

APPENDIX E

Wetland Rating Forms

Table E1 Summary of wetland ratings.

Assessment Unit	Rated by	HGM Class	More than 1 HGM Class	Category	Total Score
1	Dunkin	Flats/Depressional	No	III	44
2	Gray	Slope	Yes, Riverine	III	39
3	Dunkin	Slope	Yes, Depression	III	33
4A	Dunkin	Slope	Yes, Depression	III	34
4B	Gray	Depressional	No	III	38
4C	Gray	Slope	Yes, Depression	III	32
4D	Gray	Slope	No	III	32
4E	Gray	Depressional	No	III	34
4F	Gray	Slope	No	IV	17
5A	Dunkin	Slope	Yes, Depression	III	45
5B	Gray	Depressional	No	III	40
5C	Gray	Slope	Yes, Depression	III	45
6	Dunkin	Slope	Yes, Depression	III	43
7A	Dunkin	Slope	No	III	45
7B	Gray	Depressional	No	III	33
8A	Dunkin	Slope	No	III	30
8B	Gray	Depressional	No	III	30
9A	Dunkin	Slope	No	III	42

9B	Gray	Depressional	No	III	42
10A	Dunkin	Slope	No	III	34
10B	Gray	Depressional	No	III	33
10C	Gray	Depressional	No	IV	28
11A	Dunkin	Riverine	Yes, Slope	I	70
11B	Gray	Depressional	No	III	33
12	Dunkin	Depressional/ Coastal Lagoon	Yes, Riverine	I	N/A
13A	Dunkin	Riverine	Yes, Depression	I	73
13C	Gray	Depressional	No	III	35
13D	Gray	Slope	No	III	38
13E	Gray	Riverine	Yes, Depression	II	64
13F	Gray	Depressional	No	III	36
14	Gray	Depressional	No	III	37

Wetland name or number 1

WETLAND RATING FORM – WESTERN WASHINGTON
Version 2 – Updated July 2006 to increase accuracy and reproducibility among users

Name of wetland (if known): 1 Date of site visit: 2006-2007

Rated by Dunkin Trained by Ecology? Yes X No Date of training Oct 2006

SEC: 18 TWSHP: 39 RNGE: 1E Is S/T/R in Appendix D? Yes No X

Map of wetland unit: Figure Estimated size >40 Acres

SUMMARY OF RATING

Category based on FUNCTIONS provided by wetland

I II III X IV

Category I = Score >=70
Category II = Score 51-69
Category III = Score 30-50
Category IV = Score <30

Score for Water Quality Functions	18
Score for Hydrologic Functions	7
Score for Habitat Functions	19
TOTAL score for Functions	44

Category based on SPECIAL CHARACTERISTICS of Wetland

I II Does not Apply X

III

Final Category (choose the “highest” category from above)

Summary of basic information about the wetland unit

Wetland Unit has Special Characteristics		Wetland HGM Class used for Rating	
Estuarine		Depressional	X
Natural Heritage Wetland		Riverine	
Bog		Lake-fringe	
Mature Forest		Slope	
Old Growth Forest		Flats	
Coastal Lagoon		Freshwater Tidal	
Interdunal			
None of the above	X	Check if unit has multiple HGM classes present	

Wetland name or number 1

Does the wetland unit being rated meet any of the criteria below?

If you answer YES to any of the questions below you will need to protect the wetland according to the regulations regarding the special characteristics found in the wetland.

Check List for Wetlands That May Need Additional Protection (in addition to the protection recommended for its category)	YES	NO
SP1. <i>Has the wetland unit been documented as a habitat for any Federally listed Threatened or Endangered animal or plant species (T/E species)?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state or federal database.		X
SP2. <i>Has the wetland unit been documented as habitat for any State listed Threatened or Endangered animal species?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state database. Note: Wetlands with State listed plant species are categorized as Category I Natural Heritage Wetlands (see p. 19 of data form).		X
SP3. <i>Does the wetland unit contain individuals of Priority species listed by the WDFW for the state?</i>		X
SP4. <i>Does the wetland unit have a local significance in addition to its functions?</i> For example, the wetland has been identified in the Shoreline Master Program, the Critical Areas Ordinance, or in a local management plan as having special significance.		X

To complete the next part of the data sheet you will need to determine the Hydrogeomorphic Class of the wetland being rated.

The hydrogeomorphic classification groups wetlands into those that function in similar ways. This simplifies the questions needed to answer how well the wetland functions. The Hydrogeomorphic Class of a wetland can be determined using the key below. See p. 24 for more detailed instructions on classifying wetlands.

D Depressional and Flats Wetlands HYDROLOGIC FUNCTIONS – Indicators that the wetland unit functions to reduce flooding and stream degradation.		Points (only 1 score per box)
D	D 3. Does the wetland have the <u>potential</u> to reduce flooding and stream erosion?	<i>(see p. 46)</i>
	<p>D 3.1 Characteristics of surface water flows out of the wetland unit</p> <p>Unit is a depression with no surface water leaving it (no outlet) points = 4</p> <p>Unit has an intermittently flowing, OR highly constricted permanently flowing outlet points = 2</p> <p>Unit is a “flat” depression (Q. 7 on key), or in the Flats class, with permanent surface outflow and no obvious natural outlet and/or outlet is a man-made ditch points = 1 <i>(If ditch is not permanently flowing treat unit as “intermittently flowing”)</i></p> <p>Unit has an unconstricted, or slightly constricted, surface outlet (<i>permanently flowing</i>) points = 0</p>	2
D	<p>D 3.2 Depth of storage during wet periods</p> <p><i>Estimate the height of ponding above the bottom of the outlet. For units with no outlet measure from the surface of permanent water or deepest part (if dry).</i></p> <p>Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7</p> <p>The wetland is a “headwater” wetland points = 5</p> <p>Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5</p> <p>Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points = 3</p> <p>Unit is flat (yes to Q. 2 or Q. 7 on key) but has small depressions on the surface that trap water points = 1</p> <p>Marks of ponding less than 0.5 ft points = 0</p>	0
D	<p>D 3.3 Contribution of wetland unit to storage in the watershed</p> <p><i>Estimate the ration of the area of upstream basin contributing surface water to the wetland to the area of the wetland unit itself.</i></p> <p>The area of the basin is less than 10 times the area of the unit points = 5</p> <p>The area of the basin is 10 to 100 times the area of the unit points = 3</p> <p>The area of the basin is more than 100 times the area of the unit points = 0</p> <p>Entire unit is in the FLATS class points = 5</p>	5
D	Total for D 3 <i>Add the points in the boxes above</i>	7
D	<p>D 4. Does the wetland have the <u>opportunity</u> to reduce flooding and erosion?</p> <p>Answer YES if the unit is in a location in the watershed where the flood storage, or reduction in water velocity, it provides helps protect downstream property and aquatic resources from flooding or excessive and/or erosive flows. Answer NO if the water coming into the wetland is controlled by a structure such as flood gate, tide gate, flap valve, reservoir etc. OR you estimate that more than 90% of the water in the wetland is from groundwater in areas where damaging groundwater flooding does not occur.</p> <p><i>Note which of the following indicators of opportunity apply.</i></p> <p><input type="checkbox"/> Wetland is in a headwater of a river or stream that has flooding problems</p> <p><input type="checkbox"/> Wetland drains to a river or stream that has flooding problems</p> <p><input type="checkbox"/> Wetland has no outlet and impounds surface runoff water that might otherwise flow into a river or stream that has flooding problems</p> <p><input type="checkbox"/> Other _____</p> <p>YES multiplier is 2 NO multiplier is 1</p>	<i>(see p. 49)</i> multiplier 1 _____
D	TOTAL – Hydrologic Functions Multiply the score from D 3 by D 4 <i>Add score to table on p. 1</i>	7

<p>H 1.4 Interspersion of habitats (<i>see p. 76</i>) Decide from the diagrams below whether interspersion between Cowardin vegetation classes (described in H1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none.</p> <p>NOTE: If you have four or more vegetation classes or three vegetation types and open water the rating is always “high”. Use map of Cowardin vegetation classes</p>	<p>Figure _____</p> <p>3</p>
<p>H 1.5 Special Habitat Features (<i>see p. 77</i>) Check the habitat features that are present in the wetland. The number of checks is the number of points you put into the next column.</p> <p><input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (> 4in. diameter and 6 ft long).</p> <p><input checked="" type="checkbox"/> Standing snags (diameter at the bottom > 4 inches) in the wetland</p> <p><input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2m) and/or overhanging vegetation extends at least 3.3 ft. (1m) over a stream (or ditch) in, or contiguous with the unit, for at least 33 ft (10m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet turned grey/brown</i>)</p> <p><input checked="" type="checkbox"/> At least ¼ acre of thin-stemmed persistent vegetation or woody branches are present in areas that are permanently or seasonally inundated. (<i>structures for egg-laying by amphibians</i>)</p> <p><input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in each stratum of plants</p> <p>NOTE: The 20% stated in early printings of the manual on page 78 is an error.</p>	<p>3</p>
<p>H 1. TOTAL Score – potential for providing habitat Add the scores from H1.1, H1.2, H1.3, H1.4, H1.5</p>	<p>14</p>

Comments

<p>H 2.3 <u>Near or adjacent to other priority habitats listed by WDFW (see p. 82)</u> Which of the following priority habitats are within 330 ft (100m) of the wetland unit? <i>NOTE: the connections do not have to be relatively undisturbed. These are DFW definitions. Check with your local DFW biologist if there are any questions.</i></p> <p><input type="checkbox"/> Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.</p> <p><input type="checkbox"/> Aspen Stands: Pure or mixed stands of aspen greater than 0.8 ha (2 acres).</p> <p><input type="checkbox"/> Cliffs: Greater than 7.6m (25 ft) high and occurring below 5000 ft.</p> <p><input type="checkbox"/> Old-growth forests: (Old growth west of Cascade Crest) Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings, with at least 20 trees/ha (8 trees/acre) > 81cm (32 in) dbh or > 200 years of age.</p> <p><input type="checkbox"/> Mature forests: Stands with average diameters exceeding 53cm (21 in) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 – 200 years old west of the Cascade crest.</p> <p><input type="checkbox"/> Prairies: Relatively undisturbed areas (as indicated by dominance of native plants) where greases and/or forbs form the natural climax plant community.</p> <p><input type="checkbox"/> Talus: Homogenous areas of rock rubble ranging in average size 0.15 – 2.0 m (0.5 – 6.5 ft), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.</p> <p><input type="checkbox"/> Caves: A naturally occurring cavity, recess, void, or system of interconnected passages.</p> <p><input type="checkbox"/> Oregon white Oak: Woodlands Stands of pure oak or oak/conifer associations where canopy coverage of the oak component of the stand is 25%.</p> <p><input type="checkbox"/> Urban Natural Open Space: A priority species resides within or is adjacent to the open space and uses it for breeding and/or regular feeding; and/or the open space functions as a corridor connecting other <i>priority habitats</i>, especially those that would otherwise be isolated; and/or the open space is an isolated remnant of natural habitat larger than 4 ha (10 acres) and is surrounded by urban development.</p> <p><input type="checkbox"/> Estuary/Estuary-like: Deepwater tidal habitats and adjacent tidal wetlands, usually semi-enclosed by land but with open, partly obstructed or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land. The salinity may be periodically increased above that of the open ocean by evaporation. Along some low-energy coastlines there is appreciable dilution of sea water. Estuarine habitat extends upstream and landward to where ocean-derived salts measure less than 0.5 ppt. during the period of average annual low flow. Includes both estuaries and lagoons.</p> <p><input type="checkbox"/> Marine/Estuarine Shorelines: Shorelines include the intertidal and subtidal zones of beaches, and may also include the backshore and adjacent components of the terrestrial landscape (e.g., cliffs, snags, mature trees, dunes, meadows) that are important to shoreline associated fish and wildlife and that contribute to shoreline function (e.g., sand/rock/log recruitment, nutrient contribution, erosion control).</p> <p> If wetland has 3 or more priority habitats = 4 points If wetland has 2 priority habit= 3 points If wetland has 1 priority habitats= 1 point No habitats= 0 points</p> <p><i>Note: All vegetated wetlands are by definition a priority habitat but are not included in this list. Nearby wetlands are addressed in question H 2.4)</i></p>	<p>0</p>
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Wetland name or number 1

<p>H 2.4 <u>Wetland Landscape</u> (choose the one description of the landscape around the wetland that best fits) (see p. 84)</p> <p>There are at least 3 other wetlands within ½ mile, and the connections between them are relatively undisturbed (light grazing between wetlands OK, as is lake shore with some boating, but connections should NOT be bisected by paved roads, fill, fields, or other development. points = 5</p> <p>The wetland is Lake-fringe on a lake with little disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 5</p> <p>There are at least 3 other wetlands within ½ mile, BUT the connections between them are disturbed points = 3</p> <p>The wetland is Lake-fringe on a lake with disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 3</p> <p>There is at least 1 wetland within ½ mile points = 2</p> <p>There are no wetlands within ½ mile points = 0</p>	3
<p>H 2. TOTAL Score – opportunity for providing habitat <i>Add the scores from H2.1, H2.2, H2.3, H2.4</i></p>	5
<p>TOTAL for H 1 from page 14</p>	14
<p>Total Score for Habitat Functions – add the points for H 1, H 2 and record the result on p. 1</p>	19

Wetland name or number 2

WETLAND RATING FORM – WESTERN WASHINGTON
Version 2 – Updated July 2006 to increase accuracy and reproducibility among users

Name of wetland (if known): 2 Date of site visit: 2006-2007

Rated by M. Gray Trained by Ecology? Yes X No Date of training Apr 2007

SEC: 17 & 18 TWSHP: 39N RNGE: 1E Is S/T/R in Appendix D? Yes No X

Map of wetland unit: Figure Estimated size >40 Acres

SUMMARY OF RATING

Category based on FUNCTIONS provided by wetland

I II III X IV

Category I = Score >=70 Category II = Score 51-69 Category III = Score 30-50 Category IV = Score <30

Score for Water Quality Functions	10
Score for Hydrologic Functions	6
Score for Habitat Functions	23
TOTAL score for Functions	39

Category based on SPECIAL CHARACTERISTICS of Wetland

I II Does not Apply

III

Final Category (choose the “highest” category from above)

Summary of basic information about the wetland unit

Wetland Unit has Special Characteristics	Wetland HGM Class used for Rating	
Estuarine	Depressional	
Natural Heritage Wetland	Riverine	
Bog	Lake-fringe	
Mature Forest	Slope	X
Old Growth Forest	Flats	
Coastal Lagoon	Freshwater Tidal	
Interdunal		
None of the above	Check if unit has multiple HGM classes present	X

Riverine

Does the wetland unit being rated meet any of the criteria below?

If you answer YES to any of the questions below you will need to protect the wetland according to the regulations regarding the special characteristics found in the wetland.

Check List for Wetlands That May Need Additional Protection (in addition to the protection recommended for its category)	YES	NO
SP1. <i>Has the wetland unit been documented as a habitat for any Federally listed Threatened or Endangered animal or plant species (T/E species)?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state or federal database.		X
SP2. <i>Has the wetland unit been documented as habitat for any State listed Threatened or Endangered animal species?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state database. Note: Wetlands with State listed plant species are categorized as Category I Natural Heritage Wetlands (see p. 19 of data form).		X
SP3. <i>Does the wetland unit contain individuals of Priority species listed by the WDFW for the state?</i>		X
SP4. <i>Does the wetland unit have a local significance in addition to its functions?</i> For example, the wetland has been identified in the Shoreline Master Program, the Critical Areas Ordinance, or in a local management plan as having special significance.		X

To complete the next part of the data sheet you will need to determine the Hydrogeomorphic Class of the wetland being rated.

The hydrogeomorphic classification groups wetlands into those that function in similar ways. This simplifies the questions needed to answer how well the wetland functions. The Hydrogeomorphic Class of a wetland can be determined using the key below. See p. 24 for more detailed instructions on classifying wetlands.

S Slope Wetlands		Points
WATER QUALITY FUNCTIONS – Indicators that the wetland unit functions to improve water quality		(only 1 score per box)
S	S 1. Does the wetland unit have the <u>potential</u> to improve water quality?	(see p. 64)
S	<p>S 1.1 Characteristics of average slope of unit: Slope is 1% or less (<i>a 1% slope has a 1 foot vertical drop in elevation for every 100 ft horizontal distance</i>) points = 3 Slope is 1% - 2% points = 2 Slope is 2% - 5% points = 1 Slope is greater than 5% points = 0</p>	3
S	<p>S 1.2 The soil 2 inches below the surface (or duff layer) is clay or organic (<i>use NRCS definitions</i>) YES = 3 points NO = 0 points</p>	0
S	<p>S 1.3 Characteristics of the vegetation in the wetland that trap sediments and pollutants: Choose the points appropriate for the description that best fits the vegetation in the wetland. Dense vegetation means you have trouble seeing the soil surface (>75% cover), and uncut means not grazed or mowed and plants are higher than 6 inches. Dense, uncut, herbaceous vegetation > 90% of the wetland area points = 6 Dense, uncut, herbaceous vegetation > ½ of area points = 3 Dense, woody, vegetation > ½ of area points = 2 Dense, uncut, herbaceous vegetation > ¼ of area points = 1 Does not meet any of the criteria above for vegetation points = 0 Aerial photo or map with vegetation polygons</p>	Figure _____ 2
S	Total for S 1	Add the points in the boxes above 5
S	<p>S 2. Does the wetland have the <u>opportunity</u> to improve water quality? Answer YES if you know or believe there are pollutants in groundwater or surface water coming into the wetland that would otherwise reduce water quality in streams, lakes or groundwater downgradient from the wetland. <i>Note which of the following conditions provide the sources of pollutants. A unit may have pollutants coming from several sources, but any single source would qualify as opportunity.</i></p> <p><input checked="" type="checkbox"/> Grazing in the wetland or within 150 ft <input type="checkbox"/> Untreated stormwater discharges to wetland <input checked="" type="checkbox"/> Tilled fields, logging, or orchards within 150 ft of wetland <input type="checkbox"/> Residential, urban areas, or golf courses are within 150 ft upslope of wetland <input checked="" type="checkbox"/> Other <u>oil refinery, railroad</u></p> <p>YES multiplier is 2 NO multiplier is 1</p>	(see p. 67) multiplier 2
S	TOTAL – Water Quality Functions	Multiply the score from S1 by S2 Add score to table on p. 1 10

Comments

S Slope Wetlands HYDROLOGIC FUNCTIONS – Indicators that the wetland unit functions to reduce flooding and stream erosion		Points (only 1 score per box)
S	S 3. Does the wetland unit have the <u>potential</u> to reduce flooding and stream erosion?	<i>(see p. 68)</i>
	<p>S 3.1 Characteristics of vegetation that reduce the velocity of surface flows during storms. <i>Choose the points appropriate for the description that best fit conditions in the wetland. (stems of plants should be thick enough (usually > 1/8in), or dense enough, to remain erect during surface flows)</i></p> <p>Dense, uncut, rigid vegetation covers > 90% of the area of the wetland points = 6</p> <p>Dense, uncut, rigid vegetation > ½ area of wetland points = 3</p> <p>Dense, uncut, rigid vegetation > ¼ area points = 1</p> <p>More than ¼ of area is grazed, mowed, tilled, or vegetation is not rigid points = 0</p>	3
S	<p>S 3.2 Characteristics of slope wetland that holds back small amounts of flood flows: The slope wetland has small surface depressions that can retain water over at least 10% of its area.</p> <p>YES points = 2</p> <p>NO points = 0</p>	0
S	<i>Add the points in the boxes above</i>	3
S	<p>S 4. Does the wetland have the <u>opportunity</u> to reduce flooding and erosion?</p> <p>Is the wetland in a landscape position where the reduction in water velocity it provides helps protect downstream property and aquatic resources from flooding or excessive and/or erosive flows? <i>Note which of the following conditions apply.</i></p> <p>___ Wetland has surface runoff that drains to a river or stream that has flooding problems is in a headwater of a river or stream that has flooding problems</p> <p>___ Other _____</p> <p><i>(Answer NO if the major source of water is controlled by a reservoir (e.g. wetland is a seep that is on the downstream side of a dam)</i></p> <p>YES multiplier is 2 NO multiplier is 1</p>	<i>(see p. 70)</i> multiplier <u>2</u>
S	TOTAL – Hydrologic Functions Multiply the score from S 3 by S 4 <i>Add score to table on p. 1</i>	6

Comments

<p>H 1.4 Interspersion of habitats (<i>see p. 76</i>) Decide from the diagrams below whether interspersion between Cowardin vegetation classes (described in H1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none.</p> <p>NOTE: If you have four or more vegetation classes or three vegetation types and open water the rating is always “high”. Use map of Cowardin vegetation classes</p>	<p>Figure _____</p> <p>3</p>
<p>H 1.5 Special Habitat Features (<i>see p. 77</i>) Check the habitat features that are present in the wetland. The number of checks is the number of points you put into the next column.</p> <p><input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (> 4in. diameter and 6 ft long).</p> <p><input checked="" type="checkbox"/> Standing snags (diameter at the bottom > 4 inches) in the wetland</p> <p><input checked="" type="checkbox"/> Undercut banks are present for at least 6.6 ft (2m) and/or overhanging vegetation extends at least 3.3 ft. (1m) over a stream (or ditch) in, or contiguous with the unit, for at least 33 ft (10m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet turned grey/brown</i>)</p> <p><input type="checkbox"/> At least ¼ acre of thin-stemmed persistent vegetation or woody branches are present in areas that are permanently or seasonally inundated. (<i>structures for egg-laying by amphibians</i>)</p> <p><input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in each stratum of plants</p> <p>NOTE: The 20% stated in early printings of the manual on page 78 is an error.</p>	<p>3</p>
<p>H 1. TOTAL Score – potential for providing habitat Add the scores from H1.1, H1.2, H1.3, H1.4, H1.5</p>	<p>15</p>

Comments

<p>H 2.3 <u>Near or adjacent to other priority habitats listed by WDFW (see p. 82)</u> Which of the following priority habitats are within 330 ft (100m) of the wetland unit? <i>NOTE: the connections do not have to be relatively undisturbed. These are DFW definitions. Check with your local DFW biologist if there are any questions.</i></p> <p><input checked="" type="checkbox"/> Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.</p> <p><input type="checkbox"/> Aspen Stands: Pure or mixed stands of aspen greater than 0.8 ha (2 acres).</p> <p><input type="checkbox"/> Cliffs: Greater than 7.6m (25 ft) high and occurring below 5000 ft.</p> <p><input type="checkbox"/> Old-growth forests: (Old growth west of Cascade Crest) Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings, with at least 20 trees/ha (8 trees/acre) > 81cm (32 in) dbh or > 200 years of age.</p> <p><input type="checkbox"/> Mature forests: Stands with average diameters exceeding 53cm (21 in) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 – 200 years old west of the Cascade crest.</p> <p><input type="checkbox"/> Prairies: Relatively undisturbed areas (as indicated by dominance of native plants) where greases and/or forbs form the natural climax plant community.</p> <p><input type="checkbox"/> Talus: Homogenous areas of rock rubble ranging in average size 0.15 – 2.0 m (0.5 – 6.5 ft), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.</p> <p><input type="checkbox"/> Caves: A naturally occurring cavity, recess, void, or system of interconnected passages.</p> <p><input type="checkbox"/> Oregon white Oak: Woodlands Stands of pure oak or oak/conifer associations where canopy coverage of the oak component of the stand is 25%.</p> <p><input type="checkbox"/> Urban Natural Open Space: A priority species resides within or is adjacent to the open space and uses it for breeding and/or regular feeding; and/or the open space functions as a corridor connecting other <i>priority habitats</i>, especially those that would otherwise be isolated; and/or the open space is an isolated remnant of natural habitat larger than 4 ha (10 acres) and is surrounded by urban development.</p> <p><input type="checkbox"/> Estuary/Estuary-like: Deepwater tidal habitats and adjacent tidal wetlands, usually semi-enclosed by land but with open, partly obstructed or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land. The salinity may be periodically increased above that of the open ocean by evaporation. Along some low-energy coastlines there is appreciable dilution of sea water. Estuarine habitat extends upstream and landward to where ocean-derived salts measure less than 0.5 ppt. during the period of average annual low flow. Includes both estuaries and lagoons.</p> <p><input type="checkbox"/> Marine/Estuarine Shorelines: Shorelines include the intertidal and subtidal zones of beaches, and may also include the backshore and adjacent components of the terrestrial landscape (e.g., cliffs, snags, mature trees, dunes, meadows) that are important to shoreline associated fish and wildlife and that contribute to shoreline function (e.g., sand/rock/log recruitment, nutrient contribution, erosion control).</p> <p style="padding-left: 40px;">If wetland has 3 or more priority habitats = 4 points If wetland has 2 priority habit= 3 points If wetland has 1 priority habitats= 1 point No habitats= 0 points</p> <p><i>Note: All vegetated wetlands are by definition a priority habitat but are not included in this list. Nearby wetlands are addressed in question H 2.4)</i></p>	<p>1</p>
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Wetland name or number 2

<p>H 2.4 <u>Wetland Landscape</u> (choose the one description of the landscape around the wetland that best fits) (see p. 84)</p> <p>There are at least 3 other wetlands within ½ mile, and the connections between them are relatively undisturbed (light grazing between wetlands OK, as is lake shore with some boating, but connections should NOT be bisected by paved roads, fill, fields, or other development. points = 5</p> <p>The wetland is Lake-fringe on a lake with little disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 5</p> <p>There are at least 3 other wetlands within ½ mile, BUT the connections between them are disturbed points = 3</p> <p>The wetland is Lake-fringe on a lake with disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 3</p> <p>There is at least 1 wetland within ½ mile points = 2</p> <p>There are no wetlands within ½ mile points = 0</p>	3
<p>H 2. TOTAL Score – opportunity for providing habitat <i>Add the scores from H2.1, H2.2, H2.3, H2.4</i></p>	8
<p>TOTAL for H 1 from page 14</p>	15
<p>Total Score for Habitat Functions – add the points for H 1, H 2 and record the result on p. 1</p>	23

Wetland name or number 3

WETLAND RATING FORM – WESTERN WASHINGTON
Version 2 – Updated July 2006 to increase accuracy and reproducibility among users

Name of wetland (if known): 3 Date of site visit: 2006-2007

Rated by Dunkin Trained by Ecology? Yes X No Date of training Oct 2006

SEC:17 & 18 TWSHP:39N RNGE:1E Is S/T/R in Appendix D? Yes No X

Map of wetland unit: Figure Estimated size >40 acres

SUMMARY OF RATING

Category based on FUNCTIONS provided by wetland

I II III X IV

Category I = Score >=70
Category II = Score 51-69
Category III = Score 30-50
Category IV = Score <30

Score for Water Quality Functions	6
Score for Hydrologic Functions	6
Score for Habitat Functions	21
TOTAL score for Functions	33

Category based on SPECIAL CHARACTERISTICS of Wetland

I II Does not Apply

III

Final Category (choose the “highest” category from above)

Summary of basic information about the wetland unit

Wetland Unit has Special Characteristics		Wetland HGM Class used for Rating	
Estuarine		Depressional	
Natural Heritage Wetland		Riverine	
Bog		Lake-fringe	
Mature Forest		Slope (depressional)	X
Old Growth Forest		Flats	
Coastal Lagoon		Freshwater Tidal	
Interdunal			
None of the above	X	Check if unit has multiple HGM classes present	X

Does the wetland unit being rated meet any of the criteria below?

If you answer YES to any of the questions below you will need to protect the wetland according to the regulations regarding the special characteristics found in the wetland.

Check List for Wetlands That May Need Additional Protection (in addition to the protection recommended for its category)	YES	NO
SP1. <i>Has the wetland unit been documented as a habitat for any Federally listed Threatened or Endangered animal or plant species (T/E species)?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state or federal database.		X
SP2. <i>Has the wetland unit been documented as habitat for any State listed Threatened or Endangered animal species?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state database. Note: Wetlands with State listed plant species are categorized as Category I Natural Heritage Wetlands (see p. 19 of data form).		X
SP3. <i>Does the wetland unit contain individuals of Priority species listed by the WDFW for the state?</i>		X
SP4. <i>Does the wetland unit have a local significance in addition to its functions?</i> For example, the wetland has been identified in the Shoreline Master Program, the Critical Areas Ordinance, or in a local management plan as having special significance.		X

To complete the next part of the data sheet you will need to determine the Hydrogeomorphic Class of the wetland being rated.

The hydrogeomorphic classification groups wetlands into those that function in similar ways. This simplifies the questions needed to answer how well the wetland functions. The Hydrogeomorphic Class of a wetland can be determined using the key below. See p. 24 for more detailed instructions on classifying wetlands.

S Slope Wetlands		Points
WATER QUALITY FUNCTIONS – Indicators that the wetland unit functions to improve water quality		(only 1 score per box)
S	S 1. Does the wetland unit have the <u>potential</u> to improve water quality?	(see p. 64)
S	<p>S 1.1 Characteristics of average slope of unit: Slope is 1% or less (<i>a 1% slope has a 1 foot vertical drop in elevation for every 100 ft horizontal distance</i>) points = 3 Slope is 1% - 2% points = 2 Slope is 2% - 5% points = 1 Slope is greater than 5% points = 0</p>	2
S	<p>S 1.2 The soil 2 inches below the surface (or duff layer) is clay or organic (<i>use NRCS definitions</i>) YES = 3 points NO = 0 points</p>	0
S	<p>S 1.3 Characteristics of the vegetation in the wetland that trap sediments and pollutants: <i>Choose the points appropriate for the description that best fits the vegetation in the wetland. Dense vegetation means you have trouble seeing the soil surface (>75% cover), and uncut means not grazed or mowed and plants are higher than 6 inches.</i> Dense, uncut, herbaceous vegetation > 90% of the wetland area points = 6 Dense, uncut, herbaceous vegetation > ½ of area points = 3 Dense, woody, vegetation > ½ of area points = 2 Dense, uncut, herbaceous vegetation > ¼ of area points = 1 Does not meet any of the criteria above for vegetation points = 0 Aerial photo or map with vegetation polygons</p>	Figure _____ 1
S	Total for S 1	<i>Add the points in the boxes above</i> 3
S	<p>S 2. Does the wetland have the <u>opportunity</u> to improve water quality? Answer YES if you know or believe there are pollutants in groundwater or surface water coming into the wetland that would otherwise reduce water quality in streams, lakes or groundwater downgradient from the wetland. <i>Note which of the following conditions provide the sources of pollutants. A unit may have pollutants coming from several sources, but any single source would qualify as opportunity.</i></p> <p> <input type="checkbox"/> Grazing in the wetland or within 150 ft <input type="checkbox"/> Untreated stormwater discharges to wetland <input type="checkbox"/> Tilled fields, logging, or orchards within 150 ft of wetland <input type="checkbox"/> Residential, urban areas, or golf courses are within 150 ft upslope of wetland <input type="checkbox"/> Other _____ YES multiplier is 2 NO multiplier is 1 </p>	(see p. 67) multiplier 2 _____
S	TOTAL – Water Quality Functions	Multiply the score from S1 by S2 <i>Add score to table on p. 1</i> 6

Comments

These questions apply to wetlands of all HGM classes.		Points							
HABITAT FUNCTIONS – Indicators that unit functions to provide important habitat		(only 1 score per box)							
H 1. Does the wetland unit have the potential to provide habitat for many species?									
<p>H 1.1 <u>Vegetation structure</u> (see P. 72)</p> <p>Check the types of vegetation classes present (as defined by Cowardin)- Size threshold for each class is ¼ acre or more than 10% of the area if the unit is smaller than 2.5 acres.</p> <p><input checked="" type="checkbox"/> Aquatic Bed <input checked="" type="checkbox"/> Emergent plants <input checked="" type="checkbox"/> Scrub/shrub (areas where shrubs have > 30% cover) <input checked="" type="checkbox"/> Forested (areas where trees have > 30% cover)</p> <p>If the unit has a forested class check if: <input type="checkbox"/> The forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the forested polygon</p> <p>Add the number of vegetation structures that qualify. If you have:</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td>4 structures or more</td> <td>points = 4</td> </tr> <tr> <td>3 structures</td> <td>points = 2</td> </tr> <tr> <td>2 structures</td> <td>points = 1</td> </tr> <tr> <td>1 structure</td> <td>points = 0</td> </tr> </table> <p>Map of Cowardin vegetation classes</p>	4 structures or more	points = 4	3 structures	points = 2	2 structures	points = 1	1 structure	points = 0	<p>Figure _____</p> <p>4</p>
4 structures or more	points = 4								
3 structures	points = 2								
2 structures	points = 1								
1 structure	points = 0								
<p>H 1.2 <u>Hydroperiods</u> (see p.73)</p> <p>Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ acre to count. (see text for descriptions of hydroperiods)</p> <p><input checked="" type="checkbox"/> Permanently flooded or inundated 4 or more types present points = 3 <input checked="" type="checkbox"/> Seasonally flooded or inundated 3 types present points = 2 <input checked="" type="checkbox"/> Occasionally flooded or inundated 2 types present points = 1 <input checked="" type="checkbox"/> Saturated only 1 type present points = 0</p> <p><input type="checkbox"/> Permanently flowing stream or river in, or adjacent to, the wetland <input type="checkbox"/> Seasonally flowing stream in, or adjacent to, the wetland</p> <p><input type="checkbox"/> Lake-fringe wetland = 2 points <input type="checkbox"/> Freshwater tidal wetland = 2 points</p> <p style="text-align: right;">Map of hydroperiods</p>	<p>Figure _____</p> <p>3</p>								
<p>H 1.3 <u>Richness of Plant Species</u> (see p. 75)</p> <p>Count the number of plant species in the wetland that cover at least 10 ft². (different patches of the same species can be combined to meet the size threshold)</p> <p>You do not have to name the species. Do not include Eurasian Milfoil, reed canarygrass, purple loosestrife, Canadian Thistle</p> <p>If you counted: > 19 species points = 2 5 – 19 species points = 1 < 5 species points = 0</p> <p>List species below if you want to:</p>	<p>Figure _____</p> <p>2</p>								

<p>H 1.4 Interspersion of habitats (<i>see p. 76</i>) Decide from the diagrams below whether interspersion between Cowardin vegetation classes (described in H1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none.</p> <p>NOTE: If you have four or more vegetation classes or three vegetation types and open water the rating is always “high”. Use map of Cowardin vegetation classes</p>	<p>Figure _____</p> <p>3</p>	
<p>H 1.5 Special Habitat Features (<i>see p. 77</i>) Check the habitat features that are present in the wetland. The number of checks is the number of points you put into the next column.</p> <p><input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (> 4in. diameter and 6 ft long).</p> <p><input checked="" type="checkbox"/> Standing snags (diameter at the bottom > 4 inches) in the wetland</p> <p><input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2m) and/or overhanging vegetation extends at least 3.3 ft. (1m) over a stream (or ditch) in, or contiguous with the unit, for at least 33 ft (10m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet turned grey/brown</i>)</p> <p><input checked="" type="checkbox"/> At least ¼ acre of thin-stemmed persistent vegetation or woody branches are present in areas that are permanently or seasonally inundated. (<i>structures for egg-laying by amphibians</i>)</p> <p><input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in each stratum of plants</p> <p>NOTE: The 20% stated in early printings of the manual on page 78 is an error.</p>	<p>3</p>	
<p align="center">H 1. TOTAL Score – potential for providing habitat Add the scores from H1.1, H1.2, H1.3, H1.4, H1.5</p>		<p align="center">15</p>

Comments

<p>H 2.3 <u>Near or adjacent to other priority habitats listed by WDFW (see p. 82)</u> Which of the following priority habitats are within 330 ft (100m) of the wetland unit? <i>NOTE: the connections do not have to be relatively undisturbed. These are DFW definitions. Check with your local DFW biologist if there are any questions.</i></p> <p><input type="checkbox"/> Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.</p> <p><input type="checkbox"/> Aspen Stands: Pure or mixed stands of aspen greater than 0.8 ha (2 acres).</p> <p><input type="checkbox"/> Cliffs: Greater than 7.6m (25 ft) high and occurring below 5000 ft.</p> <p><input type="checkbox"/> Old-growth forests: (Old growth west of Cascade Crest) Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings, with at least 20 trees/ha (8 trees/acre) > 81cm (32 in) dbh or > 200 years of age.</p> <p><input type="checkbox"/> Mature forests: Stands with average diameters exceeding 53cm (21 in) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 – 200 years old west of the Cascade crest.</p> <p><input type="checkbox"/> Prairies: Relatively undisturbed areas (as indicated by dominance of native plants) where greases and/or forbs form the natural climax plant community.</p> <p><input type="checkbox"/> Talus: Homogenous areas of rock rubble ranging in average size 0.15 – 2.0 m (0.5 – 6.5 ft), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.</p> <p><input type="checkbox"/> Caves: A naturally occurring cavity, recess, void, or system of interconnected passages.</p> <p><input type="checkbox"/> Oregon white Oak: Woodlands Stands of pure oak or oak/conifer associations where canopy coverage of the oak component of the stand is 25%.</p> <p><input type="checkbox"/> Urban Natural Open Space: A priority species resides within or is adjacent to the open space and uses it for breeding and/or regular feeding; and/or the open space functions as a corridor connecting other <i>priority habitats</i>, especially those that would otherwise be isolated; and/or the open space is an isolated remnant of natural habitat larger than 4 ha (10 acres) and is surrounded by urban development.</p> <p><input type="checkbox"/> Estuary/Estuary-like: Deepwater tidal habitats and adjacent tidal wetlands, usually semi-enclosed by land but with open, partly obstructed or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land. The salinity may be periodically increased above that of the open ocean by evaporation. Along some low-energy coastlines there is appreciable dilution of sea water. Estuarine habitat extends upstream and landward to where ocean-derived salts measure less than 0.5 ppt. during the period of average annual low flow. Includes both estuaries and lagoons.</p> <p><input type="checkbox"/> Marine/Estuarine Shorelines: Shorelines include the intertidal and subtidal zones of beaches, and may also include the backshore and adjacent components of the terrestrial landscape (e.g., cliffs, snags, mature trees, dunes, meadows) that are important to shoreline associated fish and wildlife and that contribute to shoreline function (e.g., sand/rock/log recruitment, nutrient contribution, erosion control).</p> <p> If wetland has 3 or more priority habitats = 4 points If wetland has 2 priority habit= 3 points If wetland has 1 priority habitats= 1 point No habitats= 0 points</p> <p><i>Note: All vegetated wetlands are by definition a priority habitat but are not included in this list. Nearby wetlands are addressed in question H 2.4)</i></p>	<p>0</p>
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Wetland name or number 3

<p>H 2.4 <u>Wetland Landscape</u> (choose the one description of the landscape around the wetland that best fits) (see p. 84)</p> <p>There are at least 3 other wetlands within ½ mile, and the connections between them are relatively undisturbed (light grazing between wetlands OK, as is lake shore with some boating, but connections should NOT be bisected by paved roads, fill, fields, or other development. points = 5</p> <p>The wetland is Lake-fringe on a lake with little disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 5</p> <p>There are at least 3 other wetlands within ½ mile, BUT the connections between them are disturbed points = 3</p> <p>The wetland is Lake-fringe on a lake with disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 3</p> <p>There is at least 1 wetland within ½ mile points = 2</p> <p>There are no wetlands within ½ mile points = 0</p>	3
<p>H 2. TOTAL Score – opportunity for providing habitat <i>Add the scores from H2.1, H2.2, H2.3, H2.4</i></p>	6
<p>TOTAL for H 1 from page 14</p>	15
<p>Total Score for Habitat Functions – add the points for H 1, H 2 and record the result on p. 1</p>	21

Wetland name or number 4A

WETLAND RATING FORM – WESTERN WASHINGTON
Version 2 – Updated July 2006 to increase accuracy and reproducibility among users

Name of wetland (if known): _____ 4A _____ Date of site visit: 2006-2007

Rated by Dunkin Trained by Ecology? Yes X No Date of training Oct 2007

SEC: 17 TOWNSHIP: 39N RANGE: 1E Is S/T/R in Appendix D? Yes No X

Map of wetland unit: Figure _____ Estimated size 27 acres

SUMMARY OF RATING

Category based on FUNCTIONS provided by wetland

I II III **X** IV

Category I = Score >=70
Category II = Score 51-69
Category III = Score 30-50
Category IV = Score <30

Score for Water Quality Functions	6
Score for Hydrologic Functions	10
Score for Habitat Functions	18
TOTAL score for Functions	34

Category based on SPECIAL CHARACTERISTICS of Wetland

I II Does not Apply **X**

III

Final Category (choose the “highest” category from above)

Summary of basic information about the wetland unit

Wetland Unit has Special Characteristics		Wetland HGM Class used for Rating	
Estuarine		Depressional	
Natural Heritage Wetland		Riverine	
Bog		Lake-fringe	
Mature Forest		Slope (depression)	X
Old Growth Forest		Flats	
Coastal Lagoon		Freshwater Tidal	
Interdunal			
None of the above	X	Check if unit has multiple HGM classes present	X

Does the wetland unit being rated meet any of the criteria below?

