Appendix C.2
CRITICAL AREAS REGULATIONS

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1. Purpose.

The purpose of this chapter is to designate and classify ecologically sensitive and hazardous areas and to protect these areas and their functions and values in a manner that also allows reasonable use of private property. This title is intended to:

(1) Protect the general public, resources and facilities from injury, loss of life, property damage or financial loss due to flooding, erosion, landslides, or steep slopes failure;

(2) Protect unique, fragile and valuable elements of the environment, including ground and surface waters, wetlands, and fish and wildlife and their habitats;

(3) Prevent cumulative adverse environmental impacts to water quality and quantity, wetlands, and fish and wildlife habitat; and

(4) Provide flexibility and attention to site-specific characteristics, so as to ensure reasonable use of property. (Ord. 610 § 2 (Exh. A § 1), 2009)
2. Applicability.

These critical area regulations shall apply as an overlay to zoning, named Shoreline critical areas overlay or SCAO, to other land use regulations established by the town.

(1) All land uses and/or development permit applications on all lots or parcels within the town that lie within Shoreline critical areas as defined herein shall comply with the provisions of this appendix. No action shall be taken by any person that results in any alteration of any critical area except as consistent with the purposes, objectives and intent of this appendix.

(2) Where two or more types of critical areas overlap, requirements for development shall be consistent with the standards for each critical area.

(3) Where it is determined that a designated critical area is located within the shoreline jurisdiction, the provisions of the shoreline master program will be used to provide protection to that particular critical area(s). However, any standards found in this chapter may also be applied to a proposal as optional and/or supplemental items to the provisions of the shoreline master program to ensure adequate protection. For designated critical areas outside of the shoreline jurisdiction the provisions of this chapter shall apply.

(4) These critical areas regulations shall apply concurrently with review conducted under the State Environmental Policy Act (SEPA), as locally adopted. Any conditions required pursuant to this chapter shall be included in the SEPA review and threshold determination. (Ord. 610 § 2 (Exh. A § 1), 2009)

3. Reasonable use exception.

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

4. Reference maps and materials.

The town shall maintain reference maps and materials that provide information on the general locations of critical areas. Since boundaries are generalized, the application of this chapter and the actual type, extent and boundaries of critical areas shall be determined and governed by the classification section established for each critical area. In the event of any conflict between the critical area location or designation shown on the town’s maps and the criteria and standards established in this chapter, or the site-specific conditions, the criteria, standards and/or site-specific conditions shall prevail. The administrator of this title shall have the authority to reference new and updated scientific publications and reports as they become available. Reference maps and inventories shall include, but are not limited to, the following:

(1) Wetlands Map, based upon U.S. Fish and Wildlife Service National Wetlands Inventory;
(2) Fish and wildlife habitat area maps, based upon Washington Department of Fish and Wildlife priority habitats and species data;

(3) Soils maps, based upon Okanogan County soils survey;

(4) Steep slopes map, based upon Okanogan County soils survey;

(5) Flood Insurance Rate Map Community Panel No. 530117 0875C, revised December 20, 2000;

(6) Town of Twisp comprehensive plan;

(7) Town of Twisp shoreline master program and accompanying maps;

(8) Washington State Wetlands Identification and Delineation Manual (DOE, 1997), as revised;

(9) Washington State Wetlands Rating System for Eastern Washington, as revised; and

(10) Approved special reports previously completed for a subject property.

Each of the above-referenced maps and inventories shall include the reference maps and inventories listed, as well as revised, amended or updated versions. (Ord. 610 § 2 (Exh. A § 1), 2009)

5. Review process.

All land use applications and building permits shall require that applicants disclose activities within 300 feet of a known or suspected critical area. The provisions of this chapter shall be applied to any such proposals. The review process shall proceed as follows:

(1) Preapplication Meeting/Site Visit. Upon receiving a land use or development proposal, the administrator shall schedule a preapplication meeting and/or site visit with the proponent for purposes of a preliminary determination whether the proposal is likely to result in impacts to the functions and values of critical areas or pose health and safety hazards. At this meeting, the administrator shall discuss the requirements of this chapter and other applicable regulations; provide critical areas maps and other available reference materials; outline the review and permitting processes; and work with the proponent to identify any potential concerns with regards to critical areas.

(2) Application and SEPA Checklist. For all proposals occurring within 100 feet of a shoreline, a known or suspected critical area and not exempt under this SMP, the proponent shall submit all relevant land use/development applications, together with a SEPA checklist. The administrator may waive the requirement for a SEPA checklist if the proposal is categorically exempt under SEPA regulations and is unlikely to yield information useful in the review process.
(3) Determination of Need for Critical Areas Report. Based upon the preapplication meeting, application materials, and the SEPA checklist (unless waived), the administrator shall determine if there is cause to require a critical areas report. In addition, the administrator may use critical areas maps and reference materials, information and scientific opinions from appropriate agencies, or any reasonable evidence regarding the existence of critical area(s) on or adjacent to the site of the proposed activity.

(4) Documentation and Notification. The administrator shall document the preapplication meeting and/or site visit, application and SEPA threshold determination, and any other steps or findings that inform the determination whether a critical areas report shall be required. The applicant shall receive notice of the determination and any findings which support it. (Ord. 610 § 2 (Exh. A § 1), 2009)

6. Critical areas report and mitigation.

If the administrator determines that the site of a proposed development potentially includes, or is adjacent to, critical area(s), a critical areas report and mitigation plan may be required. The purpose of the critical areas report is to inform the administrator of the degree of impact that can be expected from the development and to establish the need for mitigation. The applicant shall avoid all impacts that degrade the functions and values of critical areas. If alteration is unavoidable, all adverse impacts to critical areas and buffers resulting from the proposal shall be mitigated in accordance with an approved critical areas report and SEPA documents. When mitigation is required, as detailed in TMC 18.60.090, the applicant shall submit for approval a mitigation plan as part of the critical areas report. The expense of preparing the critical areas and mitigation report shall be borne by the applicant. The content, format and extent of the critical areas report shall be approved by the administrator.

(1) The requirement for critical areas reports may be waived by the administrator if there is substantial evidence that:

   (a) There will be no alteration of the critical area(s) and/or the required buffer(s);

   (b) The proposal will not impact the critical area(s) in a manner contrary to the purpose, intent and requirements of this Appendix, SMP and the comprehensive plan; and

   (c) The minimum standards of this Appendix and SMP will be met.

