

## Chapter 16.10

### ENVIRONMENTALLY SENSITIVE AREAS

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- 16.10.010 Purpose and intent.
- A. The town council finds that the town contains certain areas that can be identified and characterized as environmentally sensitive or critical. Such areas within the town include wetlands, streams, fish and wildlife habitat, geologic hazards, aquifer recharge and wellhead protection areas, and associated environmentally sensitive area buffers.
  - B. The town finds that unregulated development patterns may in some cases result in natural disasters which threaten public health and safety, and that by preventing development on certain environmentally sensitive areas the town can better maintain public health, safety and welfare by avoiding natural disasters such as slides and flooding that threaten

life and property. In addition, through the prevention of disturbances to environmentally sensitive areas and their buffers which may result in degradation, erosion or damages to protective vegetation, and by preserving features that provide for clean water, fisheries habitat, including near-shore habitat, and wildlife habitat, the town can help maintain a positive ecological balance that provides for the immediate and long-term public welfare. This chapter is intended to preserve the town's important environmental features while allowing development to occur if compatible with and in consideration of these environmentally sensitive areas.

- C. The classification and designation of these environmentally sensitive areas is intended to ensure the conservation and protection of environmentally sensitive areas from loss or degradation, and to restrict land uses and development which are incompatible with environmentally sensitive areas. It is the intent of this chapter to designate and protect environmentally sensitive areas.
- D. The town finds that these essential environmentally sensitive areas perform a variety of valuable and beneficial biological and physical functions that benefit the town and its residents. The town further finds that the functions of environmentally sensitive areas include the following:
  - 1. Wetland Areas. Wetlands and their associated buffers help to maintain water quality; store and convey stormwater and floodwater; recharge groundwater; provide important fish and wildlife habitat; and provide valuable functions for recreation, education and scientific study and aesthetic appreciation.
    - a. Wetland buffers serve to moderate runoff volume and flow rates; reduce sediment, chemical nutrient and toxic pollutants; provide shading to maintain desirable water temperatures; provide habitat for fish and wildlife; protect wetland resources from harmful intrusion; and generally preserve the ecological integrity of the wetland area.
    - b. The primary purpose of the wetland regulations is to avoid impacts to wetlands and their buffers and achieve a goal of no net loss of wetland function, value and acreage; and, where possible, enhance and restore wetlands.
  - 2. Stream Areas. Streams and their associated buffers provide important fish and wildlife habitat and corridors; help to maintain water quality; store and convey stormwater and floodwater; recharge groundwater; and serve a valuable function for recreation, education and scientific study and aesthetic appreciation.
    - a. The primary purpose of the stream area regulations is to avoid impacts to streams and associated riparian corridors; and where possible, provide for stream enhancement and rehabilitation.
  - 3. Fish and Wildlife Habitat Areas. Identification, preservation and protection of fish and wildlife habitat areas provide opportunities for food, cover, nesting, breeding and movement for fish and wildlife within the town; maintains and promotes diversity of species and habitat within the town; coordinates habitat protection with elements of the town's established open space corridors wherever possible; helps to maintain air and water quality; controls erosion; and serves a valuable function for recreation, education and scientific study and aesthetic appreciation; and contributes to the established character of the town.
    - a. The primary purpose of fish and wildlife habitat area regulations is to avoid impacts to fish and wildlife and to restore and enhance degraded or lower quality habitat.
  - 4. Geologic Hazard Areas. Geologic hazard areas include lands that are affected by natural processes that make them susceptible to landslides, seismic activity and severe erosion, especially bluff and ravine areas.
    - a. The primary purpose of geologic hazard area regulations is to avoid and minimize potential impacts to life, property and habitat from geologic hazards and any resulting erosion and sedimentation associated with disturbances through appropriate levels of study and analysis, application of sound engineering principles and regulation or limitation of land uses.
  - 5. Aquifer Recharge and Wellhead Protection Areas. Aquifer recharge and wellhead protection areas provide a source of potable water and contribute to stream discharge during periods of low water flow. Aquifer recharge and wellhead protection areas have been identified which are susceptible to contamination through potential infiltration of pollutants through the soil to groundwater.
    - a. The primary purpose of aquifer recharge and wellhead protection area regulations is to protect critical aquifer recharge and wellhead protection areas by avoiding land use activities that pose the potential for aquifer contamination; and to minimize impacts to significant recharge areas and to

surface water habitat that is dependant of groundwater recharge through the application of strict performance standards.

E. This chapter of the Woodway Municipal Code contains standards, guidelines, criteria and requirements intended to identify, analyze, preserve and mitigate potential impacts to the town's environmentally sensitive areas and to enhance and restore degraded resources, such as wetlands, streams and fish and wildlife habitat, where possible. The standards, guidelines and criteria have been established using "best available science." The intent of these regulations is to avoid impacts to environmentally sensitive areas. In appropriate circumstances, impacts to specified environmentally sensitive areas resulting from regulated activities may be minimized, rectified, reduced and/or compensated for, consistent with the requirements of this chapter and best available science.

1. It is the further intent of this chapter to:

- a. Provide standards, guidelines and criteria to guide application of these environmentally sensitive areas goals and policies when considered with other goals and policies of the town Municipal Code and comprehensive plan including those pertaining to natural features and environmental protection;
- b. Serve as a basis for exercise of the town's substantive authority under the State Environmental Policy Act (SEPA) and the town's SEPA rules (Chapter 16.04);
- c. Comply with the requirements of the Growth Management Act (Chapter 36.70A RCW) and implementing rules; and
- d. Coordinate environmental review and permitting of proposals to avoid duplication and delay. (Ord. 00-387 § 1(part), 2000)

16.10.020 Applicability-Regulated activities.

A. A. The provisions of this chapter shall apply to any activity which otherwise requires a permit or approval from the town, that has a potential to impact an environmentally sensitive area or its established buffer unless otherwise exempt. Such activities include but are not limited to:

1. Removing, excavating, grading, disturbing or dredging of soil, sand, gravel, minerals, organic matter or materials of any kind;
2. Destroying or altering vegetation through clearing, grading, harvesting, shading or planting vegetation, that would detrimentally alter the character or function of an environmentally sensitive area or its established buffer;
3. Dumping, discharging or filling with any material;
4. Draining, flooding or disturbing the water level or water table;
5. Driving pilings or placing obstructions;
6. Constructing, reconstructing, demolishing or altering the size of any structure or infrastructure that results in disturbance of an environmentally sensitive area or its established buffer, or the addition of any impervious surface coverage to a site;
7. Activities that result in significant changes in physical or chemical characteristics of water sources, including, but not limited to water temperature, quantity and pollutants; and
8. Any other activity that has a potential to significantly adversely impact an environmentally sensitive area or established buffer not otherwise exempt from the provisions of this chapter.

B. To avoid duplication, the following permits and approvals shall be subject to and coordinated with the requirements of this chapter: clearing and grading; tree removal, subdivision or short subdivision; building permit; rezone; shoreline substantial development; variance; planned unit development and binding site plan review, special use, and any other permits leading to the development or alteration of land.

C. Proponents of nonproject actions, including but not limited to legislative zone changes, annexations, and the adoption of plans and programs, may be required to perform any studies or evaluations required by this chapter using methodologies and at a level of detail appropriate to the action proposed, as part of the nonproject action review. (Ord. 00-387 § 1(part), 2000)