If you answer YES to any of the questions below you will need to protect the wetland according to the regulations regarding the special characteristics found in the wetland.

Check List for Wetlands That May Need Additional Protection (in addition to the protection recommended for its category)	YES	NO
SP1. <i>Has the wetland unit been documented as a habitat for any Federally listed Threatened or Endangered animal or plant species (T/E species)?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state or federal database.		X
SP2. <i>Has the wetland unit been documented as habitat for any State listed Threatened or Endangered animal species?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state database. Note: Wetlands with State listed plant species are categorized as Category I Natural Heritage Wetlands (see p. 19 of data form).		X
SP3. <i>Does the wetland unit contain individuals of Priority species listed by the WDFW for the state?</i>		X
SP4. <i>Does the wetland unit have a local significance in addition to its functions?</i> For example, the wetland has been identified in the Shoreline Master Program, the Critical Areas Ordinance, or in a local management plan as having special significance.		X

To complete the next part of the data sheet you will need to determine the Hydrogeomorphic Class of the wetland being rated.

The hydrogeomorphic classification groups wetlands into those that function in similar ways. This simplifies the questions needed to answer how well the wetland functions. The Hydrogeomorphic Class of a wetland can be determined using the key below. See p. 24 for more detailed instructions on classifying wetlands.

S Slope Wetlands		Points
WATER QUALITY FUNCTIONS – Indicators that the wetland unit functions to improve water quality		(only 1 score per box)
S	S 1. Does the wetland unit have the <u>potential</u> to improve water quality?	<i>(see p. 64)</i>
S	<p>S 1.1 Characteristics of average slope of unit: Slope is 1% or less (<i>a 1% slope has a 1 foot vertical drop in elevation for every 100 ft horizontal distance</i>) points = 3 Slope is 1% - 2% points = 2 Slope is 2% - 5% points = 1 Slope is greater than 5% points = 0</p>	1
S	<p>S 1.2 The soil 2 inches below the surface (or duff layer) is clay or organic (<i>use NRCS definitions</i>) YES = 3 points NO = 0 points</p>	0
S	<p>S 1.3 Characteristics of the vegetation in the wetland that trap sediments and pollutants: Choose the points appropriate for the description that best fits the vegetation in the wetland. Dense vegetation means you have trouble seeing the soil surface (>75% cover), and uncut means not grazed or mowed and plants are higher than 6 inches. Dense, uncut, herbaceous vegetation > 90% of the wetland area points = 6 Dense, uncut, herbaceous vegetation > ½ of area points = 3 Dense, woody, vegetation > ½ of area points = 2 Dense, uncut, herbaceous vegetation > ¼ of area points = 1 Does not meet any of the criteria above for vegetation points = 0 Aerial photo or map with vegetation polygons</p>	Figure _____ 2
S	Total for S 1	<i>Add the points in the boxes above</i> 3
S	<p>S 2. Does the wetland have the <u>opportunity</u> to improve water quality? Answer YES if you know or believe there are pollutants in groundwater or surface water coming into the wetland that would otherwise reduce water quality in streams, lakes or groundwater downgradient from the wetland. <i>Note which of the following conditions provide the sources of pollutants. A unit may have pollutants coming from several sources, but any single source would qualify as opportunity.</i></p> <p> <input type="checkbox"/> Grazing in the wetland or within 150 ft <input checked="" type="checkbox"/> Untreated stormwater discharges to wetland <input type="checkbox"/> Tilled fields, logging, or orchards within 150 ft of wetland <input type="checkbox"/> Residential, urban areas, or golf courses are within 150 ft upslope of wetland <input checked="" type="checkbox"/> Other <u>rail line, gas line, roadways</u> YES multiplier is 2 NO multiplier is 1 </p>	<i>(see p. 67)</i> multiplier 2
S	TOTAL – Water Quality Functions	Multiply the score from S1 by S2 <i>Add score to table on p. 1</i> 6

Comments

<p>H 1.4 Interspersion of habitats (<i>see p. 76</i>) Decide from the diagrams below whether interspersion between Cowardin vegetation classes (described in H1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none.</p> <p>NOTE: If you have four or more vegetation classes or three vegetation types and open water the rating is always "high". Use map of Cowardin vegetation classes</p>	<p>Figure _____</p> <p style="text-align: center;">3</p>
<p>H 1.5 Special Habitat Features (<i>see p. 77</i>) Check the habitat features that are present in the wetland. The number of checks is the number of points you put into the next column.</p> <p><input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (> 4in. diameter and 6 ft long).</p> <p><input checked="" type="checkbox"/> Standing snags (diameter at the bottom > 4 inches) in the wetland</p> <p><input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2m) and/or overhanging vegetation extends at least 3.3 ft. (1m) over a stream (or ditch) in, or contiguous with the unit, for at least 33 ft (10m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet turned grey/brown</i>)</p> <p><input type="checkbox"/> At least ¼ acre of thin-stemmed persistent vegetation or woody branches are present in areas that are permanently or seasonally inundated. (<i>structures for egg-laying by amphibians</i>)</p> <p><input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in each stratum of plants</p> <p>NOTE: The 20% stated in early printings of the manual on page 78 is an error.</p>	<p style="text-align: center;">2</p>
<p>H 1. TOTAL Score – potential for providing habitat Add the scores from H1.1, H1.2, H1.3, H1.4, H1.5</p>	<p>13</p>

Comments

<p>H 2.3 <u>Near or adjacent to other priority habitats listed by WDFW (see p. 82)</u> Which of the following priority habitats are within 330 ft (100m) of the wetland unit? <i>NOTE: the connections do not have to be relatively undisturbed. These are DFW definitions. Check with your local DFW biologist if there are any questions.</i></p> <p><input type="checkbox"/> Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.</p> <p><input type="checkbox"/> Aspen Stands: Pure or mixed stands of aspen greater than 0.8 ha (2 acres).</p> <p><input type="checkbox"/> Cliffs: Greater than 7.6m (25 ft) high and occurring below 5000 ft.</p> <p><input type="checkbox"/> Old-growth forests: (Old growth west of Cascade Crest) Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings, with at least 20 trees/ha (8 trees/acre) > 81cm (32 in) dbh or > 200 years of age.</p> <p><input type="checkbox"/> Mature forests: Stands with average diameters exceeding 53cm (21 in) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 – 200 years old west of the Cascade crest.</p> <p><input type="checkbox"/> Prairies: Relatively undisturbed areas (as indicated by dominance of native plants) where greases and/or forbs form the natural climax plant community.</p> <p><input type="checkbox"/> Talus: Homogenous areas of rock rubble ranging in average size 0.15 – 2.0 m (0.5 – 6.5 ft), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.</p> <p><input type="checkbox"/> Caves: A naturally occurring cavity, recess, void, or system of interconnected passages.</p> <p><input type="checkbox"/> Oregon white Oak: Woodlands Stands of pure oak or oak/conifer associations where canopy coverage of the oak component of the stand is 25%.</p> <p><input type="checkbox"/> Urban Natural Open Space: A priority species resides within or is adjacent to the open space and uses it for breeding and/or regular feeding; and/or the open space functions as a corridor connecting other <i>priority habitats</i>, especially those that would otherwise be isolated; and/or the open space is an isolated remnant of natural habitat larger than 4 ha (10 acres) and is surrounded by urban development.</p> <p><input type="checkbox"/> Estuary/Estuary-like: Deepwater tidal habitats and adjacent tidal wetlands, usually semi-enclosed by land but with open, partly obstructed or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land. The salinity may be periodically increased above that of the open ocean by evaporation. Along some low-energy coastlines there is appreciable dilution of sea water. Estuarine habitat extends upstream and landward to where ocean-derived salts measure less than 0.5 ppt. during the period of average annual low flow. Includes both estuaries and lagoons.</p> <p><input type="checkbox"/> Marine/Estuarine Shorelines: Shorelines include the intertidal and subtidal zones of beaches, and may also include the backshore and adjacent components of the terrestrial landscape (e.g., cliffs, snags, mature trees, dunes, meadows) that are important to shoreline associated fish and wildlife and that contribute to shoreline function (e.g., sand/rock/log recruitment, nutrient contribution, erosion control).</p> <p> If wetland has 3 or more priority habitats = 4 points If wetland has 2 priority habit= 3 points If wetland has 1 priority habitats= 1 point No habitats= 0 points</p> <p><i>Note: All vegetated wetlands are by definition a priority habitat but are not included in this list. Nearby wetlands are addressed in question H 2.4)</i></p>	<p>0</p>
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<p>H 2.4 <u>Wetland Landscape</u> (choose the one description of the landscape around the wetland that best fits) (see p. 84)</p> <p>There are at least 3 other wetlands within ½ mile, and the connections between them are relatively undisturbed (light grazing between wetlands OK, as is lake shore with some boating, but connections should NOT be bisected by paved roads, fill, fields, or other development. points = 5</p> <p>The wetland is Lake-fringe on a lake with little disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 5</p> <p>There are at least 3 other wetlands within ½ mile, BUT the connections between them are disturbed points = 3</p> <p>The wetland is Lake-fringe on a lake with disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 3</p> <p>There is at least 1 wetland within ½ mile points = 2</p> <p>There are no wetlands within ½ mile points = 0</p>	3
<p>H 2. TOTAL Score – opportunity for providing habitat <i>Add the scores from H2.1, H2.2, H2.3, H2.4</i></p>	5
<p>TOTAL for H 1 from page 14</p>	13
<p>Total Score for Habitat Functions – add the points for H 1, H 2 and record the result on p. 1</p>	18

Wetland name or number 4B

WETLAND RATING FORM – WESTERN WASHINGTON
Version 2 – Updated July 2006 to increase accuracy and reproducibility among users

Name of wetland (if known): 4B Date of site visit: 2006-2007

Rated by M. Gray Trained by Ecology? Yes X No Date of training Apr 2007

SEC: 17 TWSHP: 39N RNGE: 1E Is S/T/R in Appendix D? Yes No X

Map of wetland unit: Figure Estimated size 4 acres

SUMMARY OF RATING

Category based on FUNCTIONS provided by wetland

I II III X IV

Category I = Score >=70
Category II = Score 51-69
Category III = Score 30-50
Category IV = Score <30

Score for Water Quality Functions	14
Score for Hydrologic Functions	10
Score for Habitat Functions	14
TOTAL score for Functions	38

Category based on SPECIAL CHARACTERISTICS of Wetland

I II Does not Apply

III

Final Category (choose the “highest” category from above)

Summary of basic information about the wetland unit

Wetland Unit has Special Characteristics		Wetland HGM Class used for Rating	
Estuarine		Depressional	X
Natural Heritage Wetland		Riverine	
Bog		Lake-fringe	
Mature Forest		Slope	
Old Growth Forest		Flats	
Coastal Lagoon		Freshwater Tidal	
Interdunal			
None of the above	X	Check if unit has multiple HGM classes present	

Does the wetland unit being rated meet any of the criteria below?

If you answer YES to any of the questions below you will need to protect the wetland according to the regulations regarding the special characteristics found in the wetland.

Check List for Wetlands That May Need Additional Protection (in addition to the protection recommended for its category)	YES	NO
SP1. <i>Has the wetland unit been documented as a habitat for any Federally listed Threatened or Endangered animal or plant species (T/E species)?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state or federal database.		X
SP2. <i>Has the wetland unit been documented as habitat for any State listed Threatened or Endangered animal species?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state database. Note: Wetlands with State listed plant species are categorized as Category I Natural Heritage Wetlands (see p. 19 of data form).		X
SP3. <i>Does the wetland unit contain individuals of Priority species listed by the WDFW for the state?</i>		X
SP4. <i>Does the wetland unit have a local significance in addition to its functions?</i> For example, the wetland has been identified in the Shoreline Master Program, the Critical Areas Ordinance, or in a local management plan as having special significance.		X

To complete the next part of the data sheet you will need to determine the Hydrogeomorphic Class of the wetland being rated.

The hydrogeomorphic classification groups wetlands into those that function in similar ways. This simplifies the questions needed to answer how well the wetland functions. The Hydrogeomorphic Class of a wetland can be determined using the key below. See p. 24 for more detailed instructions on classifying wetlands.

D Depressional and Flats Wetlands		Points
WATER QUALITY FUNCTIONS – Indicators that the wetland unit functions to improve water quality		(only 1 score per box)
D	D 1. Does the wetland unit have the <u>potential</u> to improve water quality?	(see p. 38)
D	<p>D 1.1 Characteristics of surface water flows out of the wetland:</p> <p>Unit is a depression with no surface water leaving it (no outlet) points = 3</p> <p>Unit has an intermittently flowing, OR highly constricted permanently flowing outlet points = 2</p> <p>Unit has an unconstricted, or slightly constricted, surface outlet (<i>permanently flowing</i>) points = 1</p> <p>Unit has a “flat” depression (Q. 7 on key), or in the Flats class, with permanent surface outflow and no obvious natural outlet and/or outlet is a man-made ditch points = 1</p> <p>(If ditch is not permanently flowing treat unit as “intermittently flowing”)</p> <p style="text-align: right;">Provide photo or drawing</p>	Figure _____ 2
D	<p>S 1.2 The soil 2 inches below the surface (or duff layer) is clay or organic (<i>use NRCS definitions</i>)</p> <p>YES points = 4</p> <p>NO points = 0</p>	0
D	<p>D 1.3 Characteristics of persistent vegetation (emergent, shrub, and/or forest Cowardin class)</p> <p>Wetland has persistent, ungrazed, vegetation > = 95% of area points = 5</p> <p>Wetland has persistent, ungrazed, vegetation > = ½ of area points = 3</p> <p>Wetland has persistent, ungrazed, vegetation > = 1/10 of area points = 1</p> <p>Wetland has persistent, ungrazed, vegetation < 1/10 of area points = 0</p> <p style="text-align: right;">Map of Cowardin vegetation classes</p>	Figure _____ 5
D	<p>D 1.4 Characteristics of seasonal ponding or inundation.</p> <p><i>This is the area of the wetland unit that is ponded for at least 2 months, but dries out sometime during the year. Do not count the area that is permanently ponded. Estimate area as the average condition 5 out of 10 years.</i></p> <p>Area seasonally ponded is > ½ total area of wetland points = 4</p> <p>Area seasonally ponded is > ¼ total area of wetland points = 2</p> <p>Area seasonally ponded is < ¼ total area of wetland points = 0</p> <p style="text-align: right;">Map of hydroperiods</p>	Figure _____ 0
D	Total for D 1	Add the points in the boxes above 7
D	D 2. Does the wetland have the <u>opportunity</u> to improve water quality?	(see p. 44)
	<p>Answer YES if you know or believe there are pollutants in groundwater or surface water coming into the wetland that would otherwise reduce water quality in streams, lakes or groundwater downgradient from the wetland. <i>Note which of the following conditions provide the sources of pollutants. A unit may have pollutants coming from several sources, but any single source would qualify as opportunity.</i></p> <p><input type="checkbox"/> Grazing in the wetland or within 150 ft</p> <p><input type="checkbox"/> Untreated stormwater discharges to wetland</p> <p><input checked="" type="checkbox"/> Tilled fields or orchards within 150 ft of wetland</p> <p><input type="checkbox"/> A stream or culvert discharges into wetland that drains developed areas, residential area, farmed fields, roads, or clear-cut logging</p> <p><input checked="" type="checkbox"/> Residential, urban areas, golf courses are within 150 ft of wetland</p> <p><input type="checkbox"/> Wetland is fed by groundwater high in phosphorus or nitrogen</p> <p><input type="checkbox"/> Other _____</p> <p>YES multiplier is 2 NO multiplier is 1</p>	multiplier 2 _____
D	TOTAL – Water Quality Functions	Multiply the score from D1 by D2 Add score to table on p. 1 14

D Depressional and Flats Wetlands HYDROLOGIC FUNCTIONS – Indicators that the wetland unit functions to reduce flooding and stream degradation.		Points (only 1 score per box)
D	D 3. Does the wetland have the <u>potential</u> to reduce flooding and stream erosion?	<i>(see p. 46)</i>
	<p>D 3.1 Characteristics of surface water flows out of the wetland unit</p> <p>Unit is a depression with no surface water leaving it (no outlet) points = 4</p> <p>Unit has an intermittently flowing, OR highly constricted permanently flowing outlet points = 2</p> <p>Unit is a “flat” depression (Q. 7 on key), or in the Flats class, with permanent surface outflow and no obvious natural outlet and/or outlet is a man-made ditch points = 1 <i>(If ditch is not permanently flowing treat unit as “intermittently flowing”)</i></p> <p>Unit has an unconstricted, or slightly constricted, surface outlet (<i>permanently flowing</i>) points = 0</p>	2
D	<p>D 3.2 Depth of storage during wet periods</p> <p><i>Estimate the height of ponding above the bottom of the outlet. For units with no outlet measure from the surface of permanent water or deepest part (if dry).</i></p> <p>Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7</p> <p>The wetland is a “headwater” wetland points = 5</p> <p>Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5</p> <p>Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points = 3</p> <p>Unit is flat (yes to Q. 2 or Q. 7 on key) but has small depressions on the surface that trap water points = 1</p> <p>Marks of ponding less than 0.5 ft points = 0</p>	0
D	<p>D 3.3 Contribution of wetland unit to storage in the watershed</p> <p><i>Estimate the ration of the area of upstream basin contributing surface water to the wetland to the area of the wetland unit itself.</i></p> <p>The area of the basin is less than 10 times the area of the unit points = 5</p> <p>The area of the basin is 10 to 100 times the area of the unit points = 3</p> <p>The area of the basin is more than 100 times the area of the unit points = 0</p> <p>Entire unit is in the FLATS class points = 5</p>	3
D	Total for D 3 <i>Add the points in the boxes above</i>	5
D	<p>D 4. Does the wetland have the <u>opportunity</u> to reduce flooding and erosion?</p> <p>Answer YES if the unit is in a location in the watershed where the flood storage, or reduction in water velocity, it provides helps protect downstream property and aquatic resources from flooding or excessive and/or erosive flows. Answer NO if the water coming into the wetland is controlled by a structure such as flood gate, tide gate, flap valve, reservoir etc. OR you estimate that more than 90% of the water in the wetland is from groundwater in areas where damaging groundwater flooding does not occur.</p> <p><i>Note which of the following indicators of opportunity apply.</i></p> <p><input type="checkbox"/> Wetland is in a headwater of a river or stream that has flooding problems</p> <p><input type="checkbox"/> Wetland drains to a river or stream that has flooding problems</p> <p><input type="checkbox"/> Wetland has no outlet and impounds surface runoff water that might otherwise flow into a river or stream that has flooding problems</p> <p><input type="checkbox"/> Other _____</p> <p>YES multiplier is 2 NO multiplier is 1</p>	<i>(see p. 49)</i> multiplier 2
D	TOTAL – Hydrologic Functions Multiply the score from D 3 by D 4 <i>Add score to table on p. 1</i>	10

<p>H 1.4 Interspersion of habitats (<i>see p. 76</i>) Decide from the diagrams below whether interspersion between Cowardin vegetation classes (described in H1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none.</p> <p>NOTE: If you have four or more vegetation classes or three vegetation types and open water the rating is always "high". Use map of Cowardin vegetation classes</p>	<p>Figure _____</p> <p>2</p>	
<p>H 1.5 Special Habitat Features (<i>see p. 77</i>) Check the habitat features that are present in the wetland. The number of checks is the number of points you put into the next column.</p> <p><input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (> 4in. diameter and 6 ft long).</p> <p><input checked="" type="checkbox"/> Standing snags (diameter at the bottom > 4 inches) in the wetland</p> <p><input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2m) and/or overhanging vegetation extends at least 3.3 ft. (1m) over a stream (or ditch) in, or contiguous with the unit, for at least 33 ft (10m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet turned grey/brown</i>)</p> <p><input type="checkbox"/> At least ¼ acre of thin-stemmed persistent vegetation or woody branches are present in areas that are permanently or seasonally inundated. (<i>structures for egg-laying by amphibians</i>)</p> <p><input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in each stratum of plants</p> <p>NOTE: The 20% stated in early printings of the manual on page 78 is an error.</p>	<p>2</p>	
<p align="center">H 1. TOTAL Score – potential for providing habitat Add the scores from H1.1, H1.2, H1.3, H1.4, H1.5</p>		<p align="center">9</p>

Comments

<p>H 2.3 <u>Near or adjacent to other priority habitats listed by WDFW (see p. 82)</u> Which of the following priority habitats are within 330 ft (100m) of the wetland unit? <i>NOTE: the connections do not have to be relatively undisturbed. These are DFW definitions. Check with your local DFW biologist if there are any questions.</i></p> <p><input type="checkbox"/> Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.</p> <p><input type="checkbox"/> Aspen Stands: Pure or mixed stands of aspen greater than 0.8 ha (2 acres).</p> <p><input type="checkbox"/> Cliffs: Greater than 7.6m (25 ft) high and occurring below 5000 ft.</p> <p><input type="checkbox"/> Old-growth forests: (Old growth west of Cascade Crest) Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings, with at least 20 trees/ha (8 trees/acre) > 81cm (32 in) dbh or > 200 years of age.</p> <p><input type="checkbox"/> Mature forests: Stands with average diameters exceeding 53cm (21 in) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 – 200 years old west of the Cascade crest.</p> <p><input type="checkbox"/> Prairies: Relatively undisturbed areas (as indicated by dominance of native plants) where greases and/or forbs form the natural climax plant community.</p> <p><input type="checkbox"/> Talus: Homogenous areas of rock rubble ranging in average size 0.15 – 2.0 m (0.5 – 6.5 ft), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.</p> <p><input type="checkbox"/> Caves: A naturally occurring cavity, recess, void, or system of interconnected passages.</p> <p><input type="checkbox"/> Oregon white Oak: Woodlands Stands of pure oak or oak/conifer associations where canopy coverage of the oak component of the stand is 25%.</p> <p><input type="checkbox"/> Urban Natural Open Space: A priority species resides within or is adjacent to the open space and uses it for breeding and/or regular feeding; and/or the open space functions as a corridor connecting other <i>priority habitats</i>, especially those that would otherwise be isolated; and/or the open space is an isolated remnant of natural habitat larger than 4 ha (10 acres) and is surrounded by urban development.</p> <p><input type="checkbox"/> Estuary/Estuary-like: Deepwater tidal habitats and adjacent tidal wetlands, usually semi-enclosed by land but with open, partly obstructed or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land. The salinity may be periodically increased above that of the open ocean by evaporation. Along some low-energy coastlines there is appreciable dilution of sea water. Estuarine habitat extends upstream and landward to where ocean-derived salts measure less than 0.5 ppt. during the period of average annual low flow. Includes both estuaries and lagoons.</p> <p><input type="checkbox"/> Marine/Estuarine Shorelines: Shorelines include the intertidal and subtidal zones of beaches, and may also include the backshore and adjacent components of the terrestrial landscape (e.g., cliffs, snags, mature trees, dunes, meadows) that are important to shoreline associated fish and wildlife and that contribute to shoreline function (e.g., sand/rock/log recruitment, nutrient contribution, erosion control).</p> <p> If wetland has 3 or more priority habitats = 4 points If wetland has 2 priority habit= 3 points If wetland has 1 priority habitats= 1 point No habitats= 0 points</p> <p><i>Note: All vegetated wetlands are by definition a priority habitat but are not included in this list. Nearby wetlands are addressed in question H 2.4)</i></p>	<p>0</p>
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<p>H 2.4 <u>Wetland Landscape</u> (choose the one description of the landscape around the wetland that best fits) (see p. 84)</p> <p>There are at least 3 other wetlands within ½ mile, and the connections between them are relatively undisturbed (light grazing between wetlands OK, as is lake shore with some boating, but connections should NOT be bisected by paved roads, fill, fields, or other development. points = 5</p> <p>The wetland is Lake-fringe on a lake with little disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 5</p> <p>There are at least 3 other wetlands within ½ mile, BUT the connections between them are disturbed points = 3</p> <p>The wetland is Lake-fringe on a lake with disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 3</p> <p>There is at least 1 wetland within ½ mile points = 2</p> <p>There are no wetlands within ½ mile points = 0</p>	3
<p>H 2. TOTAL Score – opportunity for providing habitat <i>Add the scores from H2.1, H2.2, H2.3, H2.4</i></p>	5
<p>TOTAL for H 1 from page 14</p>	9
<p>Total Score for Habitat Functions – add the points for H 1, H 2 and record the result on p. 1</p>	14

Wetland name or number 4C

WETLAND RATING FORM – WESTERN WASHINGTON
Version 2 – Updated July 2006 to increase accuracy and reproducibility among users

Name of wetland (if known): 4C Date of site visit: 2006-2007

Rated by M. Gray Trained by Ecology? Yes X No Date of training Apr 2007

SEC: 17 TWSHP: 39N RNGE: 1E Is S/T/R in Appendix D? Yes No X

Map of wetland unit: Figure Estimated size 0.15 acres

SUMMARY OF RATING

Category based on FUNCTIONS provided by wetland

I II III X IV

Category I = Score >=70
Category II = Score 51-69
Category III = Score 30-50
Category IV = Score <30

Score for Water Quality Functions	8
Score for Hydrologic Functions	10
Score for Habitat Functions	14
TOTAL score for Functions	32

Category based on SPECIAL CHARACTERISTICS of Wetland

I II Does not Apply

III

Final Category (choose the “highest” category from above)

Summary of basic information about the wetland unit

Wetland Unit has Special Characteristics		Wetland HGM Class used for Rating	
Estuarine		Depressional	
Natural Heritage Wetland		Riverine	
Bog		Lake-fringe	
Mature Forest		Slope (depression)	X
Old Growth Forest		Flats	
Coastal Lagoon		Freshwater Tidal	
Interdunal			
None of the above	X	Check if unit has multiple HGM classes present	X

Does the wetland unit being rated meet any of the criteria below?

If you answer YES to any of the questions below you will need to protect the wetland according to the regulations regarding the special characteristics found in the wetland.

Check List for Wetlands That May Need Additional Protection (in addition to the protection recommended for its category)	YES	NO
SP1. <i>Has the wetland unit been documented as a habitat for any Federally listed Threatened or Endangered animal or plant species (T/E species)?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state or federal database.		X
SP2. <i>Has the wetland unit been documented as habitat for any State listed Threatened or Endangered animal species?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state database. Note: Wetlands with State listed plant species are categorized as Category I Natural Heritage Wetlands (see p. 19 of data form).		X
SP3. <i>Does the wetland unit contain individuals of Priority species listed by the WDFW for the state?</i>		X
SP4. <i>Does the wetland unit have a local significance in addition to its functions?</i> For example, the wetland has been identified in the Shoreline Master Program, the Critical Areas Ordinance, or in a local management plan as having special significance.		X

To complete the next part of the data sheet you will need to determine the Hydrogeomorphic Class of the wetland being rated.

The hydrogeomorphic classification groups wetlands into those that function in similar ways. This simplifies the questions needed to answer how well the wetland functions. The Hydrogeomorphic Class of a wetland can be determined using the key below. See p. 24 for more detailed instructions on classifying wetlands.

S Slope Wetlands		Points
WATER QUALITY FUNCTIONS – Indicators that the wetland unit functions to improve water quality		(only 1 score per box)
S	S 1. Does the wetland unit have the <u>potential</u> to improve water quality?	(see p. 64)
S	<p>S 1.1 Characteristics of average slope of unit: Slope is 1% or less (<i>a 1% slope has a 1 foot vertical drop in elevation for every 100 ft horizontal distance</i>) points = 3 Slope is 1% - 2% points = 2 Slope is 2% - 5% points = 1 Slope is greater than 5% points = 0</p>	2
S	<p>S 1.2 The soil 2 inches below the surface (or duff layer) is clay or organic (<i>use NRCS definitions</i>) YES = 3 points NO = 0 points</p>	0
S	<p>S 1.3 Characteristics of the vegetation in the wetland that trap sediments and pollutants: <i>Choose the points appropriate for the description that best fits the vegetation in the wetland. Dense vegetation means you have trouble seeing the soil surface (>75% cover), and uncut means not grazed or mowed and plants are higher than 6 inches.</i> Dense, uncut, herbaceous vegetation > 90% of the wetland area points = 6 Dense, uncut, herbaceous vegetation > ½ of area points = 3 Dense, woody, vegetation > ½ of area points = 2 Dense, uncut, herbaceous vegetation > ¼ of area points = 1 Does not meet any of the criteria above for vegetation points = 0 Aerial photo or map with vegetation polygons</p>	Figure _____ 2
S	Total for S 1	<i>Add the points in the boxes above</i> 4
S	<p>S 2. Does the wetland have the <u>opportunity</u> to improve water quality? Answer YES if you know or believe there are pollutants in groundwater or surface water coming into the wetland that would otherwise reduce water quality in streams, lakes or groundwater downgradient from the wetland. <i>Note which of the following conditions provide the sources of pollutants. A unit may have pollutants coming from several sources, but any single source would qualify as opportunity.</i></p> <p> <input type="checkbox"/> Grazing in the wetland or within 150 ft <input type="checkbox"/> Untreated stormwater discharges to wetland <input type="checkbox"/> Tilled fields, logging, or orchards within 150 ft of wetland <input type="checkbox"/> Residential, urban areas, or golf courses are within 150 ft upslope of wetland <input type="checkbox"/> Other _____ YES multiplier is 2 NO multiplier is 1 </p>	(see p. 67) multiplier 2
S	TOTAL – Water Quality Functions	Multiply the score from S1 by S2 <i>Add score to table on p. 1</i> 8

Comments

<p>H 1.4 Interspersion of habitats (<i>see p. 76</i>) Decide from the diagrams below whether interspersion between Cowardin vegetation classes (described in H1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none.</p> <p>None = 0 points Low = 1 point Moderate = 2 points</p> <p>High = 3 points [riparian braided channels]</p> <p>NOTE: If you have four or more vegetation classes or three vegetation types and open water the rating is always "high". Use map of Cowardin vegetation classes</p>	<p>Figure _____</p> <p>1</p>
<p>H 1.5 Special Habitat Features (<i>see p. 77</i>) Check the habitat features that are present in the wetland. The number of checks is the number of points you put into the next column.</p> <p><input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (> 4in. diameter and 6 ft long).</p> <p><input checked="" type="checkbox"/> Standing snags (diameter at the bottom > 4 inches) in the wetland</p> <p><input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2m) and/or overhanging vegetation extends at least 3.3 ft. (1m) over a stream (or ditch) in, or contiguous with the unit, for at least 33 ft (10m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet turned grey/brown</i>)</p> <p><input type="checkbox"/> At least ¼ acre of thin-stemmed persistent vegetation or woody branches are present in areas that are permanently or seasonally inundated. (<i>structures for egg-laying by amphibians</i>)</p> <p><input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in each stratum of plants</p> <p>NOTE: The 20% stated in early printings of the manual on page 78 is an error.</p>	<p>2</p>
<p>H 1. TOTAL Score – potential for providing habitat Add the scores from H1.1, H1.2, H1.3, H1.4, H1.5</p>	<p>3</p>

Comments

<p>H 2.3 <u>Near or adjacent to other priority habitats listed by WDFW (see p. 82)</u> Which of the following priority habitats are within 330 ft (100m) of the wetland unit? <i>NOTE: the connections do not have to be relatively undisturbed. These are DFW definitions. Check with your local DFW biologist if there are any questions.</i></p> <p><input type="checkbox"/> Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.</p> <p><input type="checkbox"/> Aspen Stands: Pure or mixed stands of aspen greater than 0.8 ha (2 acres).</p> <p><input type="checkbox"/> Cliffs: Greater than 7.6m (25 ft) high and occurring below 5000 ft.</p> <p><input type="checkbox"/> Old-growth forests: (Old growth west of Cascade Crest) Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings, with at least 20 trees/ha (8 trees/acre) > 81cm (32 in) dbh or > 200 years of age.</p> <p><input type="checkbox"/> Mature forests: Stands with average diameters exceeding 53cm (21 in) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 – 200 years old west of the Cascade crest.</p> <p><input type="checkbox"/> Prairies: Relatively undisturbed areas (as indicated by dominance of native plants) where greases and/or forbs form the natural climax plant community.</p> <p><input type="checkbox"/> Talus: Homogenous areas of rock rubble ranging in average size 0.15 – 2.0 m (0.5 – 6.5 ft), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.</p> <p><input type="checkbox"/> Caves: A naturally occurring cavity, recess, void, or system of interconnected passages.</p> <p><input type="checkbox"/> Oregon white Oak: Woodlands Stands of pure oak or oak/conifer associations where canopy coverage of the oak component of the stand is 25%.</p> <p><input type="checkbox"/> Urban Natural Open Space: A priority species resides within or is adjacent to the open space and uses it for breeding and/or regular feeding; and/or the open space functions as a corridor connecting other <i>priority habitats</i>, especially those that would otherwise be isolated; and/or the open space is an isolated remnant of natural habitat larger than 4 ha (10 acres) and is surrounded by urban development.</p> <p><input type="checkbox"/> Estuary/Estuary-like: Deepwater tidal habitats and adjacent tidal wetlands, usually semi-enclosed by land but with open, partly obstructed or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land. The salinity may be periodically increased above that of the open ocean by evaporation. Along some low-energy coastlines there is appreciable dilution of sea water. Estuarine habitat extends upstream and landward to where ocean-derived salts measure less than 0.5 ppt. during the period of average annual low flow. Includes both estuaries and lagoons.</p> <p><input type="checkbox"/> Marine/Estuarine Shorelines: Shorelines include the intertidal and subtidal zones of beaches, and may also include the backshore and adjacent components of the terrestrial landscape (e.g., cliffs, snags, mature trees, dunes, meadows) that are important to shoreline associated fish and wildlife and that contribute to shoreline function (e.g., sand/rock/log recruitment, nutrient contribution, erosion control).</p> <p style="padding-left: 40px;">If wetland has 3 or more priority habitats = 4 points If wetland has 2 priority habit= 3 points If wetland has 1 priority habitats= 1 point No habitats= 0 points</p> <p><i>Note: All vegetated wetlands are by definition a priority habitat but are not included in this list. Nearby wetlands are addressed in question H 2.4)</i></p>	<p>0</p>
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<p>H 2.4 <u>Wetland Landscape</u> (choose the one description of the landscape around the wetland that best fits) (see p. 84)</p> <p>There are at least 3 other wetlands within ½ mile, and the connections between them are relatively undisturbed (light grazing between wetlands OK, as is lake shore with some boating, but connections should NOT be bisected by paved roads, fill, fields, or other development. points = 5</p> <p>The wetland is Lake-fringe on a lake with little disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 5</p> <p>There are at least 3 other wetlands within ½ mile, BUT the connections between them are disturbed points = 3</p> <p>The wetland is Lake-fringe on a lake with disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 3</p> <p>There is at least 1 wetland within ½ mile points = 2</p> <p>There are no wetlands within ½ mile points = 0</p>	3
<p>H 2. TOTAL Score – opportunity for providing habitat <i>Add the scores from H2.1, H2.2, H2.3, H2.4</i></p>	5
<p>TOTAL for H 1 from page 14</p>	9
<p>Total Score for Habitat Functions – add the points for H 1, H 2 and record the result on p. 1</p>	14

Wetland name or number 4D

WETLAND RATING FORM – WESTERN WASHINGTON
Version 2 – Updated July 2006 to increase accuracy and reproducibility among users

Name of wetland (if known): 4D Date of site visit: 2006-2007

Rated by M. Gray Trained by Ecology? Yes X No Date of training Apr 2007

SEC: 17 TWSHP: 39N RNGE: 1E Is S/T/R in Appendix D? Yes No X

Map of wetland unit: Figure Estimated size 1 acre

SUMMARY OF RATING

Category based on FUNCTIONS provided by wetland

I II III X IV

Category I = Score >=70
Category II = Score 51-69
Category III = Score 30-50
Category IV = Score <30

Score for Water Quality Functions	8
Score for Hydrologic Functions	10
Score for Habitat Functions	14
TOTAL score for Functions	32

Category based on SPECIAL CHARACTERISTICS of Wetland

I II Does not Apply

III

Final Category (choose the “highest” category from above)

Summary of basic information about the wetland unit

Wetland Unit has Special Characteristics		Wetland HGM Class used for Rating	
Estuarine		Depressional	
Natural Heritage Wetland		Riverine	
Bog		Lake-fringe	
Mature Forest		Slope	X
Old Growth Forest		Flats	
Coastal Lagoon		Freshwater Tidal	
Interdunal			
None of the above	X	Check if unit has multiple HGM classes present	

Does the wetland unit being rated meet any of the criteria below?

If you answer YES to any of the questions below you will need to protect the wetland according to the regulations regarding the special characteristics found in the wetland.