(2) Critical areas reports shall be completed by a qualified professional who is knowledgeable about the specific critical area(s) in question, and approved by the administrator.

(3) At a minimum, a required critical areas report shall contain the following information:

   (a) Applicant’s name and contact information; permits being sought, and description of the proposal;
(b) A copy of the site plan for the development proposal, drawn to scale and showing:

(i) Identified critical areas, buffers, and the development proposal with dimensions;

(ii) Limits of any areas to be cleared; and

(iii) A description of the proposed stormwater management plan for the development and consideration of impacts to drainage alterations;

(c) The names and qualifications of the persons preparing the report and documentation of any fieldwork performed on the site;

(d) Identification and characterization of all critical areas, wetlands, water bodies, and buffers adjacent to the proposed project area;

(e) An assessment of the probable cumulative impacts to critical areas resulting from the proposed development of the site;

(f) An analysis of site development alternatives if applicable;

(g) A description of reasonable efforts made to apply mitigation sequencing to avoid, minimize, and mitigate impacts to critical areas;

(h) A mitigation plan, as needed, in accordance with the mitigation requirements of this chapter, 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;

   (i) A discussion of the performance standards applicable to the critical area and proposed activity;

   (j) Financial guarantees to ensure compliance; and

   (k) Any additional information required for specific critical areas as listed in subsequent sections of this chapter.

(5) The administrator may request any other information reasonably deemed necessary to understand impacts to critical areas. (Ord. 610 § 2 (Exh. A § 1), 2009)
7. Mitigation requirements.

Mitigation shall be on site, when possible, and sufficient to maintain the functions and values of the critical area, and to prevent risk from a hazard posed by a critical area.

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

(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 enhance ecological function and conditions impacted or lost to the proposed development;

(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 (such as Zone 1 and Zone 2 shoreline 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.

(2) Mitigation Plan. When alteration of a critical area is unavoidable, mitigation is required. The applicant shall be directed by the administrator to submit for approval a mitigation plan as part of the critical areas report. The mitigation plan shall include:

(a) A written report identifying mitigation objectives, including:

(i) A description of the anticipated impacts to the critical areas and the mitigating actions proposed and the purposes of the compensation measures, including the site selection criteria; identification of compensation objectives; identification of critical area functions and values; and dates for beginning and completion of site compensation construction activities;
(ii) A review of the most current technical and scientific information supporting the proposed mitigation and a description of the report author’s experience to date in critical areas mitigation; and

(iii) An analysis of the likelihood of success of the compensation project.

(b) Measurable criteria for evaluating whether or not the objectives of the mitigation plan have been successfully attained and whether or not the requirements of this chapter have been met.

(c) Written specifications and descriptions of the mitigation proposed, including, but not limited to:

(i) The proposed construction sequence, timing, and duration;

(ii) Grading and excavation details;

(iii) Erosion and sediment control features;

(iv) A planting plan specifying plant species, quantities, locations, sizes, spacing, and density;

(v) Measures to protect and maintain plants until established; and

(vi) Hydrologic and ground water reports.

(d) A program for monitoring construction of the compensation project, and for assessing the completed project and its effectiveness over time. The program shall include a schedule for site monitoring and methods to be used in evaluating whether performance standards are being met. A monitoring report shall be submitted as needed to document milestones, successes, problems, and contingency actions of the compensation project. The compensation project shall be monitored for a period necessary to establish that performance standards have been met and be reflective of the functions being restored, but not for a period less than five years. For example, 10 years or more may be required to establish adequate reestablishment of forested and scrub-shrub wetlands.

(e) Identify potential courses of action, and any corrective measures to be taken if monitoring or evaluation indicates project performance standards are not being met. (Ord. 610 § 2 (Exh. A § 1), 2009)

8. Agency review.

In cases where the administrator does not have adequate knowledge or training to determine the sufficiency and accuracy of information contained within a critical areas report or mitigation plan, said reports or plans shall be submitted to the following agencies for review as specified in
the Small Communities Critical Areas Ordinance Implementation Guidebook Appendix A: State Agency Contact Information:

(1) Department of Community, Trade and Economic Development;

(2) Department of Ecology;

(3) Department of Fish and Wildlife;

(4) Department of Natural Resources. (Ord. 610 § 2 (Exh. A § 1), 2009)


If a development proposal is subject to mitigation, maintenance or monitoring plans, the town of Twisp may require an assurance device or surety in a form acceptable to the town attorney. (Ord. 610 § 2 (Exh. A § 1), 2009)

10. Permit conditions.

Through the review process, the town of Twisp shall have the authority to attach such conditions to the granting of any approval under this chapter as deemed necessary to alleviate adverse impacts to critical area(s) and to carry out the provisions of this chapter. Such conditions of approval may include, but are not limited to, the following:

(1) Specification of allowable lot sizes;

(2) Provisions for additional buffers relative to the intensity of a use or activity;

(3) Requirements and/or restrictions on the construction, size, location, bulk and/or height, etc., of structure(s);

(4) Dedication of necessary easements for utilities, conservation, open space, etc.;

(5) Imposition of easement agreements, sureties, deed restrictions, covenants, etc., on the future use and/or division of land;

(6) Limitations on the removal of existing vegetation;

(7) Additional measures to address issues such as erosion control, storm water management, filling, grading, etc.;

(8) Development of a mitigation plan to create, enhance, or restore damaged or degraded critical area(s) on and/or off site; and
(9) Any monitoring and/or maintenance plans necessary to implement the provisions of this chapter. (Ord. 610 § 2 (Exh. A § 1), 2009)

11. Enforcement.

Violation of the provisions of this chapter, or failure to comply with any of its requirements, shall be subject to enforcement actions by the town of Twisp that are authorized in the zoning ordinance, subdivision ordinance, shoreline master program or any other land use regulation of the town of Twisp. The town attorney, when authorized by the mayor and council, shall seek penalties, remedies, injunctions and other legal sanctions necessary for the enforcement of this chapter. In addition to costs allowed by these regulations, the prevailing party in an enforcement action may, at the court’s discretion, be allowed interest and reasonable attorney’s fees. The town attorney shall seek such costs, interest, and the reasonable attorney’s fees on behalf of the town of Twisp when the town is the party. (Ord. 610 § 2 (Exh. A § 1), 2009)

12. Aquifer recharge areas.

(1) Classification. The following three-level classification scheme is used to determine the level of protection necessary for lands that are aquifer recharge areas:

(a) Critical Potential. Rivers, creeks, wetlands, lakes, ponds and wellhead protection zones; and lands that have been specifically identified as critical recharge areas based on reliable scientific data.

