

AS APPROVED BY THE Board of County Commissioners – December 27, 2006

**MASON COUNTY RESOURCE ORDINANCE
WETLANDS**

17.01.070 WETLANDS

The purpose of this section is to avoid, or in appropriate circumstances, minimize, rectify, reduce or compensate for impacts arising from land development and other activities affecting wetlands; to maintain and enhance the biological and physical functions and values of wetlands with respect to water quality maintenance; stormwater and floodwater storage and conveyance; fish and wildlife habitat; primary productivity, recreation, education and historic and cultural preservation. When avoiding impacts is not reasonable, mitigation shall be implemented to achieve a no net loss of wetlands in terms of acreage, function and value.

A. CLASSIFICATION

The following shall be classified as wetland areas:

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. Wetlands generally include swamps, marshes, bogs and similar areas. However, wetlands may include those artificial wetlands intentionally created from non-wetland areas created to mitigate conversion of wetlands, if permitted by the county ~~or city~~.

B. DESIGNATIONS

The following lands, shorelands and waters of Mason County are hereby designated under RCW 36.70A.060 and RCW 36.70A.170, as critical areas requiring immediate protection from incompatible land uses: Wetlands and their ~~vegetation area~~buffer as specified by Section 17.01.070.E.

In making a determination regarding a wetland, *Washington State Wetland Identification and Delineation Manual* (Ecology #96-94), or as amended hereafter, shall serve as the technical resource guide on determining if an area possesses hydrophytic vegetation, hydric soils, and/or wetland hydrology.

1. The following are designated as regulated wetlands under this Chapter:
 - a. All areas described in Section 17.01.070.A.;
 - b. ~~Wetland P~~onds less than twenty acres;
 - c. Wetlands created as mitigation, and those modified for approved land use activities, including their submerged aquatic beds.

2. The following are designated as non-regulated wetlands:

Artificial man made wetlands intentionally created from non-wetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street or highway. ~~Wetlands regulated under this chapter do not include Category II and III wetlands of less than 2,500 square feet or Category IV wetlands of less than 40,000 – 7,500 square feet.~~

a. Exempt wetlands that are isolated and less than 1,000 square feet in area where it has been shown by the applicant that they are not associated with a riparian corridor, they are not part of a wetland mosaic and do not contain habitat identified as essential for local populations of priority species identified by Washington Department of Fish and Wildlife.

b. No measures to avoid impacts for Category III and IV wetlands between 1,000 and 4,000 square feet are required if they meet all the following criteria:

(1) Wetland is not associated with a riparian corridor, and

(2) Wetland is not part of a wetland mosaic, and

(3) Wetland does not score 20 points or greater for habitat in the 2004 Western Washington Rating System, and

(4) Wetland does not contain habitat identified as essential for local populations of priority species identified by Washington Department of Fish and Wildlife.

c. Impacts allowed under this provision to these wetlands will be fully mitigated as required in mitigation section.

3. Owners and applicants with non-regulated wetlands are strongly urged to cooperate voluntarily in this plan of wetland protection, using the guidelines in this ordinance and in materials provided by the Department of Community Development.

C. PROCEDURES

1. Responsibilities for the determination of wetland boundaries:

a. Formal determination of wetland boundaries is the responsibility of the County. The responsibility to provide all necessary and accurate data to the County for its determination rests with the applicant. This information will include a field delineation by a qualified wetland professional applying the *Washington State Wetland Identification and Delineation Manual* (Ecology #96-94), or as amended hereafter. When, in the opinion of the Director, sufficient information exists from the County's wetland inventory, or other sources, the requirement for a full or partial delineation may be waived. For instance, in some cases, the applicant may only be required to determine the wetland boundary, or portion thereof, of the wetland system. The Director shall determine when a permit application is required and what additional information may be necessary. Wetland delineations shall be performed in accordance with the procedures as specified in the *Washington State Wetland Identification and Delineation Manual* (Ecology #96-94), or as amended hereafter. Evidence documenting the results of any boundary survey, or other submitted data, may be required by the Director.

b. Mason County, at a fee, when requested by the applicant, or the affected party, may perform the delineation in lieu of direct action by the applicant. Mason County may use hydrology, soils, plant species, and other data, and consult with biologists, hydrologists, soil scientists, or other experts, as needed, to perform the delineation. The County shall make a good faith effort to provide this service, consistent with budgetary constraints and available in-house expertise, for smaller projects and especially for those property owners with lesser financial capabilities.

c. Where Mason County performs a wetland boundary determination at the request of the applicant, it shall be considered a final determination unless contested.

- d. Where the applicant has provided a determination of the wetland boundary, the Director shall verify the accuracy of, and may render adjustments to, the boundary delineation.
- e. In the event the boundary delineation is contested by the applicant or affected party, the Department of Ecology, or a mutually agreed upon party, shall settle the dispute.

D. LAND USES

1. Mason Environmental Permit Required Uses and Activities

A Mason Environmental Permit shall be obtained from the County, using the administrative review process in this Chapter, prior to undertaking, in a regulated wetland or its ~~vegetation-areabuffer~~, for the following activities.

- a. In all regulated wetlands, the removal, excavation, grading, dredging, dumping, discharging, or filling of any material; or the draining or flooding of the site, except where undertaken for maintenance (but not construction) of drainage ditches or for emergency repair;
- b. The construction of stormwater management facilities; or
- c. The driving of pilings;
- d. The placing of obstructions;
- e. The construction, reconstruction, demolition, or expansion of any structure;
- f. The destruction or alteration of wetlands and wetland ~~vegetation areabuffer~~ through clearing, harvesting, shading, intentional burning, or planting of vegetation that would alter the character of a designated wetland or ~~vegetation-areabuffer~~, provided that this subsection shall not apply to the following activities undertaken in a manner which minimizes impacts:
 - (1) The harvesting or normal maintenance of vegetation in a manner that is not injurious to the natural reproduction of such vegetation;
 - (2) The removal or eradication of noxious weeds so designated in Chapter 17.10 RCW or other exotic, nuisance plants;
 - (3) Site investigative work necessary for land use application submittals such as surveys, soil logs and percolation tests;
 - (4) The construction or trails which shall be unpaved when located in the buffers and elevated when located in wetlands, which are not intended for motorized use, and which are no wider than three (3) feet, unless additional width is necessary for safety along a precipice, steep hillside, or other hazardous area. See section 17.01.070.E.6.c. for additional details on regulated (but permitted) trail activity.
 - (5) Emergency services or repairs for health and welfare; or
 - (6) Activities of a mosquito control district.
 - (7) The removal of a danger tree, provided that such removal is mitigated by planting in the vicinity of the removed tree a total of six (6) new trees, each of a minimum three (3) feet in height and each of the same species or native species as the removed tree. If the replacement tree planting is judged to be unnecessary to replace the canopy structure of a vegetation area, the Director may request the applicant leave or place the danger tree within the vegetation area as habitat.
- g. Activities that result in a significant change of water temperature, a significant change of physical or chemical characteristics of wetlands water sources, including quantity, or the introduction of pollutants.