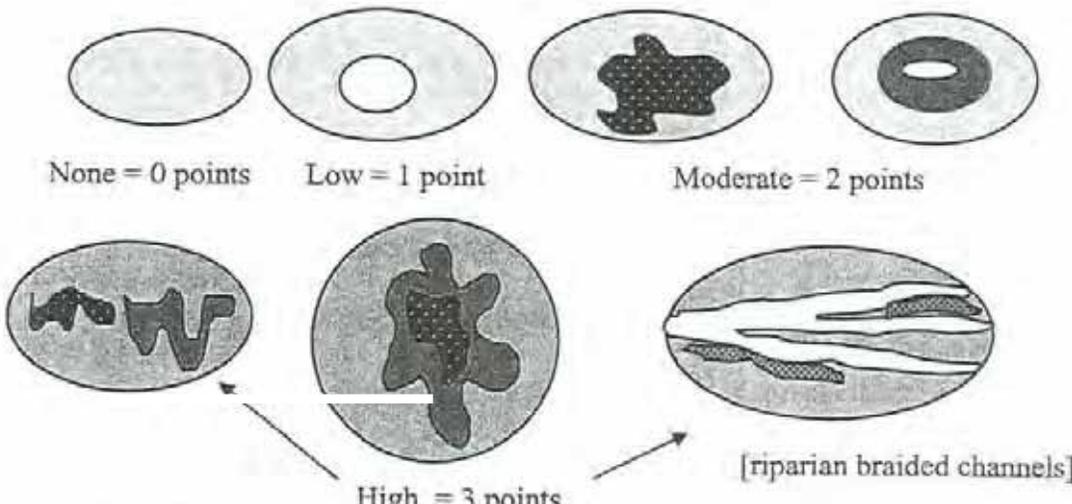
Check List for Wetlands That May Need Additional Protection (in addition to the protection recommended for its category)	YES	NO
SP1. <i>Has the wetland unit been documented as a habitat for any Federally listed Threatened or Endangered animal or plant species (T/E species)?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state or federal database.		X
SP2. <i>Has the wetland unit been documented as habitat for any State listed Threatened or Endangered animal species?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state database. Note: Wetlands with State listed plant species are categorized as Category I Natural Heritage Wetlands (see p. 19 of data form).		X
SP3. <i>Does the wetland unit contain individuals of Priority species listed by the WDFW for the state?</i>		X
SP4. <i>Does the wetland unit have a local significance in addition to its functions?</i> For example, the wetland has been identified in the Shoreline Master Program, the Critical Areas Ordinance, or in a local management plan as having special significance.		X

To complete the next part of the data sheet you will need to determine the Hydrogeomorphic Class of the wetland being rated.

The hydrogeomorphic classification groups wetlands into those that function in similar ways. This simplifies the questions needed to answer how well the wetland functions. The Hydrogeomorphic Class of a wetland can be determined using the key below. See p. 24 for more detailed instructions on classifying wetlands.

S Slope Wetlands		Points
WATER QUALITY FUNCTIONS – Indicators that the wetland unit functions to improve water quality		(only 1 score per box)
S	S 1. Does the wetland unit have the <u>potential</u> to improve water quality?	(see p. 64)
S	<p>S 1.1 Characteristics of average slope of unit: Slope is 1% or less (<i>a 1% slope has a 1 foot vertical drop in elevation for every 100 ft horizontal distance</i>) points = 3 Slope is 1% - 2% points = 2 Slope is 2% - 5% points = 1 Slope is greater than 5% points = 0</p>	2
S	<p>S 1.2 The soil 2 inches below the surface (or duff layer) is clay or organic (<i>use NRCS definitions</i>) YES = 3 points NO = 0 points</p>	0
S	<p>S 1.3 Characteristics of the vegetation in the wetland that trap sediments and pollutants: <i>Choose the points appropriate for the description that best fits the vegetation in the wetland. Dense vegetation means you have trouble seeing the soil surface (>75% cover), and uncut means not grazed or mowed and plants are higher than 6 inches.</i></p> <p>Dense, uncut, herbaceous vegetation > 90% of the wetland area points = 6 Dense, uncut, herbaceous vegetation > ½ of area points = 3 Dense, woody, vegetation > ½ of area points = 2 Dense, uncut, herbaceous vegetation > ¼ of area points = 1 Does not meet any of the criteria above for vegetation points = 0</p> <p>Aerial photo or map with vegetation polygons</p>	Figure _____ 2
S	Total for S 1	Add the points in the boxes above 4
S	S 2. Does the wetland have the <u>opportunity</u> to improve water quality?	(see p. 67)
	<p>Answer YES if you know or believe there are pollutants in groundwater or surface water coming into the wetland that would otherwise reduce water quality in streams, lakes or groundwater downgradient from the wetland. <i>Note which of the following conditions provide the sources of pollutants. A unit may have pollutants coming from several sources, but any single source would qualify as opportunity.</i></p> <p>___ Grazing in the wetland or within 150 ft ___ Untreated stormwater discharges to wetland ___ Tilled fields, logging, or orchards within 150 ft of wetland ___ Residential, urban areas, or golf courses are within 150 ft upslope of wetland ___ Other _____</p> <p>YES multiplier is 2 NO multiplier is 1</p>	multiplier 2 _____
S	TOTAL – Water Quality Functions	Multiply the score from S1 by S2 8 <i>Add score to table on p. 1</i>

Comments

<p>H 1.4 Interspersion of habitats (<i>see p. 76</i>) Decide from the diagrams below whether interspersion between Cowardin vegetation classes (described in H1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none.</p>  <p>NOTE: If you have four or more vegetation classes or three vegetation types and open water the rating is always “high”. Use map of Cowardin vegetation classes</p>	<p>Figure _____</p> <p>1</p>	
<p>H 1.5 Special Habitat Features (<i>see p. 77</i>) Check the habitat features that are present in the wetland. The number of checks is the number of points you put into the next column.</p> <p><input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (> 4in. diameter and 6 ft long).</p> <p><input checked="" type="checkbox"/> Standing snags (diameter at the bottom > 4 inches) in the wetland</p> <p><input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2m) and/or overhanging vegetation extends at least 3.3 ft. (1m) over a stream (or ditch) in, or contiguous with the unit, for at least 33 ft (10m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet turned grey/brown</i>)</p> <p><input type="checkbox"/> At least ¼ acre of thin-stemmed persistent vegetation or woody branches are present in areas that are permanently or seasonally inundated. (<i>structures for egg-laying by amphibians</i>)</p> <p><input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in each stratum of plants</p> <p>NOTE: The 20% stated in early printings of the manual on page 78 is an error.</p>	<p>2</p>	
<p align="center">H 1. TOTAL Score – potential for providing habitat Add the scores from H1.1, H1.2, H1.3, H1.4, H1.5</p>		<p align="center">9</p>

Comments

<p>H 2.3 <u>Near or adjacent to other priority habitats listed by WDFW (see p. 82)</u> Which of the following priority habitats are within 330 ft (100m) of the wetland unit? <i>NOTE: the connections do not have to be relatively undisturbed. These are DFW definitions. Check with your local DFW biologist if there are any questions.</i></p> <p><input type="checkbox"/> Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.</p> <p><input type="checkbox"/> Aspen Stands: Pure or mixed stands of aspen greater than 0.8 ha (2 acres).</p> <p><input type="checkbox"/> Cliffs: Greater than 7.6m (25 ft) high and occurring below 5000 ft.</p> <p><input type="checkbox"/> Old-growth forests: (Old growth west of Cascade Crest) Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings, with at least 20 trees/ha (8 trees/acre) > 81cm (32 in) dbh or > 200 years of age.</p> <p><input type="checkbox"/> Mature forests: Stands with average diameters exceeding 53cm (21 in) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 – 200 years old west of the Cascade crest.</p> <p><input type="checkbox"/> Prairies: Relatively undisturbed areas (as indicated by dominance of native plants) where greases and/or forbs form the natural climax plant community.</p> <p><input type="checkbox"/> Talus: Homogenous areas of rock rubble ranging in average size 0.15 – 2.0 m (0.5 – 6.5 ft), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.</p> <p><input type="checkbox"/> Caves: A naturally occurring cavity, recess, void, or system of interconnected passages.</p> <p><input type="checkbox"/> Oregon white Oak: Woodlands Stands of pure oak or oak/conifer associations where canopy coverage of the oak component of the stand is 25%.</p> <p><input type="checkbox"/> Urban Natural Open Space: A priority species resides within or is adjacent to the open space and uses it for breeding and/or regular feeding; and/or the open space functions as a corridor connecting other <i>priority habitats</i>, especially those that would otherwise be isolated; and/or the open space is an isolated remnant of natural habitat larger than 4 ha (10 acres) and is surrounded by urban development.</p> <p><input type="checkbox"/> Estuary/Estuary-like: Deepwater tidal habitats and adjacent tidal wetlands, usually semi-enclosed by land but with open, partly obstructed or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land. The salinity may be periodically increased above that of the open ocean by evaporation. Along some low-energy coastlines there is appreciable dilution of sea water. Estuarine habitat extends upstream and landward to where ocean-derived salts measure less than 0.5 ppt. during the period of average annual low flow. Includes both estuaries and lagoons.</p> <p><input type="checkbox"/> Marine/Estuarine Shorelines: Shorelines include the intertidal and subtidal zones of beaches, and may also include the backshore and adjacent components of the terrestrial landscape (e.g., cliffs, snags, mature trees, dunes, meadows) that are important to shoreline associated fish and wildlife and that contribute to shoreline function (e.g., sand/rock/log recruitment, nutrient contribution, erosion control).</p> <p> If wetland has 3 or more priority habitats = 4 points If wetland has 2 priority habit= 3 points If wetland has 1 priority habitats= 1 point No habitats= 0 points</p> <p><i>Note: All vegetated wetlands are by definition a priority habitat but are not included in this list. Nearby wetlands are addressed in question H 2.4)</i></p>	<p>0</p>
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Wetland name or number 4D

<p>H 2.4 <u>Wetland Landscape</u> (choose the one description of the landscape around the wetland that best fits) (see p. 84)</p> <p>There are at least 3 other wetlands within ½ mile, and the connections between them are relatively undisturbed (light grazing between wetlands OK, as is lake shore with some boating, but connections should NOT be bisected by paved roads, fill, fields, or other development. points = 5</p> <p>The wetland is Lake-fringe on a lake with little disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 5</p> <p>There are at least 3 other wetlands within ½ mile, BUT the connections between them are disturbed points = 3</p> <p>The wetland is Lake-fringe on a lake with disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 3</p> <p>There is at least 1 wetland within ½ mile points = 2</p> <p>There are no wetlands within ½ mile points = 0</p>	3
<p>H 2. TOTAL Score – opportunity for providing habitat <i>Add the scores from H2.1, H2.2, H2.3, H2.4</i></p>	5
<p>TOTAL for H 1 from page 14</p>	9
<p>Total Score for Habitat Functions – add the points for H 1, H 2 and record the result on p. 1</p>	14

Wetland name or number 4E

WETLAND RATING FORM – WESTERN WASHINGTON
Version 2 – Updated July 2006 to increase accuracy and reproducibility among users

Name of wetland (if known): 4E Date of site visit: 2006-2007

Rated by M. Gray Trained by Ecology? Yes X No Date of training Apr 2007

SEC: 17 TWSHP: 39N RNGE: 1E Is S/T/R in Appendix D? Yes No

Map of wetland unit: Figure Estimated size 0.17 acres

SUMMARY OF RATING

Category based on FUNCTIONS provided by wetland

I II III X IV

Category I = Score >=70 Category II = Score 51-69 Category III = Score 30-50 Category IV = Score <30

Score for Water Quality Functions	12
Score for Hydrologic Functions	12
Score for Habitat Functions	10
TOTAL score for Functions	34

Category based on SPECIAL CHARACTERISTICS of Wetland

I II Does not Apply

III

Final Category (choose the “highest” category from above)

Summary of basic information about the wetland unit

Wetland Unit has Special Characteristics	Wetland HGM Class used for Rating
Estuarine	Depressional <input checked="" type="checkbox"/>
Natural Heritage Wetland	Riverine <input type="checkbox"/>
Bog	Lake-fringe <input type="checkbox"/>
Mature Forest	Slope <input type="checkbox"/>
Old Growth Forest	Flats <input type="checkbox"/>
Coastal Lagoon	Freshwater Tidal <input type="checkbox"/>
Interdunal	<input type="checkbox"/>
None of the above	<input checked="" type="checkbox"/> Check if unit has multiple HGM classes present

Does the wetland unit being rated meet any of the criteria below?

If you answer YES to any of the questions below you will need to protect the wetland according to the regulations regarding the special characteristics found in the wetland.

Check List for Wetlands That May Need Additional Protection (in addition to the protection recommended for its category)	YES	NO
SP1. <i>Has the wetland unit been documented as a habitat for any Federally listed Threatened or Endangered animal or plant species (T/E species)?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state or federal database.		X
SP2. <i>Has the wetland unit been documented as habitat for any State listed Threatened or Endangered animal species?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state database. Note: Wetlands with State listed plant species are categorized as Category I Natural Heritage Wetlands (see p. 19 of data form).		X
SP3. <i>Does the wetland unit contain individuals of Priority species listed by the WDFW for the state?</i>		X
SP4. <i>Does the wetland unit have a local significance in addition to its functions?</i> For example, the wetland has been identified in the Shoreline Master Program, the Critical Areas Ordinance, or in a local management plan as having special significance.		X

To complete the next part of the data sheet you will need to determine the Hydrogeomorphic Class of the wetland being rated.

The hydrogeomorphic classification groups wetlands into those that function in similar ways. This simplifies the questions needed to answer how well the wetland functions. The Hydrogeomorphic Class of a wetland can be determined using the key below. See p. 24 for more detailed instructions on classifying wetlands.

D Depressional and Flats Wetlands		Points
WATER QUALITY FUNCTIONS – Indicators that the wetland unit functions to improve water quality		(only 1 score per box)
D	D 1. Does the wetland unit have the <u>potential</u> to improve water quality?	(see p. 38)
D	<p>D 1.1 Characteristics of surface water flows out of the wetland:</p> <p>Unit is a depression with no surface water leaving it (no outlet) points = 3</p> <p>Unit has an intermittently flowing, OR highly constricted permanently flowing outlet points = 2</p> <p>Unit has an unconstricted, or slightly constricted, surface outlet (<i>permanently flowing</i>) points = 1</p> <p>Unit has a “flat” depression (Q. 7 on key), or in the Flats class, with permanent surface outflow and no obvious natural outlet and/or outlet is a man-made ditch points = 1</p> <p>(If ditch is not permanently flowing treat unit as “intermittently flowing”)</p> <p style="text-align: right;">Provide photo or drawing</p>	Figure _____ 1
D	<p>S 1.2 The soil 2 inches below the surface (or duff layer) is clay or organic (<i>use NRCS definitions</i>)</p> <p>YES points = 4</p> <p>NO points = 0</p>	0
D	<p>D 1.3 Characteristics of persistent vegetation (emergent, shrub, and/or forest Cowardin class)</p> <p>Wetland has persistent, ungrazed, vegetation > = 95% of area points = 5</p> <p>Wetland has persistent, ungrazed, vegetation > = ½ of area points = 3</p> <p>Wetland has persistent, ungrazed, vegetation > = 1/10 of area points = 1</p> <p>Wetland has persistent, ungrazed, vegetation < 1/10 of area points = 0</p> <p style="text-align: right;">Map of Cowardin vegetation classes</p>	Figure _____ 3
D	<p>D 1.4 Characteristics of seasonal ponding or inundation.</p> <p><i>This is the area of the wetland unit that is ponded for at least 2 months, but dries out sometime during the year. Do not count the area that is permanently ponded. Estimate area as the average condition 5 out of 10 years.</i></p> <p>Area seasonally ponded is > ½ total area of wetland points = 4</p> <p>Area seasonally ponded is > ¼ total area of wetland points = 2</p> <p>Area seasonally ponded is < ¼ total area of wetland points = 0</p> <p style="text-align: right;">Map of hydroperiods</p>	Figure _____ 2
D	Total for D 1	Add the points in the boxes above 6
D	D 2. Does the wetland have the <u>opportunity</u> to improve water quality?	(see p. 44)
	<p>Answer YES if you know or believe there are pollutants in groundwater or surface water coming into the wetland that would otherwise reduce water quality in streams, lakes or groundwater downgradient from the wetland. <i>Note which of the following conditions provide the sources of pollutants. A unit may have pollutants coming from several sources, but any single source would qualify as opportunity.</i></p> <p>___ Grazing in the wetland or within 150 ft</p> <p>___ Untreated stormwater discharges to wetland</p> <p>___ Tilled fields or orchards within 150 ft of wetland</p> <p>___ A stream or culvert discharges into wetland that drains developed areas, residential area, farmed fields, roads, or clear-cut logging</p> <p>___ Residential, urban areas, golf courses are within 150 ft of wetland</p> <p>___ Wetland is fed by groundwater high in phosphorus or nitrogen</p> <p>___ Other _____</p> <p>YES multiplier is 2 NO multiplier is 1</p>	multiplier _____ 2
D	TOTAL – Water Quality Functions	Multiply the score from D1 by D2 Add score to table on p. 1 12

D Depressional and Flats Wetlands HYDROLOGIC FUNCTIONS – Indicators that the wetland unit functions to reduce flooding and stream degradation.		Points (only 1 score per box)
D	D 3. Does the wetland have the <u>potential</u> to reduce flooding and stream erosion?	<i>(see p. 46)</i>
	<p>D 3.1 Characteristics of surface water flows out of the wetland unit</p> <p>Unit is a depression with no surface water leaving it (no outlet) points = 4</p> <p>Unit has an intermittently flowing, OR highly constricted permanently flowing outlet points = 2</p> <p>Unit is a “flat” depression (Q. 7 on key), or in the Flats class, with permanent surface outflow and no obvious natural outlet and/or outlet is a man-made ditch points = 1 <i>(If ditch is not permanently flowing treat unit as “intermittently flowing”)</i></p> <p>Unit has an unconstricted, or slightly constricted, surface outlet (<i>permanently flowing</i>) points = 0</p>	1
D	<p>D 3.2 Depth of storage during wet periods</p> <p><i>Estimate the height of ponding above the bottom of the outlet. For units with no outlet measure from the surface of permanent water or deepest part (if dry).</i></p> <p>Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7</p> <p>The wetland is a “headwater” wetland points = 5</p> <p>Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5</p> <p>Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points = 3</p> <p>Unit is flat (yes to Q. 2 or Q. 7 on key) but has small depressions on the surface that trap water points = 1</p> <p>Marks of ponding less than 0.5 ft points = 0</p>	0
D	<p>D 3.3 Contribution of wetland unit to storage in the watershed</p> <p><i>Estimate the ration of the area of upstream basin contributing surface water to the wetland to the area of the wetland unit itself.</i></p> <p>The area of the basin is less than 10 times the area of the unit points = 5</p> <p>The area of the basin is 10 to 100 times the area of the unit points = 3</p> <p>The area of the basin is more than 100 times the area of the unit points = 0</p> <p>Entire unit is in the FLATS class points = 5</p>	0
D	Total for D 3 <i>Add the points in the boxes above</i>	1
D	<p>D 4. Does the wetland have the <u>opportunity</u> to reduce flooding and erosion?</p> <p>Answer YES if the unit is in a location in the watershed where the flood storage, or reduction in water velocity, it provides helps protect downstream property and aquatic resources from flooding or excessive and/or erosive flows. Answer NO if the water coming into the wetland is controlled by a structure such as flood gate, tide gate, flap valve, reservoir etc. OR you estimate that more than 90% of the water in the wetland is from groundwater in areas where damaging groundwater flooding does not occur.</p> <p><i>Note which of the following indicators of opportunity apply.</i></p> <p><input type="checkbox"/> Wetland is in a headwater of a river or stream that has flooding problems</p> <p><input type="checkbox"/> Wetland drains to a river or stream that has flooding problems</p> <p><input type="checkbox"/> Wetland has no outlet and impounds surface runoff water that might otherwise flow into a river or stream that has flooding problems</p> <p><input type="checkbox"/> Other _____</p> <p>YES multiplier is 2 NO multiplier is 1</p>	<i>(see p. 49)</i> multiplier <u>2</u>
D	TOTAL – Hydrologic Functions Multiply the score from D 3 by D 4 <i>Add score to table on p. 1</i>	2

These questions apply to wetlands of all HGM classes.		Points											
HABITAT FUNCTIONS – Indicators that unit functions to provide important habitat		(only 1 score per box)											
H 1. Does the wetland unit have the potential to provide habitat for many species?													
<p>H 1.1 <u>Vegetation structure</u> (see P. 72)</p> <p>Check the types of vegetation classes present (as defined by Cowardin)- Size threshold for each class is ¼ acre or more than 10% of the area if the unit is smaller than 2.5 acres.</p> <p><input type="checkbox"/> Aquatic Bed</p> <p><input checked="" type="checkbox"/> Emergent plants</p> <p><input checked="" type="checkbox"/> Scrub/shrub (areas where shrubs have > 30% cover)</p> <p><input type="checkbox"/> Forested (areas where trees have > 30% cover)</p> <p>If the unit has a forested class check if:</p> <p><input type="checkbox"/> The forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the forested polygon</p> <p>Add the number of vegetation structures that qualify. If you have:</p> <table style="margin-left: 100px;"> <tr> <td>4 structures or more</td> <td>points = 4</td> </tr> <tr> <td>3 structures</td> <td>points = 2</td> </tr> <tr> <td>2 structures</td> <td>points = 1</td> </tr> <tr> <td>1 structure</td> <td>points = 0</td> </tr> </table> <p>Map of Cowardin vegetation classes</p>	4 structures or more	points = 4	3 structures	points = 2	2 structures	points = 1	1 structure	points = 0	<p>Figure _____</p> <p>1</p>				
4 structures or more	points = 4												
3 structures	points = 2												
2 structures	points = 1												
1 structure	points = 0												
<p>H 1.2 <u>Hydroperiods</u> (see p.73)</p> <p>Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ acre to count. (see text for descriptions of hydroperiods)</p> <table style="margin-left: 100px;"> <tr> <td><input type="checkbox"/> Permanently flooded or inundated</td> <td>4 or more types present</td> <td>points = 3</td> </tr> <tr> <td><input checked="" type="checkbox"/> Seasonally flooded or inundated</td> <td>3 types present</td> <td>points = 2</td> </tr> <tr> <td><input checked="" type="checkbox"/> Occasionally flooded or inundated</td> <td>2 types present</td> <td>points = 1</td> </tr> <tr> <td><input checked="" type="checkbox"/> Saturated only</td> <td>1 type present</td> <td>points = 0</td> </tr> </table> <p><input type="checkbox"/> Permanently flowing stream or river in, or adjacent to, the wetland</p> <p><input type="checkbox"/> Seasonally flowing stream in, or adjacent to, the wetland</p> <p><input type="checkbox"/> Lake-fringe wetland = 2 points</p> <p><input type="checkbox"/> Freshwater tidal wetland = 2 points</p> <p style="text-align: right;">Map of hydroperiods</p>	<input type="checkbox"/> Permanently flooded or inundated	4 or more types present	points = 3	<input checked="" type="checkbox"/> Seasonally flooded or inundated	3 types present	points = 2	<input checked="" type="checkbox"/> Occasionally flooded or inundated	2 types present	points = 1	<input checked="" type="checkbox"/> Saturated only	1 type present	points = 0	<p>Figure _____</p> <p>2</p>
<input type="checkbox"/> Permanently flooded or inundated	4 or more types present	points = 3											
<input checked="" type="checkbox"/> Seasonally flooded or inundated	3 types present	points = 2											
<input checked="" type="checkbox"/> Occasionally flooded or inundated	2 types present	points = 1											
<input checked="" type="checkbox"/> Saturated only	1 type present	points = 0											
<p>H 1.3 <u>Richness of Plant Species</u> (see p. 75)</p> <p>Count the number of plant species in the wetland that cover at least 10 ft². (different patches of the same species can be combined to meet the size threshold)</p> <p>You do not have to name the species.</p> <p>Do not include Eurasian Milfoil, reed canarygrass, purple loosestrife, Canadian Thistle</p> <p>If you counted: > 19 species points = 2</p> <p>List species below if you want to: 5 – 19 species points = 1</p> <p> < 5 species points = 0</p>	<p>Figure _____</p> <p>1</p>												

<p>H 1.4 Interspersion of habitats (<i>see p. 76</i>) Decide from the diagrams below whether interspersion between Cowardin vegetation classes (described in H1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none.</p> <p>None = 0 points Low = 1 point Moderate = 2 points</p> <p>High = 3 points [riparian braided channels]</p> <p>NOTE: If you have four or more vegetation classes or three vegetation types and open water the rating is always "high". Use map of Cowardin vegetation classes</p>	<p>Figure _____</p> <p>1</p>	
<p>H 1.5 Special Habitat Features (<i>see p. 77</i>) Check the habitat features that are present in the wetland. The number of checks is the number of points you put into the next column.</p> <p><input type="checkbox"/> Large, downed, woody debris within the wetland (> 4in. diameter and 6 ft long).</p> <p><input type="checkbox"/> Standing snags (diameter at the bottom > 4 inches) in the wetland</p> <p><input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2m) and/or overhanging vegetation extends at least 3.3 ft. (1m) over a stream (or ditch) in, or contiguous with the unit, for at least 33 ft (10m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet turned grey/brown</i>)</p> <p><input type="checkbox"/> At least ¼ acre of thin-stemmed persistent vegetation or woody branches are present in areas that are permanently or seasonally inundated. (<i>structures for egg-laying by amphibians</i>)</p> <p><input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in each stratum of plants</p> <p>NOTE: The 20% stated in early printings of the manual on page 78 is an error.</p>	<p>0</p>	
<p>H 1. TOTAL Score – potential for providing habitat Add the scores from H1.1, H1.2, H1.3, H1.4, H1.5</p>		<p>5</p>

Comments

<p>H 2.3 <u>Near or adjacent to other priority habitats listed by WDFW (see p. 82)</u> Which of the following priority habitats are within 330 ft (100m) of the wetland unit? <i>NOTE: the connections do not have to be relatively undisturbed. These are DFW definitions. Check with your local DFW biologist if there are any questions.</i></p> <p><input type="checkbox"/> Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.</p> <p><input type="checkbox"/> Aspen Stands: Pure or mixed stands of aspen greater than 0.8 ha (2 acres).</p> <p><input type="checkbox"/> Cliffs: Greater than 7.6m (25 ft) high and occurring below 5000 ft.</p> <p><input type="checkbox"/> Old-growth forests: (Old growth west of Cascade Crest) Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings, with at least 20 trees/ha (8 trees/acre) > 81cm (32 in) dbh or > 200 years of age.</p> <p><input type="checkbox"/> Mature forests: Stands with average diameters exceeding 53cm (21 in) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 – 200 years old west of the Cascade crest.</p> <p><input type="checkbox"/> Prairies: Relatively undisturbed areas (as indicated by dominance of native plants) where greases and/or forbs form the natural climax plant community.</p> <p><input type="checkbox"/> Talus: Homogenous areas of rock rubble ranging in average size 0.15 – 2.0 m (0.5 – 6.5 ft), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.</p> <p><input type="checkbox"/> Caves: A naturally occurring cavity, recess, void, or system of interconnected passages.</p> <p><input type="checkbox"/> Oregon white Oak: Woodlands Stands of pure oak or oak/conifer associations where canopy coverage of the oak component of the stand is 25%.</p> <p><input type="checkbox"/> Urban Natural Open Space: A priority species resides within or is adjacent to the open space and uses it for breeding and/or regular feeding; and/or the open space functions as a corridor connecting other <i>priority habitats</i>, especially those that would otherwise be isolated; and/or the open space is an isolated remnant of natural habitat larger than 4 ha (10 acres) and is surrounded by urban development.</p> <p><input type="checkbox"/> Estuary/Estuary-like: Deepwater tidal habitats and adjacent tidal wetlands, usually semi-enclosed by land but with open, partly obstructed or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land. The salinity may be periodically increased above that of the open ocean by evaporation. Along some low-energy coastlines there is appreciable dilution of sea water. Estuarine habitat extends upstream and landward to where ocean-derived salts measure less than 0.5 ppt. during the period of average annual low flow. Includes both estuaries and lagoons.</p> <p><input type="checkbox"/> Marine/Estuarine Shorelines: Shorelines include the intertidal and subtidal zones of beaches, and may also include the backshore and adjacent components of the terrestrial landscape (e.g., cliffs, snags, mature trees, dunes, meadows) that are important to shoreline associated fish and wildlife and that contribute to shoreline function (e.g., sand/rock/log recruitment, nutrient contribution, erosion control).</p> <p style="padding-left: 40px;">If wetland has 3 or more priority habitats = 4 points If wetland has 2 priority habit= 3 points If wetland has 1 priority habitats= 1 point No habitats= 0 points</p> <p><i>Note: All vegetated wetlands are by definition a priority habitat but are not included in this list. Nearby wetlands are addressed in question H 2.4)</i></p>	<p>0</p>
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Wetland name or number 4E

<p>H 2.4 <u>Wetland Landscape</u> (choose the one description of the landscape around the wetland that best fits) (see p. 84)</p> <p>There are at least 3 other wetlands within ½ mile, and the connections between them are relatively undisturbed (light grazing between wetlands OK, as is lake shore with some boating, but connections should NOT be bisected by paved roads, fill, fields, or other development. points = 5</p> <p>The wetland is Lake-fringe on a lake with little disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 5</p> <p>There are at least 3 other wetlands within ½ mile, BUT the connections between them are disturbed points = 3</p> <p>The wetland is Lake-fringe on a lake with disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 3</p> <p>There is at least 1 wetland within ½ mile points = 2</p> <p>There are no wetlands within ½ mile points = 0</p>	3
<p>H 2. TOTAL Score – opportunity for providing habitat <i>Add the scores from H2.1, H2.2, H2.3, H2.4</i></p>	5
<p>TOTAL for H 1 from page 14</p>	5
<p>Total Score for Habitat Functions – add the points for H 1, H 2 and record the result on p. 1</p>	10

Wetland name or number 4F

WETLAND RATING FORM – WESTERN WASHINGTON
Version 2 – Updated July 2006 to increase accuracy and reproducibility among users

Name of wetland (if known): 4F Date of site visit: 2006-2007

Rated by M. Gray Trained by Ecology? Yes X No Date of training Apr 2007

SEC: 17 TWSHP: 39N RNGE: 1E Is S/T/R in Appendix D? Yes No X

Map of wetland unit: Figure Estimated size 1 acre

SUMMARY OF RATING

Category based on FUNCTIONS provided by wetland

I II III IV X

Category I = Score >=70
Category II = Score 51-69
Category III = Score 30-50
Category IV = Score <30

Score for Water Quality Functions	6
Score for Hydrologic Functions	4
Score for Habitat Functions	7
TOTAL score for Functions	17

Category based on SPECIAL CHARACTERISTICS of Wetland

I II Does not Apply

IV

Final Category (choose the “highest” category from above)

Summary of basic information about the wetland unit

Wetland Unit has Special Characteristics		Wetland HGM Class used for Rating	
Estuarine		Depressional	
Natural Heritage Wetland		Riverine	
Bog		Lake-fringe	
Mature Forest		Slope	X
Old Growth Forest		Flats	
Coastal Lagoon		Freshwater Tidal	
Interdunal			
None of the above	X	Check if unit has multiple HGM classes present	

Does the wetland unit being rated meet any of the criteria below?

If you answer YES to any of the questions below you will need to protect the wetland according to the regulations regarding the special characteristics found in the wetland.

Check List for Wetlands That May Need Additional Protection (in addition to the protection recommended for its category)	YES	NO
SP1. <i>Has the wetland unit been documented as a habitat for any Federally listed Threatened or Endangered animal or plant species (T/E species)?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state or federal database.		X
SP2. <i>Has the wetland unit been documented as habitat for any State listed Threatened or Endangered animal species?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state database. Note: Wetlands with State listed plant species are categorized as Category I Natural Heritage Wetlands (see p. 19 of data form).		X
SP3. <i>Does the wetland unit contain individuals of Priority species listed by the WDFW for the state?</i>		X
SP4. <i>Does the wetland unit have a local significance in addition to its functions?</i> For example, the wetland has been identified in the Shoreline Master Program, the Critical Areas Ordinance, or in a local management plan as having special significance.		X

To complete the next part of the data sheet you will need to determine the Hydrogeomorphic Class of the wetland being rated.

The hydrogeomorphic classification groups wetlands into those that function in similar ways. This simplifies the questions needed to answer how well the wetland functions. The Hydrogeomorphic Class of a wetland can be determined using the key below. See p. 24 for more detailed instructions on classifying wetlands.

S Slope Wetlands		Points
WATER QUALITY FUNCTIONS – Indicators that the wetland unit functions to improve water quality		(only 1 score per box)
S	S 1. Does the wetland unit have the <u>potential</u> to improve water quality?	<i>(see p. 64)</i>
S	<p>S 1.1 Characteristics of average slope of unit: Slope is 1% or less (<i>a 1% slope has a 1 foot vertical drop in elevation for every 100 ft horizontal distance</i>) points = 3 Slope is 1% - 2% points = 2 Slope is 2% - 5% points = 1 Slope is greater than 5% points = 0</p>	2
S	<p>S 1.2 The soil 2 inches below the surface (or duff layer) is clay or organic (<i>use NRCS definitions</i>) YES = 3 points NO = 0 points</p>	0
S	<p>S 1.3 Characteristics of the vegetation in the wetland that trap sediments and pollutants: <i>Choose the points appropriate for the description that best fits the vegetation in the wetland. Dense vegetation means you have trouble seeing the soil surface (>75% cover), and uncut means not grazed or mowed and plants are higher than 6 inches.</i> Dense, uncut, herbaceous vegetation > 90% of the wetland area points = 6 Dense, uncut, herbaceous vegetation > ½ of area points = 3 Dense, woody, vegetation > ½ of area points = 2 Dense, uncut, herbaceous vegetation > ¼ of area points = 1 Does not meet any of the criteria above for vegetation points = 0 Aerial photo or map with vegetation polygons</p>	Figure _____ 1
S	Total for S 1	<i>Add the points in the boxes above</i> 3
S	<p>S 2. Does the wetland have the <u>opportunity</u> to improve water quality? Answer YES if you know or believe there are pollutants in groundwater or surface water coming into the wetland that would otherwise reduce water quality in streams, lakes or groundwater downgradient from the wetland. <i>Note which of the following conditions provide the sources of pollutants. A unit may have pollutants coming from several sources, but any single source would qualify as opportunity.</i></p> <p> <input type="checkbox"/> Grazing in the wetland or within 150 ft <input type="checkbox"/> Untreated stormwater discharges to wetland <input type="checkbox"/> Tilled fields, logging, or orchards within 150 ft of wetland <input type="checkbox"/> Residential, urban areas, or golf courses are within 150 ft upslope of wetland <input type="checkbox"/> Other _____ YES multiplier is 2 NO multiplier is 1 </p>	<i>(see p. 67)</i> multiplier 2
S	TOTAL – Water Quality Functions	Multiply the score from S1 by S2 <i>Add score to table on p. 1</i> 6

Comments

These questions apply to wetlands of all HGM classes.		Points											
HABITAT FUNCTIONS – Indicators that unit functions to provide important habitat		(only 1 score per box)											
H 1. Does the wetland unit have the potential to provide habitat for many species?													
<p>H 1.1 <u>Vegetation structure</u> (see P. 72)</p> <p>Check the types of vegetation classes present (as defined by Cowardin)- Size threshold for each class is ¼ acre or more than 10% of the area if the unit is smaller than 2.5 acres.</p> <p><input type="checkbox"/> Aquatic Bed</p> <p><input checked="" type="checkbox"/> Emergent plants</p> <p><input checked="" type="checkbox"/> Scrub/shrub (areas where shrubs have > 30% cover)</p> <p><input type="checkbox"/> Forested (areas where trees have > 30% cover)</p> <p>If the unit has a forested class check if:</p> <p><input type="checkbox"/> The forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the forested polygon</p> <p>Add the number of vegetation structures that qualify. If you have:</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td>4 structures or more</td> <td>points = 4</td> </tr> <tr> <td>3 structures</td> <td>points = 2</td> </tr> <tr> <td>2 structures</td> <td>points = 1</td> </tr> <tr> <td>1 structure</td> <td>points = 0</td> </tr> </table> <p>Map of Cowardin vegetation classes</p>	4 structures or more	points = 4	3 structures	points = 2	2 structures	points = 1	1 structure	points = 0	<p>Figure _____</p> <p>1</p>				
4 structures or more	points = 4												
3 structures	points = 2												
2 structures	points = 1												
1 structure	points = 0												
<p>H 1.2 <u>Hydroperiods</u> (see p.73)</p> <p>Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ acre to count. (see text for descriptions of hydroperiods)</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td><input type="checkbox"/> Permanently flooded or inundated</td> <td>4 or more types present</td> <td>points = 3</td> </tr> <tr> <td><input checked="" type="checkbox"/> Seasonally flooded or inundated</td> <td>3 types present</td> <td>points = 2</td> </tr> <tr> <td><input checked="" type="checkbox"/> Occasionally flooded or inundated</td> <td>2 types present</td> <td>points = 1</td> </tr> <tr> <td><input checked="" type="checkbox"/> Saturated only</td> <td>1 type present</td> <td>points = 0</td> </tr> </table> <p><input type="checkbox"/> Permanently flowing stream or river in, or adjacent to, the wetland</p> <p><input type="checkbox"/> Seasonally flowing stream in, or adjacent to, the wetland</p> <p><input type="checkbox"/> Lake-fringe wetland = 2 points</p> <p><input type="checkbox"/> Freshwater tidal wetland = 2 points</p> <p style="text-align: right;">Map of hydroperiods</p>	<input type="checkbox"/> Permanently flooded or inundated	4 or more types present	points = 3	<input checked="" type="checkbox"/> Seasonally flooded or inundated	3 types present	points = 2	<input checked="" type="checkbox"/> Occasionally flooded or inundated	2 types present	points = 1	<input checked="" type="checkbox"/> Saturated only	1 type present	points = 0	<p>Figure _____</p> <p>2</p>
<input type="checkbox"/> Permanently flooded or inundated	4 or more types present	points = 3											
<input checked="" type="checkbox"/> Seasonally flooded or inundated	3 types present	points = 2											
<input checked="" type="checkbox"/> Occasionally flooded or inundated	2 types present	points = 1											
<input checked="" type="checkbox"/> Saturated only	1 type present	points = 0											
<p>H 1.3 <u>Richness of Plant Species</u> (see p. 75)</p> <p>Count the number of plant species in the wetland that cover at least 10 ft². (different patches of the same species can be combined to meet the size threshold)</p> <p>You do not have to name the species.</p> <p>Do not include Eurasian Milfoil, reed canarygrass, purple loosestrife, Canadian Thistle</p> <p>If you counted:</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td>> 19 species</td> <td>points = 2</td> </tr> <tr> <td>5 – 19 species</td> <td>points = 1</td> </tr> <tr> <td>< 5 species</td> <td>points = 0</td> </tr> </table> <p>List species below if you want to:</p>	> 19 species	points = 2	5 – 19 species	points = 1	< 5 species	points = 0	<p>Figure _____</p> <p>1</p>						
> 19 species	points = 2												
5 – 19 species	points = 1												
< 5 species	points = 0												

