in the Webster's Third New International Dictionary, latest edition.

"Adjacent" means areas adjacent to critical areas shall be considered to be within the jurisdiction of these requirements and regulations to support the intent of this title and ensure protection of the functions and values of critical areas. Adjacent shall include lands within a distance equal to the required buffer for the critical area as determined by the provisions of this chapter.

"Alteration" means any human induced change in an existing condition of a critical area or its buffer. Alterations include, but are not limited to grading, filling, channelizing, dredging, clearing (vegetation), construction, compaction, excavation, or any other activity that changes the character of the critical area.

"Anadromous fish" means fish that spawn and rear in freshwater and mature in the marine environment. While Pacific salmon die after their first spawning, adult char (bull trout) can live for many years, moving in and out of saltwater and spawning each year. The life history of Pacific salmon and char contains critical periods of time when these fish are more susceptible to environmental and physical damage than at other times. The life history of salmon, for example, contains the following stages: upstream migration of adults, spawning, inter-gravel incubation, rearing, smoltification (the time period needed for juveniles to adjust their body functions to live in the marine environment), downstream migration, and ocean rearing to adults.

"Averaging" means establishing the required buffer setback from a critical area, within the permitted parcel of land only, so that areas within the parcel determined to be more environmentally sensitive than others will have a larger buffer than the less sensitive areas.

For every increase in setback for one area of the parcel, there will be an equal corresponding decrease in another area of the parcel. The total land area within the buffer shall remain the same as if the buffer were a uniform width.

“Best available science” means current scientific information used in the process to designate, protect, or restore critical areas, that is derived from a valid scientific process as defined by WAC 365-195-900 through 365-195-925.

“Best management practices (BMPs)” 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, and 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 and vegetation designated to be retained during and following site construction and use native plant species appropriate to the site for revegetation of disturbed areas; and

D. Provide standards for proper use of chemical herbicides within critical areas.

E. The city shall monitor the application of best management practices to ensure that the standards and policies of this title are adhered to.

Bioswale. A “bioswale,” or bio-filtration trench, is a vegetated stormwater treatment system that removes pollutants by means of sedimentation, filtration, soil adsorption, and plant uptake. They are typically configured as swales or filter strips.

“Buffer” means a vegetated area that is contiguous to and protects a critical area which is required for the continued maintenance, functioning, and/or structural stability of a critical area.

“Channel migration zone (CMZ)” means the lateral extent of likely movement along a stream or river during the next 100 years as determined by evidence of active stream channel movement over the past 100 years. Evidence of active movement over the 100-year time frame can be inferred from aerial photos or from specific channel and valley bottom characteristics. The time span typically represents the time it takes to grow mature trees that can provide functional large woody debris to streams. A CMZ is not typically present if the valley width is generally less than two bankfull widths, if the stream or river is confined by terraces, no current or historical aerial photographic evidence exists of significant

channel movement, and there is no field evidence of secondary channels with recent scour from stream flow or progressive bank erosion at meander bends. Areas separated from the active channel by legally existing artificial channel constraints that limit bank erosion and channel avulsion without hydraulic connections shall not be considered within the CMZ.

“Clearing” means removal, damage or alteration of vegetation by physical or chemical means.

“Conservation easement” means a legal agreement that the property owner enters into to restrict uses of the land. Such restrictions can include, but are not limited to, passive recreation uses such as trails or scientific uses and fences or other barriers to protect habitat. The easement is recorded on a property deed, runs with the land, and is legally binding on all present and future owners of the property, therefore, providing permanent or long-term protection.

“Creation (establishment)” means the manipulation of the physical, chemical, or biological characteristics present to develop a wetland on an upland or deepwater site, where a 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. Establishment results in a gain in wetland acres.

“Critical areas” include any of the following areas or ecosystems: aquifer recharge areas, fish and wildlife habitat conservation areas, frequently flooded areas, geologically hazardous areas, and wetlands, as defined in Chapter 36.70A RCW and this title.