2. Activities Permitted without a Mason Environmental Permit

The following uses shall be allowed, in addition to those defined in General Exemptions (see Section 17.01.130), within a wetland or wetland ~~vegetation areabuffer~~ to the extent that they are not prohibited by the Shorelines Management ACT of 1971 (Chapter 90.58 RCW), Federal Water Pollution Control Act (Clean Water ACT), State Water Pollution Control Act (Chapter 90.48 RCW), State Hydraulic Code (RCW 75.20.100-.140), Forest Practices Act (Chapter 76.09 RCW and Chapter 222-16 WAC) or any other applicable ordinance or law and provided they are conducted using best management practices, except where such activities result in the conversion of a regulated wetland or wetland ~~vegetation areabuffer~~ to a use to which it was not previously subjected and provided further that forest practices and conversions from forest land shall be governed by Chapter 76.09 RCW and its rules:

- a. Conservation or preservation of soil, water, vegetation, fish, shellfish, and other wildlife;
- b. Outdoor recreational activities that do not have a significant adverse impact on the wetland and its related ~~vegetation areabuffer~~;
- c. The harvesting of wild crops in a manner that is not injurious to natural reproduction of such crops and provided the harvesting does not require tilling of soil, planting of crops, or alteration of the wetland by changing existing topography, water conditions or water resources;
- d. Existing and ongoing agricultural activities, including farming, horticulture, aquaculture, irrigation, ranching or grazing of animals. Activities on areas lying fallow as part of a conventional rotational cycle are part of an ongoing operation. Activities which bring an area into agricultural use are not part of an ongoing operation. An operation ceases to be ongoing when the area in which it was conducted has been converted to another use or has lain idle so long that modifications to the hydrological regime are necessary to resume operations for more than five years unless that idle land is registered in a federal or state soils conservation program. Forest practices are not included in this definition.
- e. The maintenance (but not construction) of drainage ditches;
- f. Education, scientific research, and use of nature trails;
- g. Site investigative work necessary for land use application submittals such as surveys, soil logs, percolation tests and other related activities. In every case, wetland impacts shall be minimized and disturbed areas shall be immediately restored; and
- h. The following uses are allowed within wetlands and/or wetland ~~vegetation areabuffer~~, provided that any required permits or approvals are obtained and further provided that wetland impacts are minimized and that disturbed areas are immediately restored:
 - (1) Normal maintenance, repair, or operation of existing serviceable structures, facilities, or improved areas. Maintenance and repair does not include any modification that changes the character, scope, or size of the original structure, facility, or improved area and does not include the construction of a maintenance road; and
 - (2) Minor modification of existing serviceable structures within a ~~vegetation areabuffer~~ zone where modification does not adversely impact wetland functions.
 - (3) Repair or reconstruction of damaged or destroyed structures within two years of the damage or destruction.

E. DEVELOPMENT STANDARDS

1. Wetlands Rating System

A four-tier wetlands rating system is hereby adopted as the rating system for Mason County. Wetlands ~~vegetation-area~~buffer widths, wetland activities and replacement ratios shall be based on this rating system.

Procedures for applying the wetland rating system are set forth in the *Washington State Wetland Rating System for Western Washington, revised 2004, or as amended hereafter, Second Edition* Washington State Department of Ecology (Publication #93-74), as modified herein;

a. Wetlands shall be categorized as follows:

Table 17.01.070 A

<p>1) Category I Wetlands. <u>Category I wetlands are those regulated wetlands that include but are not limited to rare, unique wetland types that are more sensitive to disturbance than most wetlands and that contain ecological attributes that are impossible to replace within a human lifetime. Category I wetlands score 70 points or more out of 100 on the wetlands ratings systems.</u></p> <p>2) Category II Wetlands. <u>Category II wetlands are those regulated wetlands that score between 51-69 points out of 100 on the wetlands ratings system.</u></p> <p>3) Category III Wetlands. <u>Category III wetlands are those regulated wetlands that score between 30-50 points on the wetlands ratings system.*</u></p> <p>4) Category IV Wetlands. <u>Category IV wetlands are those regulated wetlands that score less than 30 points out of 100 on the wetlands ratings system.*</u></p> <p>5) <u>Wetlands intentionally created from non-wetland areas to mitigate conversion of other wetlands.</u></p> <p>6) <u>Mosaic wetlands as defined in 17.01.240.</u></p> <p><u>*Non-Regulated Wetlands. Isolated wetlands under 1,000 square feet which are not associated with a riparian corridor, not part of a wetland mosaic, and not essential habitat of a priority species as identified by the Washington Department of Fish and Wildlife.</u></p>
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Please refer to Appendix A or the Department of Ecology publication for more information.

<p style="text-align: center;">CATEGORY I WETLANDS</p> <p style="text-align: center;">(A wetland is considered a Category I if it meets any one of the following criteria.)</p> <ol style="list-style-type: none">1. The wetland contains documented Federal or State listed Threatened or Endangered plant and/or wildlife species.2. The wetland is on record with the Washington Natural Heritage Program as a high quality native wetland or it has great potential to become listed*.3. Wetlands documented to contain regionally significant waterfowl or shorebird concentrations.4. Wetlands that contain irreplaceable ecological functions*.<ul style="list-style-type: none">• Bogs and fens• Mature forested wetland• Estuarine wetlands over one acre• Eelgrass and kelp beds

- Documented wetlands of local category I significance.

CATEGORY II WETLANDS

(A wetland is considered a Category II if it meets none of the Category I criteria and it meets any one of the following:)

- Confirmed presence of sensitive plant, animal or fish recognized by federal or state agencies.
- Documented priority habitats and/or species recognized by state agencies.
- Wetlands with significant functions which may not be adequately replicated through creation or restoration (specifically estuaries, bogs and fens).
- Wetlands with significant habitat value (Greater than or equal to 22 points on the Washington State Wetlands Rating Form).
- Wetlands identified as a Category II wetland of local significance.

CATEGORY III WETLANDS

(A wetland is considered a Category III if it meets none of the Category I or II criteria and it meets any one of the following.)

- Wetlands where the significant habitat value score is equal to or less than 21 points on the Washington State Wetlands Rating Form.
- Wetlands identified as a Category III wetland of local significance.
- Estuarine wetlands less than one acre*.

CATEGORY IV WETLANDS

(A wetland is considered a Category IV if it meets any one of the following.)

- Wetlands less than one acre, hydrologically isolated and comprised of one plant layer dominated (>80%) by one of the following plant species*:

Scientific Name	Common Name
<i>Juncus effusus</i>	soft rush
<i>Spirea douglasii</i>	hard hack or buck brush
<i>Typha latifolia</i>	cattail

- Wetlands less than two acres, hydrologically isolated and comprised of one plant layer dominated (>90%) by a combination of invasive plant species*.
- Wetlands that are ponds smaller than one acre and excavated from uplands, without a surface water connection to streams, lakes, rivers or other wetlands.

* See Ecology, 1993 publication titled *Washington State Wetlands Rating System, Western Washington* for additional information.

- Wetland Buffers
 - Standard ~~Vegetation-Area~~ Buffer Widths.