<p>H 1.4 Interspersion of habitats (<i>see p. 76</i>) Decide from the diagrams below whether interspersion between Cowardin vegetation classes (described in H1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none.</p> <p>NOTE: If you have four or more vegetation classes or three vegetation types and open water the rating is always "high". Use map of Cowardin vegetation classes</p>	<p>Figure _____</p> <p>1</p>	
<p>H 1.5 Special Habitat Features (<i>see p. 77</i>) Check the habitat features that are present in the wetland. The number of checks is the number of points you put into the next column.</p> <p><input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (> 4in. diameter and 6 ft long).</p> <p><input type="checkbox"/> Standing snags (diameter at the bottom > 4 inches) in the wetland</p> <p><input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2m) and/or overhanging vegetation extends at least 3.3 ft. (1m) over a stream (or ditch) in, or contiguous with the unit, for at least 33 ft (10m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet turned grey/brown</i>)</p> <p><input type="checkbox"/> At least ¼ acre of thin-stemmed persistent vegetation or woody branches are present in areas that are permanently or seasonally inundated. (<i>structures for egg-laying by amphibians</i>)</p> <p><input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in each stratum of plants</p> <p>NOTE: The 20% stated in early printings of the manual on page 78 is an error.</p>	<p>1</p>	
<p align="center">H 1. TOTAL Score – potential for providing habitat Add the scores from H1.1, H1.2, H1.3, H1.4, H1.5</p>		<p align="center">6</p>

Comments

H 2. Does the wetland unit have the opportunity to provide habitat for many species?	Figure
<p>H 2.1 <u>Buffers</u> (see P. 80) Choose the description that best represents condition of buffer of wetland unit. The highest scoring criterion that applies to the wetland is to be used in the rating. See text for definition of “undisturbed”.</p> <p><input type="checkbox"/> 100m (330 ft) of relatively undisturbed vegetated areas, rocky areas, or open water > 95% of circumference. No structures are within the undisturbed part of buffer. (relatively undisturbed also means no grazing, no landscaping, no daily human use) Points = 5</p> <p><input type="checkbox"/> 100m (330 ft) of relatively undisturbed vegetated areas, rocky areas, or open water > 50% circumference. Points = 4</p> <p><input type="checkbox"/> 50m (170 ft) of relatively undisturbed vegetated areas, rocky areas, or open water > 95% circumference. Points = 4</p> <p><input type="checkbox"/> 100m (330 ft) of relatively undisturbed vegetated areas, rocky areas, or open water > 25% circumference. Points = 3</p> <p><input type="checkbox"/> 50m (170 ft) of relatively undisturbed vegetated areas, rocky areas, or open water for > 50% circumference. Points = 3</p> <p style="text-align: center;">If buffer does not meet any of the criteria above</p> <p><input type="checkbox"/> No paved areas (except paved trails) or buildings within 25 m (80 ft) of wetland > 95% circumference. Light to moderate grazing, or lawns are OK. Points = 2</p> <p><input type="checkbox"/> No paved areas or buildings within 50m of wetland for > 50% circumference. Light to moderate grazing, or lawns are OK. Points = 2</p> <p><input type="checkbox"/> Heavy grazing in buffer. Points = 1</p> <p><input type="checkbox"/> Vegetated buffers are < 2m wide (6.6 ft) for more than 95% of the circumference (e.g. tilled fields, paving, basalt bedrock extend to edge of wetland) Points = 0</p> <p><input type="checkbox"/> Buffer does not meet any of the criteria above. Points = 1</p> <p style="text-align: center;">Aerial photo showing buffers</p>	<p>1</p>
<p>H 2.2 <u>Corridors and Connections</u> (see p. 81)</p> <p>H 2.2.1 Is the wetland part of a relatively undisturbed and unbroken vegetated corridor (either riparian or upland) that is at least 150 ft wide, has at least 30% cover of shrubs, forest or native undisturbed prairie, that connects to estuaries, other wetlands or undisturbed uplands that are at least 250 acres in size? (dams in riparian corridors, heavily used gravel roads, paved roads, are considered breaks in the corridor). YES = 4 points (go to H 2.3) NO = go to H 2.2.2</p> <p>H. 2.2.2 Is the wetland part of a relatively undisturbed and unbroken vegetated corridor (either riparian or upland) that is at least 50 ft wide, has at least 30% cover of shrubs or forest, and connects to estuaries, other wetlands or undisturbed uplands that are at least 25 acres in size? OR a Lake-fringe wetland, if it does not have an undisturbed corridor as in the question above? YES = 2 points (go to H 2.3) NO = go to H 2.2.3</p> <p>H. 2.2.3 Is the wetland: within 5 mi (8km) of a brackish or salt water estuary OR within 3 miles of a large field or pasture (> 40 acres) OR within 1 mile of a lake greater than 20 acres? YES = 1 point NO = 0 points</p>	<p>1</p>

Total for page 2

<p>H 2.3 <u>Near or adjacent to other priority habitats listed by WDFW (see p. 82)</u> Which of the following priority habitats are within 330 ft (100m) of the wetland unit? <i>NOTE: the connections do not have to be relatively undisturbed. These are DFW definitions. Check with your local DFW biologist if there are any questions.</i></p> <p><input type="checkbox"/> Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.</p> <p><input type="checkbox"/> Aspen Stands: Pure or mixed stands of aspen greater than 0.8 ha (2 acres).</p> <p><input type="checkbox"/> Cliffs: Greater than 7.6m (25 ft) high and occurring below 5000 ft.</p> <p><input type="checkbox"/> Old-growth forests: (Old growth west of Cascade Crest) Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings, with at least 20 trees/ha (8 trees/acre) > 81cm (32 in) dbh or > 200 years of age.</p> <p><input type="checkbox"/> Mature forests: Stands with average diameters exceeding 53cm (21 in) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 – 200 years old west of the Cascade crest.</p> <p><input type="checkbox"/> Prairies: Relatively undisturbed areas (as indicated by dominance of native plants) where greases and/or forbs form the natural climax plant community.</p> <p><input type="checkbox"/> Talus: Homogenous areas of rock rubble ranging in average size 0.15 – 2.0 m (0.5 – 6.5 ft), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.</p> <p><input type="checkbox"/> Caves: A naturally occurring cavity, recess, void, or system of interconnected passages.</p> <p><input type="checkbox"/> Oregon white Oak: Woodlands Stands of pure oak or oak/conifer associations where canopy coverage of the oak component of the stand is 25%.</p> <p><input type="checkbox"/> Urban Natural Open Space: A priority species resides within or is adjacent to the open space and uses it for breeding and/or regular feeding; and/or the open space functions as a corridor connecting other <i>priority habitats</i>, especially those that would otherwise be isolated; and/or the open space is an isolated remnant of natural habitat larger than 4 ha (10 acres) and is surrounded by urban development.</p> <p><input type="checkbox"/> Estuary/Estuary-like: Deepwater tidal habitats and adjacent tidal wetlands, usually semi-enclosed by land but with open, partly obstructed or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land. The salinity may be periodically increased above that of the open ocean by evaporation. Along some low-energy coastlines there is appreciable dilution of sea water. Estuarine habitat extends upstream and landward to where ocean-derived salts measure less than 0.5 ppt. during the period of average annual low flow. Includes both estuaries and lagoons.</p> <p><input type="checkbox"/> Marine/Estuarine Shorelines: Shorelines include the intertidal and subtidal zones of beaches, and may also include the backshore and adjacent components of the terrestrial landscape (e.g., cliffs, snags, mature trees, dunes, meadows) that are important to shoreline associated fish and wildlife and that contribute to shoreline function (e.g., sand/rock/log recruitment, nutrient contribution, erosion control).</p> <p> If wetland has 3 or more priority habitats = 4 points If wetland has 2 priority habit= 3 points If wetland has 1 priority habitats= 1 point No habitats= 0 points</p> <p><i>Note: All vegetated wetlands are by definition a priority habitat but are not included in this list. Nearby wetlands are addressed in question H 2.4)</i></p>	<p>0</p>
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Wetland name or number 4F

<p>H 2.4 <u>Wetland Landscape</u> (choose the one description of the landscape around the wetland that best fits) (see p. 84)</p> <p>There are at least 3 other wetlands within ½ mile, and the connections between them are relatively undisturbed (light grazing between wetlands OK, as is lake shore with some boating, but connections should NOT be bisected by paved roads, fill, fields, or other development. points = 5</p> <p>The wetland is Lake-fringe on a lake with little disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 5</p> <p>There are at least 3 other wetlands within ½ mile, BUT the connections between them are disturbed points = 3</p> <p>The wetland is Lake-fringe on a lake with disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 3</p> <p>There is at least 1 wetland within ½ mile points = 2</p> <p>There are no wetlands within ½ mile points = 0</p>	3
<p>H 2. TOTAL Score – opportunity for providing habitat <i>Add the scores from H2.1, H2.2, H2.3, H2.4</i></p>	5
<p>TOTAL for H 1 from page 14</p>	6
<p>Total Score for Habitat Functions – add the points for H 1, H 2 and record the result on p. 1</p>	11

Wetland name or number 5A

WETLAND RATING FORM – WESTERN WASHINGTON
Version 2 – Updated July 2006 to increase accuracy and reproducibility among users

Name of wetland (if known): 5A Date of site visit: 2006-2007

Rated by Dunkin Trained by Ecology? Yes X No Date of training Oct 2006

SEC: 17 TWSHP: 39N RNGE: 1E Is S/T/R in Appendix D? Yes No X

Map of wetland unit: Figure Estimated size **>40 Acres**

SUMMARY OF RATING

Category based on **FUNCTIONS** provided by wetland

I II III **X** IV

Category I = Score >=70
Category II = Score 51-69
Category III = Score 30-50
Category IV = Score <30

Score for Water Quality Functions	8
Score for Hydrologic Functions	16
Score for Habitat Functions	21
TOTAL score for Functions	45

Category based on **SPECIAL CHARACTERISTICS** of Wetland

I II Does not Apply **X**

III

Final Category (choose the “highest” category from above)

Summary of basic information about the wetland unit

Wetland Unit has Special Characteristics		Wetland HGM Class used for Rating	
Estuarine		Depressional	
Natural Heritage Wetland		Riverine	
Bog		Lake-fringe	
Mature Forest		Slope (depression)	X
Old Growth Forest		Flats	
Coastal Lagoon		Freshwater Tidal	
Interdunal			
None of the above	X	Check if unit has multiple HGM classes present	X

Does the wetland unit being rated meet any of the criteria below?

If you answer YES to any of the questions below you will need to protect the wetland according to the regulations regarding the special characteristics found in the wetland.

Check List for Wetlands That May Need Additional Protection (in addition to the protection recommended for its category)	YES	NO
SP1. <i>Has the wetland unit been documented as a habitat for any Federally listed Threatened or Endangered animal or plant species (T/E species)?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state or federal database.		X
SP2. <i>Has the wetland unit been documented as habitat for any State listed Threatened or Endangered animal species?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state database. Note: Wetlands with State listed plant species are categorized as Category I Natural Heritage Wetlands (see p. 19 of data form).		X
SP3. <i>Does the wetland unit contain individuals of Priority species listed by the WDFW for the state?</i>		X
SP4. <i>Does the wetland unit have a local significance in addition to its functions?</i> For example, the wetland has been identified in the Shoreline Master Program, the Critical Areas Ordinance, or in a local management plan as having special significance.		X

To complete the next part of the data sheet you will need to determine the Hydrogeomorphic Class of the wetland being rated.

The hydrogeomorphic classification groups wetlands into those that function in similar ways. This simplifies the questions needed to answer how well the wetland functions. The Hydrogeomorphic Class of a wetland can be determined using the key below. See p. 24 for more detailed instructions on classifying wetlands.

S Slope Wetlands		Points
WATER QUALITY FUNCTIONS – Indicators that the wetland unit functions to improve water quality		(only 1 score per box)
S	S 1. Does the wetland unit have the <u>potential</u> to improve water quality?	(see p. 64)
S	<p>S 1.1 Characteristics of average slope of unit:</p> <p>Slope is 1% or less (<i>a 1% slope has a 1 foot vertical drop in elevation for every 100 ft horizontal distance</i>) points = 3</p> <p>Slope is 1% - 2% points = 2</p> <p>Slope is 2% - 5% points = 1</p> <p>Slope is greater than 5% points = 0</p>	2
S	<p>S 1.2 The soil 2 inches below the surface (or duff layer) is clay or organic (<i>use NRCS definitions</i>)</p> <p>YES = 3 points NO = 0 points</p>	0
S	<p>S 1.3 Characteristics of the vegetation in the wetland that trap sediments and pollutants: Choose the points appropriate for the description that best fits the vegetation in the wetland. Dense vegetation means you have trouble seeing the soil surface (>75% cover), and uncut means not grazed or mowed and plants are higher than 6 inches.</p> <p>Dense, uncut, herbaceous vegetation > 90% of the wetland area points = 6</p> <p>Dense, uncut, herbaceous vegetation > 1/2 of area points = 3</p> <p>Dense, woody, vegetation > 1/2 of area points = 2</p> <p>Dense, uncut, herbaceous vegetation > 1/4 of area points = 1</p> <p>Does not meet any of the criteria above for vegetation points = 0</p> <p>Aerial photo or map with vegetation polygons</p>	Figure _____ 2
S	Total for S 1	Add the points in the boxes above 4
S	<p>S 2. Does the wetland have the <u>opportunity</u> to improve water quality?</p> <p>Answer YES if you know or believe there are pollutants in groundwater or surface water coming into the wetland that would otherwise reduce water quality in streams, lakes or groundwater downgradient from the wetland. Note which of the following conditions provide the sources of pollutants. A unit may have pollutants coming from several sources, but any single source would qualify as opportunity.</p> <p>___ Grazing in the wetland or within 150 ft</p> <p>___ Untreated stormwater discharges to wetland</p> <p>___ Tilled fields, logging, or orchards within 150 ft of wetland</p> <p>___ Residential, urban areas, or golf courses are within 150 ft upslope of wetland</p> <p>___ Other _____</p> <p>YES multiplier is 2 NO multiplier is 1</p>	(see p. 67) multiplier 2
S	TOTAL – Water Quality Functions	Multiply the score from S1 by S2 Add score to table on p. 1 8

Comments

<p>H 1.4 Interspersion of habitats (<i>see p. 76</i>) Decide from the diagrams below whether interspersion between Cowardin vegetation classes (described in H1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none.</p> <p>NOTE: If you have four or more vegetation classes or three vegetation types and open water the rating is always "high". Use map of Cowardin vegetation classes</p>	<p>Figure _____</p> <p style="text-align: center;">3</p>
<p>H 1.5 Special Habitat Features (<i>see p. 77</i>) Check the habitat features that are present in the wetland. The number of checks is the number of points you put into the next column.</p> <p><input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (> 4in. diameter and 6 ft long).</p> <p><input checked="" type="checkbox"/> Standing snags (diameter at the bottom > 4 inches) in the wetland</p> <p><input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2m) and/or overhanging vegetation extends at least 3.3 ft. (1m) over a stream (or ditch) in, or contiguous with the unit, for at least 33 ft (10m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet turned grey/brown</i>)</p> <p><input type="checkbox"/> At least ¼ acre of thin-stemmed persistent vegetation or woody branches are present in areas that are permanently or seasonally inundated. (<i>structures for egg-laying by amphibians</i>)</p> <p><input checked="" type="checkbox"/> Invasive plants cover less than 25% of the wetland area in each stratum of plants</p> <p>NOTE: The 20% stated in early printings of the manual on page 78 is an error.</p>	<p style="text-align: center;">3</p>
<p>H 1. TOTAL Score – potential for providing habitat Add the scores from H1.1, H1.2, H1.3, H1.4, H1.5</p>	<p>12</p>

Comments

<p>H 2.3 <u>Near or adjacent to other priority habitats listed by WDFW (see p. 82)</u> Which of the following priority habitats are within 330 ft (100m) of the wetland unit? <i>NOTE: the connections do not have to be relatively undisturbed. These are DFW definitions. Check with your local DFW biologist if there are any questions.</i></p> <p><input type="checkbox"/> Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.</p> <p><input type="checkbox"/> Aspen Stands: Pure or mixed stands of aspen greater than 0.8 ha (2 acres).</p> <p><input type="checkbox"/> Cliffs: Greater than 7.6m (25 ft) high and occurring below 5000 ft.</p> <p><input type="checkbox"/> Old-growth forests: (Old growth west of Cascade Crest) Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings, with at least 20 trees/ha (8 trees/acre) > 81cm (32 in) dbh or > 200 years of age.</p> <p><input type="checkbox"/> Mature forests: Stands with average diameters exceeding 53cm (21 in) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 – 200 years old west of the Cascade crest.</p> <p><input type="checkbox"/> Prairies: Relatively undisturbed areas (as indicated by dominance of native plants) where greases and/or forbs form the natural climax plant community.</p> <p><input type="checkbox"/> Talus: Homogenous areas of rock rubble ranging in average size 0.15 – 2.0 m (0.5 – 6.5 ft), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.</p> <p><input type="checkbox"/> Caves: A naturally occurring cavity, recess, void, or system of interconnected passages.</p> <p><input type="checkbox"/> Oregon white Oak: Woodlands Stands of pure oak or oak/conifer associations where canopy coverage of the oak component of the stand is 25%.</p> <p><input type="checkbox"/> Urban Natural Open Space: A priority species resides within or is adjacent to the open space and uses it for breeding and/or regular feeding; and/or the open space functions as a corridor connecting other <i>priority habitats</i>, especially those that would otherwise be isolated; and/or the open space is an isolated remnant of natural habitat larger than 4 ha (10 acres) and is surrounded by urban development.</p> <p><input type="checkbox"/> Estuary/Estuary-like: Deepwater tidal habitats and adjacent tidal wetlands, usually semi-enclosed by land but with open, partly obstructed or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land. The salinity may be periodically increased above that of the open ocean by evaporation. Along some low-energy coastlines there is appreciable dilution of sea water. Estuarine habitat extends upstream and landward to where ocean-derived salts measure less than 0.5 ppt. during the period of average annual low flow. Includes both estuaries and lagoons.</p> <p><input type="checkbox"/> Marine/Estuarine Shorelines: Shorelines include the intertidal and subtidal zones of beaches, and may also include the backshore and adjacent components of the terrestrial landscape (e.g., cliffs, snags, mature trees, dunes, meadows) that are important to shoreline associated fish and wildlife and that contribute to shoreline function (e.g., sand/rock/log recruitment, nutrient contribution, erosion control).</p> <p> If wetland has 3 or more priority habitats = 4 points If wetland has 2 priority habit= 3 points If wetland has 1 priority habitats= 1 point No habitats= 0 points</p> <p><i>Note: All vegetated wetlands are by definition a priority habitat but are not included in this list. Nearby wetlands are addressed in question H 2.4)</i></p>	<p>0</p>
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<p>H 2.4 <u>Wetland Landscape</u> (choose the one description of the landscape around the wetland that best fits) (see p. 84)</p> <p>There are at least 3 other wetlands within ½ mile, and the connections between them are relatively undisturbed (light grazing between wetlands OK, as is lake shore with some boating, but connections should NOT be bisected by paved roads, fill, fields, or other development. points = 5</p> <p>The wetland is Lake-fringe on a lake with little disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 5</p> <p>There are at least 3 other wetlands within ½ mile, BUT the connections between them are disturbed points = 3</p> <p>The wetland is Lake-fringe on a lake with disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 3</p> <p>There is at least 1 wetland within ½ mile points = 2</p> <p>There are no wetlands within ½ mile points = 0</p>	3
<p>H 2. TOTAL Score – opportunity for providing habitat <i>Add the scores from H2.1, H2.2, H2.3, H2.4</i></p>	9
<p>TOTAL for H 1 from page 14</p>	12
<p>Total Score for Habitat Functions – add the points for H 1, H 2 and record the result on p. 1</p>	21

Wetland name or number 5B

WETLAND RATING FORM – WESTERN WASHINGTON

Version 2 – Updated July 2006 to increase accuracy and reproducibility among users

Name of wetland (if known): 5B Date of site visit: 2006-2007

Rated by M. Gray Trained by Ecology? Yes X No Date of training Apr 2007

SEC: 17 TWSHP: 39N RNGE: 1E Is S/T/R in Appendix D? Yes No X

Map of wetland unit: Figure Estimated size: 0.13 acres

SUMMARY OF RATING

Category based on FUNCTIONS provided by wetland

I II III **X** IV

Category I = Score \geq 70
Category II = Score 51-69
Category III = Score 30-50
Category IV = Score $<$ 30

Score for Water Quality Functions	5
Score for Hydrologic Functions	18
Score for Habitat Functions	17
TOTAL score for Functions	40

Category based on SPECIAL CHARACTERISTICS of Wetland

I II Does not Apply

III

Final Category (choose the “highest” category from above)

Summary of basic information about the wetland unit

Wetland Unit has Special Characteristics		Wetland HGM Class used for Rating	
Estuarine		Depressional	X
Natural Heritage Wetland		Riverine	
Bog		Lake-fringe	
Mature Forest		Slope	
Old Growth Forest		Flats	
Coastal Lagoon		Freshwater Tidal	
Interdunal			
None of the above	X	Check if unit has multiple HGM classes present	

Does the wetland unit being rated meet any of the criteria below?

If you answer YES to any of the questions below you will need to protect the wetland according to the regulations regarding the special characteristics found in the wetland.

Check List for Wetlands That May Need Additional Protection (in addition to the protection recommended for its category)	YES	NO
SP1. <i>Has the wetland unit been documented as a habitat for any Federally listed Threatened or Endangered animal or plant species (T/E species)?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state or federal database.		X
SP2. <i>Has the wetland unit been documented as habitat for any State listed Threatened or Endangered animal species?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state database. Note: Wetlands with State listed plant species are categorized as Category I Natural Heritage Wetlands (see p. 19 of data form).		X
SP3. <i>Does the wetland unit contain individuals of Priority species listed by the WDFW for the state?</i>		X
SP4. <i>Does the wetland unit have a local significance in addition to its functions?</i> For example, the wetland has been identified in the Shoreline Master Program, the Critical Areas Ordinance, or in a local management plan as having special significance.		X

To complete the next part of the data sheet you will need to determine the Hydrogeomorphic Class of the wetland being rated.

The hydrogeomorphic classification groups wetlands into those that function in similar ways. This simplifies the questions needed to answer how well the wetland functions. The Hydrogeomorphic Class of a wetland can be determined using the key below. See p. 24 for more detailed instructions on classifying wetlands.

D Depressional and Flats Wetlands		Points
WATER QUALITY FUNCTIONS – Indicators that the wetland unit functions to improve water quality		(only 1 score per box)
D	D 1. Does the wetland unit have the <u>potential</u> to improve water quality?	(see p. 38)
D	<p>D 1.1 Characteristics of surface water flows out of the wetland:</p> <p>Unit is a depression with no surface water leaving it (no outlet) points = 3</p> <p>Unit has an intermittently flowing, OR highly constricted permanently flowing outlet points = 2</p> <p>Unit has an unconstricted, or slightly constricted, surface outlet (<i>permanently flowing</i>) points = 1</p> <p>Unit has a “flat” depression (Q. 7 on key), or in the Flats class, with permanent surface outflow and no obvious natural outlet and/or outlet is a man-made ditch points = 1</p> <p>(If ditch is not permanently flowing treat unit as “intermittently flowing”)</p> <p style="text-align: right;">Provide photo or drawing</p>	Figure _____ 2
D	<p>S 1.2 The soil 2 inches below the surface (or duff layer) is clay or organic (<i>use NRCS definitions</i>)</p> <p>YES points = 4</p> <p>NO points = 0</p>	0
D	<p>D 1.3 Characteristics of persistent vegetation (emergent, shrub, and/or forest Cowardin class)</p> <p>Wetland has persistent, ungrazed, vegetation > = 95% of area points = 5</p> <p>Wetland has persistent, ungrazed, vegetation > = ½ of area points = 3</p> <p>Wetland has persistent, ungrazed, vegetation > = 1/10 of area points = 1</p> <p>Wetland has persistent, ungrazed, vegetation < 1/10 of area points = 0</p> <p style="text-align: right;">Map of Cowardin vegetation classes</p>	Figure _____ 5
D	<p>D 1.4 Characteristics of seasonal ponding or inundation.</p> <p><i>This is the area of the wetland unit that is ponded for at least 2 months, but dries out sometime during the year. Do not count the area that is permanently ponded. Estimate area as the average condition 5 out of 10 years.</i></p> <p>Area seasonally ponded is > ½ total area of wetland points = 4</p> <p>Area seasonally ponded is > ¼ total area of wetland points = 2</p> <p>Area seasonally ponded is < ¼ total area of wetland points = 0</p> <p style="text-align: right;">Map of hydroperiods</p>	Figure _____ 2
D	Total for D 1	Add the points in the boxes above 9
D	D 2. Does the wetland have the <u>opportunity</u> to improve water quality?	(see p. 44)
	<p>Answer YES if you know or believe there are pollutants in groundwater or surface water coming into the wetland that would otherwise reduce water quality in streams, lakes or groundwater downgradient from the wetland. <i>Note which of the following conditions provide the sources of pollutants. A unit may have pollutants coming from several sources, but any single source would qualify as opportunity.</i></p> <p><input type="checkbox"/> Grazing in the wetland or within 150 ft</p> <p><input type="checkbox"/> Untreated stormwater discharges to wetland</p> <p><input checked="" type="checkbox"/> Tilled fields or orchards within 150 ft of wetland</p> <p><input type="checkbox"/> A stream or culvert discharges into wetland that drains developed areas, residential area, farmed fields, roads, or clear-cut logging</p> <p><input type="checkbox"/> Residential, urban areas, golf courses are within 150 ft of wetland</p> <p><input type="checkbox"/> Wetland is fed by groundwater high in phosphorus or nitrogen</p> <p><input type="checkbox"/> Other _____</p> <p>YES multiplier is 2 NO multiplier is 1</p>	multiplier 2 _____
D	TOTAL – Water Quality Functions	Multiply the score from D1 by D2 Add score to table on p. 1 18

D Depressional and Flats Wetlands HYDROLOGIC FUNCTIONS – Indicators that the wetland unit functions to reduce flooding and stream degradation.		Points (only 1 score per box)
D	D 3. Does the wetland have the <u>potential</u> to reduce flooding and stream erosion?	<i>(see p. 46)</i>
	<p>D 3.1 Characteristics of surface water flows out of the wetland unit</p> <p>Unit is a depression with no surface water leaving it (no outlet) points = 4</p> <p>Unit has an intermittently flowing, OR highly constricted permanently flowing outlet points = 2</p> <p>Unit is a “flat” depression (Q. 7 on key), or in the Flats class, with permanent surface outflow and no obvious natural outlet and/or outlet is a man-made ditch points = 1 <i>(If ditch is not permanently flowing treat unit as “intermittently flowing”)</i></p> <p>Unit has an unconstricted, or slightly constricted, surface outlet (<i>permanently flowing</i>) points = 0</p>	2
D	<p>D 3.2 Depth of storage during wet periods</p> <p><i>Estimate the height of ponding above the bottom of the outlet. For units with no outlet measure from the surface of permanent water or deepest part (if dry).</i></p> <p>Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7</p> <p>The wetland is a “headwater” wetland points = 5</p> <p>Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5</p> <p>Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points = 3</p> <p>Unit is flat (yes to Q. 2 or Q. 7 on key) but has small depressions on the surface that trap water points = 1</p> <p>Marks of ponding less than 0.5 ft points = 0</p>	3
D	<p>D 3.3 Contribution of wetland unit to storage in the watershed</p> <p><i>Estimate the ration of the area of upstream basin contributing surface water to the wetland to the area of the wetland unit itself.</i></p> <p>The area of the basin is less than 10 times the area of the unit points = 5</p> <p>The area of the basin is 10 to 100 times the area of the unit points = 3</p> <p>The area of the basin is more than 100 times the area of the unit points = 0</p> <p>Entire unit is in the FLATS class points = 5</p>	0
D	Total for D 3 <i>Add the points in the boxes above</i>	5
D	<p>D 4. Does the wetland have the <u>opportunity</u> to reduce flooding and erosion?</p> <p>Answer YES if the unit is in a location in the watershed where the flood storage, or reduction in water velocity, it provides helps protect downstream property and aquatic resources from flooding or excessive and/or erosive flows. Answer NO if the water coming into the wetland is controlled by a structure such as flood gate, tide gate, flap valve, reservoir etc. OR you estimate that more than 90% of the water in the wetland is from groundwater in areas where damaging groundwater flooding does not occur.</p> <p><i>Note which of the following indicators of opportunity apply.</i></p> <p><input type="checkbox"/> Wetland is in a headwater of a river or stream that has flooding problems</p> <p><input type="checkbox"/> Wetland drains to a river or stream that has flooding problems</p> <p><input type="checkbox"/> Wetland has no outlet and impounds surface runoff water that might otherwise flow into a river or stream that has flooding problems</p> <p><input type="checkbox"/> Other _____</p> <p>YES multiplier is 2 NO multiplier is 1</p>	<i>(see p. 49)</i> multiplier <u>1</u>
D	TOTAL – Hydrologic Functions Multiply the score from D 3 by D 4 <i>Add score to table on p. 1</i>	5

<p>H 1.4 Interspersion of habitats (<i>see p. 76</i>) Decide from the diagrams below whether interspersion between Cowardin vegetation classes (described in H1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none.</p> <p>NOTE: If you have four or more vegetation classes or three vegetation types and open water the rating is always "high". Use map of Cowardin vegetation classes</p>	<p>Figure _____</p> <p>1</p>	
<p>H 1.5 Special Habitat Features (<i>see p. 77</i>) Check the habitat features that are present in the wetland. The number of checks is the number of points you put into the next column.</p> <p><input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (> 4in. diameter and 6 ft long).</p> <p><input checked="" type="checkbox"/> Standing snags (diameter at the bottom > 4 inches) in the wetland</p> <p><input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2m) and/or overhanging vegetation extends at least 3.3 ft. (1m) over a stream (or ditch) in, or contiguous with the unit, for at least 33 ft (10m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet turned grey/brown</i>)</p> <p><input type="checkbox"/> At least ¼ acre of thin-stemmed persistent vegetation or woody branches are present in areas that are permanently or seasonally inundated. (<i>structures for egg-laying by amphibians</i>)</p> <p><input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in each stratum of plants</p> <p>NOTE: The 20% stated in early printings of the manual on page 78 is an error.</p>	<p>2</p>	
<p align="center">H 1. TOTAL Score – potential for providing habitat Add the scores from H1.1, H1.2, H1.3, H1.4, H1.5</p>		<p align="center">9</p>

Comments

<p>H 2.3 <u>Near or adjacent to other priority habitats listed by WDFW (see p. 82)</u> Which of the following priority habitats are within 330 ft (100m) of the wetland unit? <i>NOTE: the connections do not have to be relatively undisturbed. These are DFW definitions. Check with your local DFW biologist if there are any questions.</i></p> <p><input type="checkbox"/> Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.</p> <p><input type="checkbox"/> Aspen Stands: Pure or mixed stands of aspen greater than 0.8 ha (2 acres).</p> <p><input type="checkbox"/> Cliffs: Greater than 7.6m (25 ft) high and occurring below 5000 ft.</p> <p><input type="checkbox"/> Old-growth forests: (Old growth west of Cascade Crest) Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings, with at least 20 trees/ha (8 trees/acre) > 81cm (32 in) dbh or > 200 years of age.</p> <p><input type="checkbox"/> Mature forests: Stands with average diameters exceeding 53cm (21 in) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 – 200 years old west of the Cascade crest.</p> <p><input type="checkbox"/> Prairies: Relatively undisturbed areas (as indicated by dominance of native plants) where greases and/or forbs form the natural climax plant community.</p> <p><input type="checkbox"/> Talus: Homogenous areas of rock rubble ranging in average size 0.15 – 2.0 m (0.5 – 6.5 ft), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.</p> <p><input type="checkbox"/> Caves: A naturally occurring cavity, recess, void, or system of interconnected passages.</p> <p><input type="checkbox"/> Oregon white Oak: Woodlands Stands of pure oak or oak/conifer associations where canopy coverage of the oak component of the stand is 25%.</p> <p><input type="checkbox"/> Urban Natural Open Space: A priority species resides within or is adjacent to the open space and uses it for breeding and/or regular feeding; and/or the open space functions as a corridor connecting other <i>priority habitats</i>, especially those that would otherwise be isolated; and/or the open space is an isolated remnant of natural habitat larger than 4 ha (10 acres) and is surrounded by urban development.</p> <p><input type="checkbox"/> Estuary/Estuary-like: Deepwater tidal habitats and adjacent tidal wetlands, usually semi-enclosed by land but with open, partly obstructed or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land. The salinity may be periodically increased above that of the open ocean by evaporation. Along some low-energy coastlines there is appreciable dilution of sea water. Estuarine habitat extends upstream and landward to where ocean-derived salts measure less than 0.5 ppt. during the period of average annual low flow. Includes both estuaries and lagoons.</p> <p><input type="checkbox"/> Marine/Estuarine Shorelines: Shorelines include the intertidal and subtidal zones of beaches, and may also include the backshore and adjacent components of the terrestrial landscape (e.g., cliffs, snags, mature trees, dunes, meadows) that are important to shoreline associated fish and wildlife and that contribute to shoreline function (e.g., sand/rock/log recruitment, nutrient contribution, erosion control).</p> <p> If wetland has 3 or more priority habitats = 4 points If wetland has 2 priority habit= 3 points If wetland has 1 priority habitats= 1 point No habitats= 0 points</p> <p><i>Note: All vegetated wetlands are by definition a priority habitat but are not included in this list. Nearby wetlands are addressed in question H 2.4)</i></p>	<p>0</p>
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<p>H 2.4 <u>Wetland Landscape</u> (choose the one description of the landscape around the wetland that best fits) (see p. 84)</p> <p>There are at least 3 other wetlands within ½ mile, and the connections between them are relatively undisturbed (light grazing between wetlands OK, as is lake shore with some boating, but connections should NOT be bisected by paved roads, fill, fields, or other development. points = 5</p> <p>The wetland is Lake-fringe on a lake with little disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 5</p> <p>There are at least 3 other wetlands within ½ mile, BUT the connections between them are disturbed points = 3</p> <p>The wetland is Lake-fringe on a lake with disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 3</p> <p>There is at least 1 wetland within ½ mile points = 2</p> <p>There are no wetlands within ½ mile points = 0</p>	3
<p>H 2. TOTAL Score – opportunity for providing habitat <i>Add the scores from H2.1, H2.2, H2.3, H2.4</i></p>	8
<p>TOTAL for H 1 from page 14</p>	9
<p>Total Score for Habitat Functions – add the points for H 1, H 2 and record the result on p. 1</p>	17

Wetland name or number 5C

WETLAND RATING FORM – WESTERN WASHINGTON
Version 2 – Updated July 2006 to increase accuracy and reproducibility among users

Name of wetland (if known): 5C Date of site visit: 2006-2007

Rated by Gray Trained by Ecology? Yes X No Date of training Oct 2006

SEC: 17 TWSHP: 39N RNGE: 1E Is S/T/R in Appendix D? Yes No X

Map of wetland unit: Figure Estimated size: 0.22

SUMMARY OF RATING

Category based on FUNCTIONS provided by wetland

I II III **X** IV

Category I = Score >=70
Category II = Score 51-69
Category III = Score 30-50
Category IV = Score <30

Score for Water Quality Functions	8
Score for Hydrologic Functions	16
Score for Habitat Functions	21
TOTAL score for Functions	45

Category based on SPECIAL CHARACTERISTICS of Wetland

I II Does not Apply **X**

III

Final Category (choose the “highest” category from above)

Summary of basic information about the wetland unit

Wetland Unit has Special Characteristics		Wetland HGM Class used for Rating	
Estuarine		Depressional	
Natural Heritage Wetland		Riverine	
Bog		Lake-fringe	
Mature Forest		Slope (depression)	X
Old Growth Forest		Flats	
Coastal Lagoon		Freshwater Tidal	
Interdunal			
None of the above	X	Check if unit has multiple HGM classes present	X

Does the wetland unit being rated meet any of the criteria below?

If you answer YES to any of the questions below you will need to protect the wetland according to the regulations regarding the special characteristics found in the wetland.

Check List for Wetlands That May Need Additional Protection (in addition to the protection recommended for its category)	YES	NO
SP1. <i>Has the wetland unit been documented as a habitat for any Federally listed Threatened or Endangered animal or plant species (T/E species)?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state or federal database.		X
SP2. <i>Has the wetland unit been documented as habitat for any State listed Threatened or Endangered animal species?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state database. Note: Wetlands with State listed plant species are categorized as Category I Natural Heritage Wetlands (see p. 19 of data form).		X
SP3. <i>Does the wetland unit contain individuals of Priority species listed by the WDFW for the state?</i>		X
SP4. <i>Does the wetland unit have a local significance in addition to its functions?</i> For example, the wetland has been identified in the Shoreline Master Program, the Critical Areas Ordinance, or in a local management plan as having special significance.		X

To complete the next part of the data sheet you will need to determine the Hydrogeomorphic Class of the wetland being rated.

The hydrogeomorphic classification groups wetlands into those that function in similar ways. This simplifies the questions needed to answer how well the wetland functions. The Hydrogeomorphic Class of a wetland can be determined using the key below. See p. 24 for more detailed instructions on classifying wetlands.