16.10.030 Exemptions.

A. The following activities shall be exempt from the procedural requirements of this chapter:

1. Activities involving artificially created wetlands or streams intentionally created from nonwetland sites, including but not limited to grass-lined swales, irrigation and drainage ditches, detention facilities, and landscape features; except wetlands, streams, ditches or swales created as mitigation or replacement or that provide critical habitat for salmonid fishes;
2. Activities occurring in areas of forty percent slope or greater when the forty percent slope area has a vertical elevation change of not more than fifteen feet may be exempted based upon town review of a soils report prepared by a geologist or geotechnical engineer which demonstrates that no significant adverse impact will result from the activity;
3. Normal and routine maintenance, operation and reconstruction of existing roads, streets, utilities and associated rights-of-way and structures; provided, that reconstruction of any facilities may not increase the impervious area or reduce stormwater conveyance;
4. Normal maintenance and repair, and reconstruction or remodeling of residential, institutional or commercial structures, or legal pre-existing and on-going uses of the site; provided, that reconstruction or remodeling of any structures may not increase the previous approved building footprint;
5. Site investigative work and studies necessary for preparing land use applications, including soils tests, water quality studies, fish and wildlife studies and similar tests and investigations; provided, that any disturbance of the environmentally sensitive area shall be the minimum necessary to carry out the work or studies;
6. Educational activities, scientific research and outdoor recreational activities that will not have an adverse effect on the environmentally sensitive area, including but not limited to interpretive field trips, bird-watching and use of trails for horseback riding, bicycling and hiking;
7. Alterations in response to emergencies which threaten the public health, safety and welfare or which pose an imminent risk of damage to private property as long as any alteration undertaken pursuant to this subsection is reported to the Town immediately. Only the minimum intervention necessary to reduce the risk to public health, safety, or welfare and/or the imminent risk of damage to private property shall be authorized by this exemption. The Town shall confirm that an emergency exists and determine what, if any, additional applications and/or measures shall be required to protect the environment, consistent with the provisions of this chapter, and to repair any damage to a pre-existing resource;
8. Normal and routine maintenance and operation of existing landscaping and gardens including maintenance of view corridors along marine bluffs; provided that, no chemicals or fertilizers may be used in wetlands or streams, or established buffers of wetlands or streams or in high significance/high susceptibility aquifer recharge areas, and that removal of vegetation does not contribute to soil erosion and that maintenance and operation of existing landscaping and gardens comply with all other regulations in this chapter, or other applicable Town codes;
9. Construction of trails, according to the following criteria: constructed of permeable or semi-permeable materials, designed to minimize impact on the environmentally sensitive area, located within the outer half of the buffer area, and of a maximum trail corridor width of five feet;
10. Minor activities, such as the installation of a fence or fence posts not mentioned above and determined by the Town Engineer and/or Town Planner to have minimal impacts to an environmentally sensitive area;
11. Installation, construction, replacement, repair or alteration of utilities and their associated facilities, lines, pipes, mains, equipment or appurtenances in improved Town road rights-of-way;
12. Activities associated with, or carried out in accordance with federal, state and local regulations and requirements governing provision of construction, maintenance, repair, operation and protection of public water supply and distribution facilities.

B. Applicability of Regulations.

1. The applicability of this chapter is "triggered" by submittal of an application for development permit to the Town, including but not limited to application for building permit, clearing and grading, tree removal, zoning, subdivision and special use.

2. Notwithstanding the procedural exemptions provided by this subsection, an exempt activity occurring in or near an environmentally sensitive area shall meet the purpose and intent of Section 16.10.010 and the proponent shall consider on-site alternatives that avoid or minimize significant adverse impacts.
- C. With the exception of subsections (A)(7), (A)(8), (A)(9) and (A)(10) of this section, and normal maintenance and repair of residential and commercial structures as in subsection (A)(5), no property owner or other entity shall undertake exempt activities prior to providing ten days' notice to the Town . In case of any question as to whether a particular activity is exempt from the procedural requirements of this section, the Town 's determination shall prevail and shall be confirmed in writing within ten days of receipt of the owner's or applicant's letter. Those activities falling under subsection (A)(8) shall provide telephone or written communication to the Town within forty-eight hours of the activity notifying that such emergency activity was taken.
  - D. Otherwise conforming structures, located in an environmentally sensitive area buffer but not in an environmentally sensitive area, which are destroyed through an act of nature, fire or other nonintentional, accidental means shall be allowed to be reconstructed within twelve months. Reconstruction of the structure shall not further encroach into the buffer area or increase the building footprint. Mitigation provisions, consistent with the standards of this chapter may be required. (Ord. 01-412 § 1 (Exh. 1 (part)), 2001; Ord. 00-387 § 1(part), 2000)

#### 16.10.040 Environmentally sensitive areas maps.

The approximate location and extent of environmentally sensitive areas within the Town 's planning area are shown on the environmentally sensitive areas maps adopted as part of this chapter. These maps shall be used as a general guide only for the assistance of property owners and other interested parties; boundaries are generalized. The actual type, extent and boundaries of environmentally sensitive areas shall be determined in the field by a qualified consultant according to the procedures, definitions and criteria established by this chapter. In the event of any conflict between the environmentally sensitive area location or designation shown on the Town 's maps and the criteria or standards of this section, the criteria and standards shall prevail. The Town shall strive to continuously update these maps, as new information becomes available, in order to ensure accuracy. (Ord. 00-387 § 1(part), 2000)

#### 16.10.045 Surface water study areas.

Several areas within the Town are characterized by seasonal surface water inundation, and/or have been designated for stormwater easements. These areas are included on the ESA maps as "Surface Water Study Areas." They are not designated as environmentally sensitive areas, however due to the presence of surface water, these areas may include areas that may be designated as environmentally sensitive. (Ord. 00-387 § 1(part), 2000)

#### 16.10.050 Relationship to other regulations.

- A. These environmentally sensitive area regulations shall apply as an overlay and in addition to zoning, land use and other regulations established by the town. In the event of any conflict between these regulations and any other regulations of the town, the regulations which provide greater protection to the environmentally sensitive areas shall apply.
- B. Areas characterized by particular environmentally sensitive areas may also be subject to other regulations established by this chapter due to the overlap or multiple functions of some environmentally sensitive areas. Wetlands, for example, may be defined and regulated according to the wetland, fish and wildlife habitat, and stream area provisions of this chapter. In the event of any conflict between regulations for particular environmentally sensitive areas in this chapter, the regulations which provide greater protection to environmentally sensitive areas shall apply. (Ord. 00-387 § 1(part), 2000)

#### 16.10.060 Permit process and application requirements.

- A. Preapplication Conference. All applicants are encouraged to meet with the town prior to submitting an application subject to this section. The purpose of this meeting shall be to discuss the town's environmentally sensitive area requirements, processes and procedures; to review any conceptual site plans prepared by the applicant; to identify

potential impacts to environmentally sensitive areas and appropriate mitigation measures; and to generally inform the applicant of any federal or state regulations applicable to the subject environmentally sensitive area. Such conference shall be for the convenience of the applicant and any recommendations shall not be binding on the applicant or the town.

B. Application Requirements.

1. Exemptions. The town requires that all landowners requesting a permit for development, who will be working within an environmentally sensitive area, even if the work may be determined to be exempt, fill out an environmentally sensitive area worksheet and register for an environmentally sensitive area exemption permit. There is no fee for an environmentally sensitive area exemption permit.
2. Environmentally Sensitive Areas Report Contents. Reports and studies required to be submitted by this chapter shall contain the information indicated in this chapter applicable to each environmentally sensitive area.

C. Consultant Qualifications and Town Review. All reports and studies required of the applicant by this chapter shall be prepared by a qualified consultant as that term is defined in these regulations. The town may, at its discretion, retain a qualified consultant to review and confirm the applicant's reports, studies and plans. Consultant costs for this review shall be the responsibility of the applicant. Advance deposits shall be collected to cover estimated costs.

D. Permit Process. This chapter does not create a requirement to obtain a separate environmentally sensitive areas permit for development proposals. The town shall consolidate and integrate the review and processing of environmentally sensitive areas aspects of proposals with other land use and environmental considerations and approvals. (Ord. 00-387 § 1(part), 2000)

16.10.070 Classification and rating of environmentally sensitive areas.

To promote consistent application of the standards and requirements of this chapter, environmentally sensitive areas within the town shall be rated or classified according to their characteristics, functions and values, and/or their sensitivity to disturbance.

A. Wetland Classification. Wetlands, as defined by this chapter, shall be designated Type I, Type II, Type III, Type IV and artificial according to the criteria in this section. Wetland classes as that term is used in this subsection are defined in Section 16.10.340.

1. "Type I wetlands" are those wetlands which meet any of the following criteria:
  - a. Wetlands which include the presence of species proposed or listed by the federal government or state of Washington as endangered, threatened, environmentally sensitive or monitor, or the presence of critical or outstanding actual or potential habitat for those species; or
  - b. Wetlands having forty percent to sixty percent open water in dispersed patches with two or more wetland subclasses of vegetation; or
  - c. High quality examples of a native wetland listed in the terrestrial and/or aquatic ecosystem elements of the Washington Natural Heritage Plan that are presently identified as such or are determined to be of heritage quality by the Department of Natural Resources; or
  - d. The presence of plant associations of infrequent occurrence. These include, but are not limited to, plant associations found in bogs and in wetlands with a coniferous forested wetland class or subclass occurring on organic soils.
2. "Type II wetlands" are those wetlands which are not Type I wetlands and meet any of the following criteria:
  - a. Wetlands greater than one acre in size;
  - b. Wetlands equal to or less than one acre but greater than one-half acre in size and having three or more wetland classes;
  - c. Wetlands equal to or less than one acre but greater than one-half acre in size that have a forested wetland class or subclasses.
3. "Type III wetlands" are those wetlands that are equal to or less than one acre in size and that have one or two wetland classes and are not rated as type IV wetlands, or wetlands less than one-half acre in size having either three wetlands classes or a forested wetland class or subclass.

