Recommended Organization/Format of the CAO

(modeled on the Whatcom County CAO)

Note: The items in bold type are those for which we have submitted recommended text. The items with strike out would be omitted if SSB 5248 is enacted.

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(See the Table of Contents for the other sections that should be included in the Administrative Provisions. The items with strike-outs are to be omitted if SSB 5248 is enacted.)

6. Regulated Uses and Activities

(Adapted from Whatcom County Critical Areas Ordinance, Section WCC 16.16.225)

A. The following activities shall be subject to the provisions of this ordinance when they occur within critical areas or their prescribed buffers:

1. Clearing, grading, dumping, excavating, discharging, or filling with any material. This includes creating impervious surfaces.

2. Constructing, reconstructing, demolishing, or altering the size of, any structure or infrastructure, subject to the provisions for a non-conforming structure pursuant to JCC 18.20.260.

3. Any other activity for which a County permit is required, excluding permits for interior remodeling.

B. Alteration of critical areas and prescribed buffers is prohibited except when one or more of the following conditions applies:

1. Alteration is approved pursuant to the reasonable use or variance provisions of this ordinance.

2. Alteration is necessary to accommodate an essential public facility or public utility where no feasible alternative location will accommodate the facility and the facility is located, designed, and constructed to minimize and, where possible, avoid critical area disturbance to the maximum extent feasible.

3. Alteration is necessary to accommodate a commercial/industrial shoreline-dependent use permitted in accordance with the Jefferson County Shoreline Management Program (SMP) where the facility is operated, located, designed and constructed to minimize and, where possible, avoid critical area disturbance to the maximum extent feasible.

4. Alteration is essential to an activity allowed by this ordinance, and all feasible measures to avoid and minimize impacts have been employed. Such feasible measures shall include, but not be limited to, clustering where permitted by zoning and as appropriate to protect critical areas. The purposes of clustering shall be to minimize adverse impacts of development on critical area functions and values, minimize land clearing, maintain soil stability, preserve native vegetation, maintain hydrology, and mitigate risk to life and property.

5. Alteration is associated with an allowed activity under this ordinance, or is allowed pursuant to the notification provisions of this ordinance, or is allowed pursuant to the specific regulatory standards for each designated critical area, as enumerated in the subsequent sections of this ordinance.

6. Alteration is associated with a Vegetation Management Plan, Mitigation Plan, or Watershed-based Management Plan approved pursuant to the applicable sections of this ordinance.

7. ~~Alteration on land used for agriculture is associated with a Watershed Protection Plan, Critical Area Protection Plan or Critical Area Protection Checklist approved pursuant to the applicable sections of this ordinance.~~

7. Activities Allowed without Notification

(Adapted from Whatcom County Critical Areas Ordinance, Section WCC 16.16.230)

The following activities as specified are allowed in critical areas and buffers without notification under the provisions of this ordinance:

A. Class I, II, III and IV-Special forest practices conducted in accordance with the applicable standards of the Washington State Forest Practices Act, WAC 222-16, except where either of the following applies:

1. On lands that have been, or are proposed to be, converted to a use other than the production of commercial forest-products as provided in chapter RCW 76.09.050 and RCW 76.09.240; or

2. On lands that have been platted after January 1, 1960, as provided in RCW 76.09.050 and RCW 76.09.240; or

3. On lands that are located in an Urban Growth Area.

B. Class I forest practices conducted in accordance with the applicable standards of the Washington State Forest Practices Act, WAC 222-16, on the portions of parcels platted after January 1, 1960 (as provided in RCW 76.09.050 and RCW 76.09.240) that are used primarily for the production of commercial forest-products.

C. Agricultural activities conducted under the following conditions:

1. On lands meeting the definition of "existing and ongoing agriculture"~~ of any land-use designation~~, or in accordance with the provisions established for non-conforming uses and structures in JCC 18.20.260~~, and only when the activities conducted remain at the existing level of impact or intensity, or a lower level of impact or intensity, as defined in this ordinance~~.

2. ~~On Agricultural Resource Lands in accordance with an approved Critical Areas Protection Plan or Watershed Protection Plan, pursuant to the requirements of the section of this ordinance titled~~ Protection of Critical Areas on Agricultural ~~Resource Lands~~.

3. ~~On Rural Residential lands in accordance with an approved Critical Areas Protection Checklist or Critical Areas Protection Plan, pursuant to the requirements of the section of this ordinance titled~~ ~~Critical Areas Protection on Rural Lands with Agricultural Uses.~~

D. Routine maintenance of drainage channels on lands meeting the definition of "existing and ongoing agriculture," provided that~~ all of the following conditions are met:~~

~~1.~~ The maintenance is necessary to support activities conducted in accordance with the definition of "existing and ongoing agriculture," and the maintenance activity does not expand the dimensions of the drainage channel beyond the original, lawfully established dimensions~~; or~~

~~2. The maintenance activity is conducted in accordance with an approved Critical Area Protection Plan prepared under the applicable provisions of this ordinance; and~~

~~3. The land owner or farm operator obtains a Hydraulic Project Approval (HPA), if required, from the Washington Department of Fish and Wildlife (WDFW) prior to the maintenance activity; and~~

~~4. The land owner or farm operator provides a copy of the HPA to the Administrator.~~

E. Maintenance or repair of legally established single-family residences and accessory structures provided that the activity does not further alter, impact, or encroach upon critical areas or their prescribed buffers. The maintenance or repair activity shall not result in increased risk to life or property.

F. Maintenance of, in association with legally established single-family residences and accessory structures, ornamental landscaping and landscape features within a critical area or its prescribed buffer including, but not limited to: repair and maintenance of features such as fences, trellises, rockeries, walls, pathways, patios, play areas and other similar improvements; cutting or mowing of lawns; removal of weeds and noxious/invasive species; cultivating, planting, and harvesting of garden crops; pruning and replanting of non-invasive ornamental vegetation or indigenous native species to maintain the general condition and extent of such areas, provided that mitigation sites, or other areas protected by means of conservation easements or similar restrictive covenants are not covered by this exception.

G. Vegetation management activities not covered under sections A through D and F above that implement an approved Vegetation Management Plan, prepared in accordance with the applicable section of this ordinance, for purposes of controlling noxious/invasive species, improving wildlife habitat, promoting forest health, or maintaining or enhancing views, provided that the activities do not have adverse impact on the functions and values of the critical area or buffer, and do not result in increased risk to life or property.

H. Activities with minor and temporary impact such as hiking, canoeing, photography, hunting, fishing, education and nature study, or nondestructive scientific research.

I. Activities undertaken to comply with a United States Environmental Protection Agency super fund related order, or a Washington Department of Ecology order pursuant to the Model Toxics Control Act, or a Department of Homeland Security order that specifically preempts local regulations in the findings of the order.

J. Routine site investigation work including land surveys, shallow soil test pits dug in conjunction with wetland delineations, geo-technical soil borings, groundwater monitoring wells, percolation tests, and similar or related activities necessary for land-use application submittals.

K. Emergency construction or activity, provided that:

1. An emergency is an unanticipated and imminent threat to public health, safety or the environment that requires immediate action within a time period too short to allow full compliance with this ordinance.

2. Emergency construction does not include development of new permanent protective structures where none previously existed. Where the Administrator determines that new protective structures are the appropriate means to address an emergency situation, the project proponent shall either obtain any permits that would have been required absent an emergency, pursuant to RCW 90.58, WAC 173-27 or this chapter, or remove the structure upon abatement of the emergency situation.

3. Within the jurisdiction of the Jefferson County Shoreline Management Program (SMP) all emergency construction shall be consistent with the policies and procedural requirements of the SMP and this ordinance.

4. The applicant shall make a reasonable attempt to contact the Administrator prior to the activity. Provided that when prior notice is not feasible, notification of the activity shall be submitted to the Administrator as soon as the emergency is addressed and no later than fourteen (14) days following such action.

8. Activities Allowed with Notification

(Adapted from Whatcom County Critical Areas Ordinance, Section WCC 16.16.235)

The following activities as specified are allowed within critical areas and buffers provided that the applicant delivers written notification to the Administrator. The notification shall contain specific information describing the activity, the equipment to be used, and the protective measures to be implemented to ensure that the activity will not result in increased risk to public health, safety and welfare, that adverse impacts to critical areas are minimized, and that disturbed areas are restored as soon as possible following the activity.

Notification shall be submitted to the Administrator at least ten (10) business days prior to initiating work. Unless otherwise specified, notification of an activity shall be valid for one year provided that there is no change in the scope, location, or extent of the activity as described in the notification. Upon receipt of the notification, the County may provide guidance on best management practices for tree and vegetation protection, construction management, erosion and sedimentation control, water quality protection, and chemical applications.

Activities allowed with notification include the following:

A. Maintenance or repair of existing infrastructure improvements, including dikes and drainage ditches, rights-of-way, trails, roads, fences, and utilities provided that the activity does not further alter, impact, or encroach upon critical areas or buffers or further affect their functions. The maintenance activity shall not result in increased risk to life or property.

B. Installation of navigation aids and boundary markers in accordance with applicable state and federal laws.

C. Installation of mooring buoys in accordance with the Department of Fish and Wildlife design guidelines and the Jefferson County Shoreline Management Program.

D. Restoration or enhancement projects in wetlands or fish and wildlife habitat conservation areas and their buffers, provided that the project is approved by the U.S. Fish and Wildlife Service, the Washington State Department of Ecology, Washington State Department Fish and Wildlife, or other appropriate local, state, federal, or tribal jurisdiction.

E. Removal of trees that are hazardous, posing a threat to public safety, or posing an imminent risk of damage to an existing structure, public or private road or sidewalk, or other permanent improvement, on lands where forest practices are not allowed under the provisions of Section 6: Activities Allowed Without Notification, subsections (A) and (B), provided that:

1. The applicant submits a report on a form provided by the Administrator from a certified arborist, registered landscape architect, or professional forester that documents the hazard and provides a planting schedule for the replacement trees;

2. Tree cutting shall be limited to pruning and crown thinning, unless otherwise justified by a qualified professional. Where pruning or crown thinning is not sufficient to address the hazard, trees should be converted to wildlife snags and completely removed only where no other option removes the identified hazard;

3. All vegetation cut (tree stems, branches, etc.) shall be left within the critical area or buffer unless removal is warranted due to the potential for creating a fire hazard or for disease or pest transmittal to other healthy vegetation;

4. The landowner shall replace any trees that are removed pursuant to a planting schedule prepared in accordance with (1) above;

5. If a tree to be removed provides critical habitat, such as an eagle perch, a qualified wildlife biologist shall be consulted to determine timing and methods for removal that will minimize adverse impacts;

6. Hazard trees determined to pose an imminent threat or danger to public health or safety, to public or private property, or of serious environmental degradation may be removed or pruned by the landowner on whose property the tree is located prior to receiving the permits required under this part; provided, that the landowner makes reasonable efforts to notify the Administrator, and within 14 days following such action, the landowner shall submit a restoration plan that demonstrates compliance with the provisions of this part.

F. Alteration or removal of beaver built structures two years old or less, provided that there is no adverse impact to wetland, river, or stream functions; the land owner obtains an HPA from WDFW prior to the activity; and the land owner provides a copy of the HPA to the Administrator as part of the written notification.

Recommendations for Agriculture in Critical Areas

Note:
If SSB 5248 is signed into law by the Governor and the required funding is provided by June 30, 2007, none of the following can be adopted by Jefferson County until after July 1, 2010. Even then, only those aspects of the recommendations that comply with the results of the Ruckelshaus process and the subsequent requirements of the legislature can be applied.

Protection of Critical Areas on Agricultural Resource Lands

(Adapted from Whatcom County Critical Areas Ordinance, Section WCC 16.16.290, and King County Critical Areas Ordinance, Sections 21A.24.045 through .061)

The purpose of this section is to provide owners and operators of Agricultural Resource Lands an alternative means of satisfying the requirements for protection of critical areas established by this ordinance.

On designated Agricultural Resource Lands where new agriculture or existing and ongoing agriculture are proposed or conducted in critical areas and their prescribed buffers, a Critical Area Protection Plan is required to be prepared, approved, and implemented, as established by this section and further specified in Appendix __, in order to qualify for coverage under this section. The plan shall be implemented in accordance with best management practices, shall include the recording of baseline documentation, and shall be subject to continued monitoring and adaptive management to ensure that it meets the purpose and intent of this ordinance.

A. Agricultural activities that qualify for coverage under this section include:

1. Existing and ongoing low-intensity agricultural activities where critical areas are protected against adverse impacts through the implementation of an approved standard Critical Area Protection Plan prepared in accordance with Appendix __-Section 1.

2. New or existing and ongoing moderate-intensity or high-intensity agricultural activities where critical areas are protected against adverse impacts through the implementation of an approved custom Critical Area Protection Plan prepared in accordance with Appendix __-Section 2.

3. The expansion of new low-intensity agricultural activities into the prescribed buffer of a wetland or a fish and wildlife habitat conservation area (FWHCA) provided that the area the buffer is intended to protect is already legally in use for ongoing low-intensity agricultural activities, and further provided that adverse impacts to the wetland or FWHCA are mitigated through implementation of an approved custom Critical Area Protection Plan prepared in accordance with Appendix __-Section 2.

4. The development of new agriculture on land not previously used for agriculture in frequently flooded areas, critical aquifer recharge areas, and certain geologically hazardous areas, where the critical areas are protected against adverse impacts through the implementation of an approved custom Critical Area Protection Plan prepared in accordance with Appendix __-Section 2 and the general performance standards established in the applicable sections of this ordinance.

B. The following additional conditions shall apply:

1. Except as allowed in (A) (3) above, a Critical Area Protection Plan shall not authorize the development of new agriculture in wetlands and fish and wildlife habitat conservation areas or their prescribed buffers.

2. Except as allowed in (A) (4) above, a Critical Area Protection Plan shall not authorize any of the following activities within critical areas or their prescribed buffers: filling; clearing; grading; or construction of farm and stock ponds, irrigation infrastructure, and drainage ditches and systems.

3. A Critical Area Protection Plan shall not authorize the expansion or construction of agricultural buildings within critical areas or their prescribed buffers.

   a. Legally existing agricultural buildings shall be treated as non-conforming structures, subject to the provisions of this ordinance and JCC 18.20.260

   b. New agricultural buildings shall be constructed in accordance with the applicable provisions of this ordinance and JCC 18.20.030.

4. New impervious surfaces created within critical areas or their prescribed buffers shall not change the flow, volume or direction of runoff, or cause erosion or downstream flooding.

5. A Critical Area Protection Plan does not modify the requirement to obtain permits for activities covered by other provisions of the Unified Development Code.

C. Standard and custom Critical Area Protection Plans shall be prepared in accordance with the requirements established in Appendix __, with technical assistance from the Jefferson County Conservation District. Where applicable, a Watershed Protection Plan may be developed cooperatively by a Watershed Improvement District to serve all land owners and farm operators who are members of the District, and may be approved as a substitute for individual standard or custom Critical Area Protection Plans.

D. The development of plans shall be based on the following goals, listed in order of priority:

1. To maintain the productive agricultural land base and economic viability of agriculture on the site;

2. To maintain, enhance, or restore critical areas to the maximum extent practical in accordance with the site specific goals of the land owner;

3. To maintain and enhance natural hydrologic systems on the site to the maximum extent practical in accordance with the site specific goals of the land owner;

4. To use federal, state, and local best management practices and best available science for farm management to achieve the goals of the Critical Area Protection Plan;

5. To monitor the effectiveness of best management practices, and change or implement additional practices through adaptive management to achieve the goals of the Critical Area Protection Plan.

E. Review, approval, and tracking the effectiveness of Critical Area Protection Plans.

1. The Administrator shall review all Critical Area Protection Plans for compliance with the purposes of this ordinance.

2. Approval of a Critical Area Protection Plan shall establish the affirmative right to conduct the agricultural activities described in the Plan as long as the baseline conditions of function and value of the critical areas affected are maintained or improved.

3. The Jefferson County Natural Resources Division, or its successor, shall regularly track the effectiveness of Critical Area Protection Plans at protection of the baseline conditions of critical areas on a parcel by parcel basis and on a watershed basis; and shall report the findings to the Administrator and the public.