S Slope Wetlands		Points
WATER QUALITY FUNCTIONS – Indicators that the wetland unit functions to improve water quality		(only 1 score per box)
S	S 1. Does the wetland unit have the <u>potential</u> to improve water quality?	<i>(see p. 64)</i>
S	<p>S 1.1 Characteristics of average slope of unit: Slope is 1% or less (<i>a 1% slope has a 1 foot vertical drop in elevation for every 100 ft horizontal distance</i>) points = 3 Slope is 1% - 2% points = 2 Slope is 2% - 5% points = 1 Slope is greater than 5% points = 0</p>	2
S	<p>S 1.2 The soil 2 inches below the surface (or duff layer) is clay or organic (<i>use NRCS definitions</i>) YES = 3 points NO = 0 points</p>	0
S	<p>S 1.3 Characteristics of the vegetation in the wetland that trap sediments and pollutants: <i>Choose the points appropriate for the description that best fits the vegetation in the wetland. Dense vegetation means you have trouble seeing the soil surface (>75% cover), and uncut means not grazed or mowed and plants are higher than 6 inches.</i> Dense, uncut, herbaceous vegetation > 90% of the wetland area points = 6 Dense, uncut, herbaceous vegetation > ½ of area points = 3 Dense, woody, vegetation > ½ of area points = 2 Dense, uncut, herbaceous vegetation > ¼ of area points = 1 Does not meet any of the criteria above for vegetation points = 0 Aerial photo or map with vegetation polygons</p>	Figure _____ 2
S	Total for S 1	<i>Add the points in the boxes above</i> 4
S	<p>S 2. Does the wetland have the <u>opportunity</u> to improve water quality? Answer YES if you know or believe there are pollutants in groundwater or surface water coming into the wetland that would otherwise reduce water quality in streams, lakes or groundwater downgradient from the wetland. <i>Note which of the following conditions provide the sources of pollutants. A unit may have pollutants coming from several sources, but any single source would qualify as opportunity.</i></p> <p> <input type="checkbox"/> Grazing in the wetland or within 150 ft <input type="checkbox"/> Untreated stormwater discharges to wetland <input type="checkbox"/> Tilled fields, logging, or orchards within 150 ft of wetland <input type="checkbox"/> Residential, urban areas, or golf courses are within 150 ft upslope of wetland <input type="checkbox"/> Other _____ YES multiplier is 2 NO multiplier is 1 </p>	<i>(see p. 67)</i> multiplier 2
S	TOTAL – Water Quality Functions	Multiply the score from S1 by S2 <i>Add score to table on p. 1</i> 8

Comments

<p>H 1.4 Interspersion of habitats (<i>see p. 76</i>) Decide from the diagrams below whether interspersion between Cowardin vegetation classes (described in H1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none.</p> <p>NOTE: If you have four or more vegetation classes or three vegetation types and open water the rating is always “high”. Use map of Cowardin vegetation classes</p>	<p>Figure _____</p> <p>3</p>
<p>H 1.5 Special Habitat Features (<i>see p. 77</i>) Check the habitat features that are present in the wetland. The number of checks is the number of points you put into the next column.</p> <p><input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (> 4in. diameter and 6 ft long).</p> <p><input checked="" type="checkbox"/> Standing snags (diameter at the bottom > 4 inches) in the wetland</p> <p><input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2m) and/or overhanging vegetation extends at least 3.3 ft. (1m) over a stream (or ditch) in, or contiguous with the unit, for at least 33 ft (10m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet turned grey/brown</i>)</p> <p><input type="checkbox"/> At least ¼ acre of thin-stemmed persistent vegetation or woody branches are present in areas that are permanently or seasonally inundated. (<i>structures for egg-laying by amphibians</i>)</p> <p><input checked="" type="checkbox"/> Invasive plants cover less than 25% of the wetland area in each stratum of plants</p> <p>NOTE: The 20% stated in early printings of the manual on page 78 is an error.</p>	<p>3</p>
<p align="center">H 1. TOTAL Score – potential for providing habitat Add the scores from H1.1, H1.2, H1.3, H1.4, H1.5</p>	<p align="center">12</p>

Comments

<p>H 2.3 <u>Near or adjacent to other priority habitats listed by WDFW (see p. 82)</u> Which of the following priority habitats are within 330 ft (100m) of the wetland unit? <i>NOTE: the connections do not have to be relatively undisturbed. These are DFW definitions. Check with your local DFW biologist if there are any questions.</i></p> <p><input type="checkbox"/> Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.</p> <p><input type="checkbox"/> Aspen Stands: Pure or mixed stands of aspen greater than 0.8 ha (2 acres).</p> <p><input type="checkbox"/> Cliffs: Greater than 7.6m (25 ft) high and occurring below 5000 ft.</p> <p><input type="checkbox"/> Old-growth forests: (Old growth west of Cascade Crest) Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings, with at least 20 trees/ha (8 trees/acre) > 81cm (32 in) dbh or > 200 years of age.</p> <p><input type="checkbox"/> Mature forests: Stands with average diameters exceeding 53cm (21 in) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 – 200 years old west of the Cascade crest.</p> <p><input type="checkbox"/> Prairies: Relatively undisturbed areas (as indicated by dominance of native plants) where greases and/or forbs form the natural climax plant community.</p> <p><input type="checkbox"/> Talus: Homogenous areas of rock rubble ranging in average size 0.15 – 2.0 m (0.5 – 6.5 ft), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.</p> <p><input type="checkbox"/> Caves: A naturally occurring cavity, recess, void, or system of interconnected passages.</p> <p><input type="checkbox"/> Oregon white Oak: Woodlands Stands of pure oak or oak/conifer associations where canopy coverage of the oak component of the stand is 25%.</p> <p><input type="checkbox"/> Urban Natural Open Space: A priority species resides within or is adjacent to the open space and uses it for breeding and/or regular feeding; and/or the open space functions as a corridor connecting other <i>priority habitats</i>, especially those that would otherwise be isolated; and/or the open space is an isolated remnant of natural habitat larger than 4 ha (10 acres) and is surrounded by urban development.</p> <p><input type="checkbox"/> Estuary/Estuary-like: Deepwater tidal habitats and adjacent tidal wetlands, usually semi-enclosed by land but with open, partly obstructed or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land. The salinity may be periodically increased above that of the open ocean by evaporation. Along some low-energy coastlines there is appreciable dilution of sea water. Estuarine habitat extends upstream and landward to where ocean-derived salts measure less than 0.5 ppt. during the period of average annual low flow. Includes both estuaries and lagoons.</p> <p><input type="checkbox"/> Marine/Estuarine Shorelines: Shorelines include the intertidal and subtidal zones of beaches, and may also include the backshore and adjacent components of the terrestrial landscape (e.g., cliffs, snags, mature trees, dunes, meadows) that are important to shoreline associated fish and wildlife and that contribute to shoreline function (e.g., sand/rock/log recruitment, nutrient contribution, erosion control).</p> <p> If wetland has 3 or more priority habitats = 4 points If wetland has 2 priority habit= 3 points If wetland has 1 priority habitats= 1 point No habitats= 0 points</p> <p><i>Note: All vegetated wetlands are by definition a priority habitat but are not included in this list. Nearby wetlands are addressed in question H 2.4)</i></p>	<p>0</p>
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<p>H 2.4 <u>Wetland Landscape</u> (choose the one description of the landscape around the wetland that best fits) (see p. 84)</p> <p>There are at least 3 other wetlands within ½ mile, and the connections between them are relatively undisturbed (light grazing between wetlands OK, as is lake shore with some boating, but connections should NOT be bisected by paved roads, fill, fields, or other development. points = 5</p> <p>The wetland is Lake-fringe on a lake with little disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 5</p> <p>There are at least 3 other wetlands within ½ mile, BUT the connections between them are disturbed points = 3</p> <p>The wetland is Lake-fringe on a lake with disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 3</p> <p>There is at least 1 wetland within ½ mile points = 2</p> <p>There are no wetlands within ½ mile points = 0</p>	3
<p>H 2. TOTAL Score – opportunity for providing habitat <i>Add the scores from H2.1, H2.2, H2.3, H2.4</i></p>	9
<p>TOTAL for H 1 from page 14</p>	12
<p>Total Score for Habitat Functions – add the points for H 1, H 2 and record the result on p. 1</p>	21

Wetland name or number 6

WETLAND RATING FORM – WESTERN WASHINGTON
Version 2 – Updated July 2006 to increase accuracy and reproducibility among users

Name of wetland (if known): 6 Date of site visit: 2006-2007

Rated by Dunkin Trained by Ecology? Yes No Date of training Oct 2006

SEC: 17 & 18 TOWNSHIP: 39N RANGE: 1E Is S/T/R in Appendix D? Yes No

Map of wetland unit: Figure _____ Estimated size 37 Acres

SUMMARY OF RATING

Category based on FUNCTIONS provided by wetland

I II III IV

Category I = Score >=70
Category II = Score 51-69
Category III = Score 30-50
Category IV = Score <30

Score for Water Quality Functions	8
Score for Hydrologic Functions	16
Score for Habitat Functions	19
TOTAL score for Functions	43

Category based on SPECIAL CHARACTERISTICS of Wetland

I II Does not Apply

III

Final Category (choose the “highest” category from above)

Summary of basic information about the wetland unit

Wetland Unit has Special Characteristics		Wetland HGM Class used for Rating	
Estuarine		Depressional	
Natural Heritage Wetland		Riverine	
Bog		Lake-fringe	
Mature Forest		Slope (depression)	<input checked="" type="checkbox"/>
Old Growth Forest		Flats	
Coastal Lagoon		Freshwater Tidal	
Interdunal			
None of the above	<input checked="" type="checkbox"/>	Check if unit has multiple HGM classes present	<input checked="" type="checkbox"/>

Does the wetland unit being rated meet any of the criteria below?

If you answer YES to any of the questions below you will need to protect the wetland according to the regulations regarding the special characteristics found in the wetland.

Check List for Wetlands That May Need Additional Protection (in addition to the protection recommended for its category)	YES	NO
SP1. <i>Has the wetland unit been documented as a habitat for any Federally listed Threatened or Endangered animal or plant species (T/E species)?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state or federal database.		X
SP2. <i>Has the wetland unit been documented as habitat for any State listed Threatened or Endangered animal species?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state database. Note: Wetlands with State listed plant species are categorized as Category I Natural Heritage Wetlands (see p. 19 of data form).		X
SP3. <i>Does the wetland unit contain individuals of Priority species listed by the WDFW for the state?</i>		X
SP4. <i>Does the wetland unit have a local significance in addition to its functions?</i> For example, the wetland has been identified in the Shoreline Master Program, the Critical Areas Ordinance, or in a local management plan as having special significance.		X

To complete the next part of the data sheet you will need to determine the Hydrogeomorphic Class of the wetland being rated.

The hydrogeomorphic classification groups wetlands into those that function in similar ways. This simplifies the questions needed to answer how well the wetland functions. The Hydrogeomorphic Class of a wetland can be determined using the key below. See p. 24 for more detailed instructions on classifying wetlands.

S Slope Wetlands		Points
WATER QUALITY FUNCTIONS – Indicators that the wetland unit functions to improve water quality		(only 1 score per box)
S	S 1. Does the wetland unit have the <u>potential</u> to improve water quality?	(see p. 64)
S	<p>S 1.1 Characteristics of average slope of unit: Slope is 1% or less (<i>a 1% slope has a 1 foot vertical drop in elevation for every 100 ft horizontal distance</i>) points = 3 Slope is 1% - 2% points = 2 Slope is 2% - 5% points = 1 Slope is greater than 5% points = 0</p>	2
S	<p>S 1.2 The soil 2 inches below the surface (or duff layer) is clay or organic (<i>use NRCS definitions</i>) YES = 3 points NO = 0 points</p>	0
S	<p>S 1.3 Characteristics of the vegetation in the wetland that trap sediments and pollutants: <i>Choose the points appropriate for the description that best fits the vegetation in the wetland. Dense vegetation means you have trouble seeing the soil surface (>75% cover), and uncut means not grazed or mowed and plants are higher than 6 inches.</i> Dense, uncut, herbaceous vegetation > 90% of the wetland area points = 6 Dense, uncut, herbaceous vegetation > ½ of area points = 3 Dense, woody, vegetation > ½ of area points = 2 Dense, uncut, herbaceous vegetation > ¼ of area points = 1 Does not meet any of the criteria above for vegetation points = 0 Aerial photo or map with vegetation polygons</p>	Figure _____ 2
S	Total for S 1	<i>Add the points in the boxes above</i> 4
S	<p>S 2. Does the wetland have the <u>opportunity</u> to improve water quality? Answer YES if you know or believe there are pollutants in groundwater or surface water coming into the wetland that would otherwise reduce water quality in streams, lakes or groundwater downgradient from the wetland. <i>Note which of the following conditions provide the sources of pollutants. A unit may have pollutants coming from several sources, but any single source would qualify as opportunity.</i></p> <p> <input type="checkbox"/> Grazing in the wetland or within 150 ft <input type="checkbox"/> Untreated stormwater discharges to wetland <input type="checkbox"/> Tilled fields, logging, or orchards within 150 ft of wetland <input type="checkbox"/> Residential, urban areas, or golf courses are within 150 ft upslope of wetland <input type="checkbox"/> Other _____ YES multiplier is 2 NO multiplier is 1 </p>	(see p. 67) multiplier 2 _____
S	TOTAL – Water Quality Functions	Multiply the score from S1 by S2 <i>Add score to table on p. 1</i> 8

Comments

<p>H 1.4 Interspersion of habitats (<i>see p. 76</i>) Decide from the diagrams below whether interspersion between Cowardin vegetation classes (described in H1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none.</p> <p>NOTE: If you have four or more vegetation classes or three vegetation types and open water the rating is always “high”. Use map of Cowardin vegetation classes</p>	<p>Figure _____</p> <p>1</p>	
<p>H 1.5 Special Habitat Features (<i>see p. 77</i>) Check the habitat features that are present in the wetland. The number of checks is the number of points you put into the next column.</p> <p><input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (> 4in. diameter and 6 ft long).</p> <p><input checked="" type="checkbox"/> Standing snags (diameter at the bottom > 4 inches) in the wetland</p> <p><input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2m) and/or overhanging vegetation extends at least 3.3 ft. (1m) over a stream (or ditch) in, or contiguous with the unit, for at least 33 ft (10m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet turned grey/brown</i>)</p> <p><input type="checkbox"/> At least ¼ acre of thin-stemmed persistent vegetation or woody branches are present in areas that are permanently or seasonally inundated. (<i>structures for egg-laying by amphibians</i>)</p> <p><input checked="" type="checkbox"/> Invasive plants cover less than 25% of the wetland area in each stratum of plants</p> <p>NOTE: The 20% stated in early printings of the manual on page 78 is an error.</p>	<p>3</p>	
<p align="center">H 1. TOTAL Score – potential for providing habitat Add the scores from H1.1, H1.2, H1.3, H1.4, H1.5</p>		<p align="center">10</p>

Comments

<p>H 2.3 <u>Near or adjacent to other priority habitats listed by WDFW (see p. 82)</u> Which of the following priority habitats are within 330 ft (100m) of the wetland unit? <i>NOTE: the connections do not have to be relatively undisturbed. These are DFW definitions. Check with your local DFW biologist if there are any questions.</i></p> <p><input type="checkbox"/> Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.</p> <p><input type="checkbox"/> Aspen Stands: Pure or mixed stands of aspen greater than 0.8 ha (2 acres).</p> <p><input type="checkbox"/> Cliffs: Greater than 7.6m (25 ft) high and occurring below 5000 ft.</p> <p><input type="checkbox"/> Old-growth forests: (Old growth west of Cascade Crest) Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings, with at least 20 trees/ha (8 trees/acre) > 81cm (32 in) dbh or > 200 years of age.</p> <p><input type="checkbox"/> Mature forests: Stands with average diameters exceeding 53cm (21 in) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 – 200 years old west of the Cascade crest.</p> <p><input type="checkbox"/> Prairies: Relatively undisturbed areas (as indicated by dominance of native plants) where greases and/or forbs form the natural climax plant community.</p> <p><input type="checkbox"/> Talus: Homogenous areas of rock rubble ranging in average size 0.15 – 2.0 m (0.5 – 6.5 ft), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.</p> <p><input type="checkbox"/> Caves: A naturally occurring cavity, recess, void, or system of interconnected passages.</p> <p><input type="checkbox"/> Oregon white Oak: Woodlands Stands of pure oak or oak/conifer associations where canopy coverage of the oak component of the stand is 25%.</p> <p><input type="checkbox"/> Urban Natural Open Space: A priority species resides within or is adjacent to the open space and uses it for breeding and/or regular feeding; and/or the open space functions as a corridor connecting other <i>priority habitats</i>, especially those that would otherwise be isolated; and/or the open space is an isolated remnant of natural habitat larger than 4 ha (10 acres) and is surrounded by urban development.</p> <p><input type="checkbox"/> Estuary/Estuary-like: Deepwater tidal habitats and adjacent tidal wetlands, usually semi-enclosed by land but with open, partly obstructed or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land. The salinity may be periodically increased above that of the open ocean by evaporation. Along some low-energy coastlines there is appreciable dilution of sea water. Estuarine habitat extends upstream and landward to where ocean-derived salts measure less than 0.5 ppt. during the period of average annual low flow. Includes both estuaries and lagoons.</p> <p><input type="checkbox"/> Marine/Estuarine Shorelines: Shorelines include the intertidal and subtidal zones of beaches, and may also include the backshore and adjacent components of the terrestrial landscape (e.g., cliffs, snags, mature trees, dunes, meadows) that are important to shoreline associated fish and wildlife and that contribute to shoreline function (e.g., sand/rock/log recruitment, nutrient contribution, erosion control).</p> <p> If wetland has 3 or more priority habitats = 4 points If wetland has 2 priority habit= 3 points If wetland has 1 priority habitats= 1 point No habitats= 0 points</p> <p><i>Note: All vegetated wetlands are by definition a priority habitat but are not included in this list. Nearby wetlands are addressed in question H 2.4)</i></p>	<p>0</p>
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Wetland name or number 6

<p>H 2.4 <u>Wetland Landscape</u> (choose the one description of the landscape around the wetland that best fits) (see p. 84)</p> <p>There are at least 3 other wetlands within ½ mile, and the connections between them are relatively undisturbed (light grazing between wetlands OK, as is lake shore with some boating, but connections should NOT be bisected by paved roads, fill, fields, or other development. points = 5</p> <p>The wetland is Lake-fringe on a lake with little disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 5</p> <p>There are at least 3 other wetlands within ½ mile, BUT the connections between them are disturbed points = 3</p> <p>The wetland is Lake-fringe on a lake with disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 3</p> <p>There is at least 1 wetland within ½ mile points = 2</p> <p>There are no wetlands within ½ mile points = 0</p>	3
<p>H 2. TOTAL Score – opportunity for providing habitat <i>Add the scores from H2.1, H2.2, H2.3, H2.4</i></p>	9
<p>TOTAL for H 1 from page 14</p>	10
<p>Total Score for Habitat Functions – add the points for H 1, H 2 and record the result on p. 1</p>	19

Wetland name or number 7A

WETLAND RATING FORM – WESTERN WASHINGTON
Version 2 – Updated July 2006 to increase accuracy and reproducibility among users

Name of wetland (if known): 7A Date of site visit: 2006-2007

Rated by Dunkin Trained by Ecology? Yes No Date of training Oct 2006

SEC: 18 TWSHP: 39N RNGE: 1E Is S/T/R in Appendix D? Yes No

Map of wetland unit: Figure Estimated size: **40 Acres**

SUMMARY OF RATING

Category based on FUNCTIONS provided by wetland

I II III IV

Category I = Score ≥ 70
Category II = Score 51-69
Category III = Score 30-50
Category IV = Score < 30

Score for Water Quality Functions	8
Score for Hydrologic Functions	16
Score for Habitat Functions	21
TOTAL score for Functions	45

Category based on SPECIAL CHARACTERISTICS of Wetland

I II Does not Apply

III

Final Category (choose the “highest” category from above)

Summary of basic information about the wetland unit

Wetland Unit has Special Characteristics		Wetland HGM Class used for Rating	
Estuarine		Depressional	
Natural Heritage Wetland		Riverine	
Bog		Lake-fringe	
Mature Forest		Slope	X
Old Growth Forest		Flats	
Coastal Lagoon		Freshwater Tidal	
Interdunal			
None of the above	X	Check if unit has multiple HGM classes present	

Does the wetland unit being rated meet any of the criteria below?

If you answer YES to any of the questions below you will need to protect the wetland according to the regulations regarding the special characteristics found in the wetland.

Check List for Wetlands That May Need Additional Protection (in addition to the protection recommended for its category)	YES	NO
SP1. <i>Has the wetland unit been documented as a habitat for any Federally listed Threatened or Endangered animal or plant species (T/E species)?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state or federal database.		X
SP2. <i>Has the wetland unit been documented as habitat for any State listed Threatened or Endangered animal species?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state database. Note: Wetlands with State listed plant species are categorized as Category I Natural Heritage Wetlands (see p. 19 of data form).		X
SP3. <i>Does the wetland unit contain individuals of Priority species listed by the WDFW for the state?</i>		X
SP4. <i>Does the wetland unit have a local significance in addition to its functions?</i> For example, the wetland has been identified in the Shoreline Master Program, the Critical Areas Ordinance, or in a local management plan as having special significance.		X

To complete the next part of the data sheet you will need to determine the Hydrogeomorphic Class of the wetland being rated.

The hydrogeomorphic classification groups wetlands into those that function in similar ways. This simplifies the questions needed to answer how well the wetland functions. The Hydrogeomorphic Class of a wetland can be determined using the key below. See p. 24 for more detailed instructions on classifying wetlands.

S Slope Wetlands		Points
WATER QUALITY FUNCTIONS – Indicators that the wetland unit functions to improve water quality		(only 1 score per box)
S	S 1. Does the wetland unit have the <u>potential</u> to improve water quality?	<i>(see p. 64)</i>
S	<p>S 1.1 Characteristics of average slope of unit: Slope is 1% or less (<i>a 1% slope has a 1 foot vertical drop in elevation for every 100 ft horizontal distance</i>) points = 3 Slope is 1% - 2% points = 2 Slope is 2% - 5% points = 1 Slope is greater than 5% points = 0</p>	2
S	<p>S 1.2 The soil 2 inches below the surface (or duff layer) is clay or organic (<i>use NRCS definitions</i>) YES = 3 points NO = 0 points</p>	0
S	<p>S 1.3 Characteristics of the vegetation in the wetland that trap sediments and pollutants: <i>Choose the points appropriate for the description that best fits the vegetation in the wetland. Dense vegetation means you have trouble seeing the soil surface (>75% cover), and uncut means not grazed or mowed and plants are higher than 6 inches.</i> Dense, uncut, herbaceous vegetation > 90% of the wetland area points = 6 Dense, uncut, herbaceous vegetation > ½ of area points = 3 Dense, woody, vegetation > ½ of area points = 2 Dense, uncut, herbaceous vegetation > ¼ of area points = 1 Does not meet any of the criteria above for vegetation points = 0 Aerial photo or map with vegetation polygons</p>	Figure _____ 2
S	Total for S 1	<i>Add the points in the boxes above</i> 4
S	<p>S 2. Does the wetland have the <u>opportunity</u> to improve water quality? Answer YES if you know or believe there are pollutants in groundwater or surface water coming into the wetland that would otherwise reduce water quality in streams, lakes or groundwater downgradient from the wetland. <i>Note which of the following conditions provide the sources of pollutants. A unit may have pollutants coming from several sources, but any single source would qualify as opportunity.</i></p> <p> <input type="checkbox"/> Grazing in the wetland or within 150 ft <input type="checkbox"/> Untreated stormwater discharges to wetland <input type="checkbox"/> Tilled fields, logging, or orchards within 150 ft of wetland <input type="checkbox"/> Residential, urban areas, or golf courses are within 150 ft upslope of wetland <input type="checkbox"/> Other _____</p> <p>YES multiplier is 2 NO multiplier is 1</p>	<i>(see p. 67)</i> multiplier 2
S	TOTAL – Water Quality Functions	Multiply the score from S1 by S2 <i>Add score to table on p. 1</i> 8

Comments

<p>H 1.4 Interspersion of habitats (<i>see p. 76</i>) Decide from the diagrams below whether interspersion between Cowardin vegetation classes (described in H1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none.</p> <p>NOTE: If you have four or more vegetation classes or three vegetation types and open water the rating is always “high”. Use map of Cowardin vegetation classes</p>	<p>Figure _____</p> <p style="text-align: center;">3</p>
<p>H 1.5 Special Habitat Features (<i>see p. 77</i>) Check the habitat features that are present in the wetland. The number of checks is the number of points you put into the next column.</p> <p><input type="checkbox"/> Large, downed, woody debris within the wetland (> 4in. diameter and 6 ft long).</p> <p><input type="checkbox"/> Standing snags (diameter at the bottom > 4 inches) in the wetland</p> <p><input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2m) and/or overhanging vegetation extends at least 3.3 ft. (1m) over a stream (or ditch) in, or contiguous with the unit, for at least 33 ft (10m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet turned grey/brown</i>)</p> <p><input type="checkbox"/> At least ¼ acre of thin-stemmed persistent vegetation or woody branches are present in areas that are permanently or seasonally inundated. (<i>structures for egg-laying by amphibians</i>)</p> <p><input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in each stratum of plants</p> <p>NOTE: The 20% stated in early printings of the manual on page 78 is an error.</p>	<p style="text-align: center;">3</p>
<p>H 1. TOTAL Score – potential for providing habitat Add the scores from H1.1, H1.2, H1.3, H1.4, H1.5</p>	<p>12</p>

Comments

<p>H 2.3 <u>Near or adjacent to other priority habitats listed by WDFW (see p. 82)</u> Which of the following priority habitats are within 330 ft (100m) of the wetland unit? <i>NOTE: the connections do not have to be relatively undisturbed. These are DFW definitions. Check with your local DFW biologist if there are any questions.</i></p> <p><input type="checkbox"/> Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.</p> <p><input type="checkbox"/> Aspen Stands: Pure or mixed stands of aspen greater than 0.8 ha (2 acres).</p> <p><input type="checkbox"/> Cliffs: Greater than 7.6m (25 ft) high and occurring below 5000 ft.</p> <p><input type="checkbox"/> Old-growth forests: (Old growth west of Cascade Crest) Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings, with at least 20 trees/ha (8 trees/acre) > 81cm (32 in) dbh or > 200 years of age.</p> <p><input type="checkbox"/> Mature forests: Stands with average diameters exceeding 53cm (21 in) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 – 200 years old west of the Cascade crest.</p> <p><input type="checkbox"/> Prairies: Relatively undisturbed areas (as indicated by dominance of native plants) where greases and/or forbs form the natural climax plant community.</p> <p><input type="checkbox"/> Talus: Homogenous areas of rock rubble ranging in average size 0.15 – 2.0 m (0.5 – 6.5 ft), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.</p> <p><input type="checkbox"/> Caves: A naturally occurring cavity, recess, void, or system of interconnected passages.</p> <p><input type="checkbox"/> Oregon white Oak: Woodlands Stands of pure oak or oak/conifer associations where canopy coverage of the oak component of the stand is 25%.</p> <p><input type="checkbox"/> Urban Natural Open Space: A priority species resides within or is adjacent to the open space and uses it for breeding and/or regular feeding; and/or the open space functions as a corridor connecting other <i>priority habitats</i>, especially those that would otherwise be isolated; and/or the open space is an isolated remnant of natural habitat larger than 4 ha (10 acres) and is surrounded by urban development.</p> <p><input type="checkbox"/> Estuary/Estuary-like: Deepwater tidal habitats and adjacent tidal wetlands, usually semi-enclosed by land but with open, partly obstructed or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land. The salinity may be periodically increased above that of the open ocean by evaporation. Along some low-energy coastlines there is appreciable dilution of sea water. Estuarine habitat extends upstream and landward to where ocean-derived salts measure less than 0.5 ppt. during the period of average annual low flow. Includes both estuaries and lagoons.</p> <p><input type="checkbox"/> Marine/Estuarine Shorelines: Shorelines include the intertidal and subtidal zones of beaches, and may also include the backshore and adjacent components of the terrestrial landscape (e.g., cliffs, snags, mature trees, dunes, meadows) that are important to shoreline associated fish and wildlife and that contribute to shoreline function (e.g., sand/rock/log recruitment, nutrient contribution, erosion control).</p> <p> If wetland has 3 or more priority habitats = 4 points If wetland has 2 priority habit= 3 points If wetland has 1 priority habitats= 1 point No habitats= 0 points</p> <p><i>Note: All vegetated wetlands are by definition a priority habitat but are not included in this list. Nearby wetlands are addressed in question H 2.4)</i></p>	<p>0</p>
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Wetland name or number 7A

<p>H 2.4 <u>Wetland Landscape</u> (choose the one description of the landscape around the wetland that best fits) (see p. 84)</p> <p>There are at least 3 other wetlands within ½ mile, and the connections between them are relatively undisturbed (light grazing between wetlands OK, as is lake shore with some boating, but connections should NOT be bisected by paved roads, fill, fields, or other development. points = 5</p> <p>The wetland is Lake-fringe on a lake with little disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 5</p> <p>There are at least 3 other wetlands within ½ mile, BUT the connections between them are disturbed points = 3</p> <p>The wetland is Lake-fringe on a lake with disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 3</p> <p>There is at least 1 wetland within ½ mile points = 2</p> <p>There are no wetlands within ½ mile points = 0</p>	3
<p>H 2. TOTAL Score – opportunity for providing habitat <i>Add the scores from H2.1, H2.2, H2.3, H2.4</i></p>	9
<p>TOTAL for H 1 from page 14</p>	12
<p>Total Score for Habitat Functions – add the points for H 1, H 2 and record the result on p. 1</p>	21

Wetland name or number 7B

WETLAND RATING FORM – WESTERN WASHINGTON
Version 2 – Updated July 2006 to increase accuracy and reproducibility among users

Name of wetland (if known): 7B Date of site visit: 2006-2007

Rated by M. Gray Trained by Ecology? Yes X No Date of training Apr 2007

SEC: 18 TWSHP: 39N RNGE: 1E Is S/T/R in Appendix D? Yes No X

Map of wetland unit: Figure Estimated size 0.18 acres

SUMMARY OF RATING

Category based on FUNCTIONS provided by wetland

I II III X IV

Category I = Score >=70
Category II = Score 51-69
Category III = Score 30-50
Category IV = Score <30

Score for Water Quality Functions	10
Score for Hydrologic Functions	5
Score for Habitat Functions	18
TOTAL score for Functions	33

Category based on SPECIAL CHARACTERISTICS of Wetland

I II Does not Apply

III

Final Category (choose the “highest” category from above)

Summary of basic information about the wetland unit

Wetland Unit has Special Characteristics		Wetland HGM Class used for Rating	
Estuarine		Depressional	X
Natural Heritage Wetland		Riverine	
Bog		Lake-fringe	
Mature Forest		Slope	
Old Growth Forest		Flats	
Coastal Lagoon		Freshwater Tidal	
Interdunal			
None of the above	X	Check if unit has multiple HGM classes present	

Does the wetland unit being rated meet any of the criteria below?

If you answer YES to any of the questions below you will need to protect the wetland according to the regulations regarding the special characteristics found in the wetland.

Check List for Wetlands That May Need Additional Protection (in addition to the protection recommended for its category)	YES	NO
SP1. <i>Has the wetland unit been documented as a habitat for any Federally listed Threatened or Endangered animal or plant species (T/E species)?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state or federal database.		X
SP2. <i>Has the wetland unit been documented as habitat for any State listed Threatened or Endangered animal species?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state database. Note: Wetlands with State listed plant species are categorized as Category I Natural Heritage Wetlands (see p. 19 of data form).		X
SP3. <i>Does the wetland unit contain individuals of Priority species listed by the WDFW for the state?</i>		X
SP4. <i>Does the wetland unit have a local significance in addition to its functions?</i> For example, the wetland has been identified in the Shoreline Master Program, the Critical Areas Ordinance, or in a local management plan as having special significance.		X

To complete the next part of the data sheet you will need to determine the Hydrogeomorphic Class of the wetland being rated.

The hydrogeomorphic classification groups wetlands into those that function in similar ways. This simplifies the questions needed to answer how well the wetland functions. The Hydrogeomorphic Class of a wetland can be determined using the key below. See p. 24 for more detailed instructions on classifying wetlands.

D Depressional and Flats Wetlands		Points
WATER QUALITY FUNCTIONS – Indicators that the wetland unit functions to improve water quality		(only 1 score per box)
D	D 1. Does the wetland unit have the <u>potential</u> to improve water quality?	(see p. 38)
D	<p>D 1.1 Characteristics of surface water flows out of the wetland:</p> <p>Unit is a depression with no surface water leaving it (no outlet) points = 3</p> <p>Unit has an intermittently flowing, OR highly constricted permanently flowing outlet points = 2</p> <p>Unit has an unconstricted, or slightly constricted, surface outlet (<i>permanently flowing</i>) points = 1</p> <p>Unit has a “flat” depression (Q. 7 on key), or in the Flats class, with permanent surface outflow and no obvious natural outlet and/or outlet is a man-made ditch points = 1</p> <p>(If ditch is not permanently flowing treat unit as “intermittently flowing”)</p> <p style="text-align: right;">Provide photo or drawing</p>	Figure _____ 2
D	<p>S 1.2 The soil 2 inches below the surface (or duff layer) is clay or organic (<i>use NRCS definitions</i>)</p> <p>YES points = 4</p> <p>NO points = 0</p>	0
D	<p>D 1.3 Characteristics of persistent vegetation (emergent, shrub, and/or forest Cowardin class)</p> <p>Wetland has persistent, ungrazed, vegetation > = 95% of area points = 5</p> <p>Wetland has persistent, ungrazed, vegetation > = ½ of area points = 3</p> <p>Wetland has persistent, ungrazed, vegetation > = 1/10 of area points = 1</p> <p>Wetland has persistent, ungrazed, vegetation < 1/10 of area points = 0</p> <p style="text-align: right;">Map of Cowardin vegetation classes</p>	Figure _____ 3
D	<p>D 1.4 Characteristics of seasonal ponding or inundation.</p> <p><i>This is the area of the wetland unit that is ponded for at least 2 months, but dries out sometime during the year. Do not count the area that is permanently ponded. Estimate area as the average condition 5 out of 10 years.</i></p> <p>Area seasonally ponded is > ½ total area of wetland points = 4</p> <p>Area seasonally ponded is > ¼ total area of wetland points = 2</p> <p>Area seasonally ponded is < ¼ total area of wetland points = 0</p> <p style="text-align: right;">Map of hydroperiods</p>	Figure _____ 0
D	Total for D 1	5
D	D 2. Does the wetland have the <u>opportunity</u> to improve water quality?	(see p. 44)
	<p>Answer YES if you know or believe there are pollutants in groundwater or surface water coming into the wetland that would otherwise reduce water quality in streams, lakes or groundwater downgradient from the wetland. <i>Note which of the following conditions provide the sources of pollutants. A unit may have pollutants coming from several sources, but any single source would qualify as opportunity.</i></p> <p><input checked="" type="checkbox"/> Grazing in the wetland or within 150 ft</p> <p><input type="checkbox"/> Untreated stormwater discharges to wetland</p> <p><input type="checkbox"/> Tilled fields or orchards within 150 ft of wetland</p> <p><input type="checkbox"/> A stream or culvert discharges into wetland that drains developed areas, residential area, farmed fields, roads, or clear-cut logging</p> <p><input type="checkbox"/> Residential, urban areas, golf courses are within 150 ft of wetland</p> <p><input type="checkbox"/> Wetland is fed by groundwater high in phosphorus or nitrogen</p> <p><input checked="" type="checkbox"/> Other <u>railroad tracks, industrial areas upstream</u></p> <p>YES multiplier is 2 NO multiplier is 1</p>	multiplier 2
D	TOTAL – Water Quality Functions	10
	Multiply the score from D1 by D2 <i>Add score to table on p. 1</i>	

D Depressional and Flats Wetlands		Points
HYDROLOGIC FUNCTIONS – Indicators that the wetland unit functions to reduce flooding and stream degradation.		(only 1 score per box)
D	D 3. Does the wetland have the <u>potential</u> to reduce flooding and stream erosion?	<i>(see p. 46)</i>
	<p>D 3.1 Characteristics of surface water flows out of the wetland unit</p> <p>Unit is a depression with no surface water leaving it (no outlet) points = 4</p> <p>Unit has an intermittently flowing, OR highly constricted permanently flowing outlet points = 2</p> <p>Unit is a “flat” depression (Q. 7 on key), or in the Flats class, with permanent surface outflow and no obvious natural outlet and/or outlet is a man-made ditch points = 1</p> <p><i>(If ditch is not permanently flowing treat unit as “intermittently flowing”)</i></p> <p>Unit has an unconstricted, or slightly constricted, surface outlet (<i>permanently flowing</i>) points = 0</p>	2
D	<p>D 3.2 Depth of storage during wet periods</p> <p><i>Estimate the height of ponding above the bottom of the outlet. For units with no outlet measure from the surface of permanent water or deepest part (if dry).</i></p> <p>Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7</p> <p>The wetland is a “headwater” wetland points = 5</p> <p>Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5</p> <p>Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points = 3</p> <p>Unit is flat (yes to Q. 2 or Q. 7 on key) but has small depressions on the surface that trap water points = 1</p> <p>Marks of ponding less than 0.5 ft points = 0</p>	3
D	<p>D 3.3 Contribution of wetland unit to storage in the watershed</p> <p><i>Estimate the ration of the area of upstream basin contributing surface water to the wetland to the area of the wetland unit itself.</i></p> <p>The area of the basin is less than 10 times the area of the unit points = 5</p> <p>The area of the basin is 10 to 100 times the area of the unit points = 3</p> <p>The area of the basin is more than 100 times the area of the unit points = 0</p> <p>Entire unit is in the FLATS class points = 5</p>	0
D	Total for D 3 <i>Add the points in the boxes above</i>	5
D	<p>D 4. Does the wetland have the <u>opportunity</u> to reduce flooding and erosion?</p> <p>Answer YES if the unit is in a location in the watershed where the flood storage, or reduction in water velocity, it provides helps protect downstream property and aquatic resources from flooding or excessive and/or erosive flows. Answer NO if the water coming into the wetland is controlled by a structure such as flood gate, tide gate, flap valve, reservoir etc. OR you estimate that more than 90% of the water in the wetland is from groundwater in areas where damaging groundwater flooding does not occur.</p> <p><i>Note which of the following indicators of opportunity apply.</i></p> <p><input type="checkbox"/> Wetland is in a headwater of a river or stream that has flooding problems</p> <p><input type="checkbox"/> Wetland drains to a river or stream that has flooding problems</p> <p><input type="checkbox"/> Wetland has no outlet and impounds surface runoff water that might otherwise flow into a river or stream that has flooding problems</p> <p><input type="checkbox"/> Other _____</p> <p>YES multiplier is 2 NO multiplier is 1</p>	<i>(see p. 49)</i> multiplier <u>1</u>
D	TOTAL – Hydrologic Functions Multiply the score from D 3 by D 4 <i>Add score to table on p. 1</i>	5

<p>H 1.4 Interspersion of habitats (<i>see p. 76</i>) Decide from the diagrams below whether interspersion between Cowardin vegetation classes (described in H1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none.</p> <p>NOTE: If you have four or more vegetation classes or three vegetation types and open water the rating is always "high". Use map of Cowardin vegetation classes</p>	<p>Figure _____</p> <p>1</p>
<p>H 1.5 Special Habitat Features (<i>see p. 77</i>) Check the habitat features that are present in the wetland. The number of checks is the number of points you put into the next column.</p> <p><input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (> 4in. diameter and 6 ft long).</p> <p><input checked="" type="checkbox"/> Standing snags (diameter at the bottom > 4 inches) in the wetland</p> <p><input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2m) and/or overhanging vegetation extends at least 3.3 ft. (1m) over a stream (or ditch) in, or contiguous with the unit, for at least 33 ft (10m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet turned grey/brown</i>)</p> <p><input type="checkbox"/> At least ¼ acre of thin-stemmed persistent vegetation or woody branches are present in areas that are permanently or seasonally inundated. (<i>structures for egg-laying by amphibians</i>)</p> <p><input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in each stratum of plants</p> <p>NOTE: The 20% stated in early printings of the manual on page 78 is an error.</p>	<p>2</p>
<p>H 1. TOTAL Score – potential for providing habitat Add the scores from H1.1, H1.2, H1.3, H1.4, H1.5</p>	<p>3</p>