Wetland buffers shall be required for all regulated wetlands. Any wetland created, restored, or enhanced as compensation for approved wetland alterations shall also include a the standard ~~vegetation-area~~ buffer required for the category of the created, restored, or enhanced wetland. The buffer widths are established by adjusting a base width for the category of wetland at the site for the habitat value as scored by the wetland rating system and for the land use intensity of the proposed activity. All buffers shall be measured horizontally from the wetland boundary as surveyed in the field.

The width of the wetland ~~vegetation-area~~ buffer shall be determined by the following process:

- The wetland is categorized according to wetland ratings system category as shown in Table 17.01.070 A;
- Table 17.01.070 B rates examples of different land uses for intensity of impacts to wetlands.

3) The width of the **buffer** is determined based on the habitat value scored by the wetland on the wetland rating system and on the land use intensity of the proposed use as shown in Tables 17.01.070 C, D, E, or F.

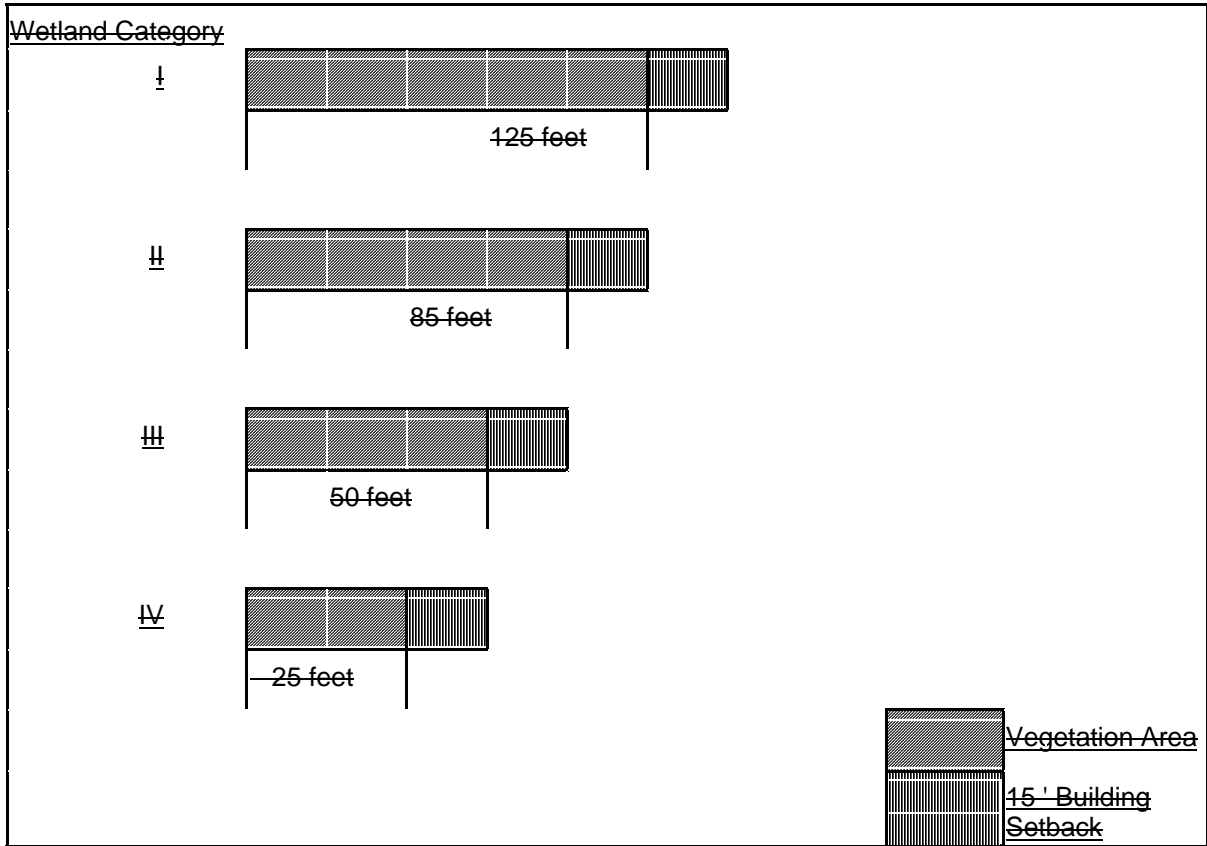


Table 17.01.070 B. Ratings of impact from land uses

Rating of impact from proposed changes in land use	Examples of land uses that cause the impact based on common zoning categories
High	Commercial, Urban, Industrial, Institutional, Retail Sales, Residential subdivisions with more than 1 unit/acre, New agriculture (high-intensity processing such as dairies, nurseries and green houses, raising and harvesting crops requiring annual tilling, raising and maintaining animals), New transportation corridors, High intensity recreation (golf courses, ball fields), hobby farms

<u>Rating of impact from proposed changes in land use</u>	<u>Examples of land uses that cause the impact based on common zoning categories</u>
<u>Moderate</u>	<u>Single-family residential lots, residential subdivisions with 1 unit/acre or less, Moderate-Intensity Open Space (parks), New agriculture (moderate- intensity such as orchards and hay fields), Transportation enhancement projects</u>
<u>Low</u>	<u>Forestry, Open space (low-intensity such as passive recreation and natural resources preservation, minor transportation improvements)</u>

Table 17.01.070 C: Width of buffer required to protect Category IV wetlands.

<u>Category IV Wetland Characteristics</u>	<u>Buffer Width by impact of land use</u>
<u>Score for functions < 30 points</u>	<u>Low -25 feet</u>
<u>-</u>	<u>Moderate - 40 feet</u>
<u>-</u>	<u>High - 50 feet</u>

Table 17.01.070 D: Width of buffers required to protect Category III wetlands. Wetlands scoring between 30 and 50 points on the wetlands rating system.

<u>Category III Wetland Characteristics</u>	<u><u>Buffer</u> Width by impact of land use</u>
<u>Moderate level of function for habitat (score for habitat is 20 - 28 pts.)</u>	<u>Low - 75 feet</u>
<u>-</u>	<u>Moderate - 110 feet</u>
<u>-</u>	<u>High -. 150 feet</u>
<u>Category III wetlands not meeting above criteria (score for habitat is less than 20 pts.)</u>	<u>Low -40 feet</u>
	<u>Moderate - 60 feet</u>
	<u>High - 80 feet</u>

Table 17.01.070 E: Width of Buffers required to protect Category II wetlands. Wetlands scoring between 51 and 69 points on the wetlands rating system.