4. Critical Area Protection Plans shall be reviewed by the Administrator or the Jefferson County Natural Resources Division every five years, but shall remain in effect if agricultural activities in the critical area or prescribed buffer have not changed to a higher level of intensity and if the baseline conditions of the critical area have been maintained.

5 Critical Area Protection Plans shall be revised and resubmitted for approval if agricultural activities in the critical area or prescribed buffer are proposed to be changed to a higher level of intensity or expanded as allowed in (A) (3) and (A) (4) above.

F. Inspection of Critical Area Protection Plan implementation with respect to authorized new or higher intensity activities.

1. The Administrator shall conduct site inspections, upon reasonable notice to the land owner or farm operator as to the time and purpose, to verify that new or higher intensity agricultural activities authorized by a Critical Area Protection Plan have been implemented in accordance with the Plan and the purposes of this ordinance.

2. After inspection, the Administrator shall provide written notice to the land owner or farm operator that the new or higher intensity activities have been found to be in compliance with the Plan or, if not in compliance, what specific issues must be addressed.

G. Monitoring and adaptive management.

1. Management practices stipulated in Critical Area Protection Plans shall be frequently and routinely evaluated for their effectiveness in maintaining or improving the baseline condition of the critical area. Different practices shall be adopted if they have been shown to produce better results on similar sites in the local vicinity while still preserving the economic viability of the operation.

2. Quantitative sampling protocols stipulated in Critical Area Protection Plans shall be frequently and routinely monitored by the land owner or farm operator,

and/or the Watershed Improvement District, the Jefferson County Conservation District, the Jefferson County Natural Resources Division, or other entity as identified in the Critical Area Protection Plan and approved by the Administrator.

3. When it is determined by any of the above mentioned parties that the baseline conditions of the critical area have been damaged as a result of a single event or activity, or are deteriorating over time as a result of ongoing management practices, the following measures shall be taken:

   a. The land owners and farm operators of the affected lands shall be notified in writing;

   b. The Administrator shall be notified in writing, and shall in turn notify the land owner or farm operator of a possible determination of non-compliance with the alternative regulation provisions of this section;

   c. The land owners and farm operators on the affected lands shall, with the assistance of the Jefferson County Conservation District, undertake to determine the causes of the damage or long-term deterioration, identify the appropriate mitigation of damage or adaptation of management practices, and the most reasonable time period for implementation;

   d. The Critical Area Protection Plan shall be revised accordingly, resubmitted for approval, and implemented within the time period established.

H. Enforcement.

1. The Administrator shall make a determination of non-compliance with the alternative regulation provisions of this section in any of the following circumstances:

   a. The land owner or farm operator fails to implement the Critical Area Protection Plan;

   b. Changes to the agricultural activities conducted in the critical area or prescribed buffer are inconsistent with the Plan;

   c. The land owner or farm operator fails to maintain the baseline conditions established in the Plan;

   d. The land owner or farm operator fails to allow access to the land, upon proper notice, for inspection and monitoring.

2. A determination of non-compliance with the alternative regulation provisions of this section means that the Critical Area Protection Plan shall be revoked and the standard provisions of this ordinance shall be enforced including the requirement to mitigate for damages to the baseline condition, if applicable. Enforcement of the standard provisions shall be in accordance with JCC Chapter 18.50 Enforcement.

Critical Areas Protection on Rural Lands with Agricultural Uses

(Using the checklist from Island County regulations relating to "agriculture in the Rural zone")

The purpose of this section is to provide owners of land used for agriculture in association with single-family residential development in Rural Residential zones an alternative means of satisfying the requirements for protection of critical areas established by this ordinance.

On designated Rural Residential lands where new agriculture or existing and ongoing agriculture are proposed or conducted in critical areas and their prescribed buffers, a Critical Area Protection Checklist is required to be prepared, approved, and implemented, as established by this section and further specified in Appendix __, in order to qualify for coverage under this section.

A. Residential landscaping and landscape features and associated agricultural uses and activities that do not exceed the following limitations are defined as Low Impact Land-Use and qualify for coverage under this section:

   1. Cutting of hay;

   2. Livestock grazing with an Animal Unit density not to exceed one or less per 2.5 acres;

   3. Any combination of developed landscape features such as orchards, vineyards, row crops, vegetable gardens, ornamental gardens, lawns, livestock confinement areas, and open riding arenas not covering in total more than 30 percent of the entire area of the parcel;

   4. Impervious surfaces (including parking areas and roof areas, but not driveways) not covering in total more than five percent of the entire area of the parcel.

B. When any one of limitations 2 through 3 is exceeded, the entire parcel is defined as a Medium Impact Land-Use, and new agriculture, or changes to existing and ongoing, agriculture, are regulated under the provisions of the section of this ordinance titled Protection of Critical Areas on Agricultural Resource Lands.

C. For parcels defined as Low Impact Land-Use and implementing an approved Critical Area Protection Checklist, the following additional requirements shall apply:

   1. A Critical Area Protection Checklist shall not authorize the development of new agriculture in wetlands and fish and wildlife habitat conservation areas or their prescribed buffers.

   2. A Critical Area Protection Checklist shall not authorize any of the following activities within critical areas or their prescribed buffers: filling; clearing; grading; or construction of farm and stock ponds, irrigation infrastructure, and drainage ditches and systems.

   3. A Critical Area Protection Checklist shall not authorize the expansion or construction of agricultural buildings within critical areas or their prescribed buffers.

      a. Legally existing agricultural buildings shall be treated as non-conforming structures, subject to the provisions of this ordinance and JCC 18.20.260.

b. New agricultural buildings shall be constructed in accordance with the applicable provisions of this ordinance and JCC 18.20.030.

4. New impervious surfaces created within critical areas or their prescribed buffers shall not change the flow, volume or direction of runoff, or cause erosion or downstream flooding.

5. A Critical Area Protection Checklist does not modify the requirement to obtain permits for activities covered by other provisions of the Unified Development Code.

Wetlands

(Adapted from Whatcom County Critical Areas Ordinance, Article 6, Wetlands. Items with strike outs are to be omitted if SSB 5248 is enacted.)

1. Wetlands - Purposes

The purposes of this article are to:

A. Recognize and protect the beneficial functions performed by freshwater and estuarine wetlands throughout Jefferson County, which include but are not limited to: providing habitat for plant and animal species which can exist only in wetlands; providing food, and essential breeding, nesting and/or rearing habitat for numerous species of fish and wildlife; recharging and discharging ground water; contributing to stream flow during low flow periods; stabilizing stream banks and shorelines; storing storm and flood waters to reduce flooding and erosion; and improving water quality through bio-filtration, adsorption, retention and transformation of sediments, nutrients, and toxins.

B. In accordance with the guidelines in the Department of Ecology's Wetlands in Washington State - Volume 2: Guidance for Protecting and Managing Wetlands (Ecology Publication #05-06-008, April 2005):

1. Establish review procedures for development proposals in and adjacent to wetlands;

2. Establish the requirements for buffers to protect wetlands from adverse impacts of adjacent land-use;

3. Identify the uses and activities which may be permitted within wetlands and buffers under certain conditions, in addition to those listed in the sections of this ordinance titled Activities Allowed without Notification, and Activities Allowed with Notification;

4. Establish standards for compensatory mitigation of unavoidable alterations and adverse impacts to wetlands and wetland buffers.

2. Wetlands - Designation, Rating, Delineation, and Mapping

A. Wetlands are those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances, do support a prevalence of vegetation typically adapted for life in saturated soil conditions. Swamps, fresh and saltwater marshes, bogs, and some meadows are examples of wetlands. Some riparian areas adjacent to streams are also wetlands.

B. Wetlands shall be identified, designated, delineated, and protected in accordance with the requirements of RCW 36.70A.172, RCW 36.70A.175, RCW 90.58.020, and RCW 90.58.380. Unless otherwise provided for in this chapter, all areas within the County meeting the criteria in the Washington State Wetlands Identification and Delineation Manual (Ecology Publication 96-94, March 1997 edition) (henceforth referred to as the Delineation Manual), or as amended hereafter, are hereby designated critical areas as wetlands and are subject to the provisions of this article.

C. The approximate location and extent of wetlands are shown on the County's critical

area maps. These maps are to be used as a guide and do not provide a definitive critical area designation. The County shall update the maps as new wetlands are identified and as new information becomes available. Other sources of identification of wetlands may include the following:

1. United States Department of the Interior, Fish and Wildlife Service, National Wetlands Inventory;

2. United States Department of Agriculture, Soil Conservation Service, Soil Survey of Jefferson County Area, Washington;

3. United States Department of Agriculture, Natural Resources Conservation Service, Hydric Soils List, Jefferson County Area.

D. Wetlands shall be rated and categorized according to their levels of function and value for protecting water quality, maintaining the hydrological characteristics of watersheds, and providing habitat for wetland-dependent plants and animals. Wetland ratings and categories shall be determined on the basis of the Washington State Wetland Rating System for Western Washington (Ecology Publication #04-06-025, August 2006 revised edition) (henceforth referred to as Wetland Rating System), or as hereafter revised, and by use of the appropriate ratings form contained in that publication.

1. In accordance with the Wetland Rating System, wetlands must be rated as entire units. If a wetland is located on more than one parcel, owners of the affected properties are encouraged to cooperate in obtaining the rating.

2. Groups of property owners may appeal to the County for funding and assistance, as available, to obtain or update the ratings on large wetland units.

E. Wetland ratings and categories shall be determined as the wetland exists at the time of application for a permit for a development proposal, and shall be valid for five years thereafter. Wetland ratings and categories must be updated periodically to account for changes in the wetland's function and value as a result of natural processes or the cumulative effects of land-use throughout the surrounding watershed, but shall not be adjusted as a result of illegal alterations.

F. Wetland categories are generally defined as follows.

1. Category I Wetlands. Category I wetlands are those wetlands of exceptional value in terms of protecting water quality, storing flood water, and/or providing habitat for diverse species of wetland-dependent plants and wildlife as indicated by a total score of 70 points or more on the ratings form. These are wetland communities of infrequent occurrence that often provide documented habitat for sensitive, threatened or endangered species, and/or have other attributes that are very difficult or impossible to replace if altered.

2. Category II Wetlands. Category II wetlands have significant value based on their function as indicated by a total score of between 51 and 69 points on the ratings form. They do not meet the criteria for Category I rating but occur infrequently and have qualities that are difficult to replace if altered.

3. Category III Wetlands. Category III wetlands have important value within their local watershed as indicated by a total score of between 30 and 50 points on the ratings form. They tend to be smaller, less diverse, and/or more isolated in the landscape than Category II wetlands. They occur commonly in Jefferson County.

4. Category IV Wetlands. Category IV wetlands have the lowest level of value as indicated by a total score of 29 points or less on the ratings form, and are often heavily disturbed. They typically have vegetation of similar age and class, lack special habitat features, and/or are isolated from high quality upland habitats. Their functions can be improved and they may be to some extent replaceable.

5. Certain wetlands of the following types: bogs, estuarine, Natural Heritage, forested, interdunal, and coastal lagoon, are rated as Category I, II, or III on the basis of their Special Characteristics regardless of the total score for their water quality, hydrologic, and habitat functions.

G. The rating, categorization, and delineation of wetlands, and the preparation of Critical Areas Assessment Reports for wetlands, shall be performed by qualified professionals who are:

1. Certified as a Professional Wetland Scientist by the Society of Wetland Scientists; or are

2. Certified by the U.S. Army Corps of Engineers, Region 10, to perform wetland delineations, have received up to date training in the Wetland Rating System for Western Washington, and have at a minimum a Bachelor of Science degree in biology or a related field and two years of full-time work experience under the supervision of another qualified professional.

H. All wetlands shall be regulated regardless of size, provided that Category IV wetlands less than one-tenth (0.1) acre (4,356 square feet) shall be exempt from the requirements of this article when all of the following criteria are met:

1. The wetland does not provide significant suitable breeding habitat for native amphibian species. Suitable breeding habitat may be indicated by adequate and stable seasonal inundation, presence of thin-stemmed emergent vegetation, and clean water;

2. The wetland does not have unique characteristics that would be difficult to replace through standard compensatory mitigation practices;

3. The wetland is not located within a fish and wildlife habitat conservation area (FWHCA) as defined in the section of this ordinance dealing with FWHCAs, and is not integral to the maintenance of habitat functions of an FWHCA;

4. The wetland is not located within a floodplain;

5. The wetland is not associated with a shoreline of the state as defined by the County's Shoreline Master Program;

6. The wetland is not part of a mosaic of wetlands and uplands, as determined using the guidance provided in the Wetland Rating System.

I. Artificially created wetlands that were not purposely constructed as compensatory mitigation shall be exempt from the requirements of this article.

3. Wetlands - General Standards

A. Agricultural activities, on clearly identified areas of wetland and prescribed buffer meeting the definition of existing and ongoing agriculture, are allowed to continue~~,~~ ~~provided that all of the following shall apply:~~ Areas of wetland or prescribed buffer that do not meet the definition of existing and ongoing agriculture may not be altered for the purposes of conducting agricultural activities.

~~1. The wetland is rated and categorized by a qualified professional in accordance with the Wetland Rating System;~~

~~2. The agricultural activities are conducted in accordance with all applicable provisions of this article and with JCC 18.20.030; and~~

~~3. The agricultural activities are in compliance with the alternative regulations in the sections of this ordinance titled Protection of Critical Areas on Agricultural Resource Lands and Critical Areas Protection on Rural Lands with Agricultural Uses.~~

B. Vegetation management activities that implement an approved Vegetation Management Plan prepared in accordance with the applicable section of this ordinance are allowed, in wetlands and buffers, for purposes of controlling noxious/invasive species, improving wildlife habitat, promoting forest health, or maintaining or enhancing views, provided that the activities do not have any adverse impact on the wetland or on the protective functions of the buffer.

C. The following activities may be permitted in wetlands and/or wetland buffers, as specified, subject to the preparation and approval of a Critical Areas Assessment Report, mitigation of adverse impacts in accordance with the section of this ordinance titled General Mitigation Requirements, and/or approval of compensatory mitigation and monitoring in accordance with section (9) of this article:

1. Developments that meet all of the criteria set forth in the section of this ordinance titled Reasonable Use and Variances.

2. Single-family residential developments, in wetland buffers, subject to the Administrator's approval, provided that all applicable criteria set forth in the section of this ordinance titled Reasonable Use and Variances are met.

3. Utility installations, in Category II, III, and IV wetlands and their buffers, or the buffers only of Category I wetlands, when no feasible alternative is available. Utility installations, either overhead or underground, shall be designed and constructed to minimize short and long term physical, hydrologic and ecological impacts to the wetland, and shall meet all of the following requirements:

   a. The utility installation is located as far from the wetland edge as possible and in a manner that minimizes disturbance of soils and vegetation;

   b. Clearing, grading, and excavation activities are limited to the minimum necessary to install the utility pipe or wire and the area is restored following utility installation;

   c. Underground utilities are constructed in a manner that prevents adverse impacts to subsurface drainage or disruption of the pre-construction hydrologic functions of the wetland. This may include the use of trench

plugs, or other devices as needed, to direct or contain the flow of subsurface water in the back-fill of the trenches.

4. Public roads, bridges, and trails, in Category II, III, and IV wetlands and their buffers, or the buffers only of Category I wetlands, when no feasible alternative alignment is available and the road, bridge or trail is designed and constructed to minimize short and long term physical, hydrologic and ecological impacts to the wetland, including placement on elevated structures as an alternative to fill, where feasible.

5. Access roads to private development sites crossing Category II, III, or IV wetlands and their buffers, provided there are no feasible alternative alignments, and measures are taken to maintain pre-construction hydrologic connectivity across the access road. Alternative access shall be pursued to the maximum extent feasible, including through the "private way of necessity" provisions of RCW 8.24. Exceptions or deviations from technical standards for width or other dimensions, and specific construction standards to minimize impacts may be specified, including placement on elevated structures as an alternative to fill, if feasible.