“Critical habitat” means habitat necessary for the survival of endangered, threatened, rare, sensitive or monitor species.

“Critical root zone” means that portion of the root zone that is the minimum necessary to maintain vitality and stability of the tree.

“Cumulative impacts” means the combined, incremental effects of human activity on ecological or critical areas functions and values. Cumulative impacts result when the effects of an action are added to or interact with other effects in a particular place and within a particular time. It is the combination of these effects, and any resulting environmental degradation, that should be the focus of cumulative impact analysis and changes to policies and permitting decisions.

“Delineation” means the precise determination of wetland boundaries in the field and the mapping thereof.

“Development permit” means any permit issued by the city, or other authorized agency, for

construction, land use, or the alteration of land.

“Director” means the director of the city planning and community development department or their designee.

“Emergencies” means those activities necessary to prevent an immediate threat to public health, safety, or welfare, or that pose an immediate risk of damage to public or 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.

“Enhancement” means the manipulation of the physical, chemical, or biological characteristics of a wetland site to heighten, intensify or improve specific function(s) 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 some wetland functions and can lead to a decline in other wetland functions, but does not result in a gain in wetland acres.

“Erosion” means the process whereby wind, rain, water, and other natural agents mobilize and transport particles.

“Erosion hazard areas” means at least those areas identified by the U.S. Department of Agriculture National Resources Conservation Service as having a “severe” rill and inter-rill erosion hazard.

“Fish habitat” means habitat that is used by fish at any life stage at any time of the year, including potential habitat likely to be used by fish that could be recovered by restoration or management and includes off-channel habitat.

“Flood” or “flooding” means a general and temporary condition of partial or complete inundation of normally dry land areas from the overflow of inland waters and/or the unusual and rapid accumulation of runoff of surface waters from any source.

“Floodplain” means the total land area adjoining a river, stream, watercourse, or lake subject to inundation by the base flood.

“Floodway” means the channel of a river or other watercourse and the adjacent land area that must be reserved in order to discharge the base flood without cumulatively increasing the surface water elevation more than one foot. Also known as the “zero rise floodway.”

“Forested wetland” means a wetland with at least 30 percent of the surface area covered by woody vegetation greater than 20 feet in height that is at least partially rooted within the wetland.

“Functions” or “functions and values” means the beneficial roles served by critical areas including, but not limited to, water quality protection and enhancement; fish and wildlife habitat; food chain support; flood storage, conveyance and attenuation; ground water recharge and discharge; erosion control; wave attenuation; protection from hazards; historical, archaeological, and aesthetic value protection; educational opportunities; and recreation. These beneficial roles are not listed in order of priority. Critical area functions can be used to help set targets (species composition, structure, etc.) for managed areas, including mitigation sites.

“Geologically hazardous areas” means areas that may not be suited to development consistent with public health, safety, or environmental standards, because of their susceptibility to erosion, sliding, earthquake, or other geological events as designated by WAC 365-190-080(4). Types of geologically hazardous areas include: erosion, landslide, seismic, mine, and volcanic hazards.

“Growth Management Act” means Chapter 36.70A RCW as amended.

“Habitat” means the combination of essential elements and ecological functions of natural systems that comprise the area or type of environment and its surroundings in which a particular kind of organism or ecological community normally lives or occurs. Habitat includes habitat forming processes which are the system-wide ecological processes (chemical, physical and biological) that create and maintain habitat elements. It is the disturbance processes that create unique habitat elements, enhance natural productivity, and drive biological processes that contribute to the ecological complexity and integrity of natural systems.

“Habitat conservation areas” means areas designated as fish and wildlife habitat conservation areas.

Habitats of Local Significance. These areas include a seasonal range or habitat element with which a given species has a primary association, and which, if altered, may reduce the likelihood that the species will maintain and reproduce over the long term. These might include areas of high relative density or species richness, breeding habitat, winter range, and movement corridors. These might also include habitats that are of limited availability or high vulnerability to alterations such as cliffs, talus, and wetlands (WAC 365-190-030).