(b) High Potential. Lands adjacent to rivers, creeks, wetlands, lakes and ponds that include soils that show permeability ratings in the county soil survey of more than 20 inches per hour within 60 inches of the soil surface.

(c) Moderate Potential. Lands with soils that show permeability ratings in the county soil survey of more than 20 inches per hour within 60 inches of the soil surface.

(2) Designation. Aquifer recharge areas have been mapped based on soil permeability rates throughout Twisp. Potential aquifer recharge areas have been mapped for areas with soil permeability known to be 20 inches per hour or higher within 60 inches of subsoil. Because the classification focuses on areas where recharge is generally known to occur, protections shall be broad enough to preserve essential aquifer recharge functions and values. Wellhead protection zones are provided by the Washington State Department of Health’s Environment Health Division at the Office of Drinking Water through the Source Water Assessment Program (attached map Exhibit IX).

(3) Standards. In addition to the general provisions of this chapter and the requirements of the underlying zone, the following minimum standards shall apply to development activities within and adjacent to aquifer recharge areas:
(a) Development activities within an aquifer recharge area shall be designed, developed and operated in a manner that will not potentially degrade groundwater resources nor adversely affect the recharging of the aquifer.

(b) A hydrogeologic study and/or ongoing monitoring may be required to assess impacts of development activities on groundwater resources.

(c) All proposed activities within aquifer recharge areas must comply with the water source protection requirements of the federal Environmental Protection Agency, the state Department of Health and the Okanogan County health district.

(d) On-site stormwater facilities shall be designed and installed in all aquifer recharge areas, so as to provide both detention and treatment of all runoff associated with the development. Such stormwater facilities shall comply with all relevant requirements of the Eastern Washington Stormwater Manual.

(e) All new development occurring within aquifer recharge areas shall be required to connect to town sewer and water where available pursuant to TMC Title 13.

(f) Landfills, junkyards/salvage yards, mining, wood treatment facilities, or any other activity which could contaminate ground water in critical potential aquifer recharge areas shall be prohibited. Such activities may be permitted in areas with high or moderate recharge potential in accord with applicable zoning regulations, providing the applicant can satisfactorily demonstrate that potential negative impacts to groundwater can be prevented.

(g) All storage tanks, whether above or underground, shall be required to be constructed so as to protect against corrosion for the operational life of the tank, to prevent any release of hazardous substances to the ground, ground waters, or surface waters, and to utilize appropriate containment methods.

(h) Any agricultural activities conducted within aquifer recharge areas shall incorporate best management practices concerning waste disposal, fertilizer/pesticide/herbicide use, and stream corridor management. If necessary applicants shall seek technical assistance from the Okanogan County conservation district or the WSU Cooperative Extension Office.

(i) Application of pesticides, herbicides and fertilizers within aquifer recharge areas shall comply with timing and rates specified on product packaging.

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

(k) Commercial car washes shall be prohibited inside critical potential recharge areas. Car washes may be permitted inside moderate to high potential recharge areas provided they comply

13. **Fish and wildlife habitat conservation areas.**

(1) Classification. WDFW has identified those fish and wildlife resources that are considered a priority for management and conservation. Priority habitats are those with unique or significant value to many fish or wildlife species. Priority species are those which require special efforts to ensure their perpetuation because of their low numbers, sensitivity to habitat alteration, tendency to form vulnerable aggregations or because they hold commercial, recreational, or tribal importance. The town of Twisp shall use the WDFW priority habitat and species program to classify all fish and wildlife habitat conservation areas within the town and urban growth boundary. The town shall use two general classifications of habitat conservation areas. These classifications are not intended to prioritize protection of one over the other, but to recognize that the two types of habitat areas have differing functions and values within the urban environment:

(a) Riparian Habitat Conservation Areas (Zone 1 and Zone 2). With this classification, the town recognizes that riparian habitat within the town limits and urban growth area frequently coincides with shoreline areas, flood hazard areas, wetlands and aquifer recharge areas. Riparian areas typically offer relatively contiguous habitat that is essential to a diverse array of fish and wildlife species. Best available science indicates these areas are especially sensitive to pressures from urban development, and that they provide important habitat functions and values for anadromous fish. In particular, riparian areas serve as important corridors for species movement between varying habitats. See Chapter 8 of this SMP for riparian habitat setbacks and buffers.

(b) Upland Habitat Conservation Areas (Zone 1 and Zone 2). With this classification, the town recognizes that those upland areas within the defined town limits and urban growth area, which are not otherwise designated as critical areas, are frequently the most suited for human development. This classification is intended to take into account for upland habitats that support federal- or state-identified endangered, threatened or sensitive species or any habitats which are identified as providing a high level of functions and values must be protected to the extent possible. Upland habitat areas shall not include those portions of the town and urban growth area where a development pattern is already established. It is recognized that connectivity of habitat and protection of identified habitat areas is important. If parcel development has occurred and is unlikely to provide measurable benefit to any of the priority species identified by WDFW restoration and enhancement of such areas is encouraged during the development or redevelopment of the parcel(s).

(2) Designation. Fish and wildlife conservation areas are designated in accord with the Washington Department of Fish and Wildlife priority habitat and species program. “Priority habitats” 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 habitat and species maps prepared by Okanogan County based on WDFW data depict general locations of habitat conservation areas. PHS data for Twisp indicates five avian species that utilize the habitat
in or near Twisp: bald eagle, golden eagle, harlequin duck, peregrine falcon, and sharp-tailed grouse. White-tailed deer and mule deer are also identified as priority species. However, because species populations and habitat systems are dynamic, a habitat assessment shall be required to verify designation as a habitat conservation area.

(3) Development Standards in Habitat Conservation Areas. In addition to the general provisions of this chapter and the requirements of the underlying zone, the following minimum standards shall apply to development activities within and adjacent to fish and wildlife habitat conservation areas:

(a) Habitat Assessment. Critical areas reports for fish and wildlife habitat conservation areas shall include a habitat assessment to evaluate the presence or absence of a critical species or habitat.