6. Construction, in a wetland buffer, but not in the wetland itself, of a structure that is associated with an agricultural use; or the reconstruction, remodeling, or maintenance of such a structure, subject to all of the following criteria:

   a. The structure is located within an area that is clearly identified as used for existing and ongoing agriculture;

   b. There is no other feasible location with less impact to the wetland; and

   c. Clearing and grading activity and impervious surface area are limited to the minimum necessary to accommodate the proposed structure and, where possible, surfaces shall be made of pervious materials.

7. Drilling of domestic wells serving single-family developments and construction of necessary appurtenances, including a pump and appropriately sized pump house, but not including a storage tank, in wetland buffers, when all of the following criteria are met:

   a. There is no viable alternative location for the well outside of the buffer; and

   b. The well is located as far back from the wetland edge as is feasible, and is more than seventy-five (75) feet deep.

8. Storm water surface-discharge along vegetated flow-paths on slopes of fifteen percent (15%) or less, into Category II, III, and IV wetlands and their buffers, or into the buffers only of Category I wetlands, when no other alternatives for discharge are feasible and the discharge is designed to minimize short and long term physical, hydrologic and ecological impacts to the wetland.

9. Storm water management facilities, limited to media filtration facilities, detention/retention/treatment ponds, and lagoons or infiltration basins, within the outer fifty percent (50%) of the buffer of a Category II, III or IV wetland, provided that:

a. Construction of the storm water facility does not displace or impact a forested buffer;

b. The width of the buffer between the storm water facility and the wetland edge is not less than that of the minimum prescribed buffer for the appropriate category of wetland with a Low Impact adjacent land-use, as established in part (D) of the section titled Wetlands - Buffer Widths below, and the slope of the ground in the buffer is fifteen percent (15%) or less;

c. There is no other feasible location for the storm water facility and the facility is located, constructed, and maintained in a manner that minimizes adverse impacts on the buffer and the wetland it protects;

d. The storm water facility is constructed to mimic and resemble natural wetlands and meets applicable County or state storm water management standards and the discharge water meets state water quality standards;

e. Low impact development approaches have been considered and implemented to the maximum extent feasible in the development served by the storm water management facility.

10. Storm water conveyance or discharge facilities, such as dispersion trenches, level spreaders, and out-falls, within the buffer of a Category II, III, or IV wetland on a case by case basis when the Administrator determines that all of the following criteria are met:

    a. Due to topographic or other physical constraints, there are no feasible locations for these facilities outside the buffer;

    b. The discharge is located as far from the wetland edge as possible and in a manner that minimizes disturbance of soils and vegetation; and

    c. The discharge outlet and flow path are constructed and planted to prevent erosion and promote infiltration, and the slope of the flow path is fifteen percent (15%) or less.

11. Passive recreation facilities that are part of a non-motorized trail system or environmental education program including walkways, wildlife viewing structures, and trails, in wetland buffers, provided that all of the following criteria are met:

    a. Trails do not exceed 5 feet in width and are be made of pervious material where feasible;

    b. The trail or facility is located in the outer fifty percent (50%) of the buffer area; and

    c. The trail is constructed and maintained in manner that minimizes disturbance of the buffer and the wetland it protects.

12. On-site sewage disposal systems, in wetland buffers, when accessory to an approved residential structure for which it is not feasible to connect to a public sanitary sewer system, and when operated and maintained in accordance with

the requirements of Jefferson County Environmental Health Department, provided that adverse impacts on water quality are avoided.

4. Wetlands - Buffer Widths

A. The purpose of applying a buffer to a wetland is to protect its functions from the impacts of adjacent land-use by:

1. Removing excessive amounts of sediment, nutrients and toxins before surface, and subsurface, water enters the wetland;

2. Tempering the microclimate within the wetland;

3. Providing food, shelter, and cover for wildlife species that depend upon use of the wetland for part of their life cycle;

4. Providing visual and auditory screening for wildlife, and a barrier against disruptive intrusion by humans and domestic animals.

B. The Administrator shall have the authority to require buffers from the boundaries of all wetlands as established by this article, and in accordance with the following criteria.

1. Wetland buffer widths shall be measured along a horizontal line perpendicular to the wetland boundary as marked in the field during delineation if required, or as assumed from site investigation, aerial photographs, or LiDAR images.

2. Buffers need not include areas that are functionally isolated and physically disconnected from the wetland by a substantial developed surface such as a dike, building, parking lot, or well-traveled road. The determination of functional isolation must take into account the use of the buffer by wildlife for access to the wetland.

3. The prescribed buffer widths established by this article presume that the buffer is entirely vegetated with a diverse and well-established native-plant community typical of the uplands in the site vicinity. The effectiveness of buffer vegetation as a screen or barrier against disturbance to wildlife, and for treatment of storm water runoff, is related to the slope of the ground. When a buffer is on a slope steeper than forty percent (40%), and/or lacks adequately dense and diverse vegetation (e.g. is mowed or grazed), the Administrator may require the buffer to be larger than its prescribed width, require enhancement of the buffer vegetation, and/or deny a proposal for buffer reduction or buffer averaging.

C. The prescribed buffer widths shall be established on the basis of the following factors:

1. The wetland's value and sensitivity to disturbance, based on its category (I, II, III, IV) as determined by Special Characteristics or the total score on the rating form for the Wetland Rating System;

2. The wetland's value as wildlife habitat, based on its habitat function score from the rating form; and

3. The expected level of impact of the proposed adjacent land use, as determined from the list titled Land-Use Impact Levels contained in Appendix A. The Administrator may determine, on the basis of detailed information from the

applicant about the site conditions, scope, and intensity of the proposed development, that the proposed land-use will have a lesser level of impact on the wetland than indicated by similar land-uses on the list.

D. The following tables contain the prescribed buffer widths for each combination of factors, established in accordance with the Department of Ecology's Wetlands in Washington State - Volume 2: Guidance for Protecting and Managing Wetlands (Publication #05-06-008).

1. For wetlands that are categorized on the basis of Special Characteristics, or that have a habitat function score of twenty nine (29) points or more on the wetland rating form, the prescribed buffers shall be as follows:

Wetland Category	**High Impact**	**Medium Impact**	**Low Impact**
	Prescribed Buffer Width (feet)		
Category I	300	225	150
Category II	300	225	150
Category III	150	110	75
Definitions for high, medium and low impact land-use are provided in Appendix A.			

2. For wetlands that have a habitat function score of twenty to twenty eight (20-28) points on the wetland rating form, the prescribed buffers shall be as follows:

Wetland Category	**High Impact**	**Medium Impact**	**Low Impact**
	Prescribed Buffer Width (feet)		
Category I	150	110	75
Category II	150	110	75
Category III	100	75	50
Category IV	100	75	50
Definitions for high, medium and low impact land-use are provided in Appendix A.			

3. For wetlands that have a habitat function score of nineteen (19) points or less on the wetland rating form, the prescribed buffers shall be as follows:

Wetland Category	**High Impact**	**Medium Impact**	**Low Impact**
	Prescribed Buffer Width (feet)		
Category I	100	75	50
Category II	100	75	50
Category III	50	40	25
Category IV	50	40	25
Definitions for high, medium and low impact land-use are provided in Appendix A.			

E. Because there can be a large increase in buffer width associated with a relatively small difference in habitat score, when the habitat score is between 19 points and 29 points, the Administrator may deviate from the tables above and increase the buffer width by equal increments, in accordance with the Department of Ecology's Wetlands in Washington State - Volume 2: Guidance for Protecting and Managing Wetlands (Publication #05-06-008, April 2005).

5. Wetlands - Buffer Reduction

The Administrator shall have the authority to reduce the prescribed buffer widths listed in the section above, provided that all of the following shall apply:

A. The buffer reduction does not have any adverse impact on the functions and values of the wetland, as demonstrated in an approved Critical Area Assessment Report;

B. The buffer of a Category I or II wetland is not reduced to less than seventy-five (75) percent of the required buffer or fifty (50) feet, whichever is greater;

C. The buffer of a Category III or IV wetland is not reduced to less than fifty (50) percent of the required buffer, or twenty five (25) feet, whichever is greater;

D. The applicant implements all reasonable measures to reduce the adverse impacts of adjacent land-uses including, but not limited to, the following:

1. Directing lights away from the wetland and buffer;

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

3. Not using pesticides within one hundred-fifty (150) feet of the wetland;

4. Infiltrating storm water runoff before it enters the buffer, or detaining, treating, and then dispersing the runoff into the buffer;

5. Posting signs, constructing a fence, or installing other permanent markers along the outer edge of the buffer to clearly indicate the boundary;

6. Planting the buffer with native vegetation appropriate for the region to establish a screen or barrier to noise, light, and human intrusion, and to discourage intrusion by domestic animals;

7. Using low impact development approaches in the vicinity of the wetland and buffer as appropriate;

8. Establishing a permanent conservation easement or other protective covenant on the wetland and buffer.

6. Wetlands - Buffer Averaging

The Administrator shall have the authority to average wetland buffer widths on a case-by-case basis, provided that all of the following shall apply:

A. The buffer averaging does not have any adverse impact on the functions and values of the wetland, as demonstrated in an approved Critical Areas Assessment Report;

B. The total area contained within the buffer after averaging is no less than that which would be contained within the prescribed buffer, and the buffer boundary remains more or less parallel to the wetland boundary in order to avoid the creation of "panhandles";

C. The most sensitive, or highest value, areas of the wetland have the widest buffer dimensions, and the buffer boundary takes into account variations in slope, soils, or vegetation to optimize the overall effectiveness of the buffer;

D. The minimum buffer width of a Category I or II wetland is no less than seventy-five percent (75%) of the widths established in sections (4) (D) and (E) above; or fifty feet (50) feet, whichever is greater;

E. The minimum buffer width of a Category III or IV wetland is no less than fifty percent (50%) of the widths established in section (4) (D) and (E) above; or twenty five (25) feet, whichever is greater; and

F. The buffer has not been reduced in accordance with section (5) above. Buffer averaging is not allowed if the width of the entire buffer has been reduced already.

7. Wetlands - Buffer Increases

A. The Administrator shall have the authority to increase the width of a prescribed buffer on a case-by-case basis when it is determined, on the basis of a site-specific analysis, that a larger buffer is required to maintain a viable population of a threatened, endangered, or listed species.

B. The Administrator shall have the authority to increase the width of a prescribed buffer on a case-by-case basis when such increase is necessary to:

1. Compensate for a poorly vegetated buffer, or a buffer that has a slope greater than forty percent (40%);

2. Prevent wind-throw damage within a forested wetland, or within a buffer that must remain forested in order to be effective;

3. Protect a wetland from landslides, erosion or other hazards.

8. Wetlands - Review and Reporting Requirements

A. When County critical area maps or other sources of credible information indicate that a wetland lies within 300 feet (the maximum prescribed buffer width) of a site proposed for development or alteration, the Administrator may require a field investigation by a qualified professional to determine whether or not a regulated wetland is present and, if so, to rate and categorize it in accordance with the Wetland Rating System, determine its approximate location in relation to the proposed development area or site, and provide to the Administrator a letter of certification with a copy of the wetland rating form.

B. If it is determined by the Administrator that no regulated wetlands are present, then the Critical Area Review process for wetlands, per the section of this ordinance titled Submittal Requirements and Critical Area Review Process, will be considered complete.

C. If the Administrator determines, on the basis of the field investigation described above, investigation by qualified County staff, or other credible information, that a regulated wetland of known rating and category is present within a distance 50 feet greater than the prescribed buffer width, as determined from the tables in section (4) (D) above, for the rating and category of wetland and the type of development or alteration proposed, he/she shall require:

1. Delineation in accordance with the Delineation Manual, and marking with stakes and flags, of the entire boundary of the affected wetland or, if the proposed development or alteration is limited to a specific location, only the portion of the boundary in that vicinity; and

2. The preparation of a Critical Area Assessment Report pursuant to the section of this ordinance titled Critical Areas Assessment Reports and the requirements listed in section (D) below.

D. A Critical Areas Assessment Report for wetlands shall contain the following information as applicable to the scope of the proposed development or alteration.

1. Location information (legal description, parcel number, and address).

2. The completed form for the Wetland Rating System showing the category and rating scores of the wetland.

3. A site plan, drawn to scale, showing the entire parcel and:

   a. The delineated boundary, and the approximate acreage, of the wetland;

   b. The boundaries of the prescribed buffer as determined by the tables in section (4) (D) above, and any adjustments to buffer-width being proposed;

   c. The other natural features of the site, including types of vegetative cover, streams or other bodies of water;

   d. The location of the proposed development or alteration, and any existing development such as culverts, ditches, dikes, dams, buildings, fences or other structures, roads, parking lots, and utilities; and

   e. Date, north arrow, and graphic scale.

4. Supplemental graphic information to aid in the description of the wetland and the surrounding terrain, such as recent and/or historical aerial photographs, ground-level photographs, topographic maps, and LiDAR images.

5. A written description of the wetland and the surrounding terrain including the dominant and subdominant plant species, soil types, the specific characteristics of the hydric soils, sources of hydrology (patterns of surface and subsurface water movement, and precipitation), topography; and other pertinent information as available from written or oral sources, about historical uses and alterations, and natural changes occurring over extended periods of time. The

description of wetlands on parcels not owned by the project proponent shall be based on available information and shall not require accessing the wetland.

6. A qualitative written assessment of the existing water quality, hydrologic, and habitat functions and values of the wetland, including how it functions within the local watershed, and the effects the proposed development, buffer reduction, or alteration to wetland or buffer are likely to have, including, but not limited to direct and indirect, short and long term, effects on water, soil, plants, and animals, of:

   a. Damage from clearing, grading, and construction;

   b. Increased storm water runoff;

   c. Changes to natural drainage or surface water infiltration patterns;

   d. Changes in micro-climate from the loss of shading, wind protection, and temperature moderation provided by forest cover;

   e. Increased competition from non-native and/or invasive species of plants and animals;

   f. Increased noise, light, or intrusion and disturbance by humans and domestic animals.

7. A statement of whether or not Listed, Threatened, or Endangered Species or their potential habitats are present and would be affected by the proposed development.

8. A statement of whether or not compensatory mitigation is recommended for an alteration to the wetland or buffer and, if recommended, of what type and extent it should be.

9. Wetlands - Compensatory Mitigation

As established by WAC 197.11.768, and described in the section of this ordinance titled Mitigation Sequence, all reasonable efforts shall be made to mitigate (i.e. in order of priority: avoid, minimize, rectify, and reduce or eliminate) the adverse impacts of activities and/or alterations within wetlands and buffers.

A. Proposals for alterations that have been determined by the Administrator to have an adverse impact on wetlands and/or wetland buffers, that cannot otherwise be mitigated, may be permitted subject to compensatory mitigation, and monitoring, sufficient to achieve no net loss of wetland function and values within the watershed or sub-basin, in accordance with the section of this ordinance titled General Mitigation Requirements and this section.

B. In determining the type and extent of compensatory mitigation required, the Administrator may consider all of the following:

   1. The ecological processes that affect wetlands and other critical areas within the watershed or sub-basin;

   2. The short and long term effects of the compensatory mitigation activity on the functions of the mitigation site and watershed or sub-basin;

3. Observed or predicted trends regarding the gains or losses of specific wetland types in the watershed or sub-basin, in light of natural processes and surrounding land-use;

4. The likely success of the proposed compensatory mitigation activity;

5. Effects of the compensatory mitigation activity on neighboring properties; and

6. Opportunities to implement restoration activities formally identified by an adopted Shoreline Restoration Plan, watershed planning document prepared and adopted pursuant to RCW 90.82, a watershed plan prepared pursuant to WAC 400-12, a Salmonid Recovery Plan or project that has been identified on the Salmon Recovery Board Habitat Project List or by the Washington Department of Fish and Wildlife as essential for fish and wildlife habitat enhancement.