4. "Type IV wetlands" are those wetlands that are equal to or less than two thousand five hundred square feet, and that are hydrologically isolated and have only one wetland class which is not forested.
  5. "Artificially created wetlands" are those wetlands which were deliberately or accidentally created for landscaping and or stormwater purposes and do not include wetlands created as mitigation, and wetlands modified for approved land use activities. Purposeful or accidental creation must be demonstrated to the town through documentation, photographs, statements and/or other evidence. Artificial wetlands intentionally created from nonwetland sites for the purposes of wetland mitigation are regulated under this section.
- B. Stream Classification. Streams shall be designated Class I, Class II, Class III and Class IV according to the criteria in this section. When more than one stream class is present in alternating segments on the property in question it will be classified according to the stream class which is more restrictive.
1. "Class I streams" are those streams identified as "Shorelines of the State" under the Snohomish County shoreline master program, adopted by reference by the town, as amended.
  2. "Class II streams" are those natural streams that are not Class I streams and are either perennial or intermittent and have one of the following characteristics:
    - a. Salmonid fish use;
    - b. Potential for salmonid fish use or benefit; or
    - c. Significant recreational value.
  3. "Class III streams" are those natural streams with perennial (year-round) or intermittent flow and are not used by salmonid fish and have no potential to be used by salmonid fish, but which contribute water to streams or waterbodies used by threatened or endangered species.
  4. "Class IV streams" are those streams and natural drainage swales with perennial or intermittent flow with channel width less than two feet taken at the ordinary high water mark, that are not used by salmonid fish and which are not hydrologically connected to waterbodies used by threatened or endangered species.
  5. "Intentionally created streams" are those man-made streams purposefully created, and do not include streams created as mitigation. Purposeful creation must be demonstrated to the town through documentation, photographs, statements and/or other evidence. Intentionally created streams may include irrigation and drainage ditches, grass-lined swales and canals. Intentionally created streams are excluded from regulation under this section, except man-made streams that provide or contribute to critical habitat for anadromous fish and/or threatened or endangered species.
- C. Fish and Wildlife Habitat Classification. "Critical habitat" includes those areas which meet any of the following criteria:
1. The documented presence of species proposed or listed by the federal government or state of Washington as endangered, threatened, environmentally sensitive, monitor or priority;
  2. The presence of heron rookeries or raptor nesting trees;
  3. Type I-II wetlands and their buffers as defined in these regulations; or
  4. Class I-II streams and their buffers, as defined in these regulations;
  5. Species of local significance as identified in the town comprehensive plan;
  6. Areas of previously undisturbed native vegetation and or stands of significant trees which provide a corridor between any of the critical habitat areas listed in subsections (C)(1) through (C)(5) of this section.
- D. Geologic Hazard Classifications. Geologic hazard areas shall be classified according to the criteria in this section.
1. Critical Erosion Hazard Areas. Critical erosion hazard areas are lands or areas underlain by soils identified by the U.S. Department of Agriculture Soil Conservation Service ("SCS") as having "severe" or "very severe" erosion hazards.
  2. Landslide Hazard Areas. Landslide hazard areas are classified as "Class I," "Class II," "Class III" or "Class IV" as follows:
    - a. Class I/Low Hazard. Areas with slopes of less than fifteen percent;
    - b. Class II/Moderate Hazard. Areas with slopes between fifteen percent and forty percent and that are underlain by soils that consist largely of sand, gravel or glacial till;
    - c. Class III/High Hazard. Areas with slopes between fifteen percent and forty percent that are underlain by soils consisting largely of silt and clay or by soils that have sand over clay;

- d. Class IV/Very High Hazard. Areas with slopes steeper than fifteen percent with zones of emergent water (e.g., springs or groundwater seepage), areas of landslide deposits regardless of slope, and all areas sloping forty percent or steeper.
3. Seismic Hazard Areas. Seismic hazard areas are lands that, due to a combination of soil and groundwater conditions, are subject to severe risk of ground shaking, subsidence or liquefaction of soils during earthquakes. These areas are typically underlain by soft or loose saturated soils (such as alluvium), have a shallow groundwater table.
- E. Aquifer Recharge and Wellhead Protection Areas. Aquifer recharge and wellhead protection areas shall be classified as "low," "medium" and "high" significance based on the soil and groundwater conditions and risks to drinking water. Classification depends on the combined effects of hydrogeological susceptibility to contamination and contaminant loading potential, and presence of municipal water well head areas, as follows:
  1. Low Significance/Low Susceptibility Recharge Areas. Upland areas underlain by soils consisting largely of silt, clay or glacial till;
  2. Medium Significance/Moderate Susceptibility Recharge Areas. Upland areas underlain by soils consisting largely of sand and gravel;
  3. High Significance/High Susceptibility Recharge Areas. Wellhead protection areas and areas underlain by soils consisting largely of sand and gravel in which there is a predominantly downward or lateral component to groundwater flow, and which serve as a source of drinking water.
- F. Classification of environmentally sensitive areas shall be determined by the town based on consideration of the following factors:
  1. Maps adopted pursuant to this chapter;
  2. Application of the criteria contained in these regulations; and
  3. Consideration of the technical reports submitted by qualified consultants in connection with applications subject to these regulations. (Ord. 00-387 § 1(part), 2000)

16.10.080 Buffer areas.

- A. The establishment of buffer areas shall be required for all development proposals and activities in or adjacent to environmentally sensitive areas. The purpose of the buffer shall be to protect the integrity, function, value and resource of the subject environmentally sensitive area, and/or to protect life, property and resources from risks associated with development on unstable or environmentally sensitive lands. Buffers shall consist of an undisturbed area of native vegetation established to achieve the purpose of the buffer. If the site has previously been disturbed, the buffer area shall be revegetated pursuant to an approved planting plan. Buffers shall be protected during construction by placement of a temporary barricade outside the buffer area, on-site notice for construction crews of the presence of the environmentally sensitive area, and implementation of appropriate erosion and sedimentation controls, including review and approval of a temporary erosion and sedimentation control plan ("TESC"). Permanent field markings, restrictive covenants and/or dedication of conservation easements may be required to preserve and protect buffer areas.
- B. Required buffer widths shall reflect the sensitivity of the particular environmentally sensitive area and resource or the risks associated with development and, in those circumstances permitted by these regulations, the type and intensity of human activity and site design proposed to be conducted on or near the environmentally sensitive area. Buffers or setbacks shall be measured as follows:
  1. Wetland buffers: from the wetland edge as delineated and marked in the field using the current version of the adopted wetland manual, as per the definitions section of this code.
  2. Stream buffers: from the ordinary high water mark, or from the top of the bank if the ordinary high water mark can not be determined.
  3. Critical landslide hazard areas: from the top and toe and, where applicable, from the point where the top meets the toe. (Ord. 00-387 § 1(part), 2000)

16.10.090 Wetland buffers.

A. Wetland buffers shall be established as follows:

B. Wetland Type	C. Standard Buffer Width D. (feet)	E. Minimum Buffer Width F. (feet)
G. Type I	H. 150	I. 100
J. Type II	K. 100	L. 50
M. Type III	N. 50	O. 25
P. Type IV	Q. 25	R. 10

The town may extend the width of the buffer on the basis of site-specific analysis when necessary to achieve the goals of this chapter.

- B. The standard buffer width will be established unless the applicant can demonstrate one or both of the following:
1. The proposed uses and/or activities are considered low impact if the proponent can demonstrate that the proposed buffer reduction will have no significant impact on the function or value of the environmentally sensitive area and meet the following conditions:
    - a. The site layout includes no parking, outdoor storage, or use of any kind of machinery between building and buffer;
    - b. The proposed use does not involve usage or storage of chemicals;
    - c. Passive areas are located adjacent to buffer; and
    - d. Environmentally sensitive area and buffer protections are incorporated into the site design. These may include use of landscaping features, berms, fences, water quality protections and other measures which preserve the character and function of the environmentally sensitive area.
  2. Buffer enhancement is implemented through the review and adoption of an approved buffer enhancement plan ("BEP"). The buffer enhancement plan should include, but is not limited to the following:
    - a. Enhancement of fish and wildlife habitat by incorporating structures that are likely to be used by fish and wildlife, including wood duck houses, bat boxes, nesting platforms, snags, rootwads/stumps, birdhouses and/or heron nesting areas;
    - b. Planting native vegetation that would increase value for fish and fish and wildlife habitat, improve water quality, or provide aesthetic/recreational value; and/or
    - c. Provision of physical barriers, berms, fences or landscape features which protect wetland character and function, exclude domestic animals, and/or increase habitat protections.
- C. Wetland buffer widths may be modified by averaging buffer widths as set forth herein.
1. Buffer width averaging shall be allowed only where the applicant demonstrates to the town that the wetland contains variations in sensitivity due to existing physical characteristics, that lower intensity land uses would be located adjacent to areas where buffer width is reduced, that width averaging will not adversely impact the wetland functional values, and that the total area contained within the buffer after averaging is no less than that contained within the standard buffer prior to averaging. Buffer averaging shall not result in buffer width being reduced, at any location, by more than twenty-five percent of the required buffer as set forth in the table in subsection A of this section and in no case may the buffer be less than twenty-five feet in width.
  2. A buffer enhancement plan (BEP) may be required, if buffer averaging is proposed.
- D. Low impact uses and activities which are consistent with the purpose and function of the wetland buffer and do not detract from its integrity may be permitted within the buffer depending on the sensitivity of the wetland. Examples of uses and activities which may be permitted in appropriate cases include properly constructed, semi-pervious trails, viewing platforms, and utility easements; provided, that any impacts to the buffer resulting from such permitted activities shall be mitigated. Uses permitted within the buffer shall be located as far from the wetland as possible.
- E. Stormwater management facilities, such as grass-lined swales, may not be located within the minimum buffer area as set forth in the table in subsection A of this section, however they may be located within the standard buffer area. Treated stormwater discharge may be permitted consistent with an approved stormwater management plan.