Comments

<p>H 2.3 <u>Near or adjacent to other priority habitats listed by WDFW (see p. 82)</u> Which of the following priority habitats are within 330 ft (100m) of the wetland unit? <i>NOTE: the connections do not have to be relatively undisturbed. These are DFW definitions. Check with your local DFW biologist if there are any questions.</i></p> <p><input type="checkbox"/> Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.</p> <p><input type="checkbox"/> Aspen Stands: Pure or mixed stands of aspen greater than 0.8 ha (2 acres).</p> <p><input type="checkbox"/> Cliffs: Greater than 7.6m (25 ft) high and occurring below 5000 ft.</p> <p><input type="checkbox"/> Old-growth forests: (Old growth west of Cascade Crest) Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings, with at least 20 trees/ha (8 trees/acre) > 81cm (32 in) dbh or > 200 years of age.</p> <p><input type="checkbox"/> Mature forests: Stands with average diameters exceeding 53cm (21 in) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 – 200 years old west of the Cascade crest.</p> <p><input type="checkbox"/> Prairies: Relatively undisturbed areas (as indicated by dominance of native plants) where greases and/or forbs form the natural climax plant community.</p> <p><input type="checkbox"/> Talus: Homogenous areas of rock rubble ranging in average size 0.15 – 2.0 m (0.5 – 6.5 ft), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.</p> <p><input type="checkbox"/> Caves: A naturally occurring cavity, recess, void, or system of interconnected passages.</p> <p><input type="checkbox"/> Oregon white Oak: Woodlands Stands of pure oak or oak/conifer associations where canopy coverage of the oak component of the stand is 25%.</p> <p><input type="checkbox"/> Urban Natural Open Space: A priority species resides within or is adjacent to the open space and uses it for breeding and/or regular feeding; and/or the open space functions as a corridor connecting other <i>priority habitats</i>, especially those that would otherwise be isolated; and/or the open space is an isolated remnant of natural habitat larger than 4 ha (10 acres) and is surrounded by urban development.</p> <p><input type="checkbox"/> Estuary/Estuary-like: Deepwater tidal habitats and adjacent tidal wetlands, usually semi-enclosed by land but with open, partly obstructed or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land. The salinity may be periodically increased above that of the open ocean by evaporation. Along some low-energy coastlines there is appreciable dilution of sea water. Estuarine habitat extends upstream and landward to where ocean-derived salts measure less than 0.5 ppt. during the period of average annual low flow. Includes both estuaries and lagoons.</p> <p><input type="checkbox"/> Marine/Estuarine Shorelines: Shorelines include the intertidal and subtidal zones of beaches, and may also include the backshore and adjacent components of the terrestrial landscape (e.g., cliffs, snags, mature trees, dunes, meadows) that are important to shoreline associated fish and wildlife and that contribute to shoreline function (e.g., sand/rock/log recruitment, nutrient contribution, erosion control).</p> <p style="padding-left: 40px;">If wetland has 3 or more priority habitats = 4 points If wetland has 2 priority habit= 3 points If wetland has 1 priority habitats= 1 point No habitats= 0 points</p> <p><i>Note: All vegetated wetlands are by definition a priority habitat but are not included in this list. Nearby wetlands are addressed in question H 2.4)</i></p>	<p>0</p>
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Wetland name or number 7B

<p>H 2.4 <u>Wetland Landscape</u> (choose the one description of the landscape around the wetland that best fits) (see p. 84)</p> <p>There are at least 3 other wetlands within ½ mile, and the connections between them are relatively undisturbed (light grazing between wetlands OK, as is lake shore with some boating, but connections should NOT be bisected by paved roads, fill, fields, or other development. points = 5</p> <p>The wetland is Lake-fringe on a lake with little disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 5</p> <p>There are at least 3 other wetlands within ½ mile, BUT the connections between them are disturbed points = 3</p> <p>The wetland is Lake-fringe on a lake with disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 3</p> <p>There is at least 1 wetland within ½ mile points = 2</p> <p>There are no wetlands within ½ mile points = 0</p>	3
<p>H 2. TOTAL Score – opportunity for providing habitat <i>Add the scores from H2.1, H2.2, H2.3, H2.4</i></p>	9
<p>TOTAL for H 1 from page 14</p>	9
<p>Total Score for Habitat Functions – add the points for H 1, H 2 and record the result on p. 1</p>	18

Wetland name or number 8A

WETLAND RATING FORM – WESTERN WASHINGTON
Version 2 – Updated July 2006 to increase accuracy and reproducibility among users

Name of wetland (if known): 8A Date of site visit: 2006-2007

Rated by Dunkin Trained by Ecology? Yes X No Date of training Oct 2006

SEC: 19 TWSHP: 39N RNGE: 1E Is S/T/R in Appendix D? Yes No X

Map of wetland unit: Figure Estimated size 25 Acres

SUMMARY OF RATING

Category based on FUNCTIONS provided by wetland

I II III X IV

Category I = Score >=70
Category II = Score 51-69
Category III = Score 30-50
Category IV = Score <30

Score for Water Quality Functions	3
Score for Hydrologic Functions	4
Score for Habitat Functions	23
TOTAL score for Functions	30

Category based on SPECIAL CHARACTERISTICS of Wetland

I II Does not Apply X

III

Final Category (choose the “highest” category from above)

Summary of basic information about the wetland unit

Wetland Unit has Special Characteristics		Wetland HGM Class used for Rating	
Estuarine		Depressional	
Natural Heritage Wetland		Riverine	
Bog		Lake-fringe	
Mature Forest		Slope	X
Old Growth Forest		Flats	
Coastal Lagoon		Freshwater Tidal	
Interdunal			
None of the above	X	Check if unit has multiple HGM classes present	

Does the wetland unit being rated meet any of the criteria below?

If you answer YES to any of the questions below you will need to protect the wetland according to the regulations regarding the special characteristics found in the wetland.

Check List for Wetlands That May Need Additional Protection (in addition to the protection recommended for its category)	YES	NO
SP1. <i>Has the wetland unit been documented as a habitat for any Federally listed Threatened or Endangered animal or plant species (T/E species)?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state or federal database.		X
SP2. <i>Has the wetland unit been documented as habitat for any State listed Threatened or Endangered animal species?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state database. Note: Wetlands with State listed plant species are categorized as Category I Natural Heritage Wetlands (see p. 19 of data form).		X
SP3. <i>Does the wetland unit contain individuals of Priority species listed by the WDFW for the state?</i>		X
SP4. <i>Does the wetland unit have a local significance in addition to its functions?</i> For example, the wetland has been identified in the Shoreline Master Program, the Critical Areas Ordinance, or in a local management plan as having special significance.		X

To complete the next part of the data sheet you will need to determine the Hydrogeomorphic Class of the wetland being rated.

The hydrogeomorphic classification groups wetlands into those that function in similar ways. This simplifies the questions needed to answer how well the wetland functions. The Hydrogeomorphic Class of a wetland can be determined using the key below. See p. 24 for more detailed instructions on classifying wetlands.

S Slope Wetlands		Points
WATER QUALITY FUNCTIONS – Indicators that the wetland unit functions to improve water quality		(only 1 score per box)
S	S 1. Does the wetland unit have the <u>potential</u> to improve water quality?	(see p. 64)
S	<p>S 1.1 Characteristics of average slope of unit:</p> <p>Slope is 1% or less (<i>a 1% slope has a 1 foot vertical drop in elevation for every 100 ft horizontal distance</i>) points = 3</p> <p>Slope is 1% - 2% points = 2</p> <p>Slope is 2% - 5% points = 1</p> <p>Slope is greater than 5% points = 0</p>	2
S	<p>S 1.2 The soil 2 inches below the surface (or duff layer) is clay or organic (<i>use NRCS definitions</i>)</p> <p>YES = 3 points NO = 0 points</p>	0
S	<p>S 1.3 Characteristics of the vegetation in the wetland that trap sediments and pollutants: Choose the points appropriate for the description that best fits the vegetation in the wetland. Dense vegetation means you have trouble seeing the soil surface (>75% cover), and uncut means not grazed or mowed and plants are higher than 6 inches.</p> <p>Dense, uncut, herbaceous vegetation > 90% of the wetland area points = 6</p> <p>Dense, uncut, herbaceous vegetation > ½ of area points = 3</p> <p>Dense, woody, vegetation > ½ of area points = 2</p> <p>Dense, uncut, herbaceous vegetation > ¼ of area points = 1</p> <p>Does not meet any of the criteria above for vegetation points = 0</p> <p>Aerial photo or map with vegetation polygons</p>	Figure _____ 1
S	Total for S 1	Add the points in the boxes above 3
S	<p>S 2. Does the wetland have the <u>opportunity</u> to improve water quality?</p> <p>Answer YES if you know or believe there are pollutants in groundwater or surface water coming into the wetland that would otherwise reduce water quality in streams, lakes or groundwater downgradient from the wetland. Note which of the following conditions provide the sources of pollutants. A unit may have pollutants coming from several sources, but any single source would qualify as opportunity.</p> <p>___ Grazing in the wetland or within 150 ft</p> <p>___ Untreated stormwater discharges to wetland</p> <p>___ Tilled fields, logging, or orchards within 150 ft of wetland</p> <p>___ Residential, urban areas, or golf courses are within 150 ft upslope of wetland</p> <p>___ Other _____</p> <p>YES multiplier is 2 NO multiplier is 1</p>	(see p. 67) multiplier 1
S	TOTAL – Water Quality Functions	Multiply the score from S1 by S2 Add score to table on p. 1 3

Comments

<p>H 1.4 Interspersion of habitats (<i>see p. 76</i>) Decide from the diagrams below whether interspersion between Cowardin vegetation classes (described in H1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none.</p> <p>NOTE: If you have four or more vegetation classes or three vegetation types and open water the rating is always “high”. Use map of Cowardin vegetation classes</p>	<p>Figure _____</p> <p>3</p>	
<p>H 1.5 Special Habitat Features (<i>see p. 77</i>) Check the habitat features that are present in the wetland. The number of checks is the number of points you put into the next column.</p> <p><input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (> 4in. diameter and 6 ft long).</p> <p><input checked="" type="checkbox"/> Standing snags (diameter at the bottom > 4 inches) in the wetland</p> <p><input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2m) and/or overhanging vegetation extends at least 3.3 ft. (1m) over a stream (or ditch) in, or contiguous with the unit, for at least 33 ft (10m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet turned grey/brown</i>)</p> <p><input type="checkbox"/> At least ¼ acre of thin-stemmed persistent vegetation or woody branches are present in areas that are permanently or seasonally inundated. (<i>structures for egg-laying by amphibians</i>)</p> <p><input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in each stratum of plants</p> <p>NOTE: The 20% stated in early printings of the manual on page 78 is an error.</p>	<p>2</p>	
<p align="center">H 1. TOTAL Score – potential for providing habitat Add the scores from H1.1, H1.2, H1.3, H1.4, H1.5</p>		<p align="center">10</p>

Comments

<p>H 2.3 <u>Near or adjacent to other priority habitats listed by WDFW (see p. 82)</u> Which of the following priority habitats are within 330 ft (100m) of the wetland unit? <i>NOTE: the connections do not have to be relatively undisturbed. These are DFW definitions. Check with your local DFW biologist if there are any questions.</i></p> <p><input type="checkbox"/> Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.</p> <p><input type="checkbox"/> Aspen Stands: Pure or mixed stands of aspen greater than 0.8 ha (2 acres).</p> <p><input type="checkbox"/> Cliffs: Greater than 7.6m (25 ft) high and occurring below 5000 ft.</p> <p><input type="checkbox"/> Old-growth forests: (Old growth west of Cascade Crest) Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings, with at least 20 trees/ha (8 trees/acre) > 81cm (32 in) dbh or > 200 years of age.</p> <p><input type="checkbox"/> Mature forests: Stands with average diameters exceeding 53cm (21 in) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 – 200 years old west of the Cascade crest.</p> <p><input type="checkbox"/> Prairies: Relatively undisturbed areas (as indicated by dominance of native plants) where greases and/or forbs form the natural climax plant community.</p> <p><input type="checkbox"/> Talus: Homogenous areas of rock rubble ranging in average size 0.15 – 2.0 m (0.5 – 6.5 ft), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.</p> <p><input type="checkbox"/> Caves: A naturally occurring cavity, recess, void, or system of interconnected passages.</p> <p><input type="checkbox"/> Oregon white Oak: Woodlands Stands of pure oak or oak/conifer associations where canopy coverage of the oak component of the stand is 25%.</p> <p><input type="checkbox"/> Urban Natural Open Space: A priority species resides within or is adjacent to the open space and uses it for breeding and/or regular feeding; and/or the open space functions as a corridor connecting other <i>priority habitats</i>, especially those that would otherwise be isolated; and/or the open space is an isolated remnant of natural habitat larger than 4 ha (10 acres) and is surrounded by urban development.</p> <p><input type="checkbox"/> Estuary/Estuary-like: Deepwater tidal habitats and adjacent tidal wetlands, usually semi-enclosed by land but with open, partly obstructed or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land. The salinity may be periodically increased above that of the open ocean by evaporation. Along some low-energy coastlines there is appreciable dilution of sea water. Estuarine habitat extends upstream and landward to where ocean-derived salts measure less than 0.5 ppt. during the period of average annual low flow. Includes both estuaries and lagoons.</p> <p><input type="checkbox"/> Marine/Estuarine Shorelines: Shorelines include the intertidal and subtidal zones of beaches, and may also include the backshore and adjacent components of the terrestrial landscape (e.g., cliffs, snags, mature trees, dunes, meadows) that are important to shoreline associated fish and wildlife and that contribute to shoreline function (e.g., sand/rock/log recruitment, nutrient contribution, erosion control).</p> <p style="padding-left: 40px;">If wetland has 3 or more priority habitats = 4 points If wetland has 2 priority habit= 3 points If wetland has 1 priority habitats= 1 point No habitats= 0 points</p> <p><i>Note: All vegetated wetlands are by definition a priority habitat but are not included in this list. Nearby wetlands are addressed in question H 2.4)</i></p>	<p>0</p>
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<p>H 2.4 <u>Wetland Landscape</u> (choose the one description of the landscape around the wetland that best fits) (see p. 84)</p> <p>There are at least 3 other wetlands within ½ mile, and the connections between them are relatively undisturbed (light grazing between wetlands OK, as is lake shore with some boating, but connections should NOT be bisected by paved roads, fill, fields, or other development. points = 5</p> <p>The wetland is Lake-fringe on a lake with little disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 5</p> <p>There are at least 3 other wetlands within ½ mile, BUT the connections between them are disturbed points = 3</p> <p>The wetland is Lake-fringe on a lake with disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 3</p> <p>There is at least 1 wetland within ½ mile points = 2</p> <p>There are no wetlands within ½ mile points = 0</p>	5
<p>H 2. TOTAL Score – opportunity for providing habitat <i>Add the scores from H2.1, H2.2, H2.3, H2.4</i></p>	13
<p>TOTAL for H 1 from page 14</p>	10
<p>Total Score for Habitat Functions – add the points for H 1, H 2 and record the result on p. 1</p>	23

Wetland name or number 8B

WETLAND RATING FORM – WESTERN WASHINGTON
Version 2 – Updated July 2006 to increase accuracy and reproducibility among users

Name of wetland (if known): 8B Date of site visit: 2006-2007

Rated by M. Gray Trained by Ecology? Yes X No Date of training Apr 2007

SEC: 18 TWSHP: 39 RNGE: 1E Is S/T/R in Appendix D? Yes No X

Map of wetland unit: Figure Estimated size 0.15 acres

SUMMARY OF RATING

Category based on FUNCTIONS provided by wetland

I II III **X** IV

Category I = Score >=70
Category II = Score 51-69
Category III = Score 30-50
Category IV = Score <30

Score for Water Quality Functions	14
Score for Hydrologic Functions	5
Score for Habitat Functions	11
TOTAL score for Functions	30

Category based on SPECIAL CHARACTERISTICS of Wetland

I II Does not Apply

III

Final Category (choose the “highest” category from above)

Summary of basic information about the wetland unit

Wetland Unit has Special Characteristics		Wetland HGM Class used for Rating	
Estuarine		Depressional	X
Natural Heritage Wetland		Riverine	
Bog		Lake-fringe	
Mature Forest		Slope	
Old Growth Forest		Flats	
Coastal Lagoon		Freshwater Tidal	
Interdunal			
None of the above	X	Check if unit has multiple HGM classes present	

Does the wetland unit being rated meet any of the criteria below?

If you answer YES to any of the questions below you will need to protect the wetland according to the regulations regarding the special characteristics found in the wetland.

Check List for Wetlands That May Need Additional Protection (in addition to the protection recommended for its category)	YES	NO
SP1. <i>Has the wetland unit been documented as a habitat for any Federally listed Threatened or Endangered animal or plant species (T/E species)?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state or federal database.		X
SP2. <i>Has the wetland unit been documented as habitat for any State listed Threatened or Endangered animal species?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state database. Note: Wetlands with State listed plant species are categorized as Category I Natural Heritage Wetlands (see p. 19 of data form).		X
SP3. <i>Does the wetland unit contain individuals of Priority species listed by the WDFW for the state?</i>		X
SP4. <i>Does the wetland unit have a local significance in addition to its functions?</i> For example, the wetland has been identified in the Shoreline Master Program, the Critical Areas Ordinance, or in a local management plan as having special significance.		X

To complete the next part of the data sheet you will need to determine the Hydrogeomorphic Class of the wetland being rated.

The hydrogeomorphic classification groups wetlands into those that function in similar ways. This simplifies the questions needed to answer how well the wetland functions. The Hydrogeomorphic Class of a wetland can be determined using the key below. See p. 24 for more detailed instructions on classifying wetlands.

D Depressional and Flats Wetlands		Points
WATER QUALITY FUNCTIONS – Indicators that the wetland unit functions to improve water quality		(only 1 score per box)
D	D 1. Does the wetland unit have the <u>potential</u> to improve water quality?	(see p. 38)
D	<p>D 1.1 Characteristics of surface water flows out of the wetland:</p> <p>Unit is a depression with no surface water leaving it (no outlet) points = 3</p> <p>Unit has an intermittently flowing, OR highly constricted permanently flowing outlet points = 2</p> <p>Unit has an unconstricted, or slightly constricted, surface outlet (<i>permanently flowing</i>) points = 1</p> <p>Unit has a “flat” depression (Q. 7 on key), or in the Flats class, with permanent surface outflow and no obvious natural outlet and/or outlet is a man-made ditch points = 1</p> <p>(If ditch is not permanently flowing treat unit as “intermittently flowing”)</p> <p style="text-align: right;">Provide photo or drawing</p>	Figure _____ 2
D	<p>S 1.2 The soil 2 inches below the surface (or duff layer) is clay or organic (<i>use NRCS definitions</i>)</p> <p>YES points = 4</p> <p>NO points = 0</p>	0
D	<p>D 1.3 Characteristics of persistent vegetation (emergent, shrub, and/or forest Cowardin class)</p> <p>Wetland has persistent, ungrazed, vegetation > = 95% of area points = 5</p> <p>Wetland has persistent, ungrazed, vegetation > = ½ of area points = 3</p> <p>Wetland has persistent, ungrazed, vegetation > = 1/10 of area points = 1</p> <p>Wetland has persistent, ungrazed, vegetation < 1/10 of area points = 0</p> <p style="text-align: right;">Map of Cowardin vegetation classes</p>	Figure _____ 3
D	<p>D 1.4 Characteristics of seasonal ponding or inundation.</p> <p><i>This is the area of the wetland unit that is ponded for at least 2 months, but dries out sometime during the year. Do not count the area that is permanently ponded. Estimate area as the average condition 5 out of 10 years.</i></p> <p>Area seasonally ponded is > ½ total area of wetland points = 4</p> <p>Area seasonally ponded is > ¼ total area of wetland points = 2</p> <p>Area seasonally ponded is < ¼ total area of wetland points = 0</p> <p style="text-align: right;">Map of hydroperiods</p>	Figure _____ 2
D	Total for D 1	7
D	D 2. Does the wetland have the <u>opportunity</u> to improve water quality?	(see p. 44)
	<p>Answer YES if you know or believe there are pollutants in groundwater or surface water coming into the wetland that would otherwise reduce water quality in streams, lakes or groundwater downgradient from the wetland. <i>Note which of the following conditions provide the sources of pollutants. A unit may have pollutants coming from several sources, but any single source would qualify as opportunity.</i></p> <p><input checked="" type="checkbox"/> Grazing in the wetland or within 150 ft</p> <p><input checked="" type="checkbox"/> Untreated stormwater discharges to wetland</p> <p><input checked="" type="checkbox"/> Tilled fields or orchards within 150 ft of wetland</p> <p><input type="checkbox"/> A stream or culvert discharges into wetland that drains developed areas, residential area, farmed fields, roads, or clear-cut logging</p> <p><input type="checkbox"/> Residential, urban areas, golf courses are within 150 ft of wetland</p> <p><input type="checkbox"/> Wetland is fed by groundwater high in phosphorus or nitrogen</p> <p><input type="checkbox"/> Other _____</p> <p>YES multiplier is 2 NO multiplier is 1</p>	multiplier _____ 2
D	TOTAL – Water Quality Functions	Multiply the score from D1 by D2 Add score to table on p. 1
		14

<p>H 1.4 Interspersion of habitats (<i>see p. 76</i>) Decide from the diagrams below whether interspersion between Cowardin vegetation classes (described in H1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none.</p> <p>NOTE: If you have four or more vegetation classes or three vegetation types and open water the rating is always "high". Use map of Cowardin vegetation classes</p>	<p>Figure _____</p> <p>1</p>	
<p>H 1.5 Special Habitat Features (<i>see p. 77</i>) Check the habitat features that are present in the wetland. The number of checks is the number of points you put into the next column.</p> <p><input type="checkbox"/> Large, downed, woody debris within the wetland (> 4in. diameter and 6 ft long).</p> <p><input type="checkbox"/> Standing snags (diameter at the bottom > 4 inches) in the wetland</p> <p><input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2m) and/or overhanging vegetation extends at least 3.3 ft. (1m) over a stream (or ditch) in, or contiguous with the unit, for at least 33 ft (10m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet turned grey/brown</i>)</p> <p><input type="checkbox"/> At least ¼ acre of thin-stemmed persistent vegetation or woody branches are present in areas that are permanently or seasonally inundated. (<i>structures for egg-laying by amphibians</i>)</p> <p><input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in each stratum of plants</p> <p>NOTE: The 20% stated in early printings of the manual on page 78 is an error.</p>	<p>0</p>	
<p align="center">H 1. TOTAL Score – potential for providing habitat Add the scores from H1.1, H1.2, H1.3, H1.4, H1.5</p>		<p align="center">5</p>

Comments

<p>H 2.3 <u>Near or adjacent to other priority habitats listed by WDFW (see p. 82)</u> Which of the following priority habitats are within 330 ft (100m) of the wetland unit? <i>NOTE: the connections do not have to be relatively undisturbed. These are DFW definitions. Check with your local DFW biologist if there are any questions.</i></p> <p><input type="checkbox"/> Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.</p> <p><input type="checkbox"/> Aspen Stands: Pure or mixed stands of aspen greater than 0.8 ha (2 acres).</p> <p><input type="checkbox"/> Cliffs: Greater than 7.6m (25 ft) high and occurring below 5000 ft.</p> <p><input type="checkbox"/> Old-growth forests: (Old growth west of Cascade Crest) Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings, with at least 20 trees/ha (8 trees/acre) > 81cm (32 in) dbh or > 200 years of age.</p> <p><input type="checkbox"/> Mature forests: Stands with average diameters exceeding 53cm (21 in) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 – 200 years old west of the Cascade crest.</p> <p><input type="checkbox"/> Prairies: Relatively undisturbed areas (as indicated by dominance of native plants) where greases and/or forbs form the natural climax plant community.</p> <p><input type="checkbox"/> Talus: Homogenous areas of rock rubble ranging in average size 0.15 – 2.0 m (0.5 – 6.5 ft), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.</p> <p><input type="checkbox"/> Caves: A naturally occurring cavity, recess, void, or system of interconnected passages.</p> <p><input type="checkbox"/> Oregon white Oak: Woodlands Stands of pure oak or oak/conifer associations where canopy coverage of the oak component of the stand is 25%.</p> <p><input type="checkbox"/> Urban Natural Open Space: A priority species resides within or is adjacent to the open space and uses it for breeding and/or regular feeding; and/or the open space functions as a corridor connecting other <i>priority habitats</i>, especially those that would otherwise be isolated; and/or the open space is an isolated remnant of natural habitat larger than 4 ha (10 acres) and is surrounded by urban development.</p> <p><input type="checkbox"/> Estuary/Estuary-like: Deepwater tidal habitats and adjacent tidal wetlands, usually semi-enclosed by land but with open, partly obstructed or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land. The salinity may be periodically increased above that of the open ocean by evaporation. Along some low-energy coastlines there is appreciable dilution of sea water. Estuarine habitat extends upstream and landward to where ocean-derived salts measure less than 0.5 ppt. during the period of average annual low flow. Includes both estuaries and lagoons.</p> <p><input type="checkbox"/> Marine/Estuarine Shorelines: Shorelines include the intertidal and subtidal zones of beaches, and may also include the backshore and adjacent components of the terrestrial landscape (e.g., cliffs, snags, mature trees, dunes, meadows) that are important to shoreline associated fish and wildlife and that contribute to shoreline function (e.g., sand/rock/log recruitment, nutrient contribution, erosion control).</p> <p> If wetland has 3 or more priority habitats = 4 points If wetland has 2 priority habit= 3 points If wetland has 1 priority habitats= 1 point No habitats= 0 points</p> <p><i>Note: All vegetated wetlands are by definition a priority habitat but are not included in this list. Nearby wetlands are addressed in question H 2.4)</i></p>	<p>0</p>
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<p>H 2.4 <u>Wetland Landscape</u> (choose the one description of the landscape around the wetland that best fits) (see p. 84)</p> <p>There are at least 3 other wetlands within ½ mile, and the connections between them are relatively undisturbed (light grazing between wetlands OK, as is lake shore with some boating, but connections should NOT be bisected by paved roads, fill, fields, or other development. points = 5</p> <p>The wetland is Lake-fringe on a lake with little disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 5</p> <p>There are at least 3 other wetlands within ½ mile, BUT the connections between them are disturbed points = 3</p> <p>The wetland is Lake-fringe on a lake with disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 3</p> <p>There is at least 1 wetland within ½ mile points = 2</p> <p>There are no wetlands within ½ mile points = 0</p>	3
<p>H 2. TOTAL Score – opportunity for providing habitat <i>Add the scores from H2.1, H2.2, H2.3, H2.4</i></p>	5
<p>TOTAL for H 1 from page 14</p>	6
<p>Total Score for Habitat Functions – add the points for H 1, H 2 and record the result on p. 1</p>	11

Wetland name or number 9A

WETLAND RATING FORM – WESTERN WASHINGTON
Version 2 – Updated July 2006 to increase accuracy and reproducibility among users

Name of wetland (if known): 9A Date of site visit: 2006-2007

Rated by Dunkin Trained by Ecology? Yes X No Date of training Oct 2006

SEC: 18 TWSHP: 39N RNGE: 1E Is S/T/R in Appendix D? Yes No X

Map of wetland unit: Figure Estimated size 25 Acres

SUMMARY OF RATING

Category based on FUNCTIONS provided by wetland

I II III **X** IV

Category I = Score >=70
Category II = Score 51-69
Category III = Score 30-50
Category IV = Score <30

Score for Water Quality Functions	8
Score for Hydrologic Functions	10
Score for Habitat Functions	24
TOTAL score for Functions	42

Category based on SPECIAL CHARACTERISTICS of Wetland

I II Does not Apply

III

Final Category (choose the “highest” category from above)

Summary of basic information about the wetland unit

Wetland Unit has Special Characteristics		Wetland HGM Class used for Rating	
Estuarine		Depressional	
Natural Heritage Wetland		Riverine	
Bog		Lake-fringe	
Mature Forest		Slope	X
Old Growth Forest		Flats	
Coastal Lagoon		Freshwater Tidal	
Interdunal			
None of the above	X	Check if unit has multiple HGM classes present	

Does the wetland unit being rated meet any of the criteria below?

If you answer YES to any of the questions below you will need to protect the wetland according to the regulations regarding the special characteristics found in the wetland.

Check List for Wetlands That May Need Additional Protection (in addition to the protection recommended for its category)	YES	NO
SP1. <i>Has the wetland unit been documented as a habitat for any Federally listed Threatened or Endangered animal or plant species (T/E species)?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state or federal database.		X
SP2. <i>Has the wetland unit been documented as habitat for any State listed Threatened or Endangered animal species?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state database. Note: Wetlands with State listed plant species are categorized as Category I Natural Heritage Wetlands (see p. 19 of data form).		X
SP3. <i>Does the wetland unit contain individuals of Priority species listed by the WDFW for the state?</i>		X
SP4. <i>Does the wetland unit have a local significance in addition to its functions?</i> For example, the wetland has been identified in the Shoreline Master Program, the Critical Areas Ordinance, or in a local management plan as having special significance.		X

To complete the next part of the data sheet you will need to determine the Hydrogeomorphic Class of the wetland being rated.

The hydrogeomorphic classification groups wetlands into those that function in similar ways. This simplifies the questions needed to answer how well the wetland functions. The Hydrogeomorphic Class of a wetland can be determined using the key below. See p. 24 for more detailed instructions on classifying wetlands.

S Slope Wetlands		Points
WATER QUALITY FUNCTIONS – Indicators that the wetland unit functions to improve water quality		(only 1 score per box)
S	S 1. Does the wetland unit have the <u>potential</u> to improve water quality?	<i>(see p. 64)</i>
S	<p>S 1.1 Characteristics of average slope of unit:</p> <p>Slope is 1% or less (<i>a 1% slope has a 1 foot vertical drop in elevation for every 100 ft horizontal distance</i>) points = 3</p> <p>Slope is 1% - 2% points = 2</p> <p>Slope is 2% - 5% points = 1</p> <p>Slope is greater than 5% points = 0</p>	2
S	<p>S 1.2 The soil 2 inches below the surface (or duff layer) is clay or organic (<i>use NRCS definitions</i>)</p> <p>YES = 3 points NO = 0 points</p>	0
S	<p>S 1.3 Characteristics of the vegetation in the wetland that trap sediments and pollutants: Choose the points appropriate for the description that best fits the vegetation in the wetland. Dense vegetation means you have trouble seeing the soil surface (>75% cover), and uncut means not grazed or mowed and plants are higher than 6 inches.</p> <p>Dense, uncut, herbaceous vegetation > 90% of the wetland area points = 6</p> <p>Dense, uncut, herbaceous vegetation > 1/2 of area points = 3</p> <p>Dense, woody, vegetation > 1/2 of area points = 2</p> <p>Dense, uncut, herbaceous vegetation > 1/4 of area points = 1</p> <p>Does not meet any of the criteria above for vegetation points = 0</p> <p>Aerial photo or map with vegetation polygons</p>	Figure _____ 2
S	Total for S 1	<i>Add the points in the boxes above</i> 4
S	<p>S 2. Does the wetland have the <u>opportunity</u> to improve water quality?</p> <p>Answer YES if you know or believe there are pollutants in groundwater or surface water coming into the wetland that would otherwise reduce water quality in streams, lakes or groundwater downgradient from the wetland. Note which of the following conditions provide the sources of pollutants. A unit may have pollutants coming from several sources, but any single source would qualify as opportunity.</p> <p>___ Grazing in the wetland or within 150 ft</p> <p>___ Untreated stormwater discharges to wetland</p> <p><u>X</u> Tilled fields, logging, or orchards within 150 ft of wetland</p> <p>___ Residential, urban areas, or golf courses are within 150 ft upslope of wetland</p> <p>___ Other _____</p> <p>YES multiplier is 2 NO multiplier is 1</p>	<i>(see p. 67)</i> multiplier 2
S	TOTAL – Water Quality Functions	Multiply the score from S1 by S2 <i>Add score to table on p. 1</i> 8

Comments

<p>H 1.4 Interspersion of habitats (<i>see p. 76</i>) Decide from the diagrams below whether interspersion between Cowardin vegetation classes (described in H1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none.</p> <p>None = 0 points Low = 1 point Moderate = 2 points</p> <p>High = 3 points [riparian braided channels]</p> <p>NOTE: If you have four or more vegetation classes or three vegetation types and open water the rating is always "high". Use map of Cowardin vegetation classes</p>	<p>Figure _____</p> <p>3</p>	
<p>H 1.5 Special Habitat Features (<i>see p. 77</i>) Check the habitat features that are present in the wetland. The number of checks is the number of points you put into the next column.</p> <p><input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (> 4in. diameter and 6 ft long).</p> <p><input checked="" type="checkbox"/> Standing snags (diameter at the bottom > 4 inches) in the wetland</p> <p><input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2m) and/or overhanging vegetation extends at least 3.3 ft. (1m) over a stream (or ditch) in, or contiguous with the unit, for at least 33 ft (10m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet turned grey/brown</i>)</p> <p><input type="checkbox"/> At least ¼ acre of thin-stemmed persistent vegetation or woody branches are present in areas that are permanently or seasonally inundated. (<i>structures for egg-laying by amphibians</i>)</p> <p><input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in each stratum of plants</p> <p>NOTE: The 20% stated in early printings of the manual on page 78 is an error.</p>	<p>2</p>	
<p align="center">H 1. TOTAL Score – potential for providing habitat Add the scores from H1.1, H1.2, H1.3, H1.4, H1.5</p>		<p align="center">11</p>

Comments

<p>H 2.3 <u>Near or adjacent to other priority habitats listed by WDFW (see p. 82)</u> Which of the following priority habitats are within 330 ft (100m) of the wetland unit? <i>NOTE: the connections do not have to be relatively undisturbed. These are DFW definitions. Check with your local DFW biologist if there are any questions.</i></p> <p><input type="checkbox"/> Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.</p> <p><input type="checkbox"/> Aspen Stands: Pure or mixed stands of aspen greater than 0.8 ha (2 acres).</p> <p><input type="checkbox"/> Cliffs: Greater than 7.6m (25 ft) high and occurring below 5000 ft.</p> <p><input type="checkbox"/> Old-growth forests: (Old growth west of Cascade Crest) Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings, with at least 20 trees/ha (8 trees/acre) > 81cm (32 in) dbh or > 200 years of age.</p> <p><input type="checkbox"/> Mature forests: Stands with average diameters exceeding 53cm (21 in) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 – 200 years old west of the Cascade crest.</p> <p><input type="checkbox"/> Prairies: Relatively undisturbed areas (as indicated by dominance of native plants) where greases and/or forbs form the natural climax plant community.</p> <p><input type="checkbox"/> Talus: Homogenous areas of rock rubble ranging in average size 0.15 – 2.0 m (0.5 – 6.5 ft), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.</p> <p><input type="checkbox"/> Caves: A naturally occurring cavity, recess, void, or system of interconnected passages.</p> <p><input type="checkbox"/> Oregon white Oak: Woodlands Stands of pure oak or oak/conifer associations where canopy coverage of the oak component of the stand is 25%.</p> <p><input type="checkbox"/> Urban Natural Open Space: A priority species resides within or is adjacent to the open space and uses it for breeding and/or regular feeding; and/or the open space functions as a corridor connecting other <i>priority habitats</i>, especially those that would otherwise be isolated; and/or the open space is an isolated remnant of natural habitat larger than 4 ha (10 acres) and is surrounded by urban development.</p> <p><input type="checkbox"/> Estuary/Estuary-like: Deepwater tidal habitats and adjacent tidal wetlands, usually semi-enclosed by land but with open, partly obstructed or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land. The salinity may be periodically increased above that of the open ocean by evaporation. Along some low-energy coastlines there is appreciable dilution of sea water. Estuarine habitat extends upstream and landward to where ocean-derived salts measure less than 0.5 ppt. during the period of average annual low flow. Includes both estuaries and lagoons.</p> <p><input type="checkbox"/> Marine/Estuarine Shorelines: Shorelines include the intertidal and subtidal zones of beaches, and may also include the backshore and adjacent components of the terrestrial landscape (e.g., cliffs, snags, mature trees, dunes, meadows) that are important to shoreline associated fish and wildlife and that contribute to shoreline function (e.g., sand/rock/log recruitment, nutrient contribution, erosion control).</p> <p style="padding-left: 40px;">If wetland has 3 or more priority habitats = 4 points If wetland has 2 priority habit= 3 points If wetland has 1 priority habitats= 1 point No habitats= 0 points</p> <p><i>Note: All vegetated wetlands are by definition a priority habitat but are not included in this list. Nearby wetlands are addressed in question H 2.4)</i></p>	<p>0</p>
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Wetland name or number _____ 9A _____

<p>H 2.4 <u>Wetland Landscape</u> (choose the one description of the landscape around the wetland that best fits) (see p. 84)</p> <p>There are at least 3 other wetlands within ½ mile, and the connections between them are relatively undisturbed (light grazing between wetlands OK, as is lake shore with some boating, but connections should NOT be bisected by paved roads, fill, fields, or other development. points = 5</p> <p>The wetland is Lake-fringe on a lake with little disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 5</p> <p>There are at least 3 other wetlands within ½ mile, BUT the connections between them are disturbed points = 3</p> <p>The wetland is Lake-fringe on a lake with disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 3</p> <p>There is at least 1 wetland within ½ mile points = 2</p> <p>There are no wetlands within ½ mile points = 0</p>	5
<p>H 2. TOTAL Score – opportunity for providing habitat <i>Add the scores from H2.1, H2.2, H2.3, H2.4</i></p>	13
<p>TOTAL for H 1 from page 14</p>	11
<p>Total Score for Habitat Functions – add the points for H 1, H 2 and record the result on p. 1</p>	24

Wetland name or number 9B

WETLAND RATING FORM – WESTERN WASHINGTON
Version 2 – Updated July 2006 to increase accuracy and reproducibility among users

Name of wetland (if known): _____ 9B _____ Date of site visit: 2006-2007

Rated by M. Gray Trained by Ecology? Yes X No ___ Date of training Apr 2007

SEC: 19 TWSHP: 39 RNGE: 1E Is S/T/R in Appendix D? Yes ___ No X

Map of wetland unit: Figure _____ Estimated size 0.18 acres

SUMMARY OF RATING

Category based on FUNCTIONS provided by wetland

I ___ II ___ III X IV ___

Category I = Score >=70
Category II = Score 51-69
Category III = Score 30-50
Category IV = Score <30

Score for Water Quality Functions	14
Score for Hydrologic Functions	10
Score for Habitat Functions	18
TOTAL score for Functions	42

Category based on SPECIAL CHARACTERISTICS of Wetland

I ___ II ___ Does not Apply _____

III

Final Category (choose the “highest” category from above)

Summary of basic information about the wetland unit

Wetland Unit has Special Characteristics		Wetland HGM Class used for Rating	
Estuarine		Depressional	X
Natural Heritage Wetland		Riverine	
Bog		Lake-fringe	
Mature Forest		Slope	
Old Growth Forest		Flats	
Coastal Lagoon		Freshwater Tidal	
Interdunal			
None of the above	X	Check if unit has multiple HGM classes present	

Does the wetland unit being rated meet any of the criteria below?