(b) All projects shall comply with the applicable federal, state and local regulations regarding the species and habitats identified upon a site.

(c) The Washington State Department of Fish and Wildlife priority habitat and species management recommendations shall be consulted in developing specific measures to protect a specific project site.

(d) When needed to protect the functions and values of habitat conservation areas, the administrator shall require the establishment of buffer areas, in some instances greater than those setbacks established in Chapter 8 for Zone and Zone 2, for activities in or adjacent to such areas. Buffers shall consist of an undisturbed area of native vegetation, or areas identified for restoration.

(e) Buffer widths shall reflect the classification and sensitivity of the habitat and the intensity of activity proposed, and shall be consistent with Chapter 8 of this SMP.

(f) Any approved alteration or development shall be required to minimize impacts to native vegetation and comply with follow requirements. Where disturbance to Zone 1 or greater than what is allowed in Zone 2 is unavoidable, the applicant shall provide a mitigation plan 18.60.090 and management plan to restore the area to the extent possible using native plants appropriate to the site.

   i. Mitigation Ratios.

Mitigation ratios shall be used when impacts to riparian and upland habitat conservation areas (Zone 1 + Zone 2), are unavoidable. Compensatory mitigation shall restore, create, rehabilitate or enhance equivalent or greater ecological functions. Mitigation shall be located onsite unless the biologist can demonstrate, and the Town approves that onsite mitigation will result in a net loss of ecological functions. If offsite mitigation measures are determined to be appropriate, offsite mitigation shall be located in the same watershed as the development, within Chelan County.
The onsite mitigation ratio, (mitigation amount: disturbed area), shall be at a minimum ratio of 1:1 for development within aquatic habitat and terrestrial buffers (Zone 1 + Zone 2). A ratio of 2:1 shall apply to native vegetation removal within these areas. Mitigation for diverse, high quality habitat or offsite mitigation may require a higher level of mitigation. Mitigation and management plans shall evaluate the need for a higher mitigation ratio on a site by site basis, dependent upon the ecological functions and values provided by the habitat. Recommendations by resource agencies in evaluating appropriate mitigation shall be encouraged.

ii. Management Plan Performance Standards.
The following performance standards shall apply to compensatory mitigation projects:

1. Mitigation planting survival will be 100% for the first year, and 80% for each of the 4 years following.

2. Mitigation must be installed no later than the next growing season after completion of site improvements, unless otherwise approved by the Administrator.

3. Where necessary, a permanent means of irrigation shall be installed for the mitigation plantings that are designed by a landscape architect or equivalent professional, as approved by the Administrator. The design shall meet the specific needs of riparian and shrub steppe vegetation.

4. Monitoring reports by the biologist must include verification that the planting areas have less than 20% total non-native/invasive plant cover consisting of exotic and/or invasive species. Exotic and invasive species may include any species on the state noxious weed list, or considered a noxious or problem weed by the Natural Conservation Services Department or local conservation districts.

5. Onsite monitoring and monitoring reports shall be submitted to the Town 1 year after mitigation installation; 3 years time involved in monitoring and monitoring reports may be increased by the Administrator for a development project on a case-by-case basis when longer monitoring time is necessary to establish or re-establish functions and values of the mitigation site. Monitoring reports shall be submitted by a qualified professional biologist. The biologist must verify that the conditions of approval and provisions in the fish and wildlife management and mitigation plan have been satisfied.

6. Mitigation sites shall be maintained to ensure that the mitigation and management plan objectives are successful. Maintenance shall include corrective actions to rectify problems, include rigorous, as-needed elimination of undesirable plants; protection of shrubs and small trees from competition by grasses and herbaceous plants, and repair and replacement of any dead plants.

7. Sequential release of funds associated with the surety agreement shall be reviewed for conformance with the conditions of approval and the mitigation and management plan. Release of funds may occur in increments of 1/3 for substantial conformance with the plan and conditions of approval. Verification of conformance with the provisions of the mitigation and management plan and conditions of approval after 1 year of mitigation installation shall also
allow for the full release of funds associated with irrigation systems, clearing and grubbing and any soil amendments. If the standards that are not met are only minimally out of compliance and contingency actions are actively being pursued by the property owner to bring the project into compliance, the county may choose to consider a partial release of the scheduled increment. Non-compliance can result in one or more of the following actions: carryover of the surety amount to the next review period; use of funds to remedy the nonconformance; scheduling a hearing with the Town’s Hearing Examiner to review conformance with the conditions of approval and to determine what actions may be appropriate.

8. Prior to site development and or building permit issuance, a performance surety agreement must be entered into by the property owner and the Town of Twisp. The surety agreement must include the complete costs for the mitigation and monitoring which may include but not be limited to: the cost of installation, delivery, plant material, soil amendments, permanent irrigation, seed mix, and 3 monitoring visits and reports by a qualified professional biologist, including Washington State Sales Tax. The Town must approve the quote for said improvements.

  (g) Within riparian habitat conservation areas, vegetation shall not be removed unless no other alternative exists. In such cases clearing shall be limited to those areas necessary and disturbed areas shall be replanted with site-appropriate native riparian vegetation.

  (h) Riparian/Upland Habitat Buffer Width Averaging. The total required (Zone 1 + Zone 2) buffer widths may be modified by the Administrator for a development on existing legal lots of record in place at the time of adoption of this Program, by averaging buffer widths based on a report submitted by the applicant and prepared by a qualified professional biologist. Buffer width averaging shall only be allowed where the applicant demonstrates all of the following:

1. Averaging is necessary to avoid an extraordinary hardship to the applicant caused by circumstances peculiar to the property;

2. The designated habitat conservation area contains variations in sensitivity due to existing physical characteristics or the character of the buffer varies in slope, soils, or vegetation;

3. The width averaging shall not adversely affect the designated habitat conservation area and buffer’s functional value;

4. The total area contained within the buffer after averaging is no less than that contained within the standard buffer prior to averaging.

5. The minimum buffer width at its narrowest point shall not be less than seventy-five (75) percent of the total Zone 1 + Zone 2 buffer width established in the SMP’s Table 8.1.