<u>Category II Wetland Characteristics</u>	<u>Buffer Width by impact of land use (apply most protective)</u>
<u>High level of function for habitat (score for habitat is 29-36 pts.)</u>	<u>Low - 150 feet</u> <u>Moderate - 200 feet</u> <u>High - 225 feet</u>
<u>Moderate level of function for habitat (score for habitat is 20-28 pts.)</u>	<u>Low - 75 feet</u> <u>Moderate - 110 feet</u> <u>High - 150 feet</u>
<u>High level of function for water quality improvement and low for habitat (score water quality is 24-32 pts and habitat is less than 20)</u>	<u>Low 75 feet</u> <u>Moderate - 90 feet</u> <u>High - 100 feet</u>
<u>Estuarine</u>	<u>Low - 75 feet</u> <u>Moderate 110 feet</u> <u>High - 150 feet</u>
<u>Category II wetlands not meeting above criteria</u>	<u>Low - 50 feet</u> <u>Moderate - 75 feet</u> <u>High - 100 feet</u>

Table 17.01.070 F: Width of Buffers required to protect Category I wetlands. Wetlands scoring over 70 points on the wetlands rating system.

<u>Category I Wetland Characteristics</u>	<u>Buffer Width by impact of land use (apply most protective)</u>
<u>Natural Heritage Wetlands and Bogs</u>	<u>Low -125 feet</u> <u>Moderate - 190 feet</u> <u>High - 250 feet</u>
<u>Forested</u>	<u>Buffer size to be based on score for habitat functions or water quality functions see below.</u>
<u>Estuarine and Wetlands in Coastal Lagoons</u>	<u>Low - 100 feet</u> <u>Moderate - 200 feet</u> <u>High - 250 feet</u>
<u>High level of function for habitat (score for habitat is 29-36 pts.)</u>	<u>Low - 150 feet</u> <u>Moderate - 225 feet</u> <u>High - 250 feet</u>
<u>Moderate level of function for habitat (score for habitat is 20-28 pts.)</u>	<u>Low - 75 feet</u> <u>Moderate - 110 feet</u> <u>High - 200 feet</u>

<u>High level of function for water quality improvement (WQI) (score is 24-32) and low for habitat (score for habitat is less than 20 points)</u>	<u>Low 50 feet</u> <u>Moderate - 75 feet</u> <u>High - 100 feet</u>
<u>Category I wetlands not meeting any of the above criteria</u>	<u>Low 50 feet</u> <u>Moderate -75 feet</u> <u>High -100 feet</u>

- b. ~~Special Setbacks – Measured from the wetland edge –~~
 - (1) ~~On-site sewage disposal drainfield – 100 feet (30.5m) (125 feet for Category I)~~
 - (2) ~~Livestock feedlot – 200 feet (70 m)~~

3. Increased Wetland ~~Buffer~~ Vegetation Area Width

The Administrator shall require increased standard ~~vegetation areabuffer~~ widths or may require other conditions be placed on the development on a case-by-case basis when ~~a larger vegetation area is necessary~~ to protect wetland functions and values based on local conditions. This determination shall be supported by appropriate documentation showing that it is reasonably related to protection of the functions and values of the regulated wetland. Such determination shall be attached as a permit condition and shall demonstrate that:

- a) A larger ~~vegetation areabuffer~~ is necessary to maintain viable populations or critical habitat of threatened or endangered species living within the subject wetland(s) boundaries; or
- b) The adjacent land is susceptible to severe erosion and erosion control measures otherwise required will not effectively prevent adverse wetland impacts; or
- c) There are other nearby wetlands or critical areas and adjustments to the buffers would prevent fragmentation of the habitat or is otherwise ~~if the wetland contains variations in sensitivity, increasing the vegetation area widths will only be done when necessary to preserve the structure, function and value of the wetland, or-~~
- d) The ~~buffer~~ is poorly vegetated due to lack of vegetation or invasive or non-native species being the dominant cover. Conditions would include enhancement of the area, a larger ~~buffer~~, or both.

4. Wetland ~~Vegetation Area~~ Buffer Width Averaging

The boundary of the ~~vegetation areabuffer~~ may be modified by averaging ~~vegetation areabuffer~~ widths. If ~~vegetation areabuffer~~ averaging is used, the following conditions must be met:

- a. The total area contained in the ~~vegetation areabuffer~~ after averaging shall be no less than that contained within the ~~vegetation areabuffer~~ prior to averaging. In other words, mitigation for ~~buffer~~ impacts will be on a minimum of a 1: 1 ratio; and
- b. ~~Vegetation area~~ ~~Buffer~~ averaging will incorporate site conditions to minimize (to the maximum extent possible) impacts on the functions of the wetland to provide measures to increase the functions and values of the wetland ~~buffer~~ beyond what is currently in place; and

- c. In no instance shall the ~~vegetation areabuffer~~ width be reduced to less than $\frac{3}{4}$ of the required width for each of the wetland categories. ~~400 feet for Category I, 75 feet for Category II, or 25 feet for Categories III or IV.~~

5. Wetland Buffer Reduction

The width of the buffer may be reduced for proposed land uses with high-intensity impacts under the following conditions:

- a. For wetlands that score moderate or high for habitat (20 points or more for the habitat functions), the width of the buffer may be reduced to that required for moderate-intensity impacts provided that:
 - (1) A relatively undisturbed, vegetated area corridor at least 100-feet wide is protected between the wetland and any other Priority Habitats as defined by the Washington State Department of Fish and Wildlife. Protection of the corridor shall be assured by a conservation easement.
 - (2) Measures to minimize the impacts of the land use shall be applied. Examples of these measures are shown in Table X.
- b. For wetlands that score less than 20 points for habitat, the buffer width can be reduced to that required for moderate-impact land uses provided that measures to minimize the impacts of the land use shall be applied. Examples of these measures are shown in Table X.

(New Table)

TABLE X Examples of measures to reduce impacts to wetlands.

Examples of Disturbance	Activities and Uses that Cause Disturbances	Examples of Measures to Minimize Impacts
Lights	<ul style="list-style-type: none"> • Parking lots • Warehouses • Manufacturing • Residential 	<ul style="list-style-type: none"> • Direct lights away from wetland
Noise	<ul style="list-style-type: none"> • Manufacturing • Residential 	<ul style="list-style-type: none"> • Locate activity that generates noise away from wetland
Toxic runoff*	<ul style="list-style-type: none"> • Parking lots • Roads • Manufacturing • Residential areas • Application of agricultural pesticides • Landscaping 	<ul style="list-style-type: none"> • Route all new, untreated runoff away from wetland while ensuring wetland is not dewatered • Establish covenants limiting use of pesticides within 150 ft of wetland • Apply integrated pest management
Stormwater runoff	<ul style="list-style-type: none"> • Parking lots • Roads • Manufacturing • Residential areas • Commercial • Landscaping 	<ul style="list-style-type: none"> • Retrofit stormwater detention and treatment for roads and existing adjacent development • Prevent channelized flow from lawns that directly enters the buffer
Change in water regime	<ul style="list-style-type: none"> • Impermeable surfaces • Lawns • Tilling 	<ul style="list-style-type: none"> • Infiltrate or treat, detain, and disperse into buffer new runoff from impervious surfaces and new lawns
Pets and human disturbance	<ul style="list-style-type: none"> • Residential areas 	<ul style="list-style-type: none"> • Use privacy fencing; plant dense vegetation to delineate buffer edge and to discourage disturbance using vegetation appropriate for the ecoregion; place wetland and its buffer in a separate tract
Dust	<ul style="list-style-type: none"> • Tilled fields 	<ul style="list-style-type: none"> • Use best management practices to control dust
<p>* These examples are not necessarily adequate for minimizing toxic runoff if threatened or endangered species are present at the site.</p>		