- F. The town may extend the width of the buffer on the basis of site-specific analysis when necessary to comply with a basin plan adopted by the town in accordance with county or regional plans to preserve endangered or threatened species.
- G. When a development permit is required, a regulated wetland and its associated buffer shall either be placed in a separate tract on which development is prohibited, protected by execution of an easement, dedicated to a conservation organization or land trust, or similarly preserved through a permanent protective mechanism acceptable to the town. In this case, the location and limitations associated with the environmentally sensitive area and its buffer shall be shown on the face of the deed or plat applicable to the property and shall be recorded with the Snohomish County department of records.
- H. Wetlands and their buffers shall be permanently marked by green metal fence posts in a manner acceptable to the town with two inch by two foot rebar buried beside each post. The number of post/rebar markers shall be sufficient to indicate the boundary of the buffer and the minimum shall be two. The approximate location of the posts based on measurements shall be shown on a site plan which shall be recorded with the Snohomish County department of records. It shall be the responsibility of the property owner to maintain, and if necessary reestablish these permanent markers. (Ord. 00-387 § 1(part), 2000)

16.10.100 Stream buffers.

- A. The following buffers are established for streams:

I. Stream Class	J. Standard Buffer Width (feet)	K. Minimum Buffer Width (feet)
L. Class I	M. 250	N. 150
O. Class II	P. 100	Q. 75
R. Class III	S. 75	T. 25
U. Class IV	V. 50	W. 25

- B. The standard buffer width will be established unless the applicant can demonstrate one or both of the following:
  - 1. The proposed use and/or activities are considered low impact, and meet the following conditions:
    - a. The site layout includes no parking, outdoor storage or use of any kind of machinery between building and buffer;
    - b. Use does not involve usage or storage of chemicals;
    - c. Passive areas are located adjacent to buffer; and
    - d. Stream and buffer protections are incorporated into the site design; these may include use of landscaping features, berms, fences, water quality protections and other measures which preserve the character and function of the stream and its buffer.
  - 2. Stream and buffer enhancement is implemented through the review and adoption of an approved buffer enhancement plan (BEP). The buffer enhancement plan should include but is not limited to the following applicable provisions:
    - a. Removal of fish barriers to restore accessibility to anadromous fish;
    - b. Enhancement of fish habitat using log structures incorporated as part of a fish habitat enhancement plan;
    - c. Enhancement of fish and wildlife habitat structures that are likely to be used by fish and wildlife, including wood duck houses, bat boxes, nesting platforms, snags, rootwads/stumps, birdhouses, and/or heron nesting areas;
    - d. Planting native vegetation within the buffer area, especially vegetation that would increase value for fish and wildlife, increase stream bank or slope stability, improve water quality, or provide aesthetic/recreational value;
    - e. Create a surface channel where a stream was previously culverted or piped;
    - f. Remove or modify existing stream culverts (such as at road crossings) to improve fish passage and flow capabilities;

- g. Upgrade and enhance retention/detention facilities or other drainage facilities.
- C. No structures or improvements shall be permitted within the stream buffer area, including buildings, decks, docks, except under one of the following circumstances:
  - 1. When the improvements are part of an approved rehabilitation or mitigation plan; or
  - 2. For construction of new roads and utilities, and accessory structures, when no feasible alternative location exists; or
  - 3. Construction of trails, according to the following criteria:
    - a. Constructed of permeable or semi-permeable materials,
    - b. Designed to minimize impact on the stream system,
    - c. Of a maximum trail corridor width of five feet (see Section 16.10.030(A)(11)), and
    - d. Located within the outer half of the buffer, i.e., the portion of the buffer that is farther away from the stream; or
  - 4. Construction of footbridges; or
  - 5. Construction of educational facilities and informational signs; or
  - 6. Stormwater management facilities, such as grass-lined swales, may not be located within the minimum buffer area as set forth in the table in subsection A of this section. Treated stormwater discharge may be permitted consistent with an approved stormwater management plan.
- D. The town may extend the width of the buffer on the basis of site-specific analysis when necessary to comply with a basin plan adopted by the town in accordance with county or regional plans to preserve endangered or threatened species.
- E. Stream buffer widths may be modified by averaging buffer widths as set forth herein.
  - 1. Buffer width averaging shall be allowed only where the applicant demonstrates to the town that the stream contains variations in sensitivity due to existing physical characteristics, that lower intensity land uses would be located adjacent to areas where buffer width is reduced, and that the total area contained within the buffer after averaging is no less than that contained within the standard buffer prior to averaging. Buffer averaging shall not result in the buffer width being reduced by more than twenty-five percent of the required buffer as set forth in the table in subsection A of this section and in no case may the buffer be less than twenty-five feet in width.
  - 2. A buffer enhancement plan (BEP) may be required, if buffer averaging is proposed.
- F. When a development permit is required, a regulated stream and its associated buffer shall be placed either in a separate tract on which development is prohibited, protected by execution of an easement, dedicated to a conservation organization or land trust, or similarly preserved through a permanent protective mechanism acceptable to the town. In this case, the location and limitations associated with the stream and its buffer shall be shown on the face of the deed or plat applicable to the property and shall be recorded with the Snohomish County department of records.
- G. When a development permit is required, buffers shall be permanently marked by green metal fence posts in a manner acceptable to the town with one inch by two foot rebar buried beside each post. The number of post/rebar markers shall be sufficient to indicate the boundary of the buffer and the minimum shall be two. The approximate location of the posts based on measurements shall be shown on a site plan which shall be recorded with the Snohomish County department of records. It shall be the responsibility of the property owner to maintain, and if necessary reestablish these permanent markers. (Ord. 00-387 § 1(part), 2000)

#### 16.10.110 Fish and wildlife habitat area buffers.

- A. Buffer widths for critical habitat areas shall be based on consideration of the following factors: species recommendations of the Washington State Department of Fish and Wildlife; recommendations contained in the fish and wildlife study submitted by a qualified consultant; and the nature and intensity of land uses and activities occurring on the site and on adjacent sites.
- B. Low impact uses and activities which are consistent with the purpose and function of the critical habitat buffer and do not detract from its integrity may be permitted within the buffer depending on the sensitivity of the habitat area.

Examples of uses and activities which may be permitted in appropriate cases include pervious or semi-pervious trails, viewing platforms, stormwater management facilities such as grass-lined swales, and utility easements; provided, that any impacts to the buffer resulting from permitted facilities shall be mitigated.

- C. Critical habitat areas and their associated buffers shall be placed either in a separate tract on which development is prohibited, protected by execution of an easement, dedicated to a conservation organization or land trust, or similarly preserved through a permanent protective mechanism acceptable to the town. The location and limitations associated with the critical habitat and its buffer shall be shown on the face of the deed or plat applicable to the property and shall be recorded with the Snohomish County department of records and elections. (Ord. 00-387 § 1(part), 2000)

#### 16.10.120 Geologic hazard area buffers.

- A. Required buffers shall vary between twenty-five feet and fifty feet in most cases. The width of the buffer shall reflect the sensitivity of the geologic hazard area in question and the types and density of uses proposed on or adjacent to the geologic hazard. In determining the appropriate buffer width, the town shall consider the recommendations contained in any technical report required by these regulations and prepared by a licensed geotechnical engineer retained by the applicant.
- B. Buffers may be reduced to a minimum of fifteen feet when the applicant demonstrates through technical studies that the reduction will adequately protect the proposed and surrounding development from the geologic hazard. (Ord. 00-387 § 1(part), 2000)

#### 16.10.130 Buffer width variances.

Required buffers shall not deny all reasonable use of property. A variance from buffer width requirements may be granted by the town subject to the variance criteria set forth in Section 2.24.110, and upon a showing by the applicant that:

- A. Such buffer width variance is necessary for the preservation and enjoyment of a substantial property right or use possessed by other similarly situated property but which because of special circumstances is denied to the property in question; and
- B. There are special circumstances applicable to the subject property or to the intended use such as shape, topography, location or surroundings that do not apply generally to other properties in the same zoning district, and which support the granting of a variance from the buffer width requirements; and
- C. The granting of such buffer width variance will not be materially detrimental to the public welfare or injurious to the property or improvement; and
- D. The granting of the buffer width variance will not impact the subject environmentally sensitive area;
- E. The granting of a request for buffer width variance may include requirements to prepare and implement a buffer enhancement plan, or to otherwise enhance, restore or replace environmentally sensitive areas and their buffers consistent with the standards of this chapter. (Ord. 00-387 § 1(part), 2000)

#### 16.10.140 Alteration or development of environmentally sensitive areas-Standards and criteria.

Alteration and development of environmentally sensitive areas within the town may only be permitted subject to the standards and criteria of this chapter. (Ord. 00-387 § 1(part), 2000)

#### 16.10.150 General mitigation standards.

All impacts to environmentally sensitive areas functions and values shall be mitigated. Mitigation actions by an applicant or property owner shall occur in the following sequence:

- A. Avoiding the impact altogether by not taking a certain action or parts of actions;
- B. Minimizing impacts by limiting the degree or magnitude of the action and its implementation;
- C. Rectifying the impact by repairing, rehabilitating or restoring the affected environment;
- D. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and/or

E. Compensating for the impact by replacing or providing substitute resources or environments. (Ord. 00-387 § 1(part), 2000)

16.10.160 Other appropriate mitigation actions.

Where impacts cannot be avoided, and the applicant has exhausted feasible design alternatives, the applicant or property owner shall seek to implement other appropriate mitigation actions in compliance with the intent, standards and criteria of this chapter. In an individual case, these actions may include consideration of alternative site plans and layouts, reductions in the density or scope of the proposal, and/or implementation of the performance standards listed in this chapter. (Ord. 00-387 § 1(part), 2000)

16.10.170 Alteration of wetlands.

A. Alterations of Type I wetlands shall be prohibited subject to the reasonable use provisions of this chapter. Any alteration permitted subject to the reasonable use provisions shall be required to meet the performance and mitigation standards of these regulations.

B. Type II-IV Wetlands.

1. Any proposed alteration and mitigation shall comply with the mitigation performance standards and requirements of these regulations; and

2. No net loss of wetland function and value may occur.

C. Where enhancement or replacement is proposed, ratios shall comply with the requirements of Section 16.10.230(C)(2). (Ord. 00-387 § 1(part), 2000)

16.10.180 Alteration of streams.

A. Relocation of a Class I, II or III stream to facilitate general site design, driveway access, or building location will not be allowed. Relocation of these classes of streams may take place only as part of an approved mitigation or rehabilitation plan that will result in equal or better habitat and water quality, and will not diminish the flow capacity of the stream.

B. Bridges shall be used to cross Class I streams.

C. Culverts are allowable only under the following circumstances:

1. Only in Class II, III and IV streams;

2. When fish passage will not be impaired;

3. When the following design criteria are met:

a. Oversized culverts will be installed,

b. Culverts will include gradient controls and creation of pools within the culvert for Class II streams where appropriate, and

c. Gravel substrate will be placed in the bottom of the culvert to a minimum depth of one foot for Class II streams;

4. The applicant or successors shall, at all times, keep any culvert free of debris and sediment to allow free passage of water and, if applicable, fish. A maintenance and inspection plan and bond, to be reviewed and approved by the town may be required as a condition of approval.

D. The town may require that a stream be removed from a culvert as a condition of approval or the culvert reconstructed to the standards of this chapter, unless the culvert is not detrimental to fish habitat or water quality, or removal and/or replacement is deemed detrimental to fish or fish and wildlife habitat or water quality. (Ord. 00-387 § 1(part), 2000)

16.10.190 Alteration of fish and wildlife habitat areas.

Critical Habitat. Alterations to critical habitat shall be prohibited, subject to Section 16.10.330, Reasonable use provision. Any alteration permitted subject to the reasonable use provisions shall be required to meet the performance and mitigation standards of these regulations. (Ord. 00-387 § 1(part), 2000)

16.10.200 Alteration of geologic hazard areas.

- A. The town shall approve, condition or deny proposals in a geologic hazard area as appropriate based upon the effective mitigation of risks posed to property, health and safety. The objective of mitigation measures shall be to render a site containing a critical geologic hazard site as safe as one not containing such hazard. Conditions may include limitations of proposed uses, modification of density, alteration of site layout and other appropriate changes to the proposal. Where potential impacts cannot be effectively mitigated, or where the risk to public health, safety and welfare, public or private property, or important natural resources is significant notwithstanding mitigation, the proposal shall be denied.
- B. Class IV Landslide Hazard Areas. Development shall be prohibited in Class IV (very high) landslide hazards areas except for the installation and construction of streets and/or utilities excluding natural gas, petroleum and other potential hazardous utilities, subject to the criteria below. The town shall refer the proposed project to the town council for review and approval.
1. The proposed street and/or utility is identified in an adopted plan as of April 17, 2000, such as the comprehensive plan, capital facility plan, transportation improvement plan or other utility facility plan. As new or amended plans are prepared and adopted, streets and utilities shall be located to avoid impact to Class IV landslide hazard areas. Where no reasonable alternative to locating in Class IV landslide hazard areas exists, review and approval of the plan shall include a discussion of alternatives and rationale for planning streets and utilities in Class IV landslide hazard areas.
  2. Alternative locations, which avoid impact to Class IV landslide hazard areas are evaluated and are determined to be functionally infeasible.
  3. There is a geotechnical evaluation to identify the risks of damage from the proposal, both on-site and off-site, to ascertain that the proposal will not increase the risk of occurrence of the potential geologic hazard; and to identify measures to eliminate or reduce risks, both on-site and off-site, which should be implemented as conditions of approval.
  4. When no alternative exists, the impact shall be minimized by limiting the magnitude of the proposed construction to the extent possible. Any impacts shall be rectified by repairing, rehabilitating, restoring, replacing or providing substitute resources consistent with the mitigation and performance standards contained in Sections 16.10.230 and 16.10.240.
- C. Critical Seismic Hazard Areas.
1. For one-story and two-story residential structures and accessory buildings, the applicant shall conduct an evaluation of site response and liquefaction potential based on the performance of similar structures under similar foundation conditions; and
  2. For all other proposed structures, the applicant shall conduct an evaluation of site response and liquefaction potential including sufficient subsurface exploration to provide a site coefficient (S) for use in the static lateral force procedure described in the Uniform Building Code.
- D. When development is permitted in geologic hazard areas by these regulations, an applicant and/or its licensed geotechnical engineer shall provide assurances which include the following:
1. A letter under seal from a licensed geotechnical engineer shall be recorded with the Snohomish County department of records and elections which states that in the engineer's professional opinion, all needed surface and subsurface soil explorations have been completed, a thorough review has been made of public records, and all needed analysis has been completed such that if the engineers' recommendations are followed any recommended structure will be as safe on the site containing the critical geologic hazard as it would be on a site not containing such hazard and that the use of the site according to the engineer's recommendations will not increase likelihood of damage to neighboring properties.
  2. A legal statement shall be recorded and noted on the face of the deed and on any new plat, executed in a form satisfactory to the town, which characterizes the site as being located in a geologic hazard area, and which states there may or may not be risks associated with development of such site, and which references the engineer's recorded letter required by the prior subsection; and

3. If deemed necessary by the town, the posting of a bond, guarantee or other assurance device reviewed and approved by the town to cover the cost of monitoring, maintenance and any necessary corrective actions. (Ord. 00-387 § 1(part), 2000)

16.10.210 Alteration of aquifer recharge and wellhead protection areas.

- A. The following land uses and activities shall be prohibited in critical (high significance/ high susceptibility) aquifer recharge and wellhead protection areas:
  1. Land uses and activities that involve the use, storage, transport or disposal of significant quantities of chemicals, substances or materials that are toxic, dangerous or hazardous, as those terms are defined by state and federal regulations;
  2. On-site community sewage disposal systems;
  3. Underground storage of chemicals;
  4. Petroleum pipelines; and
  5. Solid waste landfills.
- B. Medium or Low Significance Recharge Areas. Development within medium or low significance aquifer recharge and wellhead protection areas, as those terms are defined in these regulations, shall implement the mitigation standards contained in Section 16.10.230 through 16.10.300. (Ord. 00-387 § 1(part), 2000)

16.10.220 Proposed development.

Development proposed in environmentally sensitive areas shall incorporate and reflect the performance standards contained in Sections 16.10.240 through 16.10.280. (Ord. 00-387 § 1(part), 2000)