“Hazard areas” means areas designated as frequently flooded areas or geologically

hazardous areas due to potential for erosion, landslide, seismic activity, mine collapse, or other geological condition.

“Hazard tree” means any tree determined by an International Society of Arboriculture (ISA)-certified arborist to be a hazard to people or property as a result of a risk assessment conducted according to ISA guiding principles.

“High intensity land use” means land use that includes the following uses or activities: commercial, urban, industrial, institutional, retail sales, residential (more than one unit/acre), high-intensity new agriculture (dairies, nurseries, greenhouses, raising and harvesting crops requiring annual tilling, raising and maintaining animals), high-intensity recreation (golf courses, ball fields), hobby farms.

“Impervious surface” means a hard surface area that either prevents or retards the entry of water into the soil mantle as under natural conditions prior to development or that causes water to run off the surface in greater quantities or at an increased rate of flow from the flow present under natural conditions prior to development. Common impervious surfaces include, but are not limited to, rooftops, walkways, patios, driveways, parking lots or storage areas, concrete or asphalt paving, gravel roads, packed earthen materials, and oiled macadam or other surfaces which similarly impede the natural infiltration of stormwater.

“Infiltration” means the downward entry of water into the immediate surface of soil.

“Low impact development” means a method of managing stormwater that aims to mimic the predevelopment hydrologic conditions of the site by using existing soil, vegetation, and topography to detain runoff and remove pollutants.

“Low intensity land use” means land use that includes the following uses or activities: forestry (cutting of trees only), low-intensity open space (such as passive recreation and natural resources preservation), unpaved trails.

“Mature forested wetland” means a wetland where at least one acre of the wetland surface is covered by woody vegetation greater than 20 feet in height with a crown cover of at least 30 percent and where at least eight trees/acre are 80 to 200 years old or have average diameters at breast height (dbh) exceeding 21 inches (53 centimeters) measured from the uphill side of the tree trunk at four and one-half feet up from the ground.

“Mine hazard areas” means areas that are underlain by, adjacent to, or affected by mine workings such as adits, gangways, tunnels, drifts, or airshafts, and those areas of probable sink holes, gas releases, or subsidence due to mine workings. Factors that should be considered include: proximity to development, depth from ground surface to the mine

working, and geologic material.

“Mitigation” means avoiding, minimizing, or compensating for adverse critical areas impacts.

“Moderate intensity land use” means land use that includes the following uses or activities: residential (one unit/acre or less), moderate-intensity open space (parks), moderate-intensity new agriculture (orchards and hay fields), trails, and logging roads.

“Monitoring” means evaluating the impacts of development proposals on the biological, hydrological, and geological elements of such systems, and assessing the performance of required mitigation measures through the collection and analysis of data by various methods for the purpose of understanding and documenting changes in natural ecosystems and features, including gathering baseline data.

“Mosaic of wetlands” means any group of wetlands that meet the following criteria:

A. Each patch of wetland is less than one acre (0.4 hectares); and

B. Each patch is less than 100 feet (30 meters) apart, on the average; and

C. The areas delineated as vegetated wetland are more than 50 percent of the total area of the wetlands and the uplands together, or wetlands, open water, and river bars.

If these criteria are not met, each area should be considered as an individual unit.

“Native vegetation” means plant species that are indigenous to the area.

“Nonconformity” means a legally established existing use or legally constructed structure that is not in compliance with current regulations.

“Noxious weeds” means nonnative plants that have been introduced to the area and have a deleterious effect on native species or are difficult to control.

“Open space” means public or privately owned land that is undeveloped and may not be developed due to designation, deed restriction or conservation easement.