6. Sites which have had buffer widths reduced or modified by any prior action administered by the town are not eligible for the provisions of this section. Sites which utilize this provision are not eligible for any future buffer width reductions, under any provision of this Program, except as administered under Chapter 11 Variances, of this Program.
7. The variation of buffer widths on a site, via buffer width averaging, must be supported by most current technical and scientific documentation as demonstrated by the submittal and approval of a fish and wildlife habitat conservation area management and mitigation plan in conformance with Section 18.60.090 of this Appendix.

E. Administrative Buffer Reduction.
The Administrator shall have the authority to reduce buffer width(s) established in Table 8.1 of this SMP on a case-by-case basis for single family dwelling units which would be placed on existing legal lots of record in place at the time of adoption of this Program; provided that the general standards for avoidance and minimization per this Appendix shall apply, and when the applicant demonstrates to the satisfaction of the Administrator that all of the following criteria have been met:
1. The buffer reduction shall not result in a net loss of functions of the habitat conservation area or buffer.
2. The maximum buffer width reduction allowed shall not exceed twenty-five (25) percent of the total required buffer (Zone 1 + Zone 2) established in Table 8.1.
3. The buffer width reduction is contingent upon the submittal and approval of a habitat conservation area management and mitigation plan in conformance with this Appendix.
4. Sites which have had buffer widths reduced or modified by any prior action administered by the Town are not eligible for the provisions of this section. Sites which utilize this provision are not eligible for any future buffer width reductions, under any provision of this Program, except as administered under Chapter 11 Variances, of this Program.

(h) Access to habitat conservation areas or buffers may be restricted in accord with the findings of a critical areas report, mitigation report, PHS management recommendations or other best available science. Access restrictions may include fencing and signs as needed to ensure protection of habitat functions and values. Restrictions may be seasonal in nature.

(i) Subdivision of lands, including both short and long plats, within habitat conservation areas shall be subject to the following:

(i) Uplands.

(A) Lot sizes shall conform to the underlying zone. Variances for smaller lots shall not be considered unless a habitat assessment is provided by applicant and a determination that subdivision will not negatively affect habitat quality can be determined.

(B) Long plats located in upland habitat areas must reserve ample core habitat and connectivity designated as open space on the plat. Open space must connect adjacent habitat areas outside the project area. Open space must be landscaped and managed in a manner that protects the habitat area for the priority species.
(C) Cumulative impacts to habitat fragmentation in uplands from consecutive short plats and long plats must be considered prior to approval of the subdivision.

(ii) Riparian. Refer to shoreline master program, Section 8.01 A 16, Table 8.1, and conservation area mitigation and management standards found in this Appendix.

(j) All activities, uses and alterations proposed to be located in or adjacent to water bodies used by anadromous fish shall give special consideration to the preservation and enhancement of associated habitats. (Ord. 610 § 2 (Exh. A § 3), 2009)

14. **Wetlands.**

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

(2) Classification. Wetlands in Twisp shall be classified into the following categories according to the Washington State Wetlands Rating System for Eastern Washington:

(a) Category I. Category I wetlands are those that:

(i) Represent a unique or rare wetland type;

(ii) Are sensitive to disturbance;

(iii) Are relatively undisturbed and contain ecological attributes that are impossible to replace within a human lifetime; or

(iv) Provide a very high level of functions.

We do not wish to risk any degradation to these wetlands. Generally, these wetlands are not common and make up a small percentage of the wetlands in Eastern Washington. Category I wetlands include alkali wetlands, bogs, Natural Heritage wetlands, mature and old-growth forested wetlands with slow-growing trees, and wetlands that perform many functions well, as measured by the rating system.

(b) Category II. Category II wetlands are:
(i) Forested wetlands in the channel migration zone of rivers;

(ii) Mature forested wetlands containing fast-growing trees;

(iii) Vernal pools present within a mosaic of other wetlands; or

(iv) Those wetlands with a moderately high level of functions.

These wetlands are difficult, though not impossible, to replace. They provide high levels of some functions. These wetlands occur more commonly than Category I wetlands, but still need a high level of protection.

(c) Category III. Category III wetlands are:

(i) Vernal pools that are isolated; or

(ii) Wetlands with a moderate level of functions, as measured by the rating system.

These wetlands have generally been disturbed in some manner, and are often smaller, less diverse and/or more isolated in the landscape than Category II wetlands. They may not require as much protection as Category I and II wetlands.

(d) Category IV. Category IV wetlands have the lowest levels of functions, as measured by the rating system, and are often heavily disturbed. These are wetlands that we should be able to replace, and in some cases improve. These wetlands do provide some important functions, and should be afforded some degree of protection.

(3) Designation. The National Wetlands Inventory (NWI) maps shall be used as a base designation. The NWI maps, along with other supportive documentation, shall be used to review development proposals, but because the National Wetlands Inventory was done at such a broad scale, local verification according to the classification criteria shall be part of the standard process for identifying and designating wetlands.

(4) Standards. In addition to the general provisions of this chapter and the requirements of the underlying zone, the following minimum standards shall apply to development activities within and adjacent to wetland areas:

(a) Activities and uses shall be prohibited from wetlands or wetland buffers unless the applicant can show that the proposed activity will not degrade the functions and values of the wetland or other critical areas, or as otherwise provided in this title.

(b) Buffer Widths. Buffer widths are to be determined through the combination of the functional score, generated by the wetland classification system described in subsection (2) of this section, and the proposed land use intensity. Guidelines for establishing high, moderate, and low intensity land uses are provided in Table 18.60.160(1). The use of Table 18.60.160(1) along with the town of Twisp zoning code’s development and performance standards set forth in this
title shall be used as to establish the land use intensity. The following standard buffer widths have been established in accordance with the Department of Ecology’s recommendations for Buffer Alternative 3 in Wetlands in Washington State, Volume 2: Managing and Protecting Wetlands (Publication No. 05-06-008) and are considered best available science to provide predictability in the regulation of wetlands:

Table C.2 (1)
Guidelines for Establishing Land Use Intensity (To Be Used in Conjunction with This Title, Zoning Districts and Development and Performance Standards)