16.10.230 Mitigation standards, criteria and plan requirements.

- A. Mitigation Performance Standards. Significant adverse impacts to environmentally sensitive area functions and values shall be mitigated. Mitigation actions shall be implemented in the preferred sequence identified in Section 16.10.150. Proposals which include less preferred and/or compensatory mitigation shall demonstrate that:
  1. All feasible and reasonable measures will be taken to reduce impacts and losses to the environmentally sensitive area, or to avoid impacts where avoidance is required by these regulations; and
  2. The restored, created or enhanced environmentally sensitive area or buffer will demonstrate similar functions, values and characteristics as the environmentally sensitive area or buffer area it replaces; and
  3. In the case of wetlands, streams and critical habitat, no overall net loss will occur in wetland or stream functions and values.
- B. Location and Timing of Mitigation.
  1. Mitigation shall be provided on-site, unless on-site mitigation is not scientifically feasible due to physical features of the property. The burden of proof shall be on the applicant to demonstrate that mitigation cannot be provided on-site.
  2. When mitigation cannot be provided on-site, mitigation shall be provided in the immediate vicinity of the permitted activity on property owned or controlled by the applicant, such as an easement; provided, such mitigation is beneficial to the environmentally sensitive area and associated resources.
  3. In-kind mitigation shall be provided except when the applicant demonstrates, and the town concurs, that greater functional and habitat value can be achieved through out-of-kind mitigation.
  4. Only when it is determined by the town that subsections (B)(1), (B)(2) and (B)(3) of this section are inappropriate and impractical shall off-site, out-of-kind mitigation be considered.
  5. When wetland or stream mitigation is permitted by these regulations on-site or offsite, the mitigation project shall occur near an adequate water supply (river, stream, groundwater) with a hydrologic connection to the environmentally sensitive area to ensure successful development or restoration. The proposed restoration project shall demonstrate no adverse impacts to the hydrologic source.

6. Any agreed upon mitigation proposal shall be completed concurrently with project construction, unless a phased schedule, that assures completion prior to occupancy, has been approved by the town. Phased construction shall require bonding consistent with review and approval by the town.
7. Wetland acreage replacement ratios shall be as specified in subsection (C)(2) of this section.
8. Restored or created streams, where permitted by these regulations, shall be an equivalent or higher stream value or function than the altered stream.

C. Wetland Replacement Ratios.

1. Where wetland alterations are permitted by the town, the applicant shall restore or create areas of wetlands in order to compensate for wetland losses. Equivalent areas shall be determined according to acreage, function, type, location, timing factors and projected success of restoration or creation.
2. When creating or enhancing wetlands, the following acreage replacement ratios shall be used:

Wetland Type	Wetland Creation Replacement Ratio (Area)	Wetland Enhancement Ratio (Area)
Type I	6:1	2:1
Type II	2:1	1:1
Type III	2:1	1:1

3. Enhanced wetlands shall have higher wetland values and functions than the altered wetland. The values and functions transferred shall be of equal or greater quality to assure no net loss of wetland values and functions.
4. Enhanced and created wetlands shall be appropriately classified and buffered. (Ord. 00-387 § 1(part), 2000)

16.10.240 Performance standards for mitigation planning.

The performance standards in Sections 16.10.250 through 16.10.280, and the standards contained in Sections 16.10.140 through 16.10.230, shall be incorporated into mitigation plans submitted to the town for impacts to environmentally sensitive areas. (Ord. 00-387 § 1(part), 2000)

16.10.250 Wetlands and streams performance standards.

- A. Standards for Planting Plans. A planting plan shall be submitted to the town for review and approval. The planting plan shall address the following design standards:
  1. Plants indigenous to the region (not introduced or foreign species) shall be used.
  2. Plants adaptable to a broad range of water depths shall be used.
  3. Plants should be commercially available or available from local sources.
  4. Plant species high in food and cover value for fish and wildlife shall be used.
  5. Mostly perennial species should be planted.
  6. Committing significant areas of the site to species that have questionable potential for successful establishment shall be avoided.
  7. Plant selection must be approved by a qualified consultant.
- B. The following standards shall apply to wetland design and construction:
  1. Water depth shall not to exceed six and one-half feet (two meters).
  2. The grade or slope that water flows through the wetland shall not to exceed six percent.
  3. Slopes within the wetland basin and the buffer zone shall not be steeper than 3:1 (horizontal to vertical).
  4. The wetland (excluding the buffer area) should not contain more than sixty percent open water as measured at the seasonal high water mark.
- C. Substrate should consist of a minimum of one foot, in depth, of clean (uncontaminated with chemicals or solid/hazardous wastes) inorganic/organic materials.
- D. Planting densities and placement of plants should be determined by a qualified consultant and shown on the design plans.
- E. The planting plan shall be approved by the town.

- F. Stockpiling should be confined to upland areas and contract specifications should limit stockpiling of earthen materials to durations in accordance with town clearing and grading standards, unless otherwise approved by the town.
- G. Planting instructions shall be submitted which describe proper placement, diversity and spacing of seeds, tubers, bulbs, rhizomes, sprigs, plugs and transplanted stock.
- H. Controlled release fertilizer shall be applied (if required) at the time of planting and afterward only as plant conditions warrant (determined during the monitoring process).
- I. An irrigation system shall be installed, if necessary, for the initial establishment period.
- J. All construction specifications and methods shall be approved by a qualified consultant and the town.
- K. Construction management shall be provided by a qualified consultant. On-going work on-site shall be inspected by the town. (Ord. 00-387 § 1(part), 2000)

16.10.260 Fish and wildlife habitat area performance standards.

- A. Relevant performance standards from Section 16.10.250, as determined by the town, shall be incorporated into habitat area mitigation plans.
- B. The following additional mitigation measures shall be reflected in mitigation planning:
  - 1. Consider habitat in site planning and design;
  - 2. Locate buildings and structures in a manner that preserves and avoids all adverse impacts to important habitat areas;
  - 3. Integrate retained habitat into open space and landscaping;
  - 4. Consolidate habitat and vegetated open space in contiguous blocks;
  - 5. Locate habitat contiguous to other habitat open space or landscaped areas to contribute to a continuous system or corridor that provides connections to adjacent habitat areas;
  - 6. Use native species in any landscaping of disturbed or undeveloped areas and in any enhancement of habitat or buffers;
  - 7. Emphasize heterogeneity and structural diversity of vegetation in landscaping;
  - 8. Preserve significant trees, preferably in groups, consistent with the tree preservation ordinance and with achieving the objectives of these standards. (Ord. 00-387 § 1(part), 2000)

16.10.270 Geologic hazard area performance standards.

- A. Relevant performance standards from Sections 16.10.250 and 16.10.260, as determined by the town, shall be incorporated into mitigation plans.
- B. The following additional performance standards shall be reflected in proposals within geologic hazard areas:
  - 1. Geotechnical studies shall be prepared by a licensed geotechnical engineer to identify and evaluate potential hazards and to formulate mitigation measures;
  - 2. Construction methods shall reduce or not adversely affect geologic hazards;
  - 3. Site planning should minimize disruption of existing topography and natural vegetation;
  - 4. Impervious surface coverage should be minimized;
  - 5. Disturbed areas should be replanted as soon as feasible pursuant to an approved landscape plan;
  - 6. Clearing and grading regulations as set forth by the town shall be followed;
  - 7. Use of retaining walls that allow maintenance of existing natural slope areas are preferred over graded slopes;
  - 8. Temporary erosion and sedimentation controls, pursuant to an approved plan, shall be implemented during construction;
  - 9. Undevelopable geologic hazard areas larger than one-half acre shall be placed in a separate tract; provided, this requirement does not make the lot nonconforming;
  - 10. A monitoring program, reviewed and approved by the town, shall be prepared for construction activities permitted in geologic hazard areas; and
  - 11. Development shall not increase instability or create a hazard to the site or adjacent properties, or result in a significant increase in sedimentation or erosion. (Ord. 00-387 § 1(part), 2000)

16.10.280 Aquifer recharge and wellhead protection area performance standards.

Any uses or activities locating in aquifer recharge and wellhead protection areas of medium or high significance which involve the use, storage, transport or disposal of significant quantities of chemicals, substances or materials that are toxic, dangerous or hazardous, as those terms are defined by state and federal regulations, shall comply with the following additional standards:

- A. Development within aquifer recharge and wellhead protection areas of high significance, as that term is defined in these regulations, shall prepare a materials management plan for review and approval by the town, which shall implement the following measures:
1. Development should be clustered and impervious surfaces limited where possible;
  2. Underground storage of chemicals, substances or materials that are toxic, hazardous or dangerous is discouraged;
  3. Any chemicals, substances or materials that are toxic, hazardous or dangerous shall be segregated and stored in receptacles or containers that meet state and federal standards;
  4. Storage containers shall be located in a designated, secured area that is paved and able to contain leaks and spills, and surrounded by a dike;
  5. Secondary containment devices shall be constructed around storage areas that are sufficient to prevent the spread of any spills, and a monitoring system shall be implemented;
  6. A written operations plan shall be developed, including procedures for loading/unloading liquids and for training of employees in proper materials handling;
  7. An emergency response/spill clean-up plan shall be prepared and employees properly trained in reacting to accidental spills;
  8. Any aboveground storage tanks shall be located within a diked area on an impervious surface. The tanks shall include overfill protection systems and positive controls on outlets to prevent uncontrolled discharges;
  9. No waste liquids or chemicals of any kind shall be discharged to storm sewers; and
  10. All development shall implement best management practices (BMPs) for water quality, as approved by the town, such as biofiltration swales and use of oil-water separators, and BMPs appropriate to the particular use proposed.
- B. Development within all aquifer recharge and wellhead protection areas shall implement best management practices (BMPs) for water quality and stormwater as approved by the town. (Ord. 00-387 § 1(part), 2000)