“Ordinary high water mark” means the mark on lake and stream shorelines which will be found by examining the beds and bank and ascertaining where the presence and action of waters are so common and usual, and so long continued in all ordinary years, as to mark upon the soil a character distinct from that of the abutting upland in respect to vegetation.

“Practical alternative” means an alternative that is available and capable of being carried out after taking into consideration cost, existing technology, and logistics in light of overall

project purposes, and has less impact to critical areas.

“Preservation (protection/maintenance)” means the removal of a threat to, or preventing the decline of, wetland conditions by an action in or near a wetland. This term includes the purchase of land or easements, repairing water control structures or fences, or structural protection. Preservation does not result in a gain of wetland acres but may result in a gain in functions over the long term.

“Project area” means all areas within 50 feet of the area proposed to be disturbed, altered, or used by the proposed activity or the construction of any proposed structures. When the action binds the land, such as a subdivision, short subdivision, binding site plan, planned unit development, or rezone, the project area shall include the entire parcel, at a minimum.

“Qualified professional” means a person with expertise in the pertinent scientific discipline directly related to the critical area in question. The qualified professional shall have a minimum of a B.S. or B.A., or equivalent certification, and a minimum of five years of directly related work experience.

“Recharge” means the process involved in the absorption and addition of water to ground water.

“Redevelopment” means any proposal to expand or change any existing land use, buildings and/or facilities that involves exterior structural addition and/or alteration of a total of 5,000 square feet or more in area of any lot or land parcel.

“Reestablishment” means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural or historic functions to a former wetland. Activities could include removing fill material, plugging ditches, or breaking drain tiles. Reestablishment results in a gain in wetland acres.

“Rehabilitation” means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural or historic functions of a degraded wetland. Activities could involve breaching a dike to reconnect wetlands to a floodplain or return tidal influence to a wetland. Rehabilitation results in a gain in wetland function but does not result in a gain in wetland acres.

“Repair or maintenance” means an activity that restores the character, scope, size, and design of a serviceable area, structure, or land use to its previously authorized and undamaged condition. Activities that change the character, size, or scope of a project beyond the original design and drain, dredge, fill, flood, or otherwise alter critical areas are not included in this definition.

“Restoration” means measures taken to restore an altered or damaged natural feature, including: 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 actions performed to reestablish structural and functional characteristics of the critical area that have been lost by alteration, past management activities or catastrophic events.

“Riparian habitat” means areas adjacent to aquatic systems that contain elements of both aquatic and terrestrial ecosystems that mutually influence each other. The width of these areas extends to that portion of the terrestrial landscape that directly influences the aquatic ecosystem by providing shade, fine or large woody material, nutrients, organic and inorganic debris, terrestrial insects, or habitat for riparian-associated wildlife. Widths shall be measured from the ordinary high water mark or from the top of bank if the ordinary high water mark cannot be identified. It includes the entire extent of the floodplain and the extent of vegetation adapted to wet conditions as well as adjacent upland plant communities that directly influence the stream system. Riparian habitat areas include those riparian areas severely altered or damaged due to human development activities.

“Scientific process” means a valid scientific process is one that produces reliable information useful in understanding the consequences of a decision. The characteristics of a valid scientific process are as follows:

A. Peer Review. The information has been critically reviewed by other qualified scientific experts in that scientific discipline.

B. Methods. The methods that were used are standardized in the pertinent scientific discipline or the methods have been appropriately peer-reviewed to ensure their reliability and validity.

C. Logical Conclusions and Reasonable Inferences. The conclusions presented are based on reasonable assumptions supported by other studies and are logically and reasonably derived from the assumptions and supported by the data presented.

D. Quantitative Analysis. The data have been analyzed using appropriate statistical or quantitative methods.

E. Context. The assumptions, analytical techniques, data, and conclusions are appropriately framed with respect to the prevailing body of pertinent scientific knowledge.

F. References. The assumptions, techniques, and conclusions are well referenced with citations to pertinent existing information.