<table>
<thead>
<tr>
<th>Level of Land Use Intensity</th>
<th>Types of Land Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>Commercial, urban, industrial, institutional, retail, residential density &gt; 1 du/acre, high intensity recreation (ball fields, golf courses), highways and paved thoroughfares</td>
</tr>
<tr>
<td>Moderate</td>
<td>Residential &lt; 1 du/acre, open space with active recreation development and activities, impervious drives serving &gt; 3 du, paved trails, utility corridors and rights-of-way requiring vegetation management and service roads</td>
</tr>
<tr>
<td>Low</td>
<td>Open space with passive recreation, timber, agriculture, unpaved roads serving &lt; 2 du, unpaved trails, utility corridor without service road or vegetation management</td>
</tr>
</tbody>
</table>

Table 18.60.160(2)
Category I (Wetlands Scoring 70 Points or More for All Functions or Having Special Characteristics Identified in the Rating System)

<table>
<thead>
<tr>
<th>Wetland Characteristic</th>
<th>Buffer Widths by Impact of Use</th>
<th>Other Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Heritage wetlands</td>
<td>Low – 125 ft</td>
<td>No additional surface discharges to wetland or its tributaries</td>
</tr>
<tr>
<td></td>
<td>Moderate – 190 ft</td>
<td>No septic systems within 300 ft</td>
</tr>
<tr>
<td></td>
<td>High – 250 ft</td>
<td>Restore degraded parts of buffer</td>
</tr>
<tr>
<td>Bogs</td>
<td>Low – 125 ft</td>
<td>No additional surface discharge to wetland or tributaries</td>
</tr>
<tr>
<td></td>
<td>Moderate – 190 ft</td>
<td>Restore degraded parts of buffer</td>
</tr>
<tr>
<td></td>
<td>High – 250 ft</td>
<td></td>
</tr>
<tr>
<td>Forested</td>
<td>Buffer size to be based on score for habitat function or water quality functions</td>
<td>If forest wetland scores high for habitat, need to maintain connectivity to other natural area</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Restore degraded parts of buffer</td>
</tr>
<tr>
<td>Alkali</td>
<td>Low – 100 ft</td>
<td>No additional surface discharges to</td>
</tr>
<tr>
<td>Wetland Characteristic</td>
<td>Buffer Widths by Impact of Use</td>
<td>Other Measures</td>
</tr>
<tr>
<td>------------------------</td>
<td>--------------------------------</td>
<td>-----------------</td>
</tr>
</tbody>
</table>
| High level of function for habitat (habitat score 29 – 36 pts) | Low – 100 ft  
Moderate – 150 ft  
High – 200 ft | Maintain connections to other habitat areas |
| Moderate level of functions for habitat (habitat score 20 – 28 pts) | Low – 75 ft  
Moderate – 110 ft  
High – 150 ft | No recommendations (confer with Ecology) |
| High level of function for water quality improvement (24 – 32 pts) and low for habitat (< 20 pts) | Low – 50 ft  
Moderate – 75 ft  
High – 100 ft | No additional surface discharges of untreated runoff |
| Vernal pools | Low – 100 ft  
Moderate – 150 ft | No intensive grazing or tilling in the wetland |

Table C.2(3)  
Category II (Wetlands Scoring 51 – 69 Points for All Functions or Having Special Characteristics Identified in the Rating System)
See DOE’s buffer reduction guidelines in conjunction with regional protection plan.

### Table C.2(4)

**Category III (Wetlands Scoring 30 – 50 Points for All Functions or Isolated Vernal Pools)**

<table>
<thead>
<tr>
<th>Wetland Characteristics</th>
<th>Buffer Widths by Impact of Proposed Land Use</th>
<th>Other Measures Recommended for Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moderate level of function for habitat (20 – 28 pts)</td>
<td>Low – 75 ft&lt;br&gt;Moderate – 110 ft&lt;br&gt;High – 150 ft</td>
<td>No recommendations (confer with Ecology)</td>
</tr>
<tr>
<td>Not meeting above characteristic</td>
<td>Low – 40 ft&lt;br&gt;Moderate – 60 ft&lt;br&gt;High – 80 ft</td>
<td>No recommendations (confer with Ecology)</td>
</tr>
</tbody>
</table>

### Table C.2(5)

**Category IV (Wetlands Scoring Less Than 30 Points)**

<table>
<thead>
<tr>
<th>Wetland Characteristics</th>
<th>Buffer Widths by Impact of Proposed Land Use</th>
<th>Other Measures Recommended for Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score for all 3 basic functions &lt; 30</td>
<td>Low – 25 ft&lt;br&gt;Moderate – 40 ft&lt;br&gt;High – 50 ft</td>
<td>No recommendations (confer with Ecology)</td>
</tr>
</tbody>
</table>
The flexible buffer widths shall be applied unless the administrator determines through a scientifically supportable method that a greater or lesser buffer width would serve to protect the functions and values of a particular wetland. The standard buffer widths may not be reduced by more than 25 percent. Greater buffer widths or rehabilitation of an inadequate plant community may be required where necessary to ensure development does not result in adverse impacts to wetlands.

(c) Measurement of Wetland Buffers. All buffers shall be measured from the wetland boundary as surveyed in the field. The width of the wetland buffer shall be determined according to the wetland category and the proposed land use. The same buffer widths and measurement criteria shall apply to any wetland created, restored, or enhanced as compensation for approved wetland alterations. Buffers shall be clearly marked on the ground.

(d) Wetland Buffer Width Averaging. The administrator may allow averaging of wetland buffer widths in accordance with an approved critical areas report if it is shown that no alternate configuration for site development exists based on topographical or lot dimensional constraints without averaging, provided the following conditions are met:

(i) Averaging is necessary to avoid an extraordinary hardship to the applicant caused by circumstances peculiar to the property;

(ii) There will be no reduction in wetland functions and values;

(iii) The wetland contains variations in sensitivity due to physical characteristics or the character of the buffer varies in slope, soils, or vegetation such that the wetland would benefit from a wider buffer in some areas and a narrower buffer in other places; and

(iv) The total area contained in the buffer area is no less than would have otherwise been applied under buffer widths in Tables 18.60.160(2) through (5).

(v) The minimum buffer width at its narrowest point shall not be less than seventy-five (75) percent of the buffer width established in this Appendix under in Table 18.60.160.

(e) Where other critical areas coincide with wetlands, buffers shall be configured so as to protect aggregate functions and values. Particular consideration shall be given to habitat connectivity.