C. The types of compensatory mitigation for adverse impacts to wetlands and wetland buffers shall be as follows:

1. Compensatory mitigation for adversely impacted (altered) areas of wetlands shall restore, create, rehabilitate, enhance, and/or preserve equivalent wetland functions and values. The mitigation activities shall, to the extent feasible, occur on the same site as the wetland being altered, or within the same watershed or sub-basin, in the following order of priority to:

a. Re-establish (also referred to as restore) wetlands on upland sites that were formerly wetlands.

b. Create wetlands on disturbed upland sites such as those consisting primarily of non-native, invasive plant species.

c. Rehabilitate wetlands for the purposes of repairing or restoring natural and/or historic functions.

d. Enhance significantly degraded wetlands.

e. Preserve Category I or II wetlands that are under imminent threat, provided that preservation shall only be allowed in combination with other forms of mitigation and when the Administrator determines that the overall mitigation package fully replaces the functions and values lost due to development.

2. Compensatory mitigation for adversely impacted (altered) areas of the buffers of wetlands shall include enhancement of buffer areas that do not have adequate vegetative cover by planting native species, removing structures and impervious surfaces within buffers, and other measures to achieve equivalent or greater buffer functions.

D. Ratios for Compensatory Mitigation.

1. Compensatory mitigation for adversely impacted (altered) areas of wetland buffers shall occur at a minimum 1:1 ratio.

2. Compensatory mitigation for adversely impacted (altered) areas of wetlands shall be based on the wetland category and the type of mitigation activity proposed.

The replacement ratio shall be determined according to the ratios listed in the table below, provided that the replacement ratio for preservation shall be 10 times the ratio for re-establishment or creation. The created, re-established, rehabilitated, or enhanced wetland area shall at a minimum provide a level of function equivalent to the wetland being altered and shall be located in an appropriate landscape setting.

	Replacement Ratio*		
Wetland Category	**Re-establishment or Creation**	**Rehabilitation**	**Enhancement Only**
Category I	No alteration allowed		
Category II	3:1	6:1	12:1
Category III	2:1	4:1	8:1
Category IV	1.5:1	3:1	6:1
*means the ratio of the area of land used for compensatory mitigation to the area of wetland adversely impacted by alteration.			

3. The ratios noted above shall not apply to mitigation banks as defined by this chapter. Credit and debit procedures for mitigation banks shall be determined in accordance with the mitigation banking provisions outlined in the section of this ordinance titled Mitigation Banking.

E. Replacement wetlands established pursuant to these compensatory mitigation provisions shall have adequate buffers to ensure their protection. Buffer width shall be based on the adjacent land-use and the category of the re-established, created, rehabilitated, enhanced, or preserved wetland, provided that the Administrator shall have the authority to approve a smaller buffer when existing site constraints (such as a road) prohibit attainment of the prescribed buffer. Replacement wetlands shall not create buffer encumbrances on adjoining properties.

F. The Administrator shall have the authority to adjust the replacement ratios when one or more of the following apply:

1. When a combination of mitigation approaches is proposed, the area of altered wetland shall be replaced at a 1:1 ratio through re-establishment or creation, and the remainder of the area needed to meet the ratio can be replaced by enhancement at a 2:1 ratio. For example, impacts to 1 acre of a Category II wetland requiring a 3:1 ratio for creation can be compensated by creating 1 acre and enhancing 4 acres (instead of the additional 2 acres of creation that would otherwise be required).

2. When the project proponent has a demonstrated ability, based on past performance, to successfully design, construct, monitor and maintain wetland mitigation projects/sites, the replacement ratio may be reduced by as much as forty percent (40%) from the ratios listed in section (D) (2) above, but in no case to less than 1:1.

3. When meeting the required ratios would adversely impact other natural and valuable characteristics of an otherwise appropriate and suitable mitigation site.

G. A compensatory mitigation site shall be located where it will provide the greatest ecological benefit and have the greatest likelihood of success, provided that it is as close as possible to, and within the same watershed as, the site of the proposed alteration.

H. All compensatory mitigation sites shall be protected, and managed to prevent degradation, into perpetuity. Permanent protection shall be achieved through deed restriction or other protective covenant in accordance with the section of this ordinance titled Critical Area Protective Measures.

I. Where feasible, compensatory mitigation projects shall be completed prior to the proposed alteration, provided that construction shall be timed to reduce impacts to the mitigation site, and to allow for grading, planting, and other activities to occur during the appropriate season(s).

J. Compensatory mitigation projects shall be monitored in accordance with the section of this ordinance titled General Mitigation Requirements for the period of time necessary to determine that the performance standards have been met.

1. Reports shall be submitted annually for the first three (3) years following construction and at the completion of years 5, 7, and 10, if applicable, to document milestones, successes, problems, and contingency actions of the compensatory mitigation.

2. The Administrator shall have the authority to extend the monitoring period for up to ten (10) years and require additional monitoring reports when any of the following conditions apply:

a. The project does not meet the performance standards identified in the mitigation plan.

b. The project does not provide adequate replacement for the functions and values of the impacted wetland.

c. The project involves re-creation of forest-plant communities, which require a longer time for establishment.

10. Wetlands - Compensatory Mitigation Plan

A. In addition to meeting the requirements in the section of this ordinance titled Mitigation Plans, a compensatory mitigation plan for alterations to wetlands and wetland buffers shall also meet the following requirements:

1. The plan shall be based on applicable portions of the Department of Ecology's Guidance on Wetland mitigation in Washington State: Part 2 - Guidelines for Developing Wetland Mitigation Plans and Proposals (Publication 04-06-013b, April 2004), or as hereafter revised.

2. The plan shall contain sufficient information to demonstrate that the proposed activities are financially and logistically feasible, ecologically sustainable, and likely to succeed. Specific information to be provided in the plan shall, in addition to the general requirements for Mitigation Plans, include:

a. The rationale for site selection;

b. A description of the baseline (existing) conditions of the mitigation site, including topography, vegetation, soils, hydrology, habitat features, surrounding land use, and other pertinent information;

c. Field data confirming the presence of adequate hydrology (surface and/or groundwater) to support existing and compensatory wetland area(s);

d. Detailed grading and planting plans showing: proposed alterations to topography and hydrologic patterns; the spacing and distribution of plant species; the size and species of planting stock; provisions for temporary irrigation, and other pertinent information;

e. A description of the site treatment measures, including invasive species removal, use of mulch and fertilizer, placement of erosion and sediment control devices, and other practices, that will be used to protect existing wetlands and desirable vegetation.

f. A description of, and schedule for, the follow-up treatment and maintenance to occur until post-construction site conditions have stabilized and the plantings are well established.

Recommendations for Protection of Fish and Wildlife Habitat Conservation Areas

(Adapted from Whatcom County Critical Areas Ordinance, Article 7, Fish and Wildlife Habitat Conservation Areas, and Article 8, Definitions, and incorporating Jefferson County UDC 18.15 language)

Submitted by Jill Silver, Habitat Ecologist
April 26, 2007

Contents

Summary

Jefferson County negotiated a settlement agreement with the Washington Environmental Council in 2004, in order to achieve compliance with the Best Available Science provisions in the Growth Management Act (RCW 36.70). The CAO advisory committee to the Planning Commission is tasked with working within this agreement, or providing rationale as to departure from the agreement. Section of the agreement specifically relevant to Fish and Wildlife Habitat Conservation Areas are inserted as follows:

WEC 2nd Settlement Agreement related to Wildlife and Channel Migration Zones:

3. Wildlife.

   3.1. Building upon the County's recent identification of the core habitat areas and corridors in eastern Jefferson County (Tomassi 2004), the County will develop strategies for protecting wildlife habitat as part of a landscape approach for habitat conservation management. These strategies shall include both regulatory and non-regulatory approaches.

   3.2. Within six (6) months of the date of this Second Settlement Agreement, the County shall adopt UDC provisions that establish enhanced regulatory protection for mapped core habitat areas and corridors for use when the County considers development permit applications involving proposed forest practice conversions (i.e., Class IV General FPAs) and land divisions.

Related to CMZs –

   1.1…In order to protect public safety, fish and wildlife habitat and associated riparian habitat functions, the county shall enact development regulations that preserve the integrity of identified channel migration zones and establish buffers to be measured from the outer edge of these channel migration zones. The regulations will provide the opportunity for site-specific buffer review for development proposed within channel migration zone buffers. This review will be based on circumstances, such as topography, that are specific to the proposed development site. Approval of development sites within channel migration zone buffers may require implementation of a Habitat Management Plan ("HMP") to ensure protection of riparian habitat functions.

   1.2 In the event that the delineation of channel migration zones has unintended consequences harmful to other GMA goals, the County may seek alternatives that are supported by best available science and are consistent with GMA.

CRITICAL AREAS ORDINANCE FOR THE PROTECTION OF FISH AND WILDLIFE HABITAT CONSERVATION AREAS

ARTICLE 1 PURPOSE AND INTENT

Purpose

A. The purposes of this chapter are to carry out the goals of the Jefferson County comprehensive plan and the State of Washington Growth Management Act (RCW 36.70A) and its implementing rules by designating and classifying critical areas, and by protecting the functions and values of critical areas and the ecological processes that sustain them while allowing for appropriate economically beneficial or productive use of land and property. This chapter seeks to maintain harmonious relationships between human activity and the natural environment.

B. By regulating development and minimizing critical area alterations, this chapter seeks to:

1. Establish critical area protection standards and procedures that are consistent with state and federal regulations pertaining to critical areas.

2. Protect habitat conservation areas by applying the Best Available Science to ensure no net loss of ecological functions and values.

3. Protect species listed as threatened or endangered and their habitats.

4. Protect unique, fragile and/or valuable elements of the environment, including anadromous fish species, shellfish, and other fish and wildlife and their habitats.

5. Prevent adverse and cumulative environmental impacts to critical areas and mitigate unavoidable impacts.

6. Ensure there are no adverse impacts to the quality and quantity of water resources.

7. Protect property rights, while allowing for economic development including agriculture, and allowing for the development and maintenance of adequate and appropriate public services and essential public facilities.

8. Alert appraisers, assessors, real estate agents, owners, potential buyers or lessees, and other members of the public to natural conditions that pose a hazard or otherwise limit development.

9. Minimize unnecessary costs associated with environmental degradation.

10. Provide County officials with information to approve, condition, or deny project proposals.

11. Coordinate Jefferson County's critical area protection activities and programs with those of other jurisdictions.

12. Coordinate environmental reviews and permitting of proposals with other departments and agencies to avoid duplication and delay.

13. Allow for reasonable use of property in accordance with the provisions of JCC X.

C. The goals, policies and purposes set forth in this chapter serve as a basis for exercise of the County's substantive authority under the State Environmental Policy Act (SEPA) and the County's SEPA rules.

D. The County's enactment or enforcement of this chapter shall not be construed for the benefit of any individual person or group of persons other than the general public.

E. Nothing in this chapter is intended to preclude or discourage beneficial actions that protect, restore, and/or maintain critical areas or minimize risks associated with critical areas.

F. Consistent with Jefferson County's high standard of staff conduct, County staff observe all applicable Federal and Washington laws regarding entry onto privately owned property.

Fish AND WILDLIFE HABITAT CONSERVATION AREAS (FWHCAS)

1. Fish and Wildlife Habitat Conservation Areas - Purposes

The purposes of this article are to:

A. Recognize and protect the beneficial functions performed by fish and wildlife conservation areas (FWHCAs) throughout Jefferson County, which include but are not limited to: providing habitat for plant and animal species; and providing food, and essential breeding, nesting and/or rearing habitat for numerous species of fish and wildlife.

B. In accordance with the best available science referenced herein:

1. Maintain fish and wildlife populations, especially populations of anadromous fish species, by protecting and conserving valuable fish and wildlife habitat and protecting the ecological processes that sustain these resources.

2. Protect marine shorelines, valuable terrestrial habitats, and natural rivers and streams and their associated riparian and channel migration zones, and the ecosystem processes on which these areas depend.

3. Regulate development so that isolated populations of species are not created and habitat degradation and fragmentation are avoided, especially along riparian corridors

4. Maintain the natural geographic distribution, connectivity, and quality of fish and wildlife habitat. Establish review procedures for development proposals adjacent to FWHCAs.

5. Establish the requirements for buffers to protect FWHCAs from adverse impacts of adjacent land-use.

6. Identify the uses and activities which may be permitted within FWHCA buffers under certain conditions, in addition to those listed in the sections of this ordinance titled Activities Allowed without Notification, and Activities Allowed with Notification.

7. Establish standards for compensatory mitigation of unavoidable alterations and adverse impacts to FWHCAs and their buffers.

Designation, Classification, and Mapping– Fish and Wildlife Habitat Conservation Areas

A. Habitat conservation areas are those areas identified as being of critical importance to the maintenance of certain fish, wildlife, and/or plant species. These areas are typically identified either by known point locations of specific species (such as a nest or den) or by habitat areas or both. All areas within the County meeting these criteria are hereby designated critical areas and are subject to the provisions of this article.

B. The approximate location and extent of identified fish and wildlife habitat areas are shown on the County's critical area maps. These maps are to be used as a guide and do not provide a definitive critical area determination. The County shall update the maps as new fish and wildlife habitat areas are identified or new information related to updates to existing maps are available.

C. Classification and Designation. FWHCAs include both aquatic and terrestrial areas within Jefferson County. The approximate location and extent of FWHCAs are displayed in the Washington Department of Fish & Wildlife's (WDFWs) Priority Habitat and Species (PHS) Program database, and Jefferson County's Core Wildlife Habitat Conservation Areas database. *(Work continues on updating and improving this datalayer between the County, UW Gap Program, and WDFW. A public process should present these new data to residents and citizens for approval.)*

D. For purposes of this chapter, habitat conservation areas shall include all of the following:

1. Streams. Streams shall be designated according to the following criteria:

a. Shoreline streams are those streams identified and regulated as shorelines of the state as defined by WAC 173-18-410, 90.58 RCW Shoreline Management Act including associated wetlands, and those designated in the Jefferson County Shoreline Master Program (JCC X).

b. Other fish bearing streams that do not meet the definition of shorelines of the state but have known or potential use by anadromous or resident fish species. The Technical Administrator shall make determinations of known or potential fish use in consultation with federal, state and tribal biologists and in accordance with Best Available Science; and shall take into consideration factors such as species life history and life cycle requirements, habitat suitability and condition, channel gradient, presence or lack of barriers, and a reasoned evaluation of current, historic, and potential fish use by a qualified professional. These streams shall be typed in accordance with WAC 222-16-030 Definitions except that OHWM shall replace bankfull width, and where fish are not found, by physical characteristics as described in Table X (to be developed).

c. Non-fish bearing streams are those streams that have no known or potential use by anadromous or resident fish, are important for sediment storage and as amphibian habitat. These streams shall be typed in accordance with WAC 222-16-030 Definitions except that OHWM shall replace bankfull width, and by physical characteristics as described in Table X (>20% gradient in east Jefferson County, and 30% gradient in west Jefferson County per methods in Table X.1).

2. Channel Migration Zones (CMZs). CMZs encompass that area of current and historic lateral stream channel movement that is subject to erosion, bank destabilization, rapid stream incision, and/or channel shifting, as well as adjacent areas that are susceptible to channel erosion. The channel migration zone may not include the area behind a flood protection device lawfully constructed prior to the adoption of this ordinance until and unless the use of that device is discontinued.

a. Designation. Channel migration zones shall be identified in accordance with guidelines established by the Washington State Department of Ecology.

Reaches of CMZs that were lawfully developed for residential, agricultural, commercial and industrial uses, prior to the adoption of this chapter, may be excluded from this designation, but not otherwise exempt from this chapter.

b. Hazard Zonation. High, Moderate, and Low Hazard Zones, where delineated, shall limit the allowed uses within the CMZ per Table X.2 (to be developed).