56. Wetland ~~Vegetation Area Buffer~~ Conditions
Except as otherwise specified, wetland buffers shall be retained in their natural condition. Where ~~vegetation areabuffer~~ disturbance has occurred during construction, revegetation with native vegetation may be required.
67. Permitted Uses In A Wetland ~~Vegetation Area Buffer~~
Regulated activities shall not be allowed within a ~~vegetation areabuffer~~ except as follows:
- a. Activities that are permissible within a wetland shall be permissible within a wetland ~~vegetation areabuffer~~; and
 - b. Stormwater management facilities (bioswales and dispersal trenches) only when required to allow a reasonable use of the property. Encroachment into the ~~vegetation areabuffer~~ shall be the minimum necessary and will be permitted only within the outer twenty-five (25) feet or outer twenty-five percent (25%) of the ~~vegetation areabuffer~~, whichever is more restrictive.
 - c. Other passive activities such as recreational trails and tot lots are also permitted within the outer twenty-five percent (25%) of the ~~vegetation areabuffer~~.
 - d. Selective commercial timber cutting will be limited to the outer twenty-five percent (25%) of Category I and II wetland buffers and fifty percent (50%) of Category III and IV wetland buffers. No more than thirty percent (30%) of the merchantable trees may be harvested in this area on a one-time-only basis as associated with a land use conversion application. The thirty percent (30%) harvest must be representative and maintain an intact forest community character. The percentage and species distribution of all trees must be consistent before and after the selective timber harvest.
87. Building Setback Lines
A building setback line of fifteen (15) feet is required from the edge of any wetland ~~vegetation areabuffer~~. Minor structural intrusions into the area of the building setback may be allowed if the Administrator determined that such intrusions will not negatively impact the wetland.

F. MITIGATION FOR WETLAND IMPACTS

As a condition of any permit allowing alteration of wetlands and/or wetland buffers, the County shall require that the applicant engage in the restoration, creation or enhancement of wetlands and their buffers in order to offset the impacts resulting from the applicant's actions. ~~Mitigation sequencing should follow the avoidance, reduction and compensation analysis, (in that order of preference).~~ If wetland or wetland buffer impacts are proposed, a sequence of review must be considered. First, the applicant must consider avoiding the wetland or wetland buffer. If the applicant can not avoid the wetland or wetland buffer, they must consider reducing (or minimizing) the impact. Impacts which can not be avoided must be mitigated as provided in this ordinance. Mitigation for buffers shall be on a minimum 1:1 ratio. Approval of the mitigation plan shall be signified by a notarized memorandum of agreement signed by the applicant and Director of the Department of Community Development or designee, and recorded with the Mason County Auditor. The agreement shall refer to all requirements for the mitigation project. The County may suspend or revoke a permit if it finds that the applicant has not complied with the conditions or limitations set forth in the permit or has exceeded the scope of work set for in the permit. The overall goal of any compensatory project shall be no net loss of wetlands function and acreage

1. ~~Compensatory mitigation is not required for regulated activities for which a permit has been obtained that occur only in the vegetation area and have no adverse impacts to regulated wetlands.~~ Wetland mitigation ratios are illustrated in the following Table 17.01.070 H:

Table 17.01.070 H: Wetland Mitigation Replacement Ratios Table				
<u>Wetland Category</u>	<u>Re-establishment or Creation</u>	<u>Rehabilitation</u>	<u>1:1 Reestablishment or Creation (R/C) and Enhancement (E)</u>	<u>Enhancement Only</u>
<u>All Category IV</u>	<u>1.5:1</u>	<u>3:1</u>	<u>1:1 R/C and 2:1 E</u>	<u>6:1</u>
<u>All Category III</u>	<u>2:1</u>	<u>4:1</u>	<u>1:1 R/C and 2:1 E</u>	<u>8:1</u>
<u>Category II Estuarine</u>	<u>Case-by-case</u>	<u>4:1 rehabilitation of an estuarine wetland</u>	<u>Case-by-case</u>	<u>Case-by-case</u>
<u>All other Category II</u>	<u>3:1</u>	<u>8:1</u>	<u>1:1 R/C and 4:1 E</u>	<u>12:1</u>
<u>Category I Forested</u>	<u>6:1</u>	<u>12:1</u>	<u>1:1 R/C and 10:1 E</u>	<u>24:1</u>
<u>Category I other</u>	<u>4:1</u>	<u>8:1</u>	<u>1:1 R/C and 6:1 E</u>	<u>16:1</u>
<u>Category I Natural Heritage site</u>	<u>Case-by-case</u>	<u>6:1 rehabilitation of a Natural Heritage site</u>	<u>Case-by-case</u>	<u>Case-by-case</u>
<u>Category I Coastal Lagoon</u>	<u>Case-by-case</u>	<u>6:1 rehabilitation of a coastal lagoon</u>	<u>Case-by-case</u>	<u>Case-by-case</u>
<u>Category I Bog</u>	<u>Case-by-case</u>	<u>6:1 rehabilitation of a bog</u>	<u>Case-by-case</u>	<u>Case-by-case</u>
<u>Category I Estuarine</u>	<u>Case-by-case</u>	<u>6:1 rehabilitation of an estuarine wetland</u>	<u>Case-by-case</u>	<u>Case-by-case</u>

Wetland Type	Wetlands Acres Filled	Wetland Acres Created
Forested	4	<u>3</u>
Shrub Scrub and Emergent	4	<u>2</u>
Category IV	4	1.25

2. Wetland Restoration, Creation and Enhancement (see details in 17.01.200 I)

3. The department may increase or decrease the ratios based on one or more of the following:

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

- (1) Uncertainty exists as to the probable success of the proposed restoration or creation;
- (2) A significant period of time will elapse between impact and establishment of wetland functions at the mitigation site;
- (3) Proposed compensation will result in a lower category wetland or reduced functions relative to the wetland being impacted; or
- (4) The impact was an unauthorized impact.

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

- (1) Documentation by the applicant provides more certainty that the proposed compensation actions will be successful. For example, demonstrated prior success with similar compensation actions as those proposed, and/or extensive hydrologic data to support the proposed water regime;
- (2) Documentation by the applicant demonstrates that the proposed compensation actions will provide functions and values that are significantly greater than the wetland being impacted; or
- (3) The proposed mitigation actions are conducted in advance of the impact and are shown to be successful.

4. Off-Site Compensatory Mitigation.

a. Considerations for determining whether off-site mitigation is preferable include, but are not limited to:

- (1) On-site conditions do not favor successful establishment of the required vegetation type, or lack the proper soil conditions, or hydrology;
- (2) On-site compensation would result in an aquatic habitat that is isolated from other natural habitats or severely impaired by the effects of the adjacent development;
- (3) Off-site location is crucial to one or more species that is threatened, endangered, or otherwise of concern, and the on-site location is not;
- (4) Off-site location is crucial to larger ecosystem functions, such as providing corridors between habitats, and the on-site location is not; and
- (5) Off-site compensation has a greater likelihood of success or will provide greater functional benefits.

b. When determining whether off-site mitigation is preferable, the value of the site-specific wetland functions at the project site, such as flood control, nutrient retention, sediment filtering, and rare or unique habitats or species, should be fully considered.

c. When conditions do not favor on-site compensation, off-site compensatory mitigation should be located as close to the impact site as possible, at least within the same watershed, while still replacing lost functions.