“Seeps” means a spot where water oozes from the earth, often forming the source of a small

stream.

“Seismic hazard areas” means areas that are subject to severe risk of damage as a result of earthquake-induced ground shaking, slope failure, settlement, or soil liquefaction.

“SEPA” means Washington State Environmental Policy Act, Chapter 43.21C RCW.

“Shorelines” means all of the water areas of the state as defined in RCW 90.58.030, including reservoirs and their associated shorelands, together with the lands underlying them except:

A. Shorelines of statewide significance;

B. Shorelines on segments of streams upstream of a point where the mean annual flow is 20 cubic feet per second (20 cfs) or less and the wetlands associated with such upstream segments; and

C. Shorelines on lakes less than 20 acres in size and wetlands associated with such small lakes.

“Shorelines of the state” means the total of all “shorelines,” as defined in RCW 90.58.030(2)(d), and “shorelines of statewide significance” within the state, as defined in RCW 90.58.030(2)(c).

“Shorelines of statewide significance” means those areas defined in RCW 90.58.030(2)(e).

“Significant” means measurable, detectable or likely to have noticeable influence or effect.

“Soil survey” means the most recent soil survey for the local area or county by the National Resources Conservation Service, U.S. Department of Agriculture.

“Species” means any group of animals classified as a species or subspecies as commonly accepted by the scientific community.

“Species, endangered” means any fish or wildlife species that is threatened with extinction throughout all or a significant portion of its range and is listed by the state or federal government as an endangered species.

“Species of local importance” means those species of local concern due to their population status or their sensitivity to habitat manipulation, or that are game species.

“Species, priority” means any fish or wildlife species requiring protective measures and/or management guidelines to ensure their persistence as genetically viable population levels as classified by the Washington Department of Fish and Wildlife, including endangered, threatened, sensitive, candidate and monitor species, and those of recreational,

commercial, or tribal importance.

“Species, threatened” means any fish or wildlife species that is likely to become an endangered species within the foreseeable future throughout a significant portion of its range without cooperative management or removal of threats, and is listed by the state or federal government as a threatened species.

“Stream Type F” means waters generally classified according to WAC 222-16-031 and specifically as follows:

Segments of natural waters that are not classified as Type S water and have a high fish, wildlife, or human use. These are segments of natural waters and periodically inundated areas of their associated wetlands, which:

A. Are diverted for use by fish hatcheries. Such waters shall be considered Type F water upstream from the point of diversion for 1,500 feet, including tributaries, if highly significant for protection of downstream water quality;

B. Are used by fish for spawning, rearing or migration. Waters having the following characteristics are presumed to have highly significant fish populations:

1. Stream segments having a defined channel 20 feet or greater within the bankfull width and having a gradient of less than four percent;

2. Lakes, ponds, or impoundments having a surface area of one acre or greater at seasonal low water; or

C. Are used by fish for off-channel habitat. These areas are critical to the maintenance of optimum survival of fish. This habitat shall be identified based on the following criteria:

1. The site must be connected to a fish bearing stream and be accessible during some period of the year; and

2. The off-channel water must be accessible to fish through a drainage with less than a five percent gradient.

“Stream Type F” also means waters generally classified according to WAC 222-16-031 and specifically as follows:

Segments of natural waters that are not classified as Type S waters and have a moderate to slight fish, wildlife, and human use. These are segments of natural waters and periodically inundated areas of their associated wetlands which:

A. Are used by fish for spawning, rearing, or migration. If fish use has not been determined:

1. Waters having the following characteristics are presumed to have fish use:

a. Stream segments having a defined channel of two feet or greater within the bankfull width in Western Washington; or three feet or greater in width in Eastern Washington; and having a gradient of 16 percent or less;

b. Stream segments having a defined channel or two feet or greater within the bankfull width in Western Washington; or three feet or greater within the bankfull width in Eastern Washington; and having a gradient greater than 16 percent and less than or equal to 20 percent, and having greater than 50 acres in contributing basin size in Western Washington or greater than 175 acres contributing basin size in Eastern Washington, based on hydrographic boundaries;

c. Ponds or impoundments having a surface area of less than one acre at seasonal low water and having an outlet to a fish stream; and