In the High Risk CMZ area, channel migration is likely within the next 100 years; in the Moderate Risk CMZ area, channel migration is possible within the next 100 years. Areas protected from channel movement due to the existence of permanent levees or infrastructure such as roads and bridges constructed prior to the adoption of this ordinance and maintained by public agencies are excluded from the limitations associated with High and Moderate Risk designation.

c. Sources of CMZ delineations in Jefferson County.
   i. US Department of the Interior, Bureau of Reclamation 2004. Channel Migration Study for the Duckabush, Dosewallips, Big Quilcene and Little Quilcene Rivers, Jefferson County Washington. Denver CO.
   ii. Perkins Geosciences. 2004. Channel Migration Hazard Maps for the Dosewallips, Duckabush, Big Quilcene and Little Quilcene Rivers, Jefferson County, Washington. Seattle, WA.
   iii. USBOR et al. 2004. Geomorphic Assessment of Hoh River in Washington State - Hoh River Miles 17 to 40: Oxbow Canyon to Mount Tom Creek. Report to Jefferson County Public Works. US Bureau of Reclamation. July, 2004.
   iv. Perkins Geosciences. 2003. Lower Hoh Channel Migration Study. Report to the Hoh Tribe.
   v. Herrera et al. 2002. Reach Analysis: Hoh River in the Vicinity of U.S. Highway 101, MP 176.6 to MP 170.2. Prepared for WSDOT. April, 2002.

3. Areas with which federally and/or state listed species have a primary association (Appendix X).

4. State priority habitats and areas associated with state priority species (Appendix X).

5. Commercial and recreational shellfish areas, including designated Shellfish Habitat Conservation Areas.

6. Kelp and eelgrass beds.

7. Surf smelt, Pacific herring, and Pacific sand lance spawning areas.

8. Naturally occurring ponds under 20 acres in size.

9. Naturally occurring lakes over 20 acres and other waters of the state including marine waters, and waters planted with game fish by a government or tribal entity.

10. Natural Area Preserves and Natural Resource Conservation Areas.

11. Locally important species and habitats that have recreational, cultural, and/or economic value to citizens of Jefferson County, including:

a. Species
i. Roosevelt Elk (have not yet been proposed, but are listed as such in Whatcom County, and are important and at risk in Jefferson County)

b. Habitats
i. The Marine nearshore habitat and the associated vegetated marine riparian zone. These areas support productive eelgrass beds, marine algal turf, and kelp beds that provide habitat for numerous priority fish and wildlife species including, but not limited to, forage fish, seabird and shorebird foraging and nesting sites, and harbor seal pupping and haulout sites. This designation applies to the area from the extreme low tide limit to the ordinary high water mark. Reaches of the marine shorelines that were lawfully developed for commercial and industrial uses, prior to the adoption of this chapter, may be excluded from this designation, but not otherwise exempt from this chapter. See Appendix X.

ii. Identified elk wintering and calving grounds.

iii. Unique natural plant communities designated by the Washington Department of Natural Resources.

iv. The Quimper Wildlife Corridor.

v. Other wildlife corridors as developed.

D. In addition to the species, habitats, and wildlife corridors identified in JCC X, the County may designate additional species, habitats of local importance, and/or wildlife corridors as follows:

1. In order to nominate an area, species, or corridor to the category of Locally Important, an individual or organization must:

a. Demonstrate a need for special consideration based on:

i. Declining population,
ii. Sensitivity to habitat manipulation,
iii. Commercial, recreational, cultural, or other special value, or
iv. Maintenance of connectivity between habitat areas.

b. Propose relevant management strategies considered effective and within the scope of this chapter;

c. Identify effects on property ownership and use; and

d. Provide a map showing the species or habitat location(s).

Species of local importance may include, but are not limited to, State Candidate and Monitor species.

2. Submitted proposals shall be reviewed by the County and may be forwarded to the State Departments of Fish and Wildlife, Natural Resources, and/or other local, state, federal, and/or Tribal agencies or experts for comments and recommendations regarding accuracy of data and effectiveness of proposed management strategies.

3. If the proposal is found to be complete, accurate, and consistent with the purposes and intent of this chapter and the various goals and objectives of the Jefferson County Comprehensive Plan, and the Growth Management Act, the County Commissioners will hold a public hearing to solicit comment. Approved nominations will become designated locally important habitats, species, or corridors and will be subject to the provisions of this chapter.

Habitat Conservation Areas – General Standards

The following activities may be permitted in habitat conservation areas and/or their buffers when all reasonable measures have been taken to avoid adverse effects on species and habitats, compensatory mitigation is provided for all adverse impacts that cannot be avoided, and the amount and degree of the alteration are limited to the minimum needed to accomplish the project purpose, provided that locally important species and habitats shall be subject to JCC X:

A. Developments that meet the reasonable use and variance standards set forth in JCC X.

B. Forest Practices Class IV General Conversions. Parcels proposed for conversion shall be assessed for critical areas including CMZs, streams, geologic hazards, critical aquifer recharge zones, and wetlands, and those areas shall be buffered in accordance with the JCC CAO - XX.

C. Relocation of streams, or portions of streams, when there is no other feasible alternative and when the relocation will result in equal or better habitat and water quality and quantity, and will not diminish the flow capacity of the stream or other natural stream processes, provided that the relocation meets state Hydraulic Project Approval requirements and that relocation of shoreline streams shall be prohibited unless the relocation has been identified formally by the Washington Department of Fish and Wildlife as essential for fish and wildlife habitat enhancement or identified in watershed planning documents prepared and adopted pursuant to RCW 90.82, the Salmonid Recovery Plan, the Salmon Recovery Board Habitat Project List, County Shoreline Restoration Plan, or other locally developed and agency-approved restoration plans.

D. Road, trail, bridge, and right-of-way crossings provided they meet the following criteria:

1. There is no other feasible alternative route with less impact on critical areas.

2. The crossing minimizes interruption of natural processes such as channel migration, the downstream movement of wood and gravel and the movement of all fish and wildlife. Bridges are preferred for all stream crossings and should be designed to maintain the existing stream substrate and gradient, provide adequate horizontal clearance on each side of the ordinary high water mark, and provide adequate vertical clearance above the ordinary high water mark, and be engineered for a 100 year flood event.

3. Culverts shall be designed to withstand a 100 year flood event and in accordance with applicable state and federal guidance criteria for fish passage as identified in *Fish Passage Design at Road Culverts*, WDFW March 1999,

and/or the National Marine Fisheries Service *Guidelines for Salmonid Passage at Stream Crossings*, 2000 (and subsequent revisions), and in accordance with a state Hydraulic Project Approval. The applicant or property owner shall maintain fish passage through the bridge or culvert.

4. The County may require that existing culverts be removed or corrected as a condition of approval if the culvert is detrimental to fish passage or water quality, and a feasible alternative exists.

5. Crossings shall be limited to the minimum width necessary. Common crossings are the preferred approach where multiple properties can be accessed by one crossing.

6. Access to private development sites may be permitted to cross habitat conservation areas if there are no feasible alternative alignments. Alternative access shall be pursued to the maximum extent feasible, including through the provisions of RCW 8.24. Exceptions or deviations from technical standards for width or other dimensions, and specific construction standards to minimize impacts may be specified, including placement on elevated structures as an alternative to fill, if feasible.

E. Construction of a structure in a habitat conservation area buffer that is associated with an agricultural use; or the reconstruction, remodeling, or maintenance of such structures in a habitat conservation area buffer, subject to all of the following criteria:

1. The structure is located within an existing lot of record and is an existing agricultural use.

2. There is no other feasible location with less impact to critical areas buffers.

3. Clearing and grading activity and impervious surface are limited to the minimum necessary to accommodate the proposed structure and, where possible, surfaces shall be made of pervious materials.

4. Unavoidable adverse effects on critical areas buffers are mitigated in accordance with this chapter.

F. Storm water management facilities limited to detention / retention / treatment ponds, media filtration, lagoons and infiltration basins may be permitted in a stream buffer, subject to all of the following standards:

1. The facility is located in the outer fifty percent (50%) of the standard stream buffer and does not displace or impact a forested riparian community;

2. There is no other feasible location for the storm water facility and the facility is located, constructed, and maintained in a manner that minimizes adverse effects on the buffer and adjacent critical areas;

3. The storm water facility meets applicable County or state storm water management standards and the discharge water meets state water quality standards; and

4. Low impact development approaches have been considered and implemented to the maximum extent feasible.

G. Storm water conveyance or discharge facilities such as dispersion trenches, level spreaders, and outfalls may be permitted in a habitat conservation area buffer on a case-by-case basis when the Technical Administrator determines that all of the following are met:

1. Due to topographic or other physical constraints, there are no feasible locations for these facilities outside the buffer;

2. The discharge is located as far from the ordinary high water mark as possible and in a manner that minimizes disturbance of soils and vegetation;

3. The discharge outlet is designed to prevent erosion and promote infiltration; and

4. The discharge meets freshwater and marine state Water Quality Standards, including total maximum daily load (TMDL) standards as appropriate at the point of discharge. Standards should include filtration through mechanical or biological means, vegetation retention, timely reseeding of disturbed areas, use of grass-lined bioswales for drainage, and other mechanisms as appropriate within approved stormwater "special districts."

5. Impervious surface shall be limited to five percent of total parcel area.

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

1. Grading is allowed only during the designated dry season, which is typically regarded as May to October of each year, provided that the County may extend or shorten the designated dry season on a case-by-case basis, based on actual weather conditions.

2. Appropriate erosion and sediment control measures shall be used at all times. The soil duff layer shall remain undisturbed to the maximum extent possible. Where feasible, disturbed topsoil shall be redistributed to other areas of the site. Areas shall be re-vegetated as needed to stabilize the site.

3. The moisture-holding capacity of the topsoil layer shall be maintained by minimizing soil compaction or re-establishing natural soil structure and infiltrative capacity on all areas of the project area not covered by impervious surfaces.

I. Stream bank stabilization and shoreline protection may be permitted subject to all of the following standards:

1. Natural shoreline processes will be maintained to the maximum extent practicable. The activity will not result in increased erosion and will not alter the size or distribution of shoreline or stream substrate, or eliminate or reduce sediment supply from feeder bluffs.

2. Stream and shoreline protection and launching ramps on shorelines of the state shall comply with JCC XX and with state Hydraulic Project Approval requirements.

3. No adverse impact to critical fish or wildlife habitat areas or associated wetlands will occur.

4. No alteration of juvenile fish migration corridors will occur.

5. No net loss of intertidal or riparian habitat function will occur.

6. Non-structural measures, such as placing or relocating the development further from the shoreline, planting vegetation, or installing on-site drainage improvements, are not feasible or not sufficient.

7. Stabilization is achieved through bioengineering or soft armoring techniques in accordance an applicable hydraulic permit issued by the Washington Department of Fish and Wildlife.

8. Hard bank armoring is discouraged and may occur only in situations where soft approaches will not provide adequate protection and when the property contains an existing permanent structure(s) that is in danger from shoreline erosion caused by wave action or riverine processes and not erosion caused by upland conditions, such as the alteration of natural vegetation or drainage, and the armoring shall not increase erosion on adjacent properties and shall not eliminate or reduce sediment supply.

9. Normal sloughing, erosion of steep bluffs, or shoreline erosion itself, without a scientific or geotechnical analysis, is not a demonstration of need.

10. The bank stabilization or shore protection will not adversely affect habitat conservation areas or mitigation will be provided to compensate for adverse effects where avoidance is not feasible.

J. Construction of trails and roadways less than or equal to twenty (20) feet wide, may be permitted in a habitat conservation area buffer subject to all of the following standards:

1. There is no other feasible alternative route with less impact on the critical area.

2. The road or trail minimizes erosion and sedimentation, hydrologic alteration, and disruption of natural processes such as channel migration, wood recruitment and natural wildlife movement patterns.

3. Trails in riparian (stream) buffers shall be located in the outer fifty percent (50%) of the standard buffer, except for limited viewing platforms and crossings; shall not exceed 12 feet in width and shall be made of pervious material.

4. The road or trail is constructed and maintained in manner that minimizes disturbance of the buffer and associated critical areas.

K. New utility lines and facilities may be permitted when all of the following criteria are met:

1. Impacts to fish and wildlife habitat shall be avoided to the maximum extent possible.

2. Where feasible, installation shall be accomplished by boring beneath the scour depth of the stream or water body, and outside a channel migration zone where present unless other options are deemed by the Administrator to be unfeasible.

3. The utilities shall cross streams at an angle greater than sixty (60) degrees to the centerline of the channel or perpendicular to the channel centerline whenever

boring under the channel is not feasible; no more than 30 degrees off perpendicular.

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

5. The utility installation shall not increase or decrease the natural rate, extent, or opportunity of channel migration.

L. New public flood protection measures and expansion of existing ones may be permitted, subject to JCC X of this chapter and a state Hydraulic Project Approval; provided that, bioengineering or soft armoring techniques shall be used where feasible. Hard bank armoring may occur only in situations where soft approaches do not provide adequate protection.

M. Instream structures, such as, but not limited to, high flow bypasses, dams, and weirs, shall be allowed only as part of a watershed restoration project as defined pursuant to JCC X or identified in watershed planning documents prepared and adopted under RCW 90.82, the Salmonid Recovery Plan or Salmon Recovery Funding Board (SRFB) Habitat Project List, and the County's Shoreline Restoration Plan and upon acquisition of any required state or federal permits. The structure shall be designed to avoid adverse effects on stream flow, water quality, or other habitat functions and values.

N. Construction, reconstruction, repair and maintenance of docks and public or private launching ramps may be permitted subject to the following:

1. The dock or ramp is located and oriented and constructed in a manner that minimizes adverse effects on navigation; wave action, water quality, movement of aquatic and terrestrial life; ecological processes; eelgrass beds, shellfish beds, spawning habitat, and wetlands.

2. Docks or ramps on shorelines of the state shall comply with JCC X and state Hydraulic Project Approval requirements.

3. Natural shoreline processes will be maintained to the maximum extent practicable. The activity will not result in increased erosion and will not alter the size or distribution of shoreline or stream substrate, or eliminate or reduce sediment supply from feeder bluffs.

4. No adverse impact to critical fish or wildlife habitat areas or associated wetlands will occur. Adverse impact includes but is not limited to: destruction during construction, leaching of sediments or pollutants during or after construction, alterations of surface or subsurface flows, or removal of native vegetation,

5. No alteration of juvenile fish migration corridors will occur.

6. No net loss of intertidal or riparian habitat function will occur.

O. On-site sewage disposal systems (OSS) may be permitted when accessory to an approved residential structure, for which it is not feasible to connect to a public sanitary sewer system and when operated and maintained in accordance with JCC X, provided that adverse effects on water quality and slope stability are avoided.

P. Single-family developments may be permitted to encroach into stream buffers subject to the Technical Administrator's approval provided that all of the criteria in JCC X are met.

Q. All other developments may be allowed in Shellfish Protection Districts outside of actual shellfish habitats, when permitted by zoning and when the requirements of JCC X are met.

R. Alteration or removal of beaver built structures more than two years old, provided that:

1. The applicant demonstrates that non-destructive measures, such as the use of "beaver deceivers" are not feasible.

2. Impacts to wetland, river or stream functions are minimized and mitigation is provided.

3. The property owner obtains a HPA from WDFW prior to initiating alteration or removal of the beaver built structure.

4. The property owner provides a copy of the HPA to the Technical Administrator.

Standards – Locally Important Habitats and Species

Alterations that occur within a locally important habitat area or that may affect a locally important species as defined herein shall be subject to review on a case-by-case basis. The Technical Administrator shall have the authority to require an assessment of the effects of the alteration on species or habitats and may require mitigation to ensure that adverse effects do not occur. This standard is intended to allow for flexibility and responsiveness with regard to locally important species and habitats.

Standards – Habitat Conservation Area Buffers

The Technical Administrator shall have the authority to require buffers from the edges of all habitat conservation areas in accordance with the following:

A. Buffers shall be established for activities adjacent to habitat conservation areas as necessary to protect the integrity, functions and values of the resource. Buffer widths shall reflect the sensitivity of the species or habitat present and the type and intensity of the proposed adjacent human use or activity per the land use activity impact table (Table 1). Buffers need not include areas that are functionally isolated and physically disconnected from the wetland by a substantial developed surface such as a dike, building, parking lot, or well-traveled road. The determination of functional isolation must take into account the use of the buffer by wildlife with the ability to access the FWHCA.