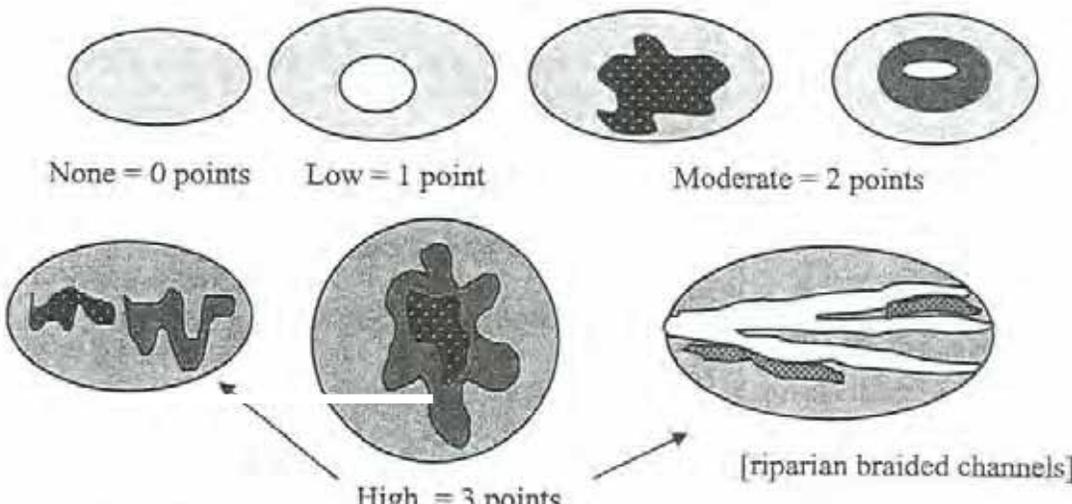
If you answer YES to any of the questions below you will need to protect the wetland according to the regulations regarding the special characteristics found in the wetland.

Check List for Wetlands That May Need Additional Protection (in addition to the protection recommended for its category)	YES	NO
SP1. <i>Has the wetland unit been documented as a habitat for any Federally listed Threatened or Endangered animal or plant species (T/E species)?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state or federal database.		X
SP2. <i>Has the wetland unit been documented as habitat for any State listed Threatened or Endangered animal species?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state database. Note: Wetlands with State listed plant species are categorized as Category I Natural Heritage Wetlands (see p. 19 of data form).		X
SP3. <i>Does the wetland unit contain individuals of Priority species listed by the WDFW for the state?</i>		X
SP4. <i>Does the wetland unit have a local significance in addition to its functions?</i> For example, the wetland has been identified in the Shoreline Master Program, the Critical Areas Ordinance, or in a local management plan as having special significance.		X

To complete the next part of the data sheet you will need to determine the Hydrogeomorphic Class of the wetland being rated.

The hydrogeomorphic classification groups wetlands into those that function in similar ways. This simplifies the questions needed to answer how well the wetland functions. The Hydrogeomorphic Class of a wetland can be determined using the key below. See p. 24 for more detailed instructions on classifying wetlands.

D Depressional and Flats Wetlands HYDROLOGIC FUNCTIONS – Indicators that the wetland unit functions to reduce flooding and stream degradation.		Points (only 1 score per box)
D	D 3. Does the wetland have the <u>potential</u> to reduce flooding and stream erosion?	<i>(see p. 46)</i>
	<p>D 3.1 Characteristics of surface water flows out of the wetland unit</p> <p>Unit is a depression with no surface water leaving it (no outlet) points = 4</p> <p>Unit has an intermittently flowing, OR highly constricted permanently flowing outlet points = 2</p> <p>Unit is a “flat” depression (Q. 7 on key), or in the Flats class, with permanent surface outflow and no obvious natural outlet and/or outlet is a man-made ditch points = 1 <i>(If ditch is not permanently flowing treat unit as “intermittently flowing”)</i></p> <p>Unit has an unconstricted, or slightly constricted, surface outlet (<i>permanently flowing</i>) points = 0</p>	2
D	<p>D 3.2 Depth of storage during wet periods</p> <p><i>Estimate the height of ponding above the bottom of the outlet. For units with no outlet measure from the surface of permanent water or deepest part (if dry).</i></p> <p>Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7</p> <p>The wetland is a “headwater” wetland points = 5</p> <p>Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5</p> <p>Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points = 3</p> <p>Unit is flat (yes to Q. 2 or Q. 7 on key) but has small depressions on the surface that trap water points = 1</p> <p>Marks of ponding less than 0.5 ft points = 0</p>	3
D	<p>D 3.3 Contribution of wetland unit to storage in the watershed</p> <p><i>Estimate the ration of the area of upstream basin contributing surface water to the wetland to the area of the wetland unit itself.</i></p> <p>The area of the basin is less than 10 times the area of the unit points = 5</p> <p>The area of the basin is 10 to 100 times the area of the unit points = 3</p> <p>The area of the basin is more than 100 times the area of the unit points = 0</p> <p>Entire unit is in the FLATS class points = 5</p>	0
D	Total for D 3 <i>Add the points in the boxes above</i>	5
D	<p>D 4. Does the wetland have the <u>opportunity</u> to reduce flooding and erosion?</p> <p>Answer YES if the unit is in a location in the watershed where the flood storage, or reduction in water velocity, it provides helps protect downstream property and aquatic resources from flooding or excessive and/or erosive flows. Answer NO if the water coming into the wetland is controlled by a structure such as flood gate, tide gate, flap valve, reservoir etc. OR you estimate that more than 90% of the water in the wetland is from groundwater in areas where damaging groundwater flooding does not occur.</p> <p><i>Note which of the following indicators of opportunity apply.</i></p> <p><input type="checkbox"/> Wetland is in a headwater of a river or stream that has flooding problems</p> <p><input type="checkbox"/> Wetland drains to a river or stream that has flooding problems</p> <p><input type="checkbox"/> Wetland has no outlet and impounds surface runoff water that might otherwise flow into a river or stream that has flooding problems</p> <p><input type="checkbox"/> Other _____</p> <p>YES multiplier is 2 NO multiplier is 1</p>	<i>(see p. 49)</i> multiplier <u>2</u>
D	TOTAL – Hydrologic Functions Multiply the score from D 3 by D 4 <i>Add score to table on p. 1</i>	10

<p>H 1.4 Interspersion of habitats (<i>see p. 76</i>) Decide from the diagrams below whether interspersion between Cowardin vegetation classes (described in H1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none.</p>  <p>NOTE: If you have four or more vegetation classes or three vegetation types and open water the rating is always “high”. Use map of Cowardin vegetation classes</p>	<p>Figure _____</p> <p>1</p>	
<p>H 1.5 Special Habitat Features (<i>see p. 77</i>) Check the habitat features that are present in the wetland. The number of checks is the number of points you put into the next column.</p> <p><input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (> 4in. diameter and 6 ft long).</p> <p><input checked="" type="checkbox"/> Standing snags (diameter at the bottom > 4 inches) in the wetland</p> <p><input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2m) and/or overhanging vegetation extends at least 3.3 ft. (1m) over a stream (or ditch) in, or contiguous with the unit, for at least 33 ft (10m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet turned grey/brown</i>)</p> <p><input type="checkbox"/> At least ¼ acre of thin-stemmed persistent vegetation or woody branches are present in areas that are permanently or seasonally inundated. (<i>structures for egg-laying by amphibians</i>)</p> <p><input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in each stratum of plants</p> <p>NOTE: The 20% stated in early printings of the manual on page 78 is an error.</p>	<p>2</p>	
<p align="center">H 1. TOTAL Score – potential for providing habitat Add the scores from H1.1, H1.2, H1.3, H1.4, H1.5</p>		<p align="center">9</p>

Comments

<p>H 2.3 <u>Near or adjacent to other priority habitats listed by WDFW (see p. 82)</u> Which of the following priority habitats are within 330 ft (100m) of the wetland unit? <i>NOTE: the connections do not have to be relatively undisturbed. These are DFW definitions. Check with your local DFW biologist if there are any questions.</i></p> <p><input type="checkbox"/> Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.</p> <p><input type="checkbox"/> Aspen Stands: Pure or mixed stands of aspen greater than 0.8 ha (2 acres).</p> <p><input type="checkbox"/> Cliffs: Greater than 7.6m (25 ft) high and occurring below 5000 ft.</p> <p><input type="checkbox"/> Old-growth forests: (Old growth west of Cascade Crest) Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings, with at least 20 trees/ha (8 trees/acre) > 81cm (32 in) dbh or > 200 years of age.</p> <p><input type="checkbox"/> Mature forests: Stands with average diameters exceeding 53cm (21 in) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 – 200 years old west of the Cascade crest.</p> <p><input type="checkbox"/> Prairies: Relatively undisturbed areas (as indicated by dominance of native plants) where greases and/or forbs form the natural climax plant community.</p> <p><input type="checkbox"/> Talus: Homogenous areas of rock rubble ranging in average size 0.15 – 2.0 m (0.5 – 6.5 ft), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.</p> <p><input type="checkbox"/> Caves: A naturally occurring cavity, recess, void, or system of interconnected passages.</p> <p><input type="checkbox"/> Oregon white Oak: Woodlands Stands of pure oak or oak/conifer associations where canopy coverage of the oak component of the stand is 25%.</p> <p><input type="checkbox"/> Urban Natural Open Space: A priority species resides within or is adjacent to the open space and uses it for breeding and/or regular feeding; and/or the open space functions as a corridor connecting other <i>priority habitats</i>, especially those that would otherwise be isolated; and/or the open space is an isolated remnant of natural habitat larger than 4 ha (10 acres) and is surrounded by urban development.</p> <p><input type="checkbox"/> Estuary/Estuary-like: Deepwater tidal habitats and adjacent tidal wetlands, usually semi-enclosed by land but with open, partly obstructed or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land. The salinity may be periodically increased above that of the open ocean by evaporation. Along some low-energy coastlines there is appreciable dilution of sea water. Estuarine habitat extends upstream and landward to where ocean-derived salts measure less than 0.5 ppt. during the period of average annual low flow. Includes both estuaries and lagoons.</p> <p><input type="checkbox"/> Marine/Estuarine Shorelines: Shorelines include the intertidal and subtidal zones of beaches, and may also include the backshore and adjacent components of the terrestrial landscape (e.g., cliffs, snags, mature trees, dunes, meadows) that are important to shoreline associated fish and wildlife and that contribute to shoreline function (e.g., sand/rock/log recruitment, nutrient contribution, erosion control).</p> <p> If wetland has 3 or more priority habitats = 4 points If wetland has 2 priority habit= 3 points If wetland has 1 priority habitats= 1 point No habitats= 0 points</p> <p><i>Note: All vegetated wetlands are by definition a priority habitat but are not included in this list. Nearby wetlands are addressed in question H 2.4)</i></p>	<p>0</p>
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<p>H 2.4 <u>Wetland Landscape</u> (choose the one description of the landscape around the wetland that best fits) (see p. 84)</p> <p>There are at least 3 other wetlands within ½ mile, and the connections between them are relatively undisturbed (light grazing between wetlands OK, as is lake shore with some boating, but connections should NOT be bisected by paved roads, fill, fields, or other development. points = 5</p> <p>The wetland is Lake-fringe on a lake with little disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 5</p> <p>There are at least 3 other wetlands within ½ mile, BUT the connections between them are disturbed points = 3</p> <p>The wetland is Lake-fringe on a lake with disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 3</p> <p>There is at least 1 wetland within ½ mile points = 2</p> <p>There are no wetlands within ½ mile points = 0</p>	3
<p>H 2. TOTAL Score – opportunity for providing habitat <i>Add the scores from H2.1, H2.2, H2.3, H2.4</i></p>	9
<p>TOTAL for H 1 from page 14</p>	9
<p>Total Score for Habitat Functions – add the points for H 1, H 2 and record the result on p. 1</p>	18

Wetland name or number 10A

WETLAND RATING FORM – WESTERN WASHINGTON
Version 2 – Updated July 2006 to increase accuracy and reproducibility among users

Name of wetland (if known): 10A Date of site visit: 2006-2007

Rated by Dunkin Trained by Ecology? Yes No Date of training Oct 2006

SEC: 19 TWSHP: 39 RNGE: 1E Is S/T/R in Appendix D? Yes No

Map of wetland unit: Figure Estimated size 4 Acres

SUMMARY OF RATING

Category based on FUNCTIONS provided by wetland

I II III IV

Category I = Score >=70
Category II = Score 51-69
Category III = Score 30-50
Category IV = Score <30

Score for Water Quality Functions	8
Score for Hydrologic Functions	8
Score for Habitat Functions	18
TOTAL score for Functions	34

Category based on SPECIAL CHARACTERISTICS of Wetland

I II Does not Apply

III

Final Category (choose the “highest” category from above)

Summary of basic information about the wetland unit

Wetland Unit has Special Characteristics		Wetland HGM Class used for Rating	
Estuarine		Depressional	
Natural Heritage Wetland		Riverine	
Bog		Lake-fringe	
Mature Forest		Slope	X
Old Growth Forest		Flats	
Coastal Lagoon		Freshwater Tidal	
Interdunal			
None of the above	X	Check if unit has multiple HGM classes present	

Does the wetland unit being rated meet any of the criteria below?

If you answer YES to any of the questions below you will need to protect the wetland according to the regulations regarding the special characteristics found in the wetland.

Check List for Wetlands That May Need Additional Protection (in addition to the protection recommended for its category)	YES	NO
SP1. <i>Has the wetland unit been documented as a habitat for any Federally listed Threatened or Endangered animal or plant species (T/E species)?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state or federal database.		X
SP2. <i>Has the wetland unit been documented as habitat for any State listed Threatened or Endangered animal species?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state database. Note: Wetlands with State listed plant species are categorized as Category I Natural Heritage Wetlands (see p. 19 of data form).		X
SP3. <i>Does the wetland unit contain individuals of Priority species listed by the WDFW for the state?</i>		X
SP4. <i>Does the wetland unit have a local significance in addition to its functions?</i> For example, the wetland has been identified in the Shoreline Master Program, the Critical Areas Ordinance, or in a local management plan as having special significance.		X

To complete the next part of the data sheet you will need to determine the Hydrogeomorphic Class of the wetland being rated.

The hydrogeomorphic classification groups wetlands into those that function in similar ways. This simplifies the questions needed to answer how well the wetland functions. The Hydrogeomorphic Class of a wetland can be determined using the key below. See p. 24 for more detailed instructions on classifying wetlands.

S Slope Wetlands		Points
WATER QUALITY FUNCTIONS – Indicators that the wetland unit functions to improve water quality		(only 1 score per box)
S	S 1. Does the wetland unit have the <u>potential</u> to improve water quality?	(see p. 64)
S	<p>S 1.1 Characteristics of average slope of unit:</p> <p>Slope is 1% or less (<i>a 1% slope has a 1 foot vertical drop in elevation for every 100 ft horizontal distance</i>) points = 3</p> <p>Slope is 1% - 2% points = 2</p> <p>Slope is 2% - 5% points = 1</p> <p>Slope is greater than 5% points = 0</p>	2
S	<p>S 1.2 The soil 2 inches below the surface (or duff layer) is clay or organic (<i>use NRCS definitions</i>)</p> <p>YES = 3 points NO = 0 points</p>	0
S	<p>S 1.3 Characteristics of the vegetation in the wetland that trap sediments and pollutants: Choose the points appropriate for the description that best fits the vegetation in the wetland. Dense vegetation means you have trouble seeing the soil surface (>75% cover), and uncut means not grazed or mowed and plants are higher than 6 inches.</p> <p>Dense, uncut, herbaceous vegetation > 90% of the wetland area points = 6</p> <p>Dense, uncut, herbaceous vegetation > ½ of area points = 3</p> <p>Dense, woody, vegetation > ½ of area points = 2</p> <p>Dense, uncut, herbaceous vegetation > ¼ of area points = 1</p> <p>Does not meet any of the criteria above for vegetation points = 0</p> <p>Aerial photo or map with vegetation polygons</p>	Figure _____ 2
S	Total for S 1 Add the points in the boxes above	4
S	<p>S 2. Does the wetland have the <u>opportunity</u> to improve water quality?</p> <p>Answer YES if you know or believe there are pollutants in groundwater or surface water coming into the wetland that would otherwise reduce water quality in streams, lakes or groundwater downgradient from the wetland. Note which of the following conditions provide the sources of pollutants. A unit may have pollutants coming from several sources, but any single source would qualify as opportunity.</p> <p>___ Grazing in the wetland or within 150 ft</p> <p>___ Untreated stormwater discharges to wetland</p> <p>___ Tilled fields, logging, or orchards within 150 ft of wetland</p> <p>___ Residential, urban areas, or golf courses are within 150 ft upslope of wetland</p> <p>___ Other _____</p> <p>YES multiplier is 2 NO multiplier is 1</p>	(see p. 67) multiplier ___ 2
S	TOTAL – Water Quality Functions Multiply the score from S1 by S2 Add score to table on p. 1	8

Comments

These questions apply to wetlands of all HGM classes.		Points											
HABITAT FUNCTIONS – Indicators that unit functions to provide important habitat		(only 1 score per box)											
H 1. Does the wetland unit have the potential to provide habitat for many species?													
<p>H 1.1 <u>Vegetation structure</u> (see P. 72)</p> <p>Check the types of vegetation classes present (as defined by Cowardin)- Size threshold for each class is ¼ acre or more than 10% of the area if the unit is smaller than 2.5 acres.</p> <p><input type="checkbox"/> Aquatic Bed</p> <p><input type="checkbox"/> Emergent plants</p> <p><input type="checkbox"/> Scrub/shrub (areas where shrubs have > 30% cover)</p> <p><input checked="" type="checkbox"/> Forested (areas where trees have > 30% cover)</p> <p>If the unit has a forested class check if:</p> <p><input type="checkbox"/> The forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the forested polygon</p> <p>Add the number of vegetation structures that qualify. If you have:</p> <table style="margin-left: 100px;"> <tr> <td>4 structures or more</td> <td>points = 4</td> </tr> <tr> <td>3 structures</td> <td>points = 2</td> </tr> <tr> <td>2 structures</td> <td>points = 1</td> </tr> <tr> <td>1 structure</td> <td>points = 0</td> </tr> </table> <p>Map of Cowardin vegetation classes</p>	4 structures or more	points = 4	3 structures	points = 2	2 structures	points = 1	1 structure	points = 0	<p>Figure _____</p> <p>0</p>				
4 structures or more	points = 4												
3 structures	points = 2												
2 structures	points = 1												
1 structure	points = 0												
<p>H 1.2 <u>Hydroperiods</u> (see p.73)</p> <p>Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ acre to count. (see text for descriptions of hydroperiods)</p> <table style="margin-left: 100px;"> <tr> <td><input type="checkbox"/> Permanently flooded or inundated</td> <td>4 or more types present</td> <td>points = 3</td> </tr> <tr> <td><input checked="" type="checkbox"/> Seasonally flooded or inundated</td> <td>3 types present</td> <td>points = 2</td> </tr> <tr> <td><input checked="" type="checkbox"/> Occasionally flooded or inundated</td> <td>2 types present</td> <td>points = 1</td> </tr> <tr> <td><input checked="" type="checkbox"/> Saturated only</td> <td>1 type present</td> <td>points = 0</td> </tr> </table> <p><input type="checkbox"/> Permanently flowing stream or river in, or adjacent to, the wetland</p> <p><input type="checkbox"/> Seasonally flowing stream in, or adjacent to, the wetland</p> <p><input type="checkbox"/> Lake-fringe wetland = 2 points</p> <p><input type="checkbox"/> Freshwater tidal wetland = 2 points</p> <p style="text-align: right;">Map of hydroperiods</p>	<input type="checkbox"/> Permanently flooded or inundated	4 or more types present	points = 3	<input checked="" type="checkbox"/> Seasonally flooded or inundated	3 types present	points = 2	<input checked="" type="checkbox"/> Occasionally flooded or inundated	2 types present	points = 1	<input checked="" type="checkbox"/> Saturated only	1 type present	points = 0	<p>Figure _____</p> <p>3</p>
<input type="checkbox"/> Permanently flooded or inundated	4 or more types present	points = 3											
<input checked="" type="checkbox"/> Seasonally flooded or inundated	3 types present	points = 2											
<input checked="" type="checkbox"/> Occasionally flooded or inundated	2 types present	points = 1											
<input checked="" type="checkbox"/> Saturated only	1 type present	points = 0											
<p>H 1.3 <u>Richness of Plant Species</u> (see p. 75)</p> <p>Count the number of plant species in the wetland that cover at least 10 ft². (different patches of the same species can be combined to meet the size threshold)</p> <p>You do not have to name the species.</p> <p>Do not include Eurasian Milfoil, reed canarygrass, purple loosestrife, Canadian Thistle</p> <p>If you counted: > 19 species points = 2</p> <p>List species below if you want to: 5 – 19 species points = 1</p> <p> < 5 species points = 0</p>	<p>Figure _____</p> <p>1</p>												

<p>H 1.4 Interspersion of habitats (<i>see p. 76</i>) Decide from the diagrams below whether interspersion between Cowardin vegetation classes (described in H1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none.</p> <p>NOTE: If you have four or more vegetation classes or three vegetation types and open water the rating is always "high". Use map of Cowardin vegetation classes</p>	<p>Figure _____</p> <p style="text-align: center;">3</p>	
<p>H 1.5 Special Habitat Features (<i>see p. 77</i>) Check the habitat features that are present in the wetland. The number of checks is the number of points you put into the next column.</p> <p><input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (> 4in. diameter and 6 ft long).</p> <p><input checked="" type="checkbox"/> Standing snags (diameter at the bottom > 4 inches) in the wetland</p> <p><input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2m) and/or overhanging vegetation extends at least 3.3 ft. (1m) over a stream (or ditch) in, or contiguous with the unit, for at least 33 ft (10m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet turned grey/brown</i>)</p> <p><input type="checkbox"/> At least ¼ acre of thin-stemmed persistent vegetation or woody branches are present in areas that are permanently or seasonally inundated. (<i>structures for egg-laying by amphibians</i>)</p> <p><input checked="" type="checkbox"/> Invasive plants cover less than 25% of the wetland area in each stratum of plants</p> <p>NOTE: The 20% stated in early printings of the manual on page 78 is an error.</p>	<p style="text-align: center;">3</p>	
<p>H 1. TOTAL Score – potential for providing habitat Add the scores from H1.1, H1.2, H1.3, H1.4, H1.5</p>		<p>10</p>

Comments

<p>H 2.3 <u>Near or adjacent to other priority habitats listed by WDFW (see p. 82)</u> Which of the following priority habitats are within 330 ft (100m) of the wetland unit? <i>NOTE: the connections do not have to be relatively undisturbed. These are DFW definitions. Check with your local DFW biologist if there are any questions.</i></p> <p><input type="checkbox"/> Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.</p> <p><input type="checkbox"/> Aspen Stands: Pure or mixed stands of aspen greater than 0.8 ha (2 acres).</p> <p><input type="checkbox"/> Cliffs: Greater than 7.6m (25 ft) high and occurring below 5000 ft.</p> <p><input type="checkbox"/> Old-growth forests: (Old growth west of Cascade Crest) Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings, with at least 20 trees/ha (8 trees/acre) > 81cm (32 in) dbh or > 200 years of age.</p> <p><input type="checkbox"/> Mature forests: Stands with average diameters exceeding 53cm (21 in) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 – 200 years old west of the Cascade crest.</p> <p><input type="checkbox"/> Prairies: Relatively undisturbed areas (as indicated by dominance of native plants) where greases and/or forbs form the natural climax plant community.</p> <p><input type="checkbox"/> Talus: Homogenous areas of rock rubble ranging in average size 0.15 – 2.0 m (0.5 – 6.5 ft), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.</p> <p><input type="checkbox"/> Caves: A naturally occurring cavity, recess, void, or system of interconnected passages.</p> <p><input type="checkbox"/> Oregon white Oak: Woodlands Stands of pure oak or oak/conifer associations where canopy coverage of the oak component of the stand is 25%.</p> <p><input type="checkbox"/> Urban Natural Open Space: A priority species resides within or is adjacent to the open space and uses it for breeding and/or regular feeding; and/or the open space functions as a corridor connecting other <i>priority habitats</i>, especially those that would otherwise be isolated; and/or the open space is an isolated remnant of natural habitat larger than 4 ha (10 acres) and is surrounded by urban development.</p> <p><input type="checkbox"/> Estuary/Estuary-like: Deepwater tidal habitats and adjacent tidal wetlands, usually semi-enclosed by land but with open, partly obstructed or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land. The salinity may be periodically increased above that of the open ocean by evaporation. Along some low-energy coastlines there is appreciable dilution of sea water. Estuarine habitat extends upstream and landward to where ocean-derived salts measure less than 0.5 ppt. during the period of average annual low flow. Includes both estuaries and lagoons.</p> <p><input type="checkbox"/> Marine/Estuarine Shorelines: Shorelines include the intertidal and subtidal zones of beaches, and may also include the backshore and adjacent components of the terrestrial landscape (e.g., cliffs, snags, mature trees, dunes, meadows) that are important to shoreline associated fish and wildlife and that contribute to shoreline function (e.g., sand/rock/log recruitment, nutrient contribution, erosion control).</p> <p> If wetland has 3 or more priority habitats = 4 points If wetland has 2 priority habit= 3 points If wetland has 1 priority habitats= 1 point No habitats= 0 points</p> <p><i>Note: All vegetated wetlands are by definition a priority habitat but are not included in this list. Nearby wetlands are addressed in question H 2.4)</i></p>	<p>0</p>
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Wetland name or number 10A

<p>H 2.4 <u>Wetland Landscape</u> (choose the one description of the landscape around the wetland that best fits) (see p. 84)</p> <p>There are at least 3 other wetlands within ½ mile, and the connections between them are relatively undisturbed (light grazing between wetlands OK, as is lake shore with some boating, but connections should NOT be bisected by paved roads, fill, fields, or other development. points = 5</p> <p>The wetland is Lake-fringe on a lake with little disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 5</p> <p>There are at least 3 other wetlands within ½ mile, BUT the connections between them are disturbed points = 3</p> <p>The wetland is Lake-fringe on a lake with disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 3</p> <p>There is at least 1 wetland within ½ mile points = 2</p> <p>There are no wetlands within ½ mile points = 0</p>	3
<p>H 2. TOTAL Score – opportunity for providing habitat <i>Add the scores from H2.1, H2.2, H2.3, H2.4</i></p>	8
<p>TOTAL for H 1 from page 14</p>	10
<p>Total Score for Habitat Functions – add the points for H 1, H 2 and record the result on p. 1</p>	18

Wetland name or number 10B

WETLAND RATING FORM – WESTERN WASHINGTON
Version 2 – Updated July 2006 to increase accuracy and reproducibility among users

Name of wetland (if known): 10B Date of site visit: 2006-2007

Rated by M. Gray Trained by Ecology? Yes X No Date of training Apr 2007

SEC: 19 TWSHP: 39N RNGE: 1E Is S/T/R in Appendix D? Yes No X

Map of wetland unit: Figure Estimated size: 0.04 acres

SUMMARY OF RATING

Category based on FUNCTIONS provided by wetland

I II III **X** IV

Category I = Score >=70
Category II = Score 51-69
Category III = Score 30-50
Category IV = Score <30

Score for Water Quality Functions	12
Score for Hydrologic Functions	5
Score for Habitat Functions	16
TOTAL score for Functions	33

Category based on SPECIAL CHARACTERISTICS of Wetland

I II Does not Apply

III

Final Category (choose the “highest” category from above)

Summary of basic information about the wetland unit

Wetland Unit has Special Characteristics		Wetland HGM Class used for Rating	
Estuarine		Depressional	X
Natural Heritage Wetland		Riverine	
Bog		Lake-fringe	
Mature Forest		Slope	
Old Growth Forest		Flats	
Coastal Lagoon		Freshwater Tidal	
Interdunal			
None of the above	X	Check if unit has multiple HGM classes present	

Does the wetland unit being rated meet any of the criteria below?

If you answer YES to any of the questions below you will need to protect the wetland according to the regulations regarding the special characteristics found in the wetland.

Check List for Wetlands That May Need Additional Protection (in addition to the protection recommended for its category)	YES	NO
SP1. <i>Has the wetland unit been documented as a habitat for any Federally listed Threatened or Endangered animal or plant species (T/E species)?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state or federal database.		X
SP2. <i>Has the wetland unit been documented as habitat for any State listed Threatened or Endangered animal species?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state database. Note: Wetlands with State listed plant species are categorized as Category I Natural Heritage Wetlands (see p. 19 of data form).		X
SP3. <i>Does the wetland unit contain individuals of Priority species listed by the WDFW for the state?</i>		X
SP4. <i>Does the wetland unit have a local significance in addition to its functions?</i> For example, the wetland has been identified in the Shoreline Master Program, the Critical Areas Ordinance, or in a local management plan as having special significance.		X

To complete the next part of the data sheet you will need to determine the Hydrogeomorphic Class of the wetland being rated.

The hydrogeomorphic classification groups wetlands into those that function in similar ways. This simplifies the questions needed to answer how well the wetland functions. The Hydrogeomorphic Class of a wetland can be determined using the key below. See p. 24 for more detailed instructions on classifying wetlands.

D Depressional and Flats Wetlands HYDROLOGIC FUNCTIONS – Indicators that the wetland unit functions to reduce flooding and stream degradation.		Points (only 1 score per box)
D	D 3. Does the wetland have the <u>potential</u> to reduce flooding and stream erosion?	<i>(see p. 46)</i>
	<p>D 3.1 Characteristics of surface water flows out of the wetland unit</p> <p>Unit is a depression with no surface water leaving it (no outlet) points = 4</p> <p>Unit has an intermittently flowing, OR highly constricted permanently flowing outlet <u>points = 2</u></p> <p>Unit is a “flat” depression (Q. 7 on key), or in the Flats class, with permanent surface outflow and no obvious natural outlet and/or outlet is a man-made ditch points = 1 <i>(If ditch is not permanently flowing treat unit as “intermittently flowing”)</i></p> <p>Unit has an unconstricted, or slightly constricted, surface outlet (<i>permanently flowing</i>) points = 0</p>	2
D	<p>D 3.2 Depth of storage during wet periods</p> <p><i>Estimate the height of ponding above the bottom of the outlet. For units with no outlet measure from the surface of permanent water or deepest part (if dry).</i></p> <p>Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7</p> <p>The wetland is a “headwater” wetland points = 5</p> <p>Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5</p> <p>Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet <u>points = 3</u></p> <p>Unit is flat (yes to Q. 2 or Q. 7 on key) but has small depressions on the surface that trap water points = 1</p> <p>Marks of ponding less than 0.5 ft points = 0</p>	3
D	<p>D 3.3 Contribution of wetland unit to storage in the watershed</p> <p><i>Estimate the ration of the area of upstream basin contributing surface water to the wetland to the area of the wetland unit itself.</i></p> <p>The area of the basin is less than 10 times the area of the unit points = 5</p> <p>The area of the basin is 10 to 100 times the area of the unit points = 3</p> <p>The area of the basin is more than 100 times the area of the unit <u>points = 0</u></p> <p>Entire unit is in the FLATS class points = 5</p>	0
D	Total for D 3 <i>Add the points in the boxes above</i>	5
D	<p>D 4. Does the wetland have the <u>opportunity</u> to reduce flooding and erosion?</p> <p>Answer YES if the unit is in a location in the watershed where the flood storage, or reduction in water velocity, it provides helps protect downstream property and aquatic resources from flooding or excessive and/or erosive flows. Answer NO if the water coming into the wetland is controlled by a structure such as flood gate, tide gate, flap valve, reservoir etc. OR you estimate that more than 90% of the water in the wetland is from groundwater in areas where damaging groundwater flooding does not occur.</p> <p><i>Note which of the following indicators of opportunity apply.</i></p> <p><input type="checkbox"/> Wetland is in a headwater of a river or stream that has flooding problems</p> <p><input type="checkbox"/> Wetland drains to a river or stream that has flooding problems</p> <p><input type="checkbox"/> Wetland has no outlet and impounds surface runoff water that might otherwise flow into a river or stream that has flooding problems</p> <p><input checked="" type="checkbox"/> Other _____</p> <p>YES multiplier is 2 NO multiplier is 1</p>	<i>(see p. 49)</i> multiplier 1
D	TOTAL – Hydrologic Functions Multiply the score from D 3 by D 4 <i>Add score to table on p. 1</i>	5

<p>H 1.4 Interspersion of habitats (<i>see p. 76</i>) Decide from the diagrams below whether interspersion between Cowardin vegetation classes (described in H1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none.</p> <p>NOTE: If you have four or more vegetation classes or three vegetation types and open water the rating is always “high”. Use map of Cowardin vegetation classes</p>	<p>Figure _____</p> <p>1</p>	
<p>H 1.5 Special Habitat Features (<i>see p. 77</i>) Check the habitat features that are present in the wetland. The number of checks is the number of points you put into the next column.</p> <p><input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (> 4in. diameter and 6 ft long).</p> <p><input checked="" type="checkbox"/> Standing snags (diameter at the bottom > 4 inches) in the wetland</p> <p><input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2m) and/or overhanging vegetation extends at least 3.3 ft. (1m) over a stream (or ditch) in, or contiguous with the unit, for at least 33 ft (10m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet turned grey/brown</i>)</p> <p><input type="checkbox"/> At least ¼ acre of thin-stemmed persistent vegetation or woody branches are present in areas that are permanently or seasonally inundated. (<i>structures for egg-laying by amphibians</i>)</p> <p><input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in each stratum of plants</p> <p>NOTE: The 20% stated in early printings of the manual on page 78 is an error.</p>	<p>2</p>	
<p align="center">H 1. TOTAL Score – potential for providing habitat Add the scores from H1.1, H1.2, H1.3, H1.4, H1.5</p>		<p align="center">9</p>

Comments

H 2.3 Near or adjacent to other priority habitats listed by WDFW (see p. 82)

Which of the following priority habitats are within 330 ft (100m) of the wetland unit? *NOTE: the connections do not have to be relatively undisturbed. These are DFW definitions. Check with your local DFW biologist if there are any questions.*

- Riparian:** The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.
- Aspen Stands:** Pure or mixed stands of aspen greater than 0.8 ha (2 acres).
- Cliffs:** Greater than 7.6m (25 ft) high and occurring below 5000 ft.
- Old-growth forests:** (Old growth west of Cascade Crest) Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings, with at least 20 trees/ha (8 trees/acre) > 81cm (32 in) dbh or > 200 years of age.
- Mature forests:** Stands with average diameters exceeding 53cm (21 in) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 – 200 years old west of the Cascade crest.
- Prairies:** Relatively undisturbed areas (as indicated by dominance of native plants) where greases and/or forbs form the natural climax plant community.
- Talus:** Homogenous areas of rock rubble ranging in average size 0.15 – 2.0 m (0.5 – 6.5 ft), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.
- Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages.
- Oregon white Oak:** Woodlands Stands of pure oak or oak/conifer associations where canopy coverage of the oak component of the stand is 25%.
- Urban Natural Open Space:** A priority species resides within or is adjacent to the open space and uses it for breeding and/or regular feeding; and/or the open space functions as a corridor connecting other *priority habitats*, especially those that would otherwise be isolated; and/or the open space is an isolated remnant of natural habitat larger than 4 ha (10 acres) and is surrounded by urban development.
- Estuary/Estuary-like:** Deepwater tidal habitats and adjacent tidal wetlands, usually semi-enclosed by land but with open, partly obstructed or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land. The salinity may be periodically increased above that of the open ocean by evaporation. Along some low-energy coastlines there is appreciable dilution of sea water. Estuarine habitat extends upstream and landward to where ocean-derived salts measure less than 0.5 ppt. during the period of average annual low flow. Includes both estuaries and lagoons.
- Marine/Estuarine Shorelines:** Shorelines include the intertidal and subtidal zones of beaches, and may also include the backshore and adjacent components of the terrestrial landscape (e.g., cliffs, snags, mature trees, dunes, meadows) that are important to shoreline associated fish and wildlife and that contribute to shoreline function (e.g., sand/rock/log recruitment, nutrient contribution, erosion control).

- If wetland has **3 or more** priority habitats = **4 points**
- If wetland has **2** priority habit= **3 points**
- If wetland has **1** priority habitats= **1 point** No habitats= 0 points

Note: All vegetated wetlands are by definition a priority habitat but are not included in this list. Nearby wetlands are addressed in question H 2.4)

Wetland name or number 10B

<p>H 2.4 <u>Wetland Landscape</u> (choose the one description of the landscape around the wetland that best fits) (see p. 84)</p> <p>There are at least 3 other wetlands within ½ mile, and the connections between them are relatively undisturbed (light grazing between wetlands OK, as is lake shore with some boating, but connections should NOT be bisected by paved roads, fill, fields, or other development. points = 5</p> <p>The wetland is Lake-fringe on a lake with little disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 5</p> <p>There are at least 3 other wetlands within ½ mile, BUT the connections between them are disturbed points = 3</p> <p>The wetland is Lake-fringe on a lake with disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 3</p> <p>There is at least 1 wetland within ½ mile points = 2</p> <p>There are no wetlands within ½ mile points = 0</p>	3
<p>H 2. TOTAL Score – opportunity for providing habitat <i>Add the scores from H2.1, H2.2, H2.3, H2.4</i></p>	7
<p>TOTAL for H 1 from page 14</p>	9
<p>Total Score for Habitat Functions – add the points for H 1, H 2 and record the result on p. 1</p>	16

Wetland name or number 11A

WETLAND RATING FORM – WESTERN WASHINGTON
Version 2 – Updated July 2006 to increase accuracy and reproducibility among users

Name of wetland (if known): 11A Date of site visit: 2006-2007

Rated by Dunkin Trained by Ecology? Yes X No Date of training Oct 2006

SEC: 19 TWSHP: 39N RNGE: 1E Is S/T/R in Appendix D? Yes No X

Map of wetland unit: Figure Estimated size 4 Acres

SUMMARY OF RATING

Category based on FUNCTIONS provided by wetland

I X II III IV

Category I = Score >=70 Category II = Score 51-69 Category III = Score 30-50 Category IV = Score <30

Score for Water Quality Functions	20
Score for Hydrologic Functions	18
Score for Habitat Functions	32
TOTAL score for Functions	70

Category based on SPECIAL CHARACTERISTICS of Wetland

I II Does not Apply X

I

Final Category (choose the “highest” category from above)

Summary of basic information about the wetland unit

Wetland Unit has Special Characteristics		Wetland HGM Class used for Rating	
Estuarine		Depressional	
Natural Heritage Wetland		Riverine (slope)	X
Bog		Lake-fringe	
Mature Forest		Slope	
Old Growth Forest		Flats	
Coastal Lagoon		Freshwater Tidal	
Interdunal			
None of the above	X	Check if unit has multiple HGM classes present	X

Does the wetland unit being rated meet any of the criteria below?