4. Monitoring Requirements.

Mason County shall require monitoring reports on an annual basis for a minimum of five years and up to ten years, or until the department determines that the mitigation project has achieved success. The wetlands mitigation plan shall provide specific criteria for monitoring the mitigation project. Criteria shall be project-specific and use best available science to aid the department in evaluating whether or not the project has achieved success.

G. PERMIT REVIEW

The basic concern in the permitting process is to avoid and minimize wetland impacts. Permits are issued when the applicant can demonstrate that the activity is both unavoidable and necessary. The applicant must state the purpose of the proposed project, and demonstrate the requirement for a wetland location or access across wetlands, and the reason it cannot be located at other sites, or at another location on-site.

17.01.240 DEFINITIONS

(For brevity, only definitions proposed to be changed, added, or deleted are included.)

Bog: A unique type of wetland dominated by mosses that form organic peat. Bogs form in areas where the climate allows the accumulation of peat to exceed its decomposition. Bog hydrology is dominated by precipitation rather than surface inflow. The plant community is specialized to survive in the nutrient-poor and highly acidic conditions typical of bog systems.

Mitigation, compensatory: "Compensation" or "Compensatory mitigation" means a form of mitigation that replaces project-induced wetland or habitat losses or impacts, and includes, but is not limited to, restoration, enhancement, substitute resources, creation, and preservation. "Substitute Resources" means actions performed to provide for an alternative environmentally sensitive area. "Preservation" means actions taken to ensure the permanent protection of existing, high-quality environmentally sensitive areas. Compensation also is not limited to mitigation at or adjacent to the site on which a wetland has been impacted by a regulated activity.

Relatively undisturbed vegetated area: A relatively undisturbed vegetated area is one with a native plant community appropriate for the ecoregion or with one that performs similar functions. If the area is unvegetated, sparsely vegetated, or vegetated with invasive species that do not perform needed functions, then it is not relatively undisturbed. Any heavily used paved or gravel roads, residential areas, lawns, tilled fields, parking lots, or actively grazed pastures would disqualify the area from being "relatively undisturbed." Bridges crossing streams or rivers within the buffer are considered as a "disturbance." Infrequently used gravel or paved roads or vegetated dikes in a relatively undisturbed buffer, however, can be ignored as a "disturbance." Open water that is not part of the wetland is considered part of the buffer. The open water can be considered undisturbed unless there is heavy boat traffic there. (Adapted from: Hruby, T. 2004. Washington State wetland rating system for western Washington – Revised. Washington State Department of Ecology Publication # 04-06-025.)

Wetlands: Areas that are inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands do not include those artificial wetlands intentionally created from non-wetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, waste water treatment facilities, farm ponds, and landscape amenities or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street or highway. However, wetlands may include those artificial wetlands intentionally created from non-wetland areas created to mitigate conversion of wetlands, if permitted by the county or city. ~~Wetlands regulated under this chapter do not include category II and III wetlands of less than 2,500 square feet or category IV wetlands of less than 7,500-10,000 square feet.~~

Wetlands, Creation or Establishment of: The manipulation of the physical, chemical, or biological characteristics present to develop a wetland on an upland or deepwater site where a wetland did not previously exist. Establishment results in a gain in wetland acres. Activities typically involve excavation of upland soils to elevations that will produce a wetland hydroperiod, create hydric soils, and support the growth of hydrophytic plant species.

Wetlands, Cowardin classification: The first commonly used classification system for wetlands developed in 1979 by the U.S. Fish and Wildlife Service. The Cowardin system classifies wetlands based on water flow, substrate types, vegetation types, and dominant plant species.

Wetlands Enhancement or the Enhancement of Wetlands: The manipulation of the physical, chemical, or biological characteristics of a wetland site to heighten, intensify, or improve specific function(s) or to change the growth stage or composition of the vegetation present. Enhancement is undertaken for specified purposes such as water quality improvement, flood water retention, or wildlife habitat. Enhancement results in a change in some wetland functions and can lead to a decline in other wetland functions, but does not result in a gain in wetland acres. Activities typically consist of planting vegetation, controlling non-native or invasive species, modifying site elevations or the proportion of open water to influence hydroperiods, or some combination of these activities.

Wetland, Estuarine: Wetlands where salt tolerant plant species are dominant and the water regime is influenced by tidal action. The wetlands are usually partially enclosed by land with open, or partially obstructed access to open saline water. In areas where freshwater wetlands grade into estuarine areas, the boundary of the latter extends to an area where the salinity is less than 5 ppt (parts per thousand) during the period of average annual low flow.

Wetland, Forested: A wetland class in the Cowardin classification where woody plants taller than 20 feet form the dominant cover. Shrubs often form a second layer beneath the forest canopy, with a layer of herbaceous plants growing beneath the shrubs.

Wetlands, Isolated: Isolated wetlands are generally defined as those wetlands that have no surface water connections to other aquatic resources. For the purposes of this ordinance, wetlands are not regulated as “isolated wetlands” if they are part of a mosaic wetlands. (See “Wetlands, Mosaic” for additional information.)

Wetlands, Mosaic: “Wetlands, mosaic” or “mosaic wetlands” means groups of wetlands that should be rated and regulated as an aggregate. Although each patch the wetlands that make up the mosaic is separated from nearby wetlands by some upland area these wetlands are not regulated as “isolated wetlands” as the term is used in this ordinance. That is, in determining whether a wetland falls into the category of non-regulated wetlands (See Table 17.01.070) the area of the wetland is the area of the mosaic wetland and not the area of an individual wetland component of the mosaic. Guidance for determining when nearby wetlands compose a mosaic wetland is provided in the Washington State wetland rating system for western Washington – Revised, Washington State Department of Ecology Publication # 04-06-025. The patches of wetlands compose a mosaic when 1) the patches are less than one acre in size, 2) the patches are separated from each other by 100 feet or less on average, and 3) the area of the wetlands in the potential mosaic are greater than 50 percent of the total combined area of wetland and upland. An illustration of this analysis of whether the potential mosaic should be considered as a aggregate rather than as individual isolated wetlands is shown below. (The illustration is from the DOE Publication referenced above.)