B. Stream Buffers. The standard buffer widths required by this article are considered to be the minimum required and presume the existence of a dense vegetation community in the buffer zone adequate to protect the stream functions and values at the time of the proposed activity. When a buffer lacks adequate vegetation to protect critical area functions, the Technical Administrator may increase the standard buffer, require buffer planting or enhancement, and/or deny a proposal for buffer reduction or buffer averaging.

The standard buffer shall be measured landward horizontally on both sides of the stream from the ordinary high water mark as identified in the field, provided that for

streams with identified channel migration zones, the buffer shall extend outward horizontally from the outer edge of the channel migration zone on both sides. The required buffer shall be extended to include any adjacent regulated wetland(s), landslide hazard areas and/or erosion hazard areas and required buffers, but shall not be extended across paved roads or other lawfully established structures or hardened surfaces. The following standard buffer width requirements are established, provided that portions of streams that flow underground may be exempt from these buffer standards at the Technical Administrator's discretion when it can be demonstrated that no adverse effects on aquatic species will occur:

1. Channel Migration Zones – Shorelines of Statewide Significance - 200 feet

2. Shoreline streams - 150 feet

3. Fish bearing streams - 100 feet

4. Non-fish bearing streams - 75 – 100 feet depending on physical characteristics in Table X.

C. Buffers for Other Habitat Conservation Areas. The Technical Administrator shall determine appropriate buffer widths for other habitat conservation areas based on the best available information. Buffer widths for non-stream habitat conservation areas shall be as follows:

Habitat Conservation Area	Buffer Requirement
Areas with which federally listed species have a primary association State Priority Habitats and areas with which Priority Species have a Primary Association	Buffers shall be based on recommendations provided by the Washington Department of Fish and Wildlife PHS Program; provided that local and site specific factors shall be taken into consideration and the buffer width based on the best available information concerning the species/habitat(s) in question and/or the opinions and recommendations of a qualified professional with appropriate expertise.
Commercial and recreational shellfish areas	Buffers shall extend one hundred-fifty (150) feet landward from ordinary high water mark of the marine shore.
Kelp and Eelgrass Beds	Buffers shall extend one-hundred fifty (150) feet landward from ordinary high water mark of the marine shore.
Surf Smelt, Pacific Herring, and Pacific Sand Lance Spawning Areas	Buffers shall extend one-hundred fifty (150) feet landward from ordinary high water mark of the marine shore.
Natural Pond and Lakes	Ponds under 20 acres - buffers shall extend 50 feet from the ordinary high water mark; Lakes 20 acres and larger - buffers shall extend 100 feet from the ordinary high water mark, provided that where vegetated wetlands are associated with the shoreline, the buffer shall be based on the wetland buffer requirements (JCC X).

Habitat Conservation Area	Buffer Requirement
Natural Area Preserves and Natural Resource Conservation Areas	Buffers shall not be required adjacent to these areas. These areas are assumed to encompass the land required for species preservation.
Locally Important Habitat Areas	The buffer for marine nearshore habitats shall extent landward 150 feet from the ordinary high water mark. The need for and dimensions of buffers for other locally important species or habitats shall be determined on a case-by-case basis, according to the needs of the specific species or habitat area of concern. Buffers shall not be required adjacent to the wildlife corridor. The Technical Administrator shall coordinate with the Washington Department of Fish and Wildlife and other state, federal or Tribal experts in these instances, and may use WDFW PHS management recommendations when available and applicable.

D. The Technical Administrator shall have the authority to reduce buffer widths on a case-by-case basis, provided that the general standards for avoidance and minimization per JCC X and JCC X shall apply, and when the applicant demonstrates to the satisfaction of the Technical Administrator that all of the following criteria are met:

1. The buffer reduction shall not adversely affect the habitat functions and values of the adjacent habitat conservation area or other critical area.

2. The buffer shall not be reduced to less than seventy-five (75) percent of the standard buffer as defined in JCC X.

3. The slopes adjacent to the habitat conservation area within the buffer area are stable and the gradient does not exceed thirty percent (30%).

E. The Technical Administrator shall have the authority to average buffer widths on a case-by-case basis, provided that the general standards for avoidance and minimization per JCC X and X shall apply, and when the applicant demonstrates to the satisfaction of the Technical Administrator that all the following criteria are met:

1. The total area contained in the buffer area after averaging is no less than that which would be contained within the standard buffer and all increases in buffer dimension are parallel to the habitat conservation area.

2. The buffer averaging does not reduce the functions or values of the habitat conservation area or riparian habitat, or the buffer averaging, in conjunction with vegetation enhancement, increases the habitat function.

3. The buffer averaging is necessary due to site constraints caused by existing physical characteristics such as slope, soils, or vegetation.

4. The buffer width is not reduced to less than seventy-five percent (75%) of the standard width as defined in JCC X.

5. The slopes adjacent to the habitat conservation area within the buffer area are stable and the gradient does not exceed thirty percent (30%).

6. Buffer averaging shall not be allowed if habitat conservation area buffers are reduced pursuant to Subsection D above.

F. The Technical Administrator shall have the authority to increase the width of a habitat conservation area buffer on a case-by-case basis when there is clear evidence that such increase is necessary to achieve any of the following:

1. Comply with the requirements of a habitat management plan prepared pursuant to JCC X.

2. Protect fish and wildlife habitat, maintain water quality, ensure adequate flow conveyance, provide adequate recruitment for large woody debris, maintain adequate stream temperatures, or maintain in-stream conditions.

3. Compensate for degraded vegetation communities or steep slopes adjacent to the habitat conservation area.

4. Maintain areas for channel migration.

5. Protect adjacent or downstream areas from erosion, landslides, or other hazards.

6. Protect streams from high intensity adjacent land uses.

Review and Reporting Requirements

A. When County critical area maps or other sources of credible information indicate that a site proposed for development or alteration is more likely than not to contain habitat conservation areas or buffer, or could adversely affect a habitat area or buffer, the Technical Administrator shall require a site evaluation (field investigation) by a qualified professional or other measures to determine whether or not the species or habitat is present. If no habitat conservation areas are present, then review will be considered complete. If the site evaluation determines that the species or habitat is present, the Technical Administrator shall require a critical areas assessment report or habitat management plan (HMP), provided that no report or evaluation shall be required for developments outside of buffers within the upland portions of Shellfish Conservation Areas. The Technical Administer shall have the authority to waive the report requirement when he/she determines that the project is a single-family development that involves less than 0.5 acre of clearing and/or vegetation removal and will not directly disturb the species, or specific areas or habitat features that comprise the habitat conservation area (nest trees, breeding sites, etc.) as indicated by a site plan or scaled drawing of the proposed development.

B. The assessment report/HMP shall describe the characteristics of the subject property and adjacent areas. The assessment shall include determination of appropriate buffers as set forth in JCC X. The assessment shall also include field identification and/or

delineation of habitat areas, analysis of historical aerial photos, review of public records, and interviews with adjacent property owners as necessary to determine potential effects of the development action on critical areas. Assessment reports shall include the following site- and proposal-related information unless the Technical Administrator determines that any portion of these requirements is unnecessary given the scope and/or scale of the proposed development:

1. A map drawn to scale or survey showing the following information:

   a. Topographic, hydrologic, and vegetative features.

   b. The location and description of wildlife and habitat features, and all critical areas on or abutting the site.

   c. Proposed development activity.

   d. Existing physical features of the site including buildings, fences, and other structures, roads, parking lots, utilities, water bodies, etc.

2. An analysis of how the proposed development activities will affect the fish and wildlife habitat conservation area and/or buffer, including the area of direct disturbance; effects of storm water management; proposed alteration to surface or subsurface hydrology; natural drainage or infiltration patterns; clearing and grading impact; temporary construction impacts; effects of increased noise, light or human intrusion. This analysis shall take the form of a critical areas report developed by a qualified professional. Examples are available at X.

3. Provisions to reduce or eliminate adverse impacts of the proposed development activities including, but not limited to:

   a. Buffering and clustering of development,

   b. Retention of native vegetation,

   c. Access limitations,

   d. Seasonal restrictions on construction activities in accordance with the guidelines developed by the Washington Department of Fish and Wildlife, the US Army Corps of Engineers, the Salmonid Recovery Plan and/or other agency or tribe with expertise and jurisdiction over the subject species/ habitat, and

   e. Other appropriate and proven low impact development (LID) techniques.

   4. Management recommendations developed by WDFW through its PHS program.

5. When appropriate due to the type of habitat or species potentially present or the condition of the project area the Technical Administrator may also require that the report include additional information including, but not limited to, direct observations of species use or detailed surface and subsurface hydrologic features both on and adjacent to the site. The assessment of off-site conditions shall be based on available information and shall not require accessing off-site properties.

6. Bald eagle habitats shall be protected pursuant to the Washington State Bald Eagle Protection Rules (WAC-232-12-292), the provisions of which require a cooperative Habitat Management Plan to be developed in coordination between the WDFW and landowner whenever projects that alter habitat are proposed within a nest territory or communal roost. The County shall issue development permits only after certification from the WDFW that the development is in compliance with an approved Habitat Management Plan.

C. All habitat management plans shall be prepared in consultation with the State Department of Fish and Wildlife and/or other federal, state, local or tribal resource agencies with jurisdiction and expertise in the subject species/habitat.

D. At the request of the applicant, the County may gather the required information in this section for applicants seeking to develop a single-family home, provided that:

1. Availability of County staff shall be at the discretion of the Technical Administrator and subject to workload and scheduling constraints.

2. Fees for County staff services shall be in accordance with the unified fee schedule.

Mitigation Standards for Habitat Conservation Areas

Activities that adversely affect habitat conservation areas and/or their buffers as determined by the Technical Administrator shall include mitigation sufficient to achieve no net loss of habitat functions and values in accordance with JCC X and this section.

A. In determining the extent and type of mitigation required, the Technical Administrator may consider all of the following:

1. The ecological processes that affect and influence critical area structure and function within the watershed or sub-basin;

2. The individual and cumulative effects of the action upon the functions of the critical area and associated watershed;

3. Observed or predicted trends regarding the gains or losses of specific habitats or species in the watershed, in light of natural and human processes;

4. The likely success of the proposed mitigation measures;

5. Effects of the mitigation actions on neighboring properties; and

6. Opportunities to implement restoration actions formally identified by an adopted Shoreline Restoration Plan, watershed planning document prepared and adopted pursuant to RCW 90.82, a Salmonid Recovery Plan or project that has been identified on the Salmon Recovery Board Habitat Project List, the Washington Department of Fish and Wildlife or by local enhancement groups as essential for fish and wildlife habitat enhancement.

B. The following additional mitigation standards shall apply:

1. Compensatory mitigation for alterations to habitat areas shall achieve equivalent or greater biologic functions, and shall provide similar functions to those that are lost or altered.

2. Compensatory mitigation in the form of habitat restoration or enhancement is required when a habitat is altered permanently as a result of an approved project. Alterations shall not result in net loss of habitat.

3. Where feasible, mitigation projects shall be completed prior to activities that will disturb habitat conservation areas. In all other cases, mitigation shall be completed as quickly as possible following disturbance and prior to use or occupancy of the activity or development. Construction of mitigation projects shall be timed to reduce impacts to existing fish, wildlife and flora, provided that the Technical Administrator may adjust the timing requirements to allow grading, planting, and other activities to occur during the appropriate season(s).

4. Compensatory mitigation shall be provided on-site or off-site in the location that will provide the greatest ecological benefit to the species and/or habitats affected and have the greatest likelihood of success. Mitigation shall occur as close to the impact site as possible, within the same sub-basin, and in a similar habitat type as the permitted alteration unless the applicant demonstrates to the satisfaction of the Technical Administrator through a watershed- or landscape-based analysis that mitigation within an alternative sub-basin of the same watershed would have greater ecological benefit.

5. All mitigation sites shall have buffers consistent with the buffer requirements of this chapter, provided that the Technical Administrator shall have the authority to approve a smaller buffer when existing site constraints (such as a road) prohibit attainment of the standard buffer. Mitigation actions shall not create buffer encumbrances on adjoining properties.

6. The Technical Administrator shall have authority to require annual monitoring of mitigation activities and submittal of annual monitoring reports in accordance with JCC X to ensure and document that the goals and objectives of the mitigation are met. The frequency and duration of the monitoring shall be based on the specific needs of the project as determined by the Technical Administrator.

7. All mitigation areas shall be protected and managed to prevent degradation and ensure protection of critical area functions and values into perpetuity. Permanent protection shall be achieved through deed restriction or other protective covenant in accordance with JCC X.

8. Mitigation projects involving instream work including, but not limited to, installation of large woody debris shall be designed to ensure there are no adverse hydraulic effects on upstream or downstream properties. The County Public Works Division (?) shall review any such mitigation projects for compliance with this provision.

Land-Use Impact Levels
(Revision of DOE's land-use impact table in response to SSB 5248.)

Types of land-use that can result in high, moderate, or low levels of impact to adjacent fish and wildlife habitat conservation areas (FWHCAs):

High Impact Land-Uses:
- Single-family residential use on parcels smaller than 1 acre;
- Commercial, industrial, and institutional uses on lands designated as Rural Commercial, Rural Industrial, Public, or Urban Growth Area;
- Public roads;

▪ Active recreation areas (see Definitions); ▪ Class IV-General forest conversions, including conversion option harvest plans, on lands not designated as Resource Lands or Rural Residential.
Medium Impact Land-Uses: ▪ New agriculture (see Definitions); ▪ Single-family residential use on parcels of 1 acre to less than 5 acres; ▪ Single-family residential use on parcels of 5 acres or larger with landscaping, accessory structures, and impervious surfaces exceeding the limitations for Low Impact Land-Uses (see Definitions); ▪ Private roads or driveways serving 3 or more residential parcels; ▪ Paved trails; ▪ Passive recreation areas (see Definitions); ▪ Utility corridors (private or public) with a maintenance road; ▪ Class IV-General forest conversions, including conversion option harvest plans, on lands designated as Resource Lands or Rural Residential.
Low Impact Land-Uses: ▪ Single-family residential use on parcels of 5 acres or larger with landscaping, accessory structures and impervious surfaces not exceeding the limitations for Low Impact Land-Uses (see Definitions); ▪ Private driveways serving no more than 2 residential parcels; ▪ Unpaved trails; ▪ Utility corridors (private or public) without a maintenance road; ▪ Class I, II, III, and IV-Special forest practices on lands of any Comprehensive Plan land-use designation except Urban Growth Area; ▪ Class IV-General non-conversion forest practices (equivalent to Class I, II, III, and IV-Special forest practices) conducted on lands platted after January 1, 1960 and of any Comprehensive Plan land-use designation except Urban Growth Area.

Notes:
1. This list is an adaptation of Table 8C-3, Appendix 8C, Volume 2, Wetlands in Washington State, April 2005, Washington State Department of Ecology;
2. All new buildings must be set back 15 feet from the edge of the prescribed buffer for a wetland or FWHCA (see Definitions);
3. The potential impact to an adjacent wetland or FWHCA from a land-use not described in this list shall be determined by the Administrator on a case-by-case basis.

ACRONYMS

AASHTO	American Association of State Highway and Transportation Officials
AFO	Animal Feeding Operation
AHZ	Avulsion Hazard Zone
CAFO	Concentrated Animal Feeding Operations
CFR	Code of Federal Regulations
CMZ	Channel Migration Zone
CPAL	Conservation Program on Agriculture Lands
DHSPD	Drayton Harbor Shellfish Protection District
DOH	Washington Department of Health
EHA	Erosion Hazard Area
ESU	Ecologically Significant Unit
FAC	Facultative
FACW	Facultative-Wet
FIMA	Federal Insurance and Mitigation Administration
FIRM	Flood Insurance Rate Maps
Fco	Federal species of concern
FE	Federal Endangered
FT	Federal Threatened
HGM	Hydrogeomorphic
HMP	Habitat Management Plan
HMZ	Historical Migration Zone
HPA	Hydraulic Project Approval
IBC	International Building Code
LWD	Large Woody Debris
MBRT	Mitigation Bank Review Team
MTBE	Methyl Tertiary Butyl Ether
MRL	Mineral Resource Lands
NGPE	Native Growth Protection Easement
NOAA	National Oceanic and Atmospheric Administration
NRCS	Natural Resource Conservation Service
OBL	Obligate
OSS	On-site Sewage disposal System
PBSPD	Portage Bay Shellfish Protection District
PCE	Perchloroethylene
PHS	Priority Habitat and Species
PUD	Planned Unit Development
RCT	Recreational, Commercial or Tribal importance
RCW	Revised Code of Washington
SC	State Candidate
SE	State Endangered
SEPA	State Environmental Policy Act
SM	State Monitor
SMA	Shoreline Management Act
SMP	Shoreline Management Program
SS	State Sensitive
ST	State Threatened
TMDL	Total Maximum Daily Load
U	Unstable
UOS	Unstable Old Slides
URS	Unstable Recent Slides

USC	United States Code
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
VA	Vulnerable Aggregations
WAC	Washington Administrative Code
WDFW	Washington Department of Fish and Wildlife
WRIA	Water Resource Inventory Area

Appendix A - Land-Use Impact Levels

(Revision of DOE's land-use impact table. The items with strike-out would be omitted if SSB 5248 is enacted.)