If you answer YES to any of the questions below you will need to protect the wetland according to the regulations regarding the special characteristics found in the wetland.

Check List for Wetlands That May Need Additional Protection (in addition to the protection recommended for its category)	YES	NO
SP1. <i>Has the wetland unit been documented as a habitat for any Federally listed Threatened or Endangered animal or plant species (T/E species)?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state or federal database.		X
SP2. <i>Has the wetland unit been documented as habitat for any State listed Threatened or Endangered animal species?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state database. Note: Wetlands with State listed plant species are categorized as Category I Natural Heritage Wetlands (see p. 19 of data form).		X
SP3. <i>Does the wetland unit contain individuals of Priority species listed by the WDFW for the state? Coho salmon - confirmed sitings</i>	X	
SP4. <i>Does the wetland unit have a local significance in addition to its functions?</i> For example, the wetland has been identified in the Shoreline Master Program, the Critical Areas Ordinance, or in a local management plan as having special significance.		X

To complete the next part of the data sheet you will need to determine the Hydrogeomorphic Class of the wetland being rated.

The hydrogeomorphic classification groups wetlands into those that function in similar ways. This simplifies the questions needed to answer how well the wetland functions. The Hydrogeomorphic Class of a wetland can be determined using the key below. See p. 24 for more detailed instructions on classifying wetlands.

<p>H 1.4 Interspersion of habitats (<i>see p. 76</i>) Decide from the diagrams below whether interspersion between Cowardin vegetation classes (described in H1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none.</p> <p>NOTE: If you have four or more vegetation classes or three vegetation types and open water the rating is always "high". Use map of Cowardin vegetation classes</p>	<p>Figure _____</p> <p>3</p>	
<p>H 1.5 Special Habitat Features (<i>see p. 77</i>) Check the habitat features that are present in the wetland. The number of checks is the number of points you put into the next column.</p> <p><input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (> 4in. diameter and 6 ft long).</p> <p><input checked="" type="checkbox"/> Standing snags (diameter at the bottom > 4 inches) in the wetland</p> <p><input checked="" type="checkbox"/> Undercut banks are present for at least 6.6 ft (2m) and/or overhanging vegetation extends at least 3.3 ft. (1m) over a stream (or ditch) in, or contiguous with the unit, for at least 33 ft (10m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet turned grey/brown</i>)</p> <p><input checked="" type="checkbox"/> At least ¼ acre of thin-stemmed persistent vegetation or woody branches are present in areas that are permanently or seasonally inundated. (<i>structures for egg-laying by amphibians</i>)</p> <p><input checked="" type="checkbox"/> Invasive plants cover less than 25% of the wetland area in each stratum of plants</p> <p>NOTE: The 20% stated in early printings of the manual on page 78 is an error.</p>	<p>5</p>	
<p align="center">H 1. TOTAL Score – potential for providing habitat Add the scores from H1.1, H1.2, H1.3, H1.4, H1.5</p>		<p align="center">17</p>

Comments

<p>H 2.3 <u>Near or adjacent to other priority habitats listed by WDFW (see p. 82)</u> Which of the following priority habitats are within 330 ft (100m) of the wetland unit? <i>NOTE: the connections do not have to be relatively undisturbed. These are DFW definitions. Check with your local DFW biologist if there are any questions.</i></p> <p><input checked="" type="checkbox"/> Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.</p> <p><input type="checkbox"/> Aspen Stands: Pure or mixed stands of aspen greater than 0.8 ha (2 acres).</p> <p><input type="checkbox"/> Cliffs: Greater than 7.6m (25 ft) high and occurring below 5000 ft.</p> <p><input type="checkbox"/> Old-growth forests: (Old growth west of Cascade Crest) Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings, with at least 20 trees/ha (8 trees/acre) > 81cm (32 in) dbh or > 200 years of age.</p> <p><input type="checkbox"/> Mature forests: Stands with average diameters exceeding 53cm (21 in) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 – 200 years old west of the Cascade crest.</p> <p><input type="checkbox"/> Prairies: Relatively undisturbed areas (as indicated by dominance of native plants) where greases and/or forbs form the natural climax plant community.</p> <p><input type="checkbox"/> Talus: Homogenous areas of rock rubble ranging in average size 0.15 – 2.0 m (0.5 – 6.5 ft), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.</p> <p><input type="checkbox"/> Caves: A naturally occurring cavity, recess, void, or system of interconnected passages.</p> <p><input type="checkbox"/> Oregon white Oak: Woodlands Stands of pure oak or oak/conifer associations where canopy coverage of the oak component of the stand is 25%.</p> <p><input type="checkbox"/> Urban Natural Open Space: A priority species resides within or is adjacent to the open space and uses it for breeding and/or regular feeding; and/or the open space functions as a corridor connecting other <i>priority habitats</i>, especially those that would otherwise be isolated; and/or the open space is an isolated remnant of natural habitat larger than 4 ha (10 acres) and is surrounded by urban development.</p> <p><input type="checkbox"/> Estuary/Estuary-like: Deepwater tidal habitats and adjacent tidal wetlands, usually semi-enclosed by land but with open, partly obstructed or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land. The salinity may be periodically increased above that of the open ocean by evaporation. Along some low-energy coastlines there is appreciable dilution of sea water. Estuarine habitat extends upstream and landward to where ocean-derived salts measure less than 0.5 ppt. during the period of average annual low flow. Includes both estuaries and lagoons.</p> <p><input type="checkbox"/> Marine/Estuarine Shorelines: Shorelines include the intertidal and subtidal zones of beaches, and may also include the backshore and adjacent components of the terrestrial landscape (e.g., cliffs, snags, mature trees, dunes, meadows) that are important to shoreline associated fish and wildlife and that contribute to shoreline function (e.g., sand/rock/log recruitment, nutrient contribution, erosion control).</p> <p style="padding-left: 40px;">If wetland has 3 or more priority habitats = 4 points If wetland has 2 priority habit= 3 points If wetland has 1 priority habitats= 1 point No habitats= 0 points</p> <p><i>Note: All vegetated wetlands are by definition a priority habitat but are not included in this list. Nearby wetlands are addressed in question H 2.4)</i></p>	<p>1</p>
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Wetland name or number 11A

<p>H 2.4 <u>Wetland Landscape</u> (choose the one description of the landscape around the wetland that best fits) (see p. 84)</p> <p>There are at least 3 other wetlands within ½ mile, and the connections between them are relatively undisturbed (light grazing between wetlands OK, as is lake shore with some boating, but connections should NOT be bisected by paved roads, fill, fields, or other development. points = 5</p> <p>The wetland is Lake-fringe on a lake with little disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 5</p> <p>There are at least 3 other wetlands within ½ mile, BUT the connections between them are disturbed points = 3</p> <p>The wetland is Lake-fringe on a lake with disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 3</p> <p>There is at least 1 wetland within ½ mile points = 2</p> <p>There are no wetlands within ½ mile points = 0</p>	5
<p>H 2. TOTAL Score – opportunity for providing habitat <i>Add the scores from H2.1, H2.2, H2.3, H2.4</i></p>	17
<p>TOTAL for H 1 from page 14</p>	15
<p>Total Score for Habitat Functions – add the points for H 1, H 2 and record the result on p. 1</p>	32

Wetland name or number 11B

WETLAND RATING FORM – WESTERN WASHINGTON

Version 2 – Updated July 2006 to increase accuracy and reproducibility among users

Name of wetland (if known): 11B Date of site visit: 2006-2007

Rated by M. Gray Trained by Ecology? Yes X No Date of training Apr 2007

SEC: 19 TOWNSHIP: 39N RANGE: 1E Is S/T/R in Appendix D? Yes No X

Map of wetland unit: Figure Estimated size 0.003 acres

SUMMARY OF RATING

Category based on FUNCTIONS provided by wetland

I II III X IV

Category I = Score ≥ 70 Category II = Score 51-69 Category III = Score 30-50 Category IV = Score < 30

Score for Water Quality Functions	14
Score for Hydrologic Functions	9
Score for Habitat Functions	10
TOTAL score for Functions	33

Category based on SPECIAL CHARACTERISTICS of Wetland

I II Does not Apply

III

Final Category (choose the “highest” category from above)

Summary of basic information about the wetland unit

Wetland Unit has Special Characteristics		Wetland HGM Class used for Rating	
Estuarine		Depressional	X
Natural Heritage Wetland		Riverine	
Bog		Lake-fringe	
Mature Forest		Slope	
Old Growth Forest		Flats	
Coastal Lagoon		Freshwater Tidal	
Interdunal			
None of the above	X	Check if unit has multiple HGM classes present	

Does the wetland unit being rated meet any of the criteria below?

If you answer YES to any of the questions below you will need to protect the wetland according to the regulations regarding the special characteristics found in the wetland.

Check List for Wetlands That May Need Additional Protection (in addition to the protection recommended for its category)	YES	NO
SP1. <i>Has the wetland unit been documented as a habitat for any Federally listed Threatened or Endangered animal or plant species (T/E species)?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state or federal database.		X
SP2. <i>Has the wetland unit been documented as habitat for any State listed Threatened or Endangered animal species?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state database. Note: Wetlands with State listed plant species are categorized as Category I Natural Heritage Wetlands (see p. 19 of data form).		X
SP3. <i>Does the wetland unit contain individuals of Priority species listed by the WDFW for the state?</i>		X
SP4. <i>Does the wetland unit have a local significance in addition to its functions?</i> For example, the wetland has been identified in the Shoreline Master Program, the Critical Areas Ordinance, or in a local management plan as having special significance.		X

To complete the next part of the data sheet you will need to determine the Hydrogeomorphic Class of the wetland being rated.

The hydrogeomorphic classification groups wetlands into those that function in similar ways. This simplifies the questions needed to answer how well the wetland functions. The Hydrogeomorphic Class of a wetland can be determined using the key below. See p. 24 for more detailed instructions on classifying wetlands.

D Depressional and Flats Wetlands		Points
WATER QUALITY FUNCTIONS – Indicators that the wetland unit functions to improve water quality		(only 1 score per box)
D	D 1. Does the wetland unit have the <u>potential</u> to improve water quality?	(see p. 38)
D	<p>D 1.1 Characteristics of surface water flows out of the wetland:</p> <p>Unit is a depression with no surface water leaving it (no outlet) points = 3</p> <p>Unit has an intermittently flowing, OR highly constricted permanently flowing outlet points = 2</p> <p>Unit has an unconstricted, or slightly constricted, surface outlet (<i>permanently flowing</i>) points = 1</p> <p>Unit has a “flat” depression (Q. 7 on key), or in the Flats class, with permanent surface outflow and no obvious natural outlet and/or outlet is a man-made ditch points = 1</p> <p>(If ditch is not permanently flowing treat unit as “intermittently flowing”)</p> <p style="text-align: right;">Provide photo or drawing</p>	Figure _____ 3
D	<p>S 1.2 The soil 2 inches below the surface (or duff layer) is clay or organic (<i>use NRCS definitions</i>)</p> <p>YES points = 4</p> <p>NO points = 0</p>	0
D	<p>D 1.3 Characteristics of persistent vegetation (emergent, shrub, and/or forest Cowardin class)</p> <p>Wetland has persistent, ungrazed, vegetation > = 95% of area points = 5</p> <p>Wetland has persistent, ungrazed, vegetation > = ½ of area points = 3</p> <p>Wetland has persistent, ungrazed, vegetation > = 1/10 of area points = 1</p> <p>Wetland has persistent, ungrazed, vegetation < 1/10 of area points = 0</p> <p style="text-align: right;">Map of Cowardin vegetation classes</p>	Figure _____ 0
D	<p>D 1.4 Characteristics of seasonal ponding or inundation.</p> <p><i>This is the area of the wetland unit that is ponded for at least 2 months, but dries out sometime during the year. Do not count the area that is permanently ponded. Estimate area as the average condition 5 out of 10 years.</i></p> <p>Area seasonally ponded is > ½ total area of wetland points = 4</p> <p>Area seasonally ponded is > ¼ total area of wetland points = 2</p> <p>Area seasonally ponded is < ¼ total area of wetland points = 0</p> <p style="text-align: right;">Map of hydroperiods</p>	Figure _____ 4
D	Total for D 1	7
D	D 2. Does the wetland have the <u>opportunity</u> to improve water quality?	(see p. 44)
	<p>Answer YES if you know or believe there are pollutants in groundwater or surface water coming into the wetland that would otherwise reduce water quality in streams, lakes or groundwater downgradient from the wetland. <i>Note which of the following conditions provide the sources of pollutants. A unit may have pollutants coming from several sources, but any single source would qualify as opportunity.</i></p> <p><input checked="" type="checkbox"/> Grazing in the wetland or within 150 ft</p> <p><input type="checkbox"/> Untreated stormwater discharges to wetland</p> <p><input checked="" type="checkbox"/> Tilled fields or orchards within 150 ft of wetland</p> <p><input type="checkbox"/> A stream or culvert discharges into wetland that drains developed areas, residential area, farmed fields, roads, or clear-cut logging</p> <p><input type="checkbox"/> Residential, urban areas, golf courses are within 150 ft of wetland</p> <p><input type="checkbox"/> Wetland is fed by groundwater high in phosphorus or nitrogen</p> <p><input type="checkbox"/> Other _____</p> <p>YES multiplier is 2 NO multiplier is 1</p>	multiplier 2
D	TOTAL – Water Quality Functions	Multiply the score from D1 by D2 <i>Add score to table on p. 1</i>
		14

D Depressional and Flats Wetlands		Points
HYDROLOGIC FUNCTIONS – Indicators that the wetland unit functions to reduce flooding and stream degradation.		(only 1 score per box)
D	D 3. Does the wetland have the <u>potential</u> to reduce flooding and stream erosion?	<i>(see p. 46)</i>
	<p>D 3.1 Characteristics of surface water flows out of the wetland unit</p> <p>Unit is a depression with no surface water leaving it (no outlet) points = 4</p> <p>Unit has an intermittently flowing, OR highly constricted permanently flowing outlet points = 2</p> <p>Unit is a “flat” depression (Q. 7 on key), or in the Flats class, with permanent surface outflow and no obvious natural outlet and/or outlet is a man-made ditch points = 1</p> <p><i>(If ditch is not permanently flowing treat unit as “intermittently flowing”)</i></p> <p>Unit has an unconstricted, or slightly constricted, surface outlet (<i>permanently flowing</i>) points = 0</p>	4
D	<p>D 3.2 Depth of storage during wet periods</p> <p><i>Estimate the height of ponding above the bottom of the outlet. For units with no outlet measure from the surface of permanent water or deepest part (if dry).</i></p> <p>Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7</p> <p>The wetland is a “headwater” wetland points = 5</p> <p>Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5</p> <p>Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points = 3</p> <p>Unit is flat (yes to Q. 2 or Q. 7 on key) but has small depressions on the surface that trap water points = 1</p> <p>Marks of ponding less than 0.5 ft points = 0</p>	5
D	<p>D 3.3 Contribution of wetland unit to storage in the watershed</p> <p><i>Estimate the ration of the area of upstream basin contributing surface water to the wetland to the area of the wetland unit itself.</i></p> <p>The area of the basin is less than 10 times the area of the unit points = 5</p> <p>The area of the basin is 10 to 100 times the area of the unit points = 3</p> <p>The area of the basin is more than 100 times the area of the unit points = 0</p> <p>Entire unit is in the FLATS class points = 5</p>	0
D	Total for D 3 <i>Add the points in the boxes above</i>	9
D	<p>D 4. Does the wetland have the <u>opportunity</u> to reduce flooding and erosion?</p> <p>Answer YES if the unit is in a location in the watershed where the flood storage, or reduction in water velocity, it provides helps protect downstream property and aquatic resources from flooding or excessive and/or erosive flows. Answer NO if the water coming into the wetland is controlled by a structure such as flood gate, tide gate, flap valve, reservoir etc. OR you estimate that more than 90% of the water in the wetland is from groundwater in areas where damaging groundwater flooding does not occur.</p> <p><i>Note which of the following indicators of opportunity apply.</i></p> <p><input type="checkbox"/> Wetland is in a headwater of a river or stream that has flooding problems</p> <p><input type="checkbox"/> Wetland drains to a river or stream that has flooding problems</p> <p><input type="checkbox"/> Wetland has no outlet and impounds surface runoff water that might otherwise flow into a river or stream that has flooding problems</p> <p><input type="checkbox"/> Other _____</p> <p>YES multiplier is 2 NO multiplier is 1</p>	<i>(see p. 49)</i> multiplier <u>1</u>
D	TOTAL – Hydrologic Functions Multiply the score from D 3 by D 4 <i>Add score to table on p. 1</i>	9

These questions apply to wetlands of all HGM classes.		Points											
HABITAT FUNCTIONS – Indicators that unit functions to provide important habitat		(only 1 score per box)											
H 1. Does the wetland unit have the potential to provide habitat for many species?													
<p>H 1.1 <u>Vegetation structure</u> (see P. 72)</p> <p>Check the types of vegetation classes present (as defined by Cowardin)- Size threshold for each class is ¼ acre or more than 10% of the area if the unit is smaller than 2.5 acres.</p> <p><input checked="" type="checkbox"/> Aquatic Bed</p> <p><input type="checkbox"/> Emergent plants</p> <p><input type="checkbox"/> Scrub/shrub (areas where shrubs have > 30% cover)</p> <p><input type="checkbox"/> Forested (areas where trees have > 30% cover)</p> <p>If the unit has a forested class check if:</p> <p><input type="checkbox"/> The forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the forested polygon</p> <p>Add the number of vegetation structures that qualify. If you have:</p> <table style="margin-left: 100px;"> <tr> <td>4 structures or more</td> <td>points = 4</td> </tr> <tr> <td>3 structures</td> <td>points = 2</td> </tr> <tr> <td>2 structures</td> <td>points = 1</td> </tr> <tr> <td>1 structure</td> <td>points = 0</td> </tr> </table> <p>Map of Cowardin vegetation classes</p>	4 structures or more	points = 4	3 structures	points = 2	2 structures	points = 1	1 structure	points = 0	<p>Figure _____</p> <p style="text-align: center;">0</p>				
4 structures or more	points = 4												
3 structures	points = 2												
2 structures	points = 1												
1 structure	points = 0												
<p>H 1.2 <u>Hydroperiods</u> (see p.73)</p> <p>Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ acre to count. (see text for descriptions of hydroperiods)</p> <table style="margin-left: 100px;"> <tr> <td><input type="checkbox"/> Permanently flooded or inundated</td> <td>4 or more types present</td> <td>points = 3</td> </tr> <tr> <td><input checked="" type="checkbox"/> Seasonally flooded or inundated</td> <td>3 types present</td> <td>points = 2</td> </tr> <tr> <td><input type="checkbox"/> Occasionally flooded or inundated</td> <td>2 types present</td> <td>points = 1</td> </tr> <tr> <td><input checked="" type="checkbox"/> Saturated only</td> <td>1 type present</td> <td>points = 0</td> </tr> </table> <p><input type="checkbox"/> Permanently flowing stream or river in, or adjacent to, the wetland</p> <p><input type="checkbox"/> Seasonally flowing stream in, or adjacent to, the wetland</p> <p><input type="checkbox"/> Lake-fringe wetland = 2 points</p> <p><input type="checkbox"/> Freshwater tidal wetland = 2 points</p> <p style="text-align: right;">Map of hydroperiods</p>	<input type="checkbox"/> Permanently flooded or inundated	4 or more types present	points = 3	<input checked="" type="checkbox"/> Seasonally flooded or inundated	3 types present	points = 2	<input type="checkbox"/> Occasionally flooded or inundated	2 types present	points = 1	<input checked="" type="checkbox"/> Saturated only	1 type present	points = 0	<p>Figure _____</p> <p style="text-align: center;">1</p>
<input type="checkbox"/> Permanently flooded or inundated	4 or more types present	points = 3											
<input checked="" type="checkbox"/> Seasonally flooded or inundated	3 types present	points = 2											
<input type="checkbox"/> Occasionally flooded or inundated	2 types present	points = 1											
<input checked="" type="checkbox"/> Saturated only	1 type present	points = 0											
<p>H 1.3 <u>Richness of Plant Species</u> (see p. 75)</p> <p>Count the number of plant species in the wetland that cover at least 10 ft². (different patches of the same species can be combined to meet the size threshold)</p> <p>You do not have to name the species.</p> <p>Do not include Eurasian Milfoil, reed canarygrass, purple loosestrife, Canadian Thistle</p> <p>If you counted: > 19 species points = 2</p> <p>List species below if you want to: 5 – 19 species points = 1</p> <p style="margin-left: 100px;"> < 5 species points = 0</p>	<p style="text-align: center;">0</p>												

<p>H 1.4 Interspersion of habitats (<i>see p. 76</i>) Decide from the diagrams below whether interspersion between Cowardin vegetation classes (described in H1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none.</p> <p>NOTE: If you have four or more vegetation classes or three vegetation types and open water the rating is always "high". Use map of Cowardin vegetation classes</p>	<p>Figure _____</p> <p>0</p>	
<p>H 1.5 Special Habitat Features (<i>see p. 77</i>) Check the habitat features that are present in the wetland. The number of checks is the number of points you put into the next column.</p> <p><input type="checkbox"/> Large, downed, woody debris within the wetland (> 4in. diameter and 6 ft long).</p> <p><input type="checkbox"/> Standing snags (diameter at the bottom > 4 inches) in the wetland</p> <p><input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2m) and/or overhanging vegetation extends at least 3.3 ft. (1m) over a stream (or ditch) in, or contiguous with the unit, for at least 33 ft (10m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet turned grey/brown</i>)</p> <p><input type="checkbox"/> At least ¼ acre of thin-stemmed persistent vegetation or woody branches are present in areas that are permanently or seasonally inundated. (<i>structures for egg-laying by amphibians</i>)</p> <p><input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in each stratum of plants</p> <p>NOTE: The 20% stated in early printings of the manual on page 78 is an error.</p>	<p>0</p>	
<p align="center">H 1. TOTAL Score – potential for providing habitat Add the scores from H1.1, H1.2, H1.3, H1.4, H1.5</p>		<p align="center">1</p>

Comments

<p>H 2.3 <u>Near or adjacent to other priority habitats listed by WDFW (see p. 82)</u> Which of the following priority habitats are within 330 ft (100m) of the wetland unit? <i>NOTE: the connections do not have to be relatively undisturbed. These are DFW definitions. Check with your local DFW biologist if there are any questions.</i></p> <p><input checked="" type="checkbox"/> Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.</p> <p><input type="checkbox"/> Aspen Stands: Pure or mixed stands of aspen greater than 0.8 ha (2 acres).</p> <p><input type="checkbox"/> Cliffs: Greater than 7.6m (25 ft) high and occurring below 5000 ft.</p> <p><input type="checkbox"/> Old-growth forests: (Old growth west of Cascade Crest) Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings, with at least 20 trees/ha (8 trees/acre) > 81cm (32 in) dbh or > 200 years of age.</p> <p><input type="checkbox"/> Mature forests: Stands with average diameters exceeding 53cm (21 in) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 – 200 years old west of the Cascade crest.</p> <p><input type="checkbox"/> Prairies: Relatively undisturbed areas (as indicated by dominance of native plants) where greases and/or forbs form the natural climax plant community.</p> <p><input type="checkbox"/> Talus: Homogenous areas of rock rubble ranging in average size 0.15 – 2.0 m (0.5 – 6.5 ft), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.</p> <p><input type="checkbox"/> Caves: A naturally occurring cavity, recess, void, or system of interconnected passages.</p> <p><input type="checkbox"/> Oregon white Oak: Woodlands Stands of pure oak or oak/conifer associations where canopy coverage of the oak component of the stand is 25%.</p> <p><input type="checkbox"/> Urban Natural Open Space: A priority species resides within or is adjacent to the open space and uses it for breeding and/or regular feeding; and/or the open space functions as a corridor connecting other <i>priority habitats</i>, especially those that would otherwise be isolated; and/or the open space is an isolated remnant of natural habitat larger than 4 ha (10 acres) and is surrounded by urban development.</p> <p><input type="checkbox"/> Estuary/Estuary-like: Deepwater tidal habitats and adjacent tidal wetlands, usually semi-enclosed by land but with open, partly obstructed or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land. The salinity may be periodically increased above that of the open ocean by evaporation. Along some low-energy coastlines there is appreciable dilution of sea water. Estuarine habitat extends upstream and landward to where ocean-derived salts measure less than 0.5 ppt. during the period of average annual low flow. Includes both estuaries and lagoons.</p> <p><input checked="" type="checkbox"/> Marine/Estuarine Shorelines: Shorelines include the intertidal and subtidal zones of beaches, and may also include the backshore and adjacent components of the terrestrial landscape (e.g., cliffs, snags, mature trees, dunes, meadows) that are important to shoreline associated fish and wildlife and that contribute to shoreline function (e.g., sand/rock/log recruitment, nutrient contribution, erosion control).</p> <p style="padding-left: 40px;">If wetland has 3 or more priority habitats = 4 points If wetland has 2 priority habit= 3 points If wetland has 1 priority habitats= 1 point No habitats= 0 points</p> <p><i>Note: All vegetated wetlands are by definition a priority habitat but are not included in this list. Nearby wetlands are addressed in question H 2.4)</i></p>	<p>2</p>
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<p>H 2.4 <u>Wetland Landscape</u> (choose the one description of the landscape around the wetland that best fits) (see p. 84)</p> <p>There are at least 3 other wetlands within ½ mile, and the connections between them are relatively undisturbed (light grazing between wetlands OK, as is lake shore with some boating, but connections should NOT be bisected by paved roads, fill, fields, or other development. points = 5</p> <p>The wetland is Lake-fringe on a lake with little disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 5</p> <p>There are at least 3 other wetlands within ½ mile, BUT the connections between them are disturbed points = 3</p> <p>The wetland is Lake-fringe on a lake with disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 3</p> <p>There is at least 1 wetland within ½ mile points = 2</p> <p>There are no wetlands within ½ mile points = 0</p>	3
<p>H 2. TOTAL Score – opportunity for providing habitat <i>Add the scores from H2.1, H2.2, H2.3, H2.4</i></p>	8
<p>TOTAL for H 1 from page 14</p>	2
<p>Total Score for Habitat Functions – add the points for H 1, H 2 and record the result on p. 1</p>	10

Wetland name or number 12

WETLAND RATING FORM – WESTERN WASHINGTON
Version 2 – Updated July 2006 to increase accuracy and reproducibility among users

Name of wetland (if known): 12 Date of site visit: 2006-2007

Rated by Dunkin Trained by Ecology? Yes X No Date of training Oct 2006

SEC: 19 TWSHP: 39N RNGE: 1E Is S/T/R in Appendix D? Yes No X

Map of wetland unit: Figure Estimated size 11 acres

SUMMARY OF RATING

Category based on FUNCTIONS provided by wetland

I II III IV

Category I = Score >=70 Category II = Score 51-69 Category III = Score 30-50 Category IV = Score <30

Score for Water Quality Functions	
Score for Hydrologic Functions	
Score for Habitat Functions	
TOTAL score for Functions	N.A.

Category based on SPECIAL CHARACTERISTICS of Wetland

I X II Does not Apply

Final Category (choose the “highest” category from above)

I

Summary of basic information about the wetland unit

Wetland Unit has Special Characteristics		Wetland HGM Class used for Rating	
Estuarine		Depressional	
Natural Heritage Wetland		Riverine	
Bog		Lake-fringe	
Mature Forest		Slope	
Old Growth Forest		Flats	
Coastal Lagoon	X	Freshwater Tidal	
Interdunal			
None of the above		Check if unit has multiple HGM classes present	

Does the wetland unit being rated meet any of the criteria below?

If you answer YES to any of the questions below you will need to protect the wetland according to the regulations regarding the special characteristics found in the wetland.

Check List for Wetlands That May Need Additional Protection (in addition to the protection recommended for its category)	YES	NO
SP1. <i>Has the wetland unit been documented as a habitat for any Federally listed Threatened or Endangered animal or plant species (T/E species)?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state or federal database.		
SP2. <i>Has the wetland unit been documented as habitat for any State listed Threatened or Endangered animal species?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state database. Note: Wetlands with State listed plant species are categorized as Category I Natural Heritage Wetlands (see p. 19 of data form).		
SP3. <i>Does the wetland unit contain individuals of Priority species listed by the WDFW for the state?</i>		
SP4. <i>Does the wetland unit have a local significance in addition to its functions?</i> For example, the wetland has been identified in the Shoreline Master Program, the Critical Areas Ordinance, or in a local management plan as having special significance.		

To complete the next part of the data sheet you will need to determine the Hydrogeomorphic Class of the wetland being rated.

The hydrogeomorphic classification groups wetlands into those that function in similar ways. This simplifies the questions needed to answer how well the wetland functions. The Hydrogeomorphic Class of a wetland can be determined using the key below. See p. 24 for more detailed instructions on classifying wetlands.

<p>SC 2.0 Natural Heritage Wetlands (see p. 87) Natural Heritage wetlands have been identified by the Washington Natural Heritage Program/DNR as either high quality undisturbed wetlands or wetlands that support state Threatened, Endangered, or Sensitive plant species.</p> <p>SC 2.1 Is the wetland being rated in a Section/Township/Range that contains a Natural Heritage wetland? (<i>this question is used to screen out most sites before you need to contact WNHP/DNR.</i>) S/T/R information from Appendix D _____ or accessed from WNHP/DNR web site _____</p> <p>YES _____ - contact WNHP/DNR (see p. 79) and go to SC 2.2 NO <u>X</u></p> <p>SC 2.2 Has DNR identified the wetland as a high quality undisturbed wetland or as a site with state threatened or endangered plant species? YES = Category 1 NO _____ not a Heritage Wetland</p>	<p>Cat. I</p>
<p>SC 3.0 Bogs (see p. 87) Does the wetland unit (or any part of the unit) meet both the criteria for soils and vegetation in bogs? Use the key below to identify if the wetland is a bog. <i>If you answer yes you will still need to rate the wetland based on its function.</i></p> <ol style="list-style-type: none"> 1. Does the unit have organic soil horizons (i.e. layers of organic soil), either peats or mucks, that compose 16 inches or more of the first 32 inches of soil profile? (See Appendix B for a field key to identify organic soils)? Yes - go to Q. 3 No - go to Q. 2 2. Does the unit have organic soils, either peats or mucks that are less than 16 inches deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on a lake or pond? Yes - go to Q. 3 No - Is not a bog for purpose of rating 3. Does the unit have more than 70% cover of mosses at ground level, AND other plants, if present, consist of the “bog” species listed in Table 3 as a significant component of the vegetation (more than 30% of the total shrub and herbaceous cover consists of species in Table 3)? Yes - Is a bog for purpose of rating No - go to Q. 4 <p>NOTE: If you are uncertain about the extent of mosses in the understory you may substitute that criterion by measuring the pH of the water that seeps into a hold dug at least 16” deep. If the pH is less than 5.0 and the “bog” plant species in Table 3 are present, the wetland is a bog.</p> <ol style="list-style-type: none"> 4. Is the unit forested (> 30% cover) with sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Englemann’s spruce, or western white pine, WITH any of the species (or combination of species) on the bog species plant list in Table 3 as a significant component of the ground cover (> 30% coverage of the total shrub/herbaceous cover)? YES = Category I NO <u>X</u> Is not a bog for purpose of rating 	<p>Cat. I</p>

<p>SC 4.0 Forested Wetlands (see p. 90) Does the wetland unit have at least 1 acre of forest that meet one of these criteria for the Department of Fish and Wildlife's forests as priority habitats? <i>If you answer yes you will still need to rate the wetland based on its function.</i></p> <p><u> </u> Old-growth forests: (west of Cascade crest) Stands of at least two tree species forming a multi-layered canopy with occasional small openings; with at least 8 trees/acre (20 trees/hectare) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 inches (81 cm or more).</p> <p>NOTE: The criterion for dbh is based on measurements for upland forests. Two-hundred year old trees in wetlands will often have a smaller dbh because their growth rates are often slower. The DFW criterion is and "OR" so old-growth forests do not necessarily have to have trees of this diameter.</p> <p><u> </u> Mature forests: (west of the Cascade crest) Stands where the largest trees are 80 – 200 years old OR have an average diameters (dbh) exceeding 21 inches (53 cm); crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth.</p> <p>YES = Category I NO <u> X </u> not a forested wetland with special characteristics</p>	<p>Cat. I</p>
<p>SC 5.0 Wetlands in Coastal Lagoons (see p. 91) Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?</p> <p><u> X </u> The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks gravel banks, shingle, or, less frequently, rocks</p> <p><u> X </u> The lagoon in which the wetland is located contains surface water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (<i>needs to be measured near the bottom.</i>)</p> <p>YES = Go to SC 5.1 NO <u> </u> not a wetland in a coastal lagoon</p> <p>SC 5.1 Does the wetland meet all of the following three conditions?</p> <p><u> X </u> The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing) and has less than 20% cover of invasive plant species (see list of invasive species on p. 74).</p> <p><u> X </u> At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland.</p> <p><u> X </u> The wetland is larger than 1/10 acre (4350 square ft.)</p> <p>YES = Category I NO = Category II</p>	<p>Cat. I</p> <p>Cat. II</p>

Wetland name or number 13A

WETLAND RATING FORM – WESTERN WASHINGTON
Version 2 – Updated July 2006 to increase accuracy and reproducibility among users

Name of wetland (if known): 13A Date of site visit: 2006-2007

Rated by Dunkin Trained by Ecology? Yes X No Date of training Oct 2006

SEC: 19 TOWNSHIP: 39N RANGE: 1E Is S/T/R in Appendix D? Yes No X

Map of wetland unit: Figure Estimated size 6 Acres

SUMMARY OF RATING

Category based on FUNCTIONS provided by wetland

I X II III IV

Category I = Score >=70
Category II = Score 51-69
Category III = Score 30-50
Category IV = Score <30

Score for Water Quality Functions	20
Score for Hydrologic Functions	26
Score for Habitat Functions	27
TOTAL score for Functions	73

Category based on SPECIAL CHARACTERISTICS of Wetland

I II Does not Apply X

I

Final Category (choose the “highest” category from above)

Summary of basic information about the wetland unit

Wetland Unit has Special Characteristics		Wetland HGM Class used for Rating	
Estuarine		Depressional	
Natural Heritage Wetland		Riverine (depression)	X
Bog		Lake-fringe	
Mature Forest		Slope	
Old Growth Forest		Flats	
Coastal Lagoon		Freshwater Tidal	
Interdunal			
None of the above	X	Check if unit has multiple HGM classes present	X

Does the wetland unit being rated meet any of the criteria below?

If you answer YES to any of the questions below you will need to protect the wetland according to the regulations regarding the special characteristics found in the wetland.

Check List for Wetlands That May Need Additional Protection (in addition to the protection recommended for its category)	YES	NO
SP1. <i>Has the wetland unit been documented as a habitat for any Federally listed Threatened or Endangered animal or plant species (T/E species)?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state or federal database.		X
SP2. <i>Has the wetland unit been documented as habitat for any State listed Threatened or Endangered animal species?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state database. Note: Wetlands with State listed plant species are categorized as Category I Natural Heritage Wetlands (see p. 19 of data form).		X
SP3. <i>Does the wetland unit contain individuals of Priority species listed by the WDFW for the state?</i>		X
SP4. <i>Does the wetland unit have a local significance in addition to its functions?</i> For example, the wetland has been identified in the Shoreline Master Program, the Critical Areas Ordinance, or in a local management plan as having special significance.		X

To complete the next part of the data sheet you will need to determine the Hydrogeomorphic Class of the wetland being rated.

The hydrogeomorphic classification groups wetlands into those that function in similar ways. This simplifies the questions needed to answer how well the wetland functions. The Hydrogeomorphic Class of a wetland can be determined using the key below. See p. 24 for more detailed instructions on classifying wetlands.

<p>H 1.4 Interspersion of habitats (<i>see p. 76</i>) Decide from the diagrams below whether interspersion between Cowardin vegetation classes (described in H1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none.</p> <p>NOTE: If you have four or more vegetation classes or three vegetation types and open water the rating is always "high". Use map of Cowardin vegetation classes</p>	<p>Figure _____</p> <p>3</p>	
<p>H 1.5 Special Habitat Features (<i>see p. 77</i>) Check the habitat features that are present in the wetland. The number of checks is the number of points you put into the next column.</p> <p><input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (> 4in. diameter and 6 ft long).</p> <p><input checked="" type="checkbox"/> Standing snags (diameter at the bottom > 4 inches) in the wetland</p> <p><input checked="" type="checkbox"/> Undercut banks are present for at least 6.6 ft (2m) and/or overhanging vegetation extends at least 3.3 ft. (1m) over a stream (or ditch) in, or contiguous with the unit, for at least 33 ft (10m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet turned grey/brown</i>)</p> <p><input type="checkbox"/> At least ¼ acre of thin-stemmed persistent vegetation or woody branches are present in areas that are permanently or seasonally inundated. (<i>structures for egg-laying by amphibians</i>)</p> <p><input checked="" type="checkbox"/> Invasive plants cover less than 25% of the wetland area in each stratum of plants</p> <p>NOTE: The 20% stated in early printings of the manual on page 78 is an error.</p>	<p>4</p>	
<p align="center">H 1. TOTAL Score – potential for providing habitat Add the scores from H1.1, H1.2, H1.3, H1.4, H1.5</p>		<p align="center">14</p>

Comments

<p>H 2.3 <u>Near or adjacent to other priority habitats listed by WDFW (see p. 82)</u> Which of the following priority habitats are within 330 ft (100m) of the wetland unit? <i>NOTE: the connections do not have to be relatively undisturbed. These are DFW definitions. Check with your local DFW biologist if there are any questions.</i></p> <p><input checked="" type="checkbox"/> Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.</p> <p><input type="checkbox"/> Aspen Stands: Pure or mixed stands of aspen greater than 0.8 ha (2 acres).</p> <p><input type="checkbox"/> Cliffs: Greater than 7.6m (25 ft) high and occurring below 5000 ft.</p> <p><input type="checkbox"/> Old-growth forests: (Old growth west of Cascade Crest) Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings, with at least 20 trees/ha (8 trees/acre) > 81cm (32 in) dbh or > 200 years of age.</p> <p><input type="checkbox"/> Mature forests: Stands with average diameters exceeding 53cm (21 in) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 – 200 years old west of the Cascade crest.</p> <p><input type="checkbox"/> Prairies: Relatively undisturbed areas