(f) Wetland buffer zones shall be retained in their natural condition. Where buffer disturbances are unavoidable during adjacent construction, revegetation with native plant materials will be required.

(g) The following activities shall be allowed within wetland buffers:

(i) Conservation or restoration activities aimed at protecting soil, water, vegetation or wildlife;
(ii) Passive recreation, including walkways or trails designed to minimize impacts through the uses of pervious surfacing materials, boardwalks, and minimal widths necessary to achieve safety and public enjoyment; wildlife viewing structures; and fishing access areas; provided these are designed and approved as part of an overall site development plan;

(iii) Educational and scientific research activities; and

(iv) Normal and routine maintenance and repair of any existing public or private facilities provided appropriate measures are undertaken to minimize impacts to the wetland and its buffer and that disturbed areas are restored to a natural condition.

(v) Any permitted activity in a wetland buffer should avoid the removal of vegetation, especially native trees, and keep vegetation removal to an absolute minimum.

(h) Category I and II wetlands shall not be used for regional stormwater detention. Category III and IV may be considered for stormwater detention provided pollution measures are approved by the Department of Ecology.

(i) The outer 25 percent of any wetland buffer may be used for stormwater facilities provided there is no other feasible location and that the location of such facilities will not adversely impact the functions and values of the wetland or alter the hydroperiod and water quality.


(k) As a condition of any permit or authorization pursuant to this title, the administrator may require temporary or permanent signs and/or fencing along the perimeter of a wetland or buffer in order to protect the functions and values of the wetland, or to minimize future impacts or encroachment upon the wetland or buffer.

(l) Wetland alteration proposals shall be approved only if no alternative is available. If alteration is unavoidable, all adverse impacts shall be mitigated as set forth in an approved critical areas report and mitigation plan.

(m) Mitigation shall achieve equivalent or greater biological functions as existed in the wetland prior to mitigation.

When possible, mitigation shall be achieved through a mitigation plan that meets the guidance set forth by the Department of Ecology. Mitigation may occur on site or within the same drainage basin provided and be on site and sufficient to maintain the functions and values of the wetland and buffer areas being mitigated.

(n) Mitigation actions that require compensation by replacing, enhancing or substitution shall occur in the following order of preference:

(i) Restoring, replacing or enhancing the wetland on the site of the project;
(ii) Restoring, replacing or enhancing degraded wetlands in the same sub basin;

(iii) Creating wetlands on upland sites that were former wetlands or that are disturbed upland sites;

(iv) Preserving high quality wetlands that are under imminent threat.

Mitigation ratios shall be set forth by the Department of Ecology in Table 1B of Wetland Mitigation in Washington State Part 1: Agency Policies and Guidance (Publication No. 06-06-11a, March 2006) or the administrator shall seek guidance from the Department of Ecology for updated ratio standards. These ratios do not apply to remedial actions resulting from unauthorized alterations.

(o) The mitigation ratio may be increased if the administrator identifies that:

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

(ii) A significant time period will elapse between impact and replication of wetland functions;

(iii) Proposed mitigation will result in a lower category of wetland or reduced functions relative to the wetland being impacted; or

(iv) The impact was due to an unauthorized action.

(p) The administrator may decrease the mitigation ratio where:

(i) Documentation by a qualified wetlands specialist demonstrates that the proposed mitigation actions have a very high likelihood of success;

(ii) Documentation by a qualified wetlands specialist demonstrates that the proposed mitigation actions will provide functions and values greater than the wetland being impacted; or

(iii) The proposed mitigation actions are conducted in advance of the impact and have been shown to be successful.

(q) The long or short subdivision of lands that include wetlands is subject to the following:

(i) Land that is located wholly within a wetland or its buffer may not be subdivided;

(ii) Land that is located partially within a wetland or its buffer may be subdivided; provided, that an accessible and contiguous portion of each new lot is located outside of the wetland and its buffer. Lot sizes must conform to the underlying zone unless a density is increased as set forth in subsection (4)(r) of this section.
(iii) Access roads and utilities serving a development may be permitted within the wetland and associated buffers only if the town determines that no other feasible alternative exists.

(r) The administrator may allow greater density of development (in compliance with the Twisp zoning code) outside of wetland areas and associated buffers through approval of a variance provided the ability to ensure a high level of protection for on-site resources is demonstrated in an approved critical areas report and mitigation plan. (Ord. 610 § 2 (Exh. A § 4), 2009)

15. Frequently flooded areas.

(1) Classification. The following classification system will be used to determine the level of protection necessary for frequently flooded areas:

(a) Class I. The floodway of any river or stream as designated by FEMA; and draws, alluvials and flood channels that are not mapped by FEMA but are areas of local concern that have a historical reoccurrence of flood events characterized by significant damage from flood flows.
(b) Class II. All areas mapped by FEMA as the 100-year floodplain; and those areas of local concern that experience recurrences of flooding that are characterized by damage due primarily to inundation.
(c) Designation. The town of Twisp designates those areas of special flood hazard indicated in the Flood Hazard Boundary Map/Flood Insurance Rate Map and Flood Boundary/Floodway Map, together with the accompanying Flood Insurance Study for Community No. 5301240001B dated July 18, 1977, or hereafter updated. Since flood hazards are not necessarily constrained to those areas detailed in the flood insurance study and maps, the channel migration zone may provide additional mapping for the areas of local concern.

(2) Development Standards. In addition to the general provisions of this chapter and the requirements of the underlying zone, the following minimum standards shall apply to development activities within and adjacent to frequently flooded areas:

(a) All development within Class I and Class II frequently flooded areas shall be reviewed under and subject to the requirements of Chapter 16.10 TMC, Flood Damage Prevention, this SMP and this Appendix
(b) Where frequently flooded areas coincide with other designated critical areas, critical areas reports and mitigation plans shall address any combined functions and values.
(c) Structures shall be located outside of frequently flooded areas except where no alternative location exists.
(d) Following construction of a structure within the floodplain where base flood elevation is provided, the applicant shall obtain an elevation certificate that records the elevation of the lowest floor. The elevation certificate shall be
completed by a surveyor or engineer licensed in the state of Washington and shall be submitted to the town for recording.

(e) Fill and grading in the floodplain shall only occur upon a determination by a qualified professional that the fill or grading will not block side channels, inhibit channel migration, increase flood hazards to others, or be placed within a defined channel migration zone, whether or not the town has delineated such zones as of the time of application.