B. Ponds or impoundments having a surface area greater than one-half acre at seasonal low water;

C. The Washington State Department of Natural Resources shall waive or modify the characteristics in subsection (A)(1) of this definition where:

1. Waters have confirmed, long-term, naturally occurring water quality parameters incapable of supporting fish;

2. Snowmelt streams have short flow cycles that do not support successful life history phases of fish. These streams typically have no flow in the winter months and discontinue flow by June 1st; or

3. Sufficient information about a geomorphic region is available to support a departure from the characteristics in subsection (A) of this definition, as determined in consultation with the Washington Department of Fish and Wildlife, Washington State Department of Ecology, affected tribes, and interested parties.

“Stream Type Np” means waters classified according to WAC 222-16-031 as follows:

All segments of natural waters within the bankfull width of defined channels that are perennial non-fish habitat streams. Perennial streams are waters that do not go dry any time of a year of normal rainfall. However, for the purpose of water typing, Type Np waters include the intermittent dry portions of the perennial channel below the uppermost point of perennial flow. If the uppermost point of perennial flow cannot be identified with simple,

nontechnical observations (see State Forest Practices Board Manual, Section 23), then Type Np waters begin at a point along the channel where the contributing basin area is at least 52 acres in Western Washington.

“Stream Type Ns” means waters classified according to WAC 222-16-031 as follows:

All segments of natural waters within the bankfull width of the defined channels that are not Type S, F or Np waters. These are seasonal, non-fish habitat streams in which surface flow is not present for at least some portion of the year and are not located downstream from any stream reach that is a Type Np water. Type Ns waters must be physically connected by an above-ground channel system to Type S, F, or Np waters.

“Stream Type S” means all waters, within their ordinary high-water mark, as inventoried as “shorelines of the state” under Chapter 90.58 RCW and the rules promulgated pursuant to Chapter 90.58 RCW, but not including those waters’ associated wetlands as defined in Chapter 90.58 RCW.

“Sub-basin” means the drainage area of the highest order stream containing the subject property impact area. Stream order is the term used to define the position of a stream in the hierarchy of tributaries in the watershed. The smallest streams are the highest order (first order) tributaries. These are the upper watershed streams and have no tributaries of their own. When two first order streams meet, they form a second order stream, and when two second order streams meet they become a third order stream, and so on.

“Surety” means a financial guarantee (bond or assignment of funds, or comparable instrument) established to ensure that work required by a CAO permit or approval is completed satisfactorily.

“Unavoidable” means adverse impacts that remain after all appropriate and practicable avoidance and minimization have been achieved.

“Vulnerability” means the combined effect of susceptibility to contamination and the presence of potential contaminants.

“Water type: watercourse” means any portion of a channel, bed, bank, or bottom waterward of the ordinary high water line of waters of the state including areas in which fish may spawn, reside, or through which they may pass, and tributary waters with defined beds or banks, which influence the quality of fish habitat downstream. This definition includes watercourses that flow on an intermittent basis or which fluctuate in level during the year and applies to the entire bed of such watercourse whether or not the water is at peak level. This definition does not include irrigation ditches, canals, stormwater runoff devices, or

other entirely artificial watercourses, except where they exist in a natural watercourse that has been altered by humans.

“Wetlands” means areas that are inundated or saturated by surface water or ground water 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 nonwetland 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 nonwetland areas created to mitigate conversion of wetlands.

“Wetland types” means the descriptive classes of the wetlands taxonomic classification system of the U.S. Fish and Wildlife Service (Cowardin, et al., 1979). [Ord. 2016-02-005 § 34; Ord. 2010-08-050; Ord. 2005-11-092].