Types of land-use that can result in high, moderate, or low levels of impact to adjacent wetlands, and fish and wildlife habitat conservation areas (FWHCAs).

High Impact Land-Uses:

- ~~High-intensity agricultural activities (see Definitions);~~
- Single-family residential use on parcels smaller than 1 acre;
- Commercial, industrial, and institutional uses on lands designated as Rural Commercial, Rural Industrial, Public, or Urban Growth Area;
- Public roads;
- Active recreation areas (see Definitions);
- Class IV-General forest conversions, including conversion option harvest plans, on lands not designated as Resource Lands or Rural Residential.

Medium Impact Land-Uses:

- ~~Medium-intensity agricultural activities (see Definitions);~~
- New agriculture (see Definitions);
- Single-family residential use on parcels of 1 acre to less than 5 acres;
- Single-family residential use on parcels of 5 acres or larger with ~~agricultural activities,~~ landscaping, accessory structures, and impervious surfaces exceeding the limitations for Low Impact Land-Uses (see Definitions);
- Private roads or driveways serving 3 or more residential parcels;
- Paved trails;
- Passive recreation areas (see Definitions);
- Utility corridors (private or public) with a maintenance road;
- Class IV-General forest conversions, including conversion option harvest plans, on lands designated as Resource Lands or Rural Residential.

Low Impact Land-Uses:

- ~~Low-intensity agricultural activities (see Definitions);~~
- Single-family residential use on parcels of 5 acres or larger with ~~agricultural activities,~~ landscaping, accessory structures and impervious surfaces not exceeding the limitations for Low Impact Land-Uses (see Definitions);
- Private driveways serving no more than 2 residential parcels;
- Unpaved trails;
- Utility corridors (private or public) without a maintenance road;
- Class I, II, III, and IV-Special forest practices on lands of any Comprehensive Plan land-use designation except Urban Growth Area;
- Class IV-General non-conversion forest practices (equivalent to Class I, II, III, and IV-Special forest practices) conducted on lands platted after January 1, 1960 and of any Comprehensive Plan land-use designation except Urban Growth Area.

Notes:

1. This list is an adaptation of Table 8C-3, Appendix 8C, Volume 2, Wetlands in Washington State, April 2005, Washington State Department of Ecology;
2. All new buildings must be set back 15 feet from the edge of the prescribed buffer for a wetland or FWHCA (see Definitions);
3. ~~On lands where existing and ongoing agriculture is being conducted in a wetland or FWHCA, the area of the prescribed buffer may be developed for new low-intensity agricultural activities, subject to mitigation of new adverse impacts to the values and functions of the wetland or FWHCA.~~

4. The potential impact to an adjacent wetland or FWHCA from a land-use not described in this list shall be determined by the Administrator on a case-by-case basis.

Appendix B - Graphics and Figures

Here is the link to the .pdf file of the Pierce County Critical Areas Ordinance (Title 18E):

http://www.co.pierce.wa.us/xml/Abtus/ourorg/council/code/title%2018e%20pcc.pdf

The Graphics and Figures are on .pdf pages 181 through 224. It would be very useful to include graphics similar to at least the following topics, either within the Jefferson County CAO or as separate appendices compiled in a Critical Areas Manual similar to what has been produced by King County.

page	188	Wetland Buffer Averaging
	190	Examples of Potential Critical Fish and Wildlife Habitat Areas
	191	Critical Fish and Wildlife Habitat Area Review Procedures
	192	Riparian Buffer Extension - Water Body Buffer Expanded to Include the Buffer of the Adjacent Wetland
	193	Riparian Buffer Extension - Water Body Buffer Expanded to Include Landslide Hazard Buffer Area
	201	Potential Flood Hazard Areas - Channel Migration Zone
	202	Floodway Flood Hazard Area
	211	Potential Landslide Hazard Indicators
	212	Potential Landslide Hazard Area - Areas Labeled U, Uos, I, M, or Urs
	214	Interim Areas Between Landslide Hazard Areas
	216	Required Buffers for Active Landslide Hazard Areas
	222	Potential Erosion Hazard Area - Shoreline Erosion Hazard Area
	224	Active Shoreline Erosion Hazard Area Buffers

APPENDIX D

Notification Example

Date_____

Notice of Work to be performed in or near a Critical Area - In compliance of the Jefferson County Code X. This Notification should be submitted to the Jefferson County Planning and Development Services at least 10 working days before start.

Contractor____ Land Owner_____ Other_____ Type of Utility_____

Contact Name_____ Phone_____

Address _____ Cell_____

Name of Property owner_____ Phone_____

Property Address and /or Tax Parcel Number_____

Proposed start date_____ Proposed finish date_____

Type of affected Critical Area_____

List equipment, specific work and / or activity to be conducted (if more space is needed attach additional information sheets)

_____

_____

I / We understand this work and / or activity may have adverse effects on the Critical Area, and acknowledge that special care must be taken to reduce or eliminate adverse effects. Disturbed critical areas shall be restored as near as possible to the previous condition.

Description of Restoration_____

_____

_____

I / We the undersigned acknowledge and except the responsibility for the progress and completion of this project. Any unforeseen problems or plan changes will immediately be brought to the attention of the County Technical Administrator.

Signed_____ Date_____ Signed_____ Date_____

Special Status Fish and Wildlife Species Protected Pursuant to Article 7

Table E-1. Listed, Sensitive, and Candidate Species Known or Suspected to Occur in Jefferson County. For special status fish, please see Table D-3.

Species	Status[1]	Habitat Requirements and Distribution
Bald eagle	FT, ST	Numerous nest territories and foraging areas in major drainages and along marine shorelines of western Washington.[2a]
Brandt's cormorant	none, SC	Winter resident seabird of inland marine waters. Breeds on outer coast.[2b]
Brown pelican	FE, SE	Occasional summer sighting in marine waters.[2b]
Cascades frog	Fco, SM	Wetlands and small streams in between 300 ft and ca. 9.000 ft elevation in Wash. & Ore. Jefferson County population comprises a population system on the Olympic Peninsula that is completely disjunct from populations to the east and south.[2c] Jefferson County populations on Pacific side of the peninsula reach lower elevations than almost anywhere else over the geographic range.
Coastal tailed frog	Fco, SM	Stream-dwelling frog of cold, rock substrate streams up to 5,250 ft elevation with stream gradients typically over 5%.[2c]
Common loon	none, SS	Nests on secluded shorelines of lakes larger than 30 acres; winters on lakes and marine waters.[2e]
Common murre	none, SC	Winter resident seabird of inland marine waters. Breeds on outer coast.[2p]
Fisher	Fco, SE	Very rare forest carnivore closely associated with late-successional coniferous and mixed forests of Olympic and North Cascade Mtns.[2a]
Golden eagle	none, SC	Uncommon western Washington raptor associated with open country. Nests on cliffs or large trees.[2a]
Gray whale	none, SS	Migratory marine mammal found in coastal waters in spring and summer. Often forages on or near bottom, ingesting sediment.[2g]
Killer whale (orca)	none, SE	Resident marine mammal of coastal waters, including Strait of Georgia. Salmon principal prey in Puget Sound.[2b]
Marbled murrelet	FT, ST	Uncommon seabird that nests in late-successional conifer forests within 50 miles of marine shoreline. Winters in nearshore marine waters.[2a]
Merlin	SC	Sightings in the Hoh, Queets, Clearwater in west Jefferson County.
Northern Abalone	none, SC	Shellfish found in subtidal rock reefs, low abundance, harvest closed.[2n]
Northern goshawk	Fco, SC	Raptor that nests in relatively dense mature conifer and mixed forests. Sensitive to clear-cut timber harvest in nest and foraging stands.[2e]
Northern red-legged frog	Fco, none	Found from sea level to 2,800 ft elevation in western Washington. Breeds in freshwater wetlands and slow-moving streams.[2c]
Northern spotted owl	FT, SE	Resident in coniferous forests below 5,000 feet elevation. Closely associated with late-successional forests.[2j]
Olympia oyster	none, SC	Shellfish found in intertidal gravel, locally extirpated in Jefferson Co., restoration effort in progress.[2n]
Olympic Pocket Gopher	FC, SC	
Pacific Herring	SC	Important forage fish for salmonids and other species. Spawns on eelgrass beds. Discovery Bay.

Pacific harbor porpoise	none, SC	Relatively shy marine mammal of inland marine waters.[2b]
Peregrine falcon	Fco, SS	Year-round resident; nests in cliffs (> 150 ft in height); and feeds on birds, especially shorebirds and waterfowl.[2e]
Pileated woodpecker	none, SC	Large resident woodpecker of mature forests requiring trees > 17-inch diameter for nesting and roosting. Important primary excavator providing cavities for a number of species.[2e]
Purple martin	none, SC	A migratory, cavity-nesting songbird that nests over or near water. Will use artificial nest boxes.[2e]
Sandhill crane	none, SE	Nests, and roosts in relatively open, large wet meadows and emergent wetlands. Highly wary and sensitive to disturbance. Will forage in upland meadows, pastures, and agricultural fields. Seen in Washington primarily during migration; a migratory flyway exists along the coast in west Jefferson County.[2e]
Snowy Plover	SE	
Steller (Northern) Sea lion	FT, ST	A sea lion that breeds in the northern Pacific and winters as far south as California. Seen on Washington's inland waters occasionally in winter.[2e, 2k]
Townsend's big-eared bat	Fco, SC	A year-round resident that inhabits caves and abandoned mines and buildings. Extremely sensitive to human disturbance. [2j]
Van Dyke's salamander	SC	
Vaux's swift	none, SC	A summer resident and breeder of western Washington closely associated with late-successional conifer forests. Requires hollow, large-diameter snags for nesting and roosting.[2e]
Western grebe	none, SC	A winter resident on inland waters, especially Samish and Bellingham Bays.[2b]
Western toad	Fco, SC	Found near emergent wetlands and small lakes from 0 to 6,530 ft elevation.[2c] Also utilizes open terrestrial habitats during the non-breeding active season.
Willow flycatcher	Fco, none	A neotropical migrant that breeds in forested or shrub riparian habitat or forests.[2g]
Wolverine	Fco, SC	A wide-ranging scavenger that requires large tracts of remote boreal or montane habitat. Rare in Washington, but recent Jefferson County records. [2m]

[1] FE = federal endangered, FT = federal threatened, Fco = federal species of concern; SE = state endangered, ST = state threatened, SC = state candidate, SS = state sensitive, SM = state monitor (WDFW 2004a).

[2] Sources: [a] Rodrick and Milner 1991; [b] Angell and Balcomb 1982; [c] Leonard et al. 1993; [d] Hays et al. 1999; [e] Larsen et al. 2004; [f] PacificBio 2004; [g] Smith et al. 1997; [h] National Park Service 2004; [i] NPWRC 2004; [j] King County 2003; [k] AMFSC 2004; [l] WCPDS 2004; [m] Banci 1994; [n] Penttila 2004; [o] Nordstrom and Milner 1997; [p] Cassidy 2003.

Table E-2. Priority Species Known or Suspected to Occur in Jefferson County.[1] For Priority Fish See Table D-3.

Species/Sites	Criteria[2]
Band-tailed pigeon – breeding areas, regular concentrations, occupied mineral springs	RCT
Bats – roosting concentrations of big brown bat, Myotis bats, pallid bat	VA
Blue grouse – breeding areas, regular concentrations	RCT
Brant – regular large concentrations	VA, RCT
California sea lion – haulout areas	VA
Cavity-nesting ducks (wood duck, Barrow's goldeneye, common goldeneye, bufflehead, hooded merganser) – breeding areas	RCT
Columbian black-tailed deer – regular large concentrations migration corridors	RCT
Cormorants and alcids – breeding concentrations	VA
Dall's porpoise – regular concentrations	VA
Dungeness crab – breeding areas, regular concentrations	VA, RCT
Geoduck – regular concentrations	VA, RCT
Great blue heron – breeding areas	VA
Harbor seal – haulout areas	
Harlequin duck – breeding areas, regular marine concentrations	VA, RCT
Manila clam – regular concentrations	VA, RCT
Marten	RCT
Mink –regular occurrences	RCT
Mountain goat – breeding areas, regular concentrations	RCT
Native littleneck clam	VA, RCT
Nonbreeding concentrations of Barrow's goldeneye, common goldeneye, bufflfehead	VA, RCT
Nonbreeding concentrations of loons, grebes, cormorants, alcids	VA
Nonbreeding concentrations of plovers, sandpipers, phalaropes	VA
Pacific oyster – regular concentrations	VA, RCT
Pandalid shrimps – regular concentrations	VA, RCT
Red urchin – regular concentrations	RCT
Roosevelt elk – regular concentrations, calving areas, migration corridors	RCT
Snow geese – regular concentrations	VA, RCT
Trumpeter and tundra swans – regular concentrations	VA, RCT
Waterfowl concentrations (other than Canada geese in urban areas) – significant breeding areas and regular large wintering concentrations	VA, RCT

[1] VA = vulnerable aggregations, RCT = recreational, commercial, or tribal importance vulnerable to habitat loss or degradation (WDFW 1999b).

[2] Sources: Penttila 2004; Leonard et al. 1993; [d] Larsen et al. 2004; [e] PacificBio 2004; [f] Smith et al. 1997; [g] National Park Service 2004; [h] NPWRC 2004; [i] King County 2003; [j] AMFSC 2004; [k] WCPDS 2004; [l] Banci 1994; [m] Penttila 2004.