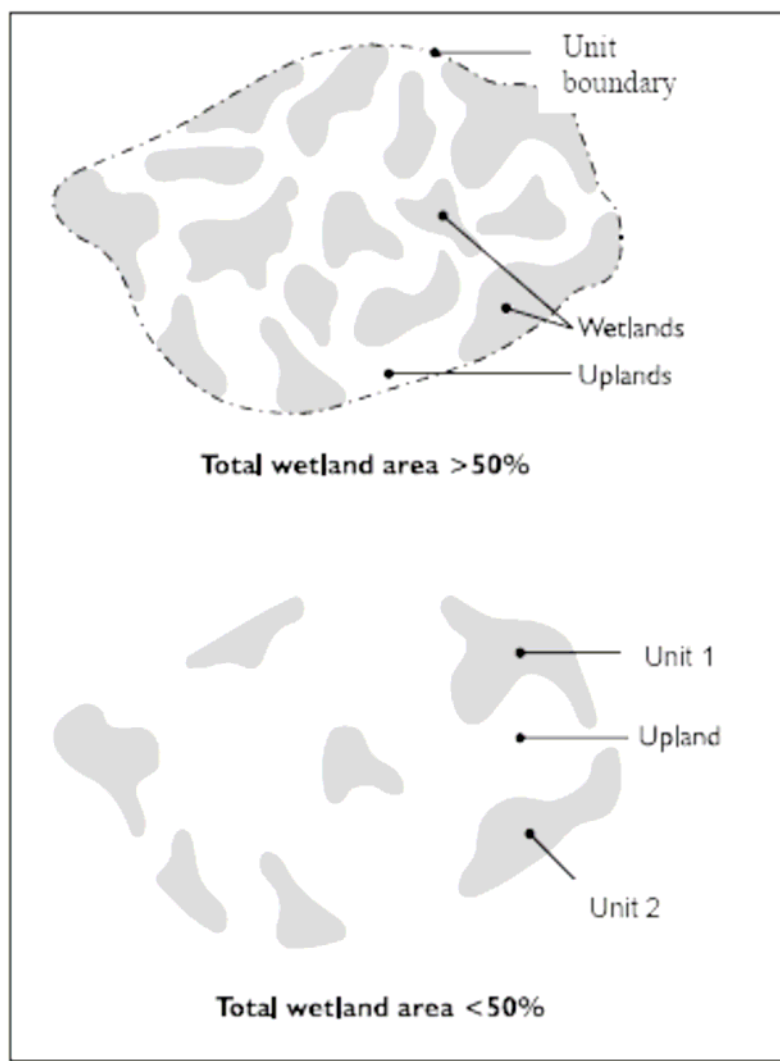
Wetland, Natural Heritage: As defined by the Natural Heritage Program of the Washington State Department of Natural Resources, these are wetlands that are either high quality undisturbed wetlands or wetlands that support threatened, endangered, or sensitive plant species.

Wetland Protection/Maintenance (Preservation) of: Removing a threat to, or preventing the decline of, wetland conditions by an action in or near a wetland. This includes the purchase of land or easements, repairing water control structures or fences, or structural protection such as repairing a barrier island. This term also includes activities commonly associated with the term preservation. Preservation does not result in a gain of wetland acres, may result in a gain in functions, and will be used only in exceptional circumstances.

Wetland Restoration or Restoration of Wetlands: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural or historic functions to a former or degraded wetland. For the purpose of tracking net gains in wetland acres, restoration is divided into:

- Re-establishment: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural or historic functions to a former wetland. Re-establishment results in a gain in wetland acres (and functions). Activities could include removing fill material, plugging ditches, or breaking drain tiles.
- Rehabilitation: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural or historic functions of a degraded wetland. Rehabilitation results in a gain in wetland function but does not result in a gain in wetland acres. Activities could involve breaching a dike to reconnect wetlands to a floodplain or return tidal influence to a wetland.

(Source: DOE Guidance Document Volumes 1 and 2)



APPENDIX A (NOTE: ALL OF APPENDIX A IS NEW PROPOSED TEXT)

The following is from:

Hruby, T. 2004. Washington State wetland rating system for western Washington – Revised. Washington State Department of Ecology Publication # 04-06-025. Pages 6 to 10.

3. RATIONALE FOR THE CATEGORIES

This rating system is designed to differentiate between wetlands based on their sensitivity to disturbance, rarity, the functions they provide, and whether we can replace them or not. The emphasis is on identifying those wetlands:

- where our ability to replace them is low,
- that are sensitive to adjacent disturbance,
- that are rare in the landscape,
- that perform many functions well,
- that are important in maintaining biodiversity.

The following description summarizes the rationale for including different wetland types in each category. As a general principle, it is important to note that wetlands of all categories have valuable functions in the landscape, and all are worthy of inclusion in programs for wetland protection.

3.1 CATEGORY I

Category I wetlands are those that 1) represent a unique or rare wetland type; or 2) are more sensitive to disturbance than most wetlands; or 3) are relatively undisturbed and contain ecological attributes that are impossible to replace within a human lifetime; or 4) provide a high level of functions. We cannot afford the risk of any degradation to these wetlands because their functions and values are too difficult to replace. Generally, these wetlands are not common and make up a small percentage of the wetlands in the region. Of the 122 wetlands used to field test the current rating system only 24 (20%) were rated as a Category I. In western Washington the following types of wetlands are Category I.

Estuarine Wetlands - Relatively undisturbed estuarine wetlands larger than 1 acre are Category I wetlands because they are relatively rare and provide unique natural resources that are considered to be valuable to society. These wetlands need a high level of protection to maintain their functions and the values society derives from them. Furthermore, the questions used to characterize how well a freshwater wetland functions cannot be used for estuarine wetlands. No rapid methods have been developed to date to characterize how well estuarine wetlands function.

Estuaries, the areas where freshwater and salt water mix, are among the most highly productive and complex ecosystems where tremendous quantities of sediments, nutrients and organic matter are exchanged between terrestrial, freshwater and marine communities. This availability of resources benefits an enormous variety of plants and animals. Fish, shellfish and birds and plants are the most visible. However, there is also a huge variety of other life forms in an estuarine wetland: for example, many kinds of diatoms, algae and invertebrates are found there.

Estuarine systems have substantial economic value as well as environmental value. All Washington State estuaries have been modified to some degree, bearing the brunt of

development pressures through filling, drainage, port development and disposal of urban and industrial wastes. The over-harvest of certain selected economic species has also modified the natural functioning of estuarine systems. Many Puget Sound estuaries such as the Duwamish, Puyallup, Snohomish and Skagit have been extensively modified. Up to 99% of some estuarine wetland areas in the state have been lost.

Estuaries, of which estuarine wetlands are a part, are a “priority habitat” as defined by the state department of Fish and Wildlife. Estuaries have a high fish and wildlife density and species richness, important breeding habitat, important fish and wildlife seasonal ranges and movement corridors, limited availability, and high vulnerability to alteration of their habitat (Washington State Department of Fish and Wildlife (WDFW), <http://www.wa.gov/wdfw/hab/phslist.htm>, accessed October 15, 2003).

Natural Heritage Wetlands – Wetlands that are identified by scientists of the Washington Natural Heritage Program/DNR as high quality, relatively undisturbed wetlands, or wetlands that support State listed threatened or endangered plants are Category I wetlands.

High quality, relatively undisturbed examples of wetlands are uncommon in western Washington. By categorizing these wetlands as Category I, we are trying to provide a high level of protection to the undisturbed character of these remaining high quality wetlands. Examples of undisturbed wetlands help us to understand natural wetland processes.