16.10.290 Approved mitigation projects--Signature.

On completion of construction, any approved mitigation project must be signed of by the applicant's qualified consultant and approved by the town. Approval by the town will indicate that the construction has been completed as planned. (Ord. 00-387 § 1(part), 2000)

16.10.300 Approved mitigation projects-Contingency planning.

Approved mitigation projects shall implement the monitoring and contingency planning requirements of Section 16.10.310. (Ord. 00-387 § 1(part), 2000)

16.10.310 Monitoring program and contingency plan.

- A. A monitoring program shall be implemented by the applicant to determine the success of the mitigation project and any necessary corrective actions. This program shall determine if the original goals and objectives are being met.
- B. A contingency plan shall be established in the event that the mitigation project is inadequate or fails. A performance and maintenance bond or other acceptable security device is required to ensure the applicant's compliance with the terms of the mitigation agreement. The amount of the performance and maintenance bond shall equal one hundred twenty-five percent of the cost of the mitigation project and shall be provided for a minimum of five years. The bonding period shall coincide with the monitoring period.
- C. Monitoring programs prepared to comply with this chapter shall reflect the following guidelines:

1. Use scientific procedures for establishing the success or failure of the project;
2. For vegetation determinations, permanent sampling points shall be established;
3. Vegetative success equals ninety percent per year survival of planted trees and shrubs and ninety percent per year cover of desirable understory or emergent species for the first year and one hundred percent survival for the next four years;
4. Submit monitoring reports on the current status of the mitigation project to the town. The reports are to be prepared by a qualified consultant and reviewed by the town or a consultant retained by the town and should include monitoring information on fish and wildlife, vegetation, water quality, water flow, stormwater storage and conveyance, and existing or potential degradation, and shall be produced on the following schedule: at the time of construction; thirty days after planting; early in the growing season of the first year; end of the growing season of first year; twice the second year; and annually thereafter;
5. Monitoring programs shall be established for a minimum of five years;
6. Monitoring programs shall include provisions to correct for failures in the mitigation project; including replacing dead or undesirable vegetation with appropriate plantings; repairing damages caused by erosion, settling or other geomorphological processes; and redesign of the mitigation project (if necessary) and implementation the new design; and
7. Correction procedures shall be approved by a qualified consultant and the town. (Ord. 00-387 § 1(part), 2000)

#### 16.10.320 Procedural provisions.

- A. Interpretation and Conflicts. Any question regarding interpretation of these regulations shall be resolved pursuant to the procedures set forth in Chapter 14.12.
- B. Penalties and Enforcement. Compliance with these regulations and penalties for their violation shall be enforced pursuant to the procedures set forth in Chapters 14.56 and 14.12.
- C. Appeals from Permit Decisions. Appeals from permit decisions shall be governed by the procedures set forth in Chapter 2.24. (Ord. 00-387 § 1(part), 2000)

#### 16.10.330 Reasonable use provision.

- A. The standards and regulations of those regulations are not intended, and shall not be construed or applied in a manner, to deny all reasonable economic use of private property. If an applicant demonstrates to the satisfaction of the hearing examiner (Chapter 2.24) that strict application of these standards would deny all reasonable economic use of its property, development may be permitted subject to appropriate conditions.
- B. An applicant for relief from strict application of these standards shall demonstrate the following:
  1. No reasonable use with less impact on the environmentally sensitive area and the buffer is feasible and reasonable; and
  2. There is no feasible and reasonable on-site alternative to the activities proposed, considering possible changes in site layout, change in use, reductions in density, application of the buffer width variance and buffer averaging provisions, and similar factors; and
  3. The proposed activities, as conditioned, will result in the minimum possible impacts to affected environmentally sensitive areas; and
  4. All reasonable mitigation measures have been implemented or assured; and
  5. The inability to derive reasonable economic use is not the result of the applicant's actions.
- C. Permits which require "reasonable use" consideration will be considered Type III applications, and will require notice and hearings consistent with the process included in Title 14A. (Ord. 00-387 § 1(part), 2000)

#### 16.10.340 Definitions.

For purposes of this chapter, the following definitions shall apply:

"Applicant" means the person, party, firm, corporation or other entity that proposes any activity that could affect a wetland, a stream or fish and wildlife habitat or other critical area.

“Artificially created wetland,” means wetlands created through purposeful human action from nonwetland sites, such as irrigation and drainage, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities.

“Best available science” in the context of critical areas protection, means a valid scientific process that produces reliable information useful in understanding the consequences of a local government’s regulatory decisions and in developing critical areas policies and in regulating development.

“Clearing” means the removal of timber, brush, grass, ground cover or other vegetative matter from a site, which exposes the earth’s surface of the site.

“Creation” means the producing or forming of a wetland or stream through artificial means from an upland (dry) site.

“Critical habitat” or “critical fish and wildlife habitat” means habitat areas associated with threatened, endangered or environmentally sensitive species of plants or fish and wildlife and which, if altered, could reduce the likelihood that the species will maintain and reproduce over the long term. Such areas are documented with reference to lists, categories and definitions of species promulgated by the Washington Department of Fish and Wildlife (Non-Game Date System Special Animal Species) as identified in WAC 232-12-011 or 232-12-014 and in the Priority Habitat Species lists compiled in compliance with WAC 365-190-080; or by rules and regulations adopted currently or hereafter by the U.S. Fish and Fish and Wildlife Service. Critical habitat also includes the following types of areas:

1. Regionally rare native fish and fish and wildlife habitat (i.e., one of five or fewer examples of the habitat type within the county);
2. Type I wetlands as defined in these regulations;
3. Documented commercial and/or recreational shellfish beds managed by the Washington Department of Fisheries;
4. Class I streams as defined in these regulations;
5. State nature area preserves or natural resource conservation areas identified by state law and managed by the Department of Natural Resources; and
6. Naturally occurring ponds stocked with game fish by government or tribal entities; and naturally occurring ponds of greater than one acre and less than twenty acres in area with cover of submerged aquatic vegetation, shrubs or trees not exceeding fifty percent of the area of surface water, and whose maximum depth does not exceed 6.6 feet. Critical habitat does not include artificially created habitat and/or habitat created by purposeful human action, including but not limited to landscape amenities, detention facilities, grasslined swales, and open space areas.

“Department” means the town department of planning.

“Earth” or “earth material” means naturally occurring rock, soil, stone, sediment or combination thereof.

“Enhancement” means:

1. For wetlands, the improvement of an existing viable wetland or buffer, such as by increasing plan diversity, increasing fish and wildlife habitat, installing environmentally-compatible erosion controls or removing nonindigenous plant or animal species; or
2. For streams and fish and wildlife habitat, the improvement of an existing habitat or an existing stream or associated buffer such as by increasing plant density structural diversity, installing environmentally-compatible erosion controls or removing nonindigenous plant or animal species.

“Erosion” means the wearing away of the earth’s surface as a result of the movement of wind, water or ice.

“Excavation” means the mechanical removal of earth material.

“Existing and ongoing agricultural activities” means and includes those activities conducted on lands defined in RCW 84.34.020(2) that also are designated natural resource lands under RCW 36.70A.170 (if there are no qualifying lands in the town, this definition and the associated exception should be eliminated), and those activities involved in the production of crops and livestock, including but not limited to operation and maintenance of farm and stock ponds or drainage ditches, irrigation systems, changes between agricultural activities, and normal operation, maintenance or repair of existing serviceable structures, facilities or improved areas. Activities, which bring an area into agricultural use, are not part of an ongoing activity. An operation ceases to be ongoing when

the area on which it was conducted is proposed for conversion to a nonagricultural use or has lain idle for a period of longer than five years, unless the idle land is registered in a federal or state soils conservation program. Forest practices are not included in this definition.

“Exotic” means any species of plant or animal that is foreign (i.e., not native to the Puget Sound area).

“Federal manual” or “federal methodology” means the field methodology for identifying wetlands in the field as described in the “Federal Manual for Identifying and Delineating Jurisdictional Wetlands” (January 1989).

“Fill” or “fill material” means a deposit of earth material placed by human or mechanical (machine) means.

“Filling” means the act of transporting or placing (by any manner or mechanism) fill materials from, to, or on any soil surface, sediment surface or other fill materials.