(f) Subdivision in frequently flooded areas is subject to the following:

(i) All lots created shall have adequate building space outside flood hazard areas, including the floodway, 100-year floodplain, and channel migration zones.

(ii) Plat maps shall indicate floodway, 100-year floodplain and channel migration zones;

(iii) Subdivisions shall be designed to minimize or eliminate the potential for flood damage; and

(iv) Subdivisions shall provide for storm water drainage, in accordance with town standards, so as to reduce exposure to flood hazards;

(v) Variances on lot sizes may be granted if it is shown that the floodway, 100-year floodplain, and channel migration zone have been avoided and therefore result in smaller lots than the underlying zone or shoreline master program requires.

16. Geologically hazardous areas.

Geologically hazardous areas include areas susceptible to erosion, sliding, earthquake, or other geological events. They pose a threat to the health and safety of citizens when incompatible commercial, residential, or industrial development is sited in areas of significant hazard.

(1) Classification. Known geologically hazardous areas within the town of Twisp consist of erosion hazard areas, including steep slopes and landslide areas such as channel migration areas found in Appendix G. As more information is obtained that demonstrates the existence of other types and/or areas of geologically hazardous areas, these types and/or areas shall be classified and protected in accordance with the provisions of this chapter.

(a) The following general classification system will be used to determine the level of protection necessary for geologically hazardous areas, based upon the risk to development:

i. Known or suspected risk;

ii. No risk;

iii. Risk unknown.

(b) The following criteria shall be used in determining the status of an area as a particular type of geologically hazardous area:

i. Erosion hazard areas are those that contain all three of the following characteristics:

a. A slope of 15 percent or greater;
b. Soils identified by the NRCS as unstable and having a high potential for erosion; and
c. Areas that are exposed to the erosion effects of wind or water.

(c) Landslide hazard areas are those that may contain any of the following circumstances:

i. All areas that have historically been prone to landsliding;
ii. All areas containing soil types identified by the NRCS as unstable and prone to landslide hazard;
iii. All areas that show evidence of or are at risk from snow avalanches; or
iv. All areas that are potentially unstable as a result of rapid stream incision or stream bank erosion and undercutting by wave action, including stream channel migration zones.

(2) Designations. Each type of geologically hazardous area is designated based on different factors. The designation process for each type follows:

(a) Erosion Hazard Areas. NRCS soil erosion hazard ratings are interpretations of the potential for erosion, applied to broadly generalized map units. They do not pinpoint erosion sites, but rather areas that, because of soil properties, availability of water, etc., are more susceptible to severe erosion than others. The NRCS maps will be used to identify areas of erosion potential. The soil information needs to be combined with site-specific information (rills, interrills, and wind erosion) to determine if erosion hazard is present on the site. The soil types that have erosion hazard potential are identified on Map VII.

(b) Landslide Hazard Areas. Lands that meet the classification criteria are hereby designated as landslide hazard areas and should be mapped, as resources become available.

(c) Mine Hazard Areas. Lands that meet the classification criteria are hereby designated as mine hazard areas and will be mapped, as resources become available.

(d) Seismic Hazard Areas. There are no known active faults in Twisp. The majority of the town is located within Seismic Zone D0 in accordance with the International Building Code (2006 IBC).

(e) Volcanic Hazard Areas. There are no volcanic hazard areas in Twisp. There are, however, several active volcanoes that could have impacts on areas of the town, particularly the fallout of ash. There is no way to prevent the impacts of fallen ash, but there are ways to respond to the ash that could lessen its impacts.

(3) Standards. In addition to the general provisions of this chapter and the requirements of the underlying zone, the following minimum standards shall apply to development activities within and adjacent to geologic hazard areas:

(a) Some geological hazards can be reduced or mitigated by engineering, design, or modified construction or mining practices so that risks to public health and safety are minimized. When technology cannot reduce risks to acceptable levels, building in geologically hazardous areas must be avoided. The distinction between avoidance and compensatory mitigation should be considered by the applicant.
(b) Critical areas reports for a geologically hazardous area shall include a geotechnical analysis completed by a qualified professional with expertise in the particular hazard(s) present in a given critical area.

(c) Alterations of geologically hazardous areas or associated setbacks may only occur for activities that:

i. Will not increase the threat of the geological hazard to adjacent properties beyond predevelopment conditions;
ii. Will not adversely impact other critical areas;
iii. Are designed so that the hazard to the project is eliminated or mitigated to a level equal to or less than predevelopment conditions; and
iv. Are certified as safe as designed and under anticipated conditions by a qualified engineer or geologist, licensed in the state of Washington.

(d) Critical areas reports and mitigation plans for geologically hazardous areas shall establish setbacks as needed to eliminate or minimize risks of property damage, death, or injury resulting from development of the hazard area. Where established, setbacks shall be maintained between all permitted uses and activities and the designated geologically hazardous area(s).

(e) Unless otherwise provided or as part of an approved alteration, removal of vegetation from an erosion or landslide hazard area or related setback area shall be prohibited.

(f) Structures and improvements shall be clustered to avoid geologically hazardous areas and other critical areas in so far as clustering does not alter the underlying zoning densities.

(g) Development and activities located within landslide or erosion hazard areas shall provide for long-term slope stability, and design shall incorporate the following standards:

i. 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;
ii. Structures and improvements shall be located to preserve the most critical portion of the site and its natural landforms and vegetation;
iii. The proposed development shall not result in greater risk or a need for increased setbacks on neighboring properties;
iv. The use of retaining walls that allow the maintenance of existing natural slope area is preferred over graded artificial slopes; and
v. Development shall be designed to minimize impervious lot coverage.

(h) 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.

(i) Subdivision of lands in erosion, landslide, and mine hazard areas is subject to the following:

i. Land that is located wholly within an erosion, landslide or mine hazard area or associated setback areas may not be subdivided. Land that is located partially within an erosion, landslide, or mine hazard area or associated setback areas may be divided; provided, that
each resulting lot has sufficient buildable area outside of, and will not affect, the geologic hazard area.

ii. Access roads and utilities may be permitted within the erosion, landslide or mine hazard area and associated setback areas only if no other feasible alternative exists. (Ord. 610 § 2 (Exh. A § 6), 2009)