Furthermore, the presence of rare plants in a wetland indicates unique habitats that might otherwise not be identified through the rating system. Rare plant populations are also sensitive to disturbance, particularly activities that result in the spread of invasive species. The Washington Natural Heritage Program of the Department of Natural Resources (DNR) has identified important natural plant communities and species that are very sensitive to disturbance or threatened by human activities, and maintains a database of these sites.

"These natural systems and species will survive in Washington only if we give them special attention and protection. By focusing on species at risk and maintaining the diversity of natural ecosystems and native species, we can help assure our state's continued environmental and economic health." (DNR <http://www.wa.gov/dnr/htdocs/fr/nhp/wanhp.html> , accessed October 1, 2002)

Bogs - Bogs are Category I wetlands because they are sensitive to disturbance and impossible to re-create through compensatory mitigation.

Bogs are low nutrient, acidic wetlands that have organic soils. The chemistry of bogs is such that changes to the water regime or water quality of the wetland can easily alter its ecosystem. The plants and animals that grow in bogs are specifically adapted to such conditions and do not tolerate changes well. Immediate changes in the composition of the plant community often occur after the water regime changes. Minor changes in the water regime or nutrient levels in these systems can have major adverse impacts on the plant and animal communities (e.g. Grigal and Brooks, 1997).

In addition to being sensitive to disturbance, bogs are not easy to re-create through compensatory mitigation. Researchers in northern Europe and Canada have found that restoring bogs is difficult, specifically in regard to plant communities (Bolscher 1995, Grosvermier et al. 1995, Schouwenaars 1995, Schrautzer et al. 1996), water regime (Grootjans and van Diggelen 1995, Schouwenaars 1995) and/or water chemistry (Wind-Mulder and Vitt 2000). In fact, restoration may be impossible because of changes to the biotic and abiotic properties preclude the re-establishment of bogs (Shouwenaars 1995, Schrautzer et al. 1996). Furthermore, bogs form extremely slowly, with organic soils forming at a rate of about one inch per 40 years in western Washington (Rigg 1958).

Nutrient poor wetlands, such as bogs, have a higher species richness, many more rare species, and a greater range of plant communities than nutrient rich wetlands (review in Adamus and Brandt 1990). They are, therefore, more important than would be accounted for using a simple assessment of wetland functions (Moore et al. 1989).

Mature and Old-growth Forested Wetlands – Mature and old-growth forested wetlands over 1 acre in size are “rated” as Category I because these wetlands cannot be easily replaced through compensatory mitigation. A mature forest may require a century or more to develop, and the full range of functions performed by these wetlands may take even longer (see review in Sheldon et al. 2004, in press).

These forested wetlands are also important because they represent a second “priority habitat” as defined by the state department of Fish and Wildlife. “Priority habitats are those habitat types or elements with unique or significant value to a diverse assemblage of species.” (Washington State Department of Fish and Wildlife (WDFW), <http://www.wa.gov/wdfw/hab/phslist.htm>, accessed October 15, 2002). NOTE: All wetlands are categorized as a priority habitat by the WDFW. Mature and forested wetlands, therefore, represent two priority habitats that coincide.

Wetlands in Coastal Lagoons – Coastal lagoons are shallow bodies of water, like a pond, partly or completely separated from the sea by a barrier beach. They may, or may not, be connected to the sea by an inlet, but they all receive periodic influxes of salt water. This can be either through storm surges overtopping the barrier beach, or by flow through the porous sediments of the beach.

Wetlands in coastal lagoons are placed into Category I because they probably cannot be reproduced through compensatory mitigation, and because they are relatively rare in the landscape. No information was found on any attempts to create or restore coastal lagoons in Washington that would suggest this type of compensatory mitigation is possible. Any impacts to lagoons will, therefore, probably result in a net loss of their functions and values.

In addition, coastal lagoons and their associated wetlands are proving to be very important habitat for salmonids. Unpublished reports of ongoing research in the Puget Sound (Hirschi et al. 2003, Beamer et al. 2003) suggests coastal lagoons are heavily used by juvenile salmonids.

Wetlands That Perform Many Functions Very Well - Wetlands scoring 70 points or more (out of 100) on the questions related to functions are Category I wetlands.

Not all wetlands function equally well, especially across the suite of functions performed. The field questionnaire was developed to provide a method by which wetlands can be categorized based on their relative performance of different functions. Wetlands scoring 70 points or more were judged to have the highest levels of function. Wetlands that provide high levels of all three types of functions (improving water quality, hydrologic functions, and habitat) are also relatively rare. Of the 122 wetlands used to calibrate the rating system in western Washington, only 18 (15%) scored 70 points or higher based on their functions.

The questionnaire on wetland functions is based on the six-year effort to develop detailed methods for assessing wetland functions both in eastern and western Washington. These methods currently represent the “best available science” in rapid assessments of wetland functions.

3.2 CATEGORY II

Category II wetlands are difficult, though not impossible, to replace, and provide high levels of some functions. These wetlands occur more commonly than Category I wetlands, but still need a relatively high level of protection. Category II wetlands in western Washington include:

Estuarine Wetlands - Any estuarine wetland smaller than an acre, or those that are disturbed and larger than 1 acre are category II wetlands. Although disturbed, these wetlands still provide unique natural resources that are considered to be valuable to society. Furthermore, the questions used to characterize how well a wetland functions cannot be used for estuarine wetlands.

Interdunal Wetlands - Interdunal wetlands greater than 1 acre are Category II because they provide critical habitat in this ecosystem (Wiedemann 1984). This resource is important but constitutes only a small part of the total dune system (Wiedemann 1984). No methods have been developed to characterize how well interdunal wetlands function, so these wetlands cannot be rated by a score.

Interdunal wetlands form in the “deflation plains” and “swales” that are geomorphic features in areas of coastal dunes. These dune forms are the result of the interaction between sand, wind, water and plants. The dune system immediately behind the ocean beach (the primary dune system) is very dynamic and can change from storm to storm (Wiedemann 1984). For the purpose of rating, any wetlands that are located to the west of the 1889 line (western boundary of upland ownership) are considered to be interdunal.

Wetlands That Perform Functions Well - Wetlands scoring between 51-69 points (out of 100) on the questions related to the functions present are Category II wetlands. Wetlands scoring 51-69 points were judged to perform most functions relatively well, or performed one group of functions very well and the other two moderately well.

3.3 CATEGORY III

Category III wetlands are 1) wetlands with a moderate level of functions (scores between 30 -50 points) and 2) interdunal wetlands between 0.1 and 1 acre in size. Wetlands scoring between 30 - 50 points generally have been disturbed in some ways, and are often less diverse or more isolated from other natural resources in the landscape than Category II wetlands.

3.4 CATEGORY IV

Category IV wetlands have the lowest levels of functions (scores less than 30 points) and are often heavily disturbed. These are wetlands that we should be able to replace, and in some cases be able to improve. However, experience has shown that replacement cannot be guaranteed in any specific case. These wetlands may provide some important functions, and also need to be protected.