“Fish and wildlife report” means a report, prepared by a qualified consultant, who evaluated plant communities and fish and wildlife functions and values on a site, consistent with the format and requirements establishment by this chapter.

“Grading” means any excavating, filling, clearing, leveling or contouring of the ground surface by human or mechanical means.

“Habitat” or “fish and wildlife habitat” means areas that provide food, protective cover, nesting, breeding or movement for fish and wildlife.

“Habitat buffer” means an area surrounding a defined fish and wildlife habitat or wetland, which reduces adverse impacts to habitat/wetland functions from adjacent development or other activities or uses; the area between a fish and wildlife habitat or wetland and the upland which serves as a transition zone.

“Habitat management” means management of land to maintain species in suitable habitats within their natural geographic distribution so that isolated subpopulations are not created.

“Habitat map” means maps of plant cover types/ communities used to indicate the potential presence of fish and wildlife species.

“In-kind mitigation” means replacement of wetlands with substitute wetlands whose characteristics closely approximate those destroyed or degraded by a regulated activity.

“Intentionally created streams,” means streams created through purposeful human action, such as irrigation and drainage ditches, grass-lined swales, and canals.

“Isolated wetland” means wetlands that are not hydrologically connected to other surface water features, either by aboveground flows or shallow subsurface water features.

“Mitigation” means and includes:

1. Avoiding the impact altogether by not taking a certain action or parts of actions;
2. Minimizing impacts by limiting the degree or magnitude of the action and its implementation;
3. Rectifying the impact by repairing, rehabilitating or restoring the affected environment;
4. Reducing or eliminating the impact over time by preservation and maintenance operations pursuant to activities undertaken during the life of the action;
5. Compensating for the impact by replacing or providing substitute resources or environments.
6. While monitoring without additional actions is not considered mitigation for the purposes of these regulations, it may be a part of a comprehensive mitigation program.

“Native vegetation” means vegetation existing on a site or plant species that are indigenous to the area in question.

“Ordinary high water mark” means that mark that will be found by examining the bed and banks of a stream and ascertaining where the presence and action of waters are so common and usual, and so long maintained in ordinary years, as to mark upon the soil a vegetative character distinct from that of the abutting upland. In any area where the ordinary high water mark cannot be found, the line of mean high water shall substitute. In any area where neither can be found, the top of the channel bank shall be substituted.

“Out-of-kind mitigation” means replacement of wetlands whose characteristics do not closely approximate those destroyed or degraded by a regulated activity.

“Permanent erosion control” means continuous on-site and off-site control measures that are needed to control conveyance or deposition of earth, turbidity or pollutants after development, construction or restoration.

- “Pond” means a naturally existing body of standing water, which exists on a year-round basis and occurs in depression of land or expanded portion of a stream.
- “Priority species” or “priority fish and wildlife species” means fish and wildlife species of concern due to their population status and sensitivity to habitat alteration, as identified by the Washington Department of Fish and Wildlife.
- “Qualified consultant” means a professionally trained and/or certified fish and wildlife or stream biologist or ecologist or other professional with expertise in the scientific disciplines necessary to identify, evaluate and manage habitat and streams.
- “Qualified wetland specialist” means a professionally trained and/or certified wetlands biologist or wetlands ecologist.
- “Regulated activity” means activities occurring in or near and/or potentially affecting wetlands or wetland buffers, or critical fish and wildlife habitat or buffer, or a stream or stream buffer, or a geologically hazardous area that are subject to the provisions of this chapter. Regulated activities generally include but are not limited to any filling, dredging, dumping or stockpiling, draining, excavation, flooding, construction or reconstruction, driving pilings, obstructing, shading, clearing or harvesting.
- “Rehabilitation” means the establishment of a viable stream from a previously filled or degraded stream reach.
- “Restoration” means the reestablishment of a viable wetland from a previously filled or degraded wetland site.
- “Site” means any parcel or combination of contiguous parcels where a project is being proposed.
- “Slope” means an inclined earth surface, the inclination of which is expressed as the ratio of horizontal distance to vertical distance.
- “Stream beds” are areas where surface water produces a defined channel or bed. A defined channel or bed is an area which demonstrates clear evidence of the passage of water and includes, but is not limited to, bedrock, channels, gravel beds, sand and silt beds, and defined channel swales. The channel or bed need not contain water year-round. Streams do not include “intentionally created streams” including irrigation and drainage ditches, grass-lined swales and canals, except man-made streams that have been created as mitigation or that provide critical habitat for fish.
- “Stream buffer area” means a naturally vegetated and undisturbed, enhanced or revegetated zone surrounding a natural, restored or newly created stream that is an integral part of a stream ecosystem, and protects a stream from adverse impacts to the integrity and value of a stream.
- “Stream report” means a report, prepared by a qualified consultant that evaluates stream functions and values, consistent with the format and requirements established by this chapter.
- “Structural diversity” means the relative degree of diversity or complexity of vegetation in a habitat area as indicated by the stratification or layering of different plant species; and the spacing or pattern of vegetation.
- “Substrate” means the soil, sediment, decomposing organic matter or combination of those located on the bottom surface of the wetland.
- “Temporary erosion control” means on-site control measures that are needed to control conveyance or deposition of earth, turbidity or pollutants during development, construction or restoration.
- “Type I wetlands” means those wetlands which meet any of the following criteria:
1. The documented presence of, or habitat documented by the Washington Department of Fish and Wildlife for species proposed or listed by the federal government or state of Washington as endangered, threatened, environmentally sensitive or priority;
  2. Sites that are documented or qualify as natural heritage wetlands sites, or high quality native wetland communities where significant functional values have not been altered (e.g., soils, hydrology, vegetation), and are not predominantly characterized by nonnative plant species; have not been subject to significant hydrological modification (i.e., those without inflow or outflow systems such as drainage ways, channelization or stormwater diversion); mature forested wetlands greater than one acre in size; estuarine wetlands greater than five acres in area;
  3. Wetlands with irreplaceable ecological functions, including: peat wetlands one-half acre or larger in area, and wetlands of any size that meet four of the following criteria: contains at least two wetland habitat classes,

shows minimum evidence of human-caused physical alternation, more than three-quarters of the wetland's border is agricultural and/or relatively undisturbed forest or open space;

4. Eelgrasses and kelp beds with greater than fifty percent cover during August or September; or
5. Wetlands equal to or greater than ten acres in size having three or more wetland classes one of which is an open water zone a minimum of one-half acre in area or ten percent of the entire wetland being rated.

"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, prevalence of vegetation typically adapted for life in saturated conditions. Wetlands generally include swamps, marshes and 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. However, wetlands include those artificial wetlands intentionally created to mitigate conversion of wetlands.

"Wetland buffer area" means a naturally vegetated and undisturbed, enhanced or revegetated zone surrounding a natural, restored or newly created wetland that is an integral part of a wetland ecosystem, and protects a wetland from adverse impacts to the integrity and value of a wetland. Wetland buffers serve to moderate run off column and flow rates; reduce sediment, chemical nutrient and toxic pollutants; provide shading to maintain desirable water temperatures; provide habitat for fish and wildlife, and protect wetland resources from harmful intrusion.

"Wetland class" means the U.S. Fish and Fish and Wildlife Service wetland classifications scheme that uses a hierarchy of systems, subsystems, classes and subclasses to describe wetland types (refer to USFWS, December 1979, "Classification of Wetlands, and Deepwater Habitats of the United States" for a complete explanation of the wetland classification scheme). Eleven class names are use to describe wetland and deepwater habitat types. These include: forested wetland, scrub-shrub wetland, emergent wetland, moss-lichen wetland, unconsolidated shore, aquatic bed, unconsolidated bottom, rock bottom, rock shore, stream bed, and reef.

"Wetland delineation" means a procedure performed by a wetland specialist to determine the area of a wetland and to define the boundary between a wetland and adjacent uplands. A wetland specialist according to the federal manual performs delineation, as those terms are defined in this chapter.

"Wetland determination" means a report prepared by a qualified wetland specialist to determine the area of a wetland and to define the boundary between a wetland and adjacent uplands. A wetland specialist according to the federal manual performs delineation, as those terms are defined in this chapter.

"Wetland functions and values" mean the beneficial biological, physical and other purposes generally served by wetlands, including but not limited to, helping to maintain water quality, storing and conveying stormwater and floodwater, recharging groundwater, providing fish and wildlife habitat, and service as areas for recreation, education, scientific study and aesthetic enjoyment.

"Wetlands subclass" means twenty-eight subclass names that are used in the USFWS wetland classification scheme to distinguish between different types of wetland subclasses. Subclass names include, but are not limited to the following: persistent, nonpersistent, broad-leaved deciduous, needle-leaved deciduous and dead. The classification system is fully described in USGWS, 1979, "Classification of Wetlands and Deepwater Habitats of the United States." (Ord. 00-387 § 1(part), 2000)