Table E-3. Habitat Associations and distribution of priority and listed fish species in Jefferson County (Primary sources: Correa 2002, Correa 2003, WDFW et al. 1994, WDFW 1998, WDFW 2000)

Species	Federal and State Status[1]	General Location/Distribution
Chinook salmon (Puget Sound ESU) *Oncorhynchus tschawytscha*	FT, SC, Priority Species	*Habitat*: Juveniles and adults require cold, well-oxygenated water. Spawning generally occurs in riffle areas with clean gravel and cobble substrates. Juveniles use pool habitat and instream cover such as LWD, spaces among cobbles, and undercut banks as resting areas and/or for refuge from predators. Cobble substrate and off-channel habitats such as secondary channels, backwaters, or ponds provide important refuge from flows for overwintering juveniles. After river entry, adults on spawning migration use resting pools, which provide refuge from river currents and high water temperatures that are often encountered in the summer and early autumn. Nearshore marine areas are important for feeding and refuge for juveniles after entering the ocean. *Distribution*: In east Jefferson County, Summer/Fall Chinook salmon spawn in the Dosewallips (mainly lower twelve miles) and Duckabush (mainly lower 2-3 miles of mainstem) rivers. Chinook also occur in some lower tributaries such as Rocky Brook Creek in the Dosewallips River system. Summer/Fall Chinook have also been observed in the lower Big Quilcene River as far upstream as RM 2.3 at the Quilcene National Fish Hatchery, and lower Tarboo Creek has also been known to support chinook spawning, thought to be progeny of a volunteer artificial release project from many years ago. In addition to the spawning habitats in the larger streams, juvenile Chinook use estuarine and nearshore habitats, and juveniles have been found in smaller independent freshwater systems such as Fulton Creek, Shine Creek, and Camp Discovery Creek. *When habitats are occupied:* Summer/Fall Chinook adults spawn in streams from mid-September to late October.
Coho salmon *Oncorhynchus kisutch*	Priority Species	*Habitat*: Similar general habitat associations as Chinook salmon (see above). Juveniles use pool habitat and instream cover such as LWD, spaces among cobbles, and undercut banks as resting areas and/or refuge. Juvenile Coho salmon overwinter in freshwater, so overwintering habitat such as deep pools and off-channel habitats are of particular importance for survival, especially in coastal streams subject to high fall and winter flows. *Distribution*: In east Jefferson County, Coho salmon occur in the Dosewallips, Duckabush (mainly lower 3 miles of mainstem plus several tributaries), Big Quilcene (up to the falls at RM 7.8) and Little Quilcene rivers, Tarboo, Chimacum, Salmon, and Snow creek watersheds. Particularly in these larger systems, coho are known to spawn and rear in mainstem, side channels, and tributaries (e.g., the Little Quilcene tributaries of Leland, Ripley, and Howe creeks, and Chimacum Creek tributaries of Putaansuu, Naylor, and Barnhouse creeks). Coho also spawn in many smaller independent drainages of east Jefferson Co., including Fulton, McDonald, Pierce, Walker, Turner, Marple/Jackson, Spencer, Indian George, Donovan, Fisherman's Harbor, Lindsay, Camp Discovery, Thorndyke, Nordstrom, Shine, Ludlow, Piddling, Little Goose, and Contractors creeks, and several unnamed streams In the Dosewallips River, coho generally spawn in the lower 12 miles of the mainstem, but also in side channels and tributaries. *When habitats are occupied:* Coho salmon spawn from October to as late as February. Juveniles can be found rearing in streams year-round and are known to move upstream into small tributaries and off-channel into wetlands. Though most juvenile coho spend a year (overwinter) in freshwater before emigrating to salt water, it has been documented that juveniles can sometimes spend time in estuaries prior to smoltification.

Chum salmon *Oncorhynchus keta*	FT (Summer Chum)	*Habitat:* Chum salmon rear in freshwater for only a few days to weeks before migrating downstream to saltwater, therefore juveniles have limited habitat needs in freshwater. Migrating spawning adults require cold well-oxygenated water, resting pools, and clean gravel spawning substrate. Chum salmon also often spawn in shallower, slower-running streams and side channels in low gradient lower reaches of rivers. *Distribution*: Summer, Fall and late Fall stocks of chum salmon spawn in east Jefferson County streams. Summer Chum in the Dosewallips and Duckabush rivers spawn mainly in the lower 2.3 miles of those systems. Summer Chum stocks also occur in the lower Big and Little Quilcene rivers, lower Chimacum, Salmon and Snow creeks. The Dosewallips Late Fall Chum spawns mainly in the lower mile of mainstem, also using side channels or lower tributaries. The Duckabush Late Fall Chum generally spawn in the lower mile of the Duckabush and Fulton Creek, as well as Pierce Creek, immediately north of the Duckabush. Fall Chum stocks occur in the Big and Little Quilcene rivers, Tarboo Creek, Thorndyke, Shine, Ludlow, Chimacum, Snow, and Salmon creeks. Fall chum also occur in Turner Creek, Walker Creek, Spencer, Marple/Jackson, and Camp Discovery creeks. *When habitats are occupied:* Summer chum salmon adults begin their upstream migration in mid-late August to mid-October, and spawn in mid-September to mid-October. Fall Chum stocks in east Jefferson Co. spawn in November and December, while Late Fall Chum stocks spawn in December and January. Chum fry migrate seaward shortly after hatching and there is no juvenile rearing in freshwater.
Pink salmon *Oncorhynchus gorbuscha*	Priority Species	*Habitat*: Similar early life history and freshwater habitat requirements as for chum salmon (see above). *Distribution*: Odd-year pink salmon spawn in east Jefferson County rivers. The Dosewallips Pink Salmon spawn mainly in the lower 7 miles of the mainstem (including the tributary Rocky Brook Creek), and the Duckabush Pink Salmon spawn in the lower 2 miles. Pink salmon also spawn in some years in the Big Quilcene River, and very few numbers have been also been observed in Chimacum and Salmon creeks. *When habitats are occupied:* Pink salmon adults spawn from mid-July to late October. In the Dosewallips River, spawning occurs from September to early October. Fry emigrate to the estuary at night immediately after emergence.
Sockeye salmon/ Kokanee *Oncorhynchus nerka*	Priority Species	*Habitat*: Similar general instream habitat requirements for migration and spawning as other salmonid species. Sockeye salmon are unique in that juveniles rear in freshwater lakes for up to a year prior to migrating to the ocean. Kokanee rear and reproduce in freshwater lakes. *Distribution*: Sockeye generally do not spawn in east Jefferson County drainages. *When habitats are occupied:* Sockeye salmon adults migrate and are in streams from April to November, and spawn from August to November. Fry and juvenile rearing occurs year-round in freshwater lakes.

Bull trout *Salvelinus confluentus*	FT, Priority Species	*Habitat*: Similar general instream habitat requirements as other salmonids except that bull trout require much colder water temperatures than other salmonid species, and require relatively pristine habitats. Migratory forms of bull trout inhabit lower river reaches and nearshore marine habitats for migration, rearing, and feeding. *Distribution*: Bull trout are rare in east Jefferson County watersheds. USFWS hatchery records from the 1950s indicate the presence of bull trout in the Duckabush River system. In West Jefferson County, bull trout are documented in the Hoh River and tributaries, especially the South Fork Hoh River, Kalaloch Creek and Goodman Creek. *When habitats are occupied:* Though portions of some populations are anadromous, this behavior is not obligatory and bull trout adults and juveniles may occur in freshwater year-round.
Rainbow Trout/steelhead *Oncorhynchus mykiss*	SC, Priority Species	*Habitat*: Similar general instream habitat requirements as other salmonids. Steelhead have an extended freshwater juvenile as with Chinook and Coho salmon, but also require habitat for feeding and resting during an extended adult freshwater phase. *Distribution*: In east Jefferson County, native rainbow trout (resident steelhead) are found in the upper watersheds of the Duckabush and Dosewallips river systems. Both summer and winter steelhead stocks occur in east Jefferson County. The Dosewallips and Duckabush Summer Steelhead stocks are believed to spawn in the upper reaches of those systems in February through April. The Dosewallips Winter Steelhead stock generally spawn in the lower 12 miles of mainstem, and the Duckabush Winter Steelhead spawns mainly in the lower 4 miles. Winter steelhead stocks occur in the Big and Little Quilcene rivers, Tarboo, Thorndyke, Snow, Salmon, and Chimacum creeks and also smaller systems including Indian George, Nordstrom, Ludlow, and Contractors creeks. In west Jefferson County.... *When habitats are occupied*: Resident rainbow trout are found in freshwaters year-round. Summer steelhead return to freshwater as immature fish from April to October. Winter steelhead return to streams as mature adults from November to May, and may spawn as late as early June. Juveniles of both life-history forms rear in freshwaters year-round prior to outmigrating to the ocean.
Coastal Cutthroat Trout *Oncorhynchus clarki*	Priority Species	*Habitat*: Cutthroat trout have similar general requirements as all salmonids and display varying degrees of migratory behavior, often moving out to nearshore marine waters and estuaries to feed in the summer and migrating freshwater streams to overwinter prior to spawning in the spring. *Distribution*: One stock of coastal cutthroat trout is widely found throughout Jefferson County streams upstream and downstream of most migration barriers. *When habitats are occupied*: The life-history of coastal cutthroats is highly variable. Portions of populations are anadromous, but this behavior is not obligatory and coastal cutthroat trout adults and juveniles occur in freshwaters year-round.
Pacific Lamprey	SC, Priority Species	*Habitat:* *Distribution:*

River Lamprey *Lampetra ayresi*	SC	*Habitat*: River lamprey are anadromous and require clean gravel substrate in streams for spawning and egg incubation. After hatching, lamprey burrow in silt and mud, often in off-channel areas, where they typically remain for a period of years. During this stage, lamprey require relatively stable habitats (Close et al 1995). *Distribution*: Found in coastal streams from northern California to southeastern Alaska, but little information available regarding the population status of river lamprey in Washington. *When habitats are occupied*: River lamprey migrate up small freshwater streams in the fall and spawn in the winter and spring. However, the ammocoete (juvenile) stage lasts several years so river lamprey would be expected to occur year-round in streams where they are found.
Brook Lamprey	SC, Priority Species	*Habitat:* *Distribution:*
Pacific Herring *Clupea pallasi*	SC	*Habitat*: Most spawning occurs in shallow sub-tidal zones from 0 to -10 ft in tidal elevation. Eggs are deposited on vegetation or other shallow water substrate. *Distribution*: Herring are abundant throughout the northeast Pacific Ocean. Significant spawning concentrations are found in the X and X areas. Puget Sound stocks spend their first year in Puget Sound. Some stocks remain entirely in Puget Sound while others migrate to other coastal areas of Washington and southern British Columbia (Bargmann 1998). *When habitats are occupied*: Pacific herring stocks spawn from late January through early April. A notable exception is the Cherry Point stock (the largest in the state), which spawns from early April through early June.
Pacific sand lance *Ammodytes hexapterus*	Priority Species	*Habitat*: Pacific sand lance deposit their eggs in sand-gravel substrates between the mean high tide line and about +5 ft in tidal elevation. Eggs incubate in beach substrate for about one month before emerging. Larvae are a common component of the nearshore plankton. Incubating sand lance eggs occur in the same substrate with the eggs of surf smelt spawning populations, both species using the same stretches of beach for spawning at the same times of year. *Distribution*: The Pacific sand lance is found from southern California around the north Pacific Ocean. It is common in nearshore marine waters throughout Washington state. Spawning areas are scattered along nearshore areas in Jefferson County (Bargmann 1998). *When habitats are occupied*: Sand lance inhabit marine near-shore areas year-round, with spawning in intertidal areas occurring annually from November 1 through about February 15.
Surf smelt *Hypomesus pretiosus*	Priority Species	*Habitat*: Similar spawning and nearshore habitat requirements as the Pacific sand lance. Surf smelt have an entirely marine/estuarine life history (Bargmann 1998). *Distribution*: The surf smelt occurs from southern California to central Alaska and are widespread in Washington. In Jefferson County, surf smelt are found in similar areas as Pacific sand lance. *When habitats are occupied*: Surf smelt inhabit marine near-shore areas year-round, and spawning may occur year-round.

Longfin smelt *Spirinchus thaleichthys*	Priority Species	*Habitat*: Longfin smelt are anadromous and spawn in freshwater streams. Spawning substrate is sand and gravel similar to that used by surf smelt in nearshore areas. *Distribution*: Spawning populations occur locally throughout western Washington, but the species is poorly understood or studied. *When habitats are occupied*: The longfin smelt spawning season in the lower reaches of the Hoh River is thought to only occur from November until as late as April.
Columbia River Sturgeon		*Habitat:* *Distribution: Hoh River*
Numerous Rockfish species	*Sebastes* spp.	*Habitat, Distribution, and When habitats are occupied*: Rockfish and other groundfish species can be found in marine nearshore and offshore areas year-round. Estuaries often attract early life phases of groundfish species.

[1]FT = Federally Threatened, SC = State Candidate, SS = State Sensitive. Note: Candidate species are not required to be included in the definition of fish and wildlife habitat conservation areas (WAC 366-190.080)

Appendix G

Best Available Science and References

Relevant to Jefferson County and Puget Sound

References specific to Jefferson County are marked *

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Policy Issues Relating to the Growth Management Act: Comprehensive Plans and Development Regulations
http://wdfw.wa.gov/hab/bottoml.pdf

Priority Habitats and Species
http://wdfw.wa.gov/hab/phspage.htm

APPENDIX H

NATIVE GROWTH PROTECTION EASEMENT
SIGN INSTALLATION GUIDELINES

TYPE 1 SIGN

12" X 18" Aluminum sign with white reflective background. Install one per protected feature in a conspicuous place.

4' X 4' pressure treated wooden post with ½" chamfer at top.

Magnetic locator pin (e.g. pipe, rebar, 20 penny nail, etc.) placed 8"-12" from post along NGPE line.

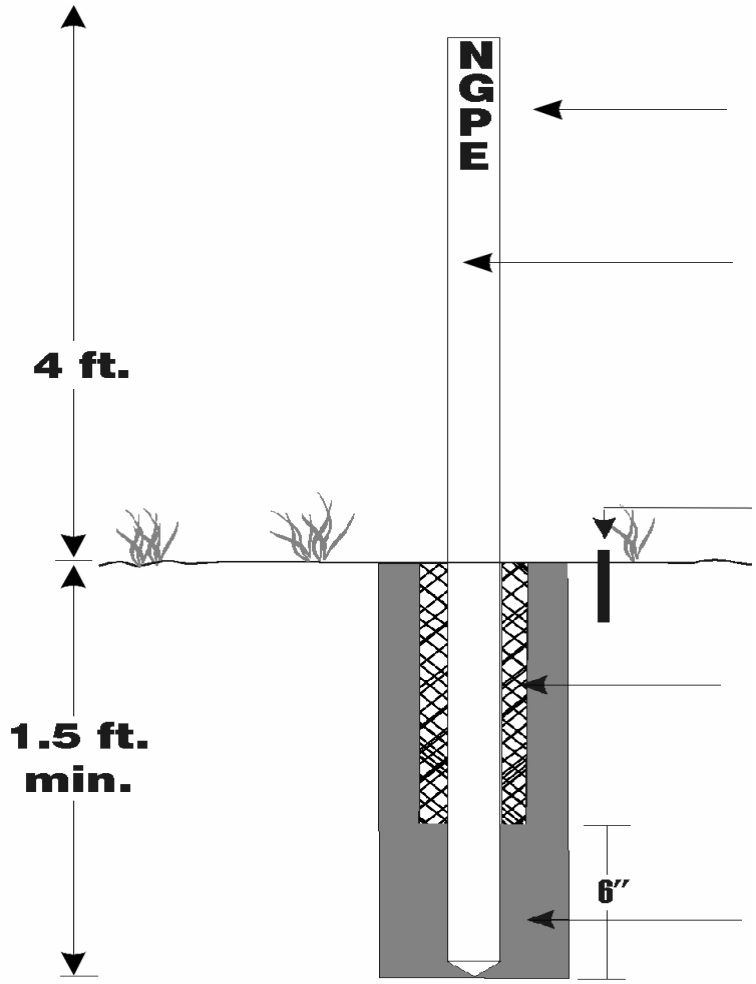
Quick-set Concrete

Compacted native material

NOTES:

1) NGPE signs shall be placed no greater than 100 feet apart around the perimeter of the NGPE. Minimum placement shall include one Type 1 sign per wetland, and at least one Type 1 sign shall be placed in any lot that borders the NGPE unless otherwise approved by the Technical Administrator.
2) Sign placement shall be subject to the approval of Jefferson County. Alternative sign designs may be submitted to Jefferson County for approval.
3) All signs must be secure and permanent. Type 2 signs may be used in conjunction with Type 1 signs at the discretion of the Jefferson County Technical Administrator.

TYPE 2 SIGN



Paint white with black lettering

Pressure treated 2" X 4" (NOM.) Wooden stake, metal or fiberglass post.
(Carsonite style is OK provided it has an anchor)

Magnetic locator pin (e.g. pipe, rebar, 20 penny nail, etc.) Placed 8"-12" from post along NGPE line.

Quick-set Concrete
Steel anchor or similar anchor may be substituted for concrete on Type 2 signs provided it firmly anchors the post.

Compacted native material

NOTES:

1) NGPE signs shall be placed no greater than 100 feet apart around the perimeter of the Native Growth Protection Easement. Minimum placement shall include one Type 1 sign per wetland, and at least one Type 1 sign shall be placed in any lot that borders the Native Growth Protection Easement unless otherwise approved by the County Critical Areas Specialist.
2) Sign placement shall be subject to the approval of Jefferson County. Alternative sign designs may be submitted to Jefferson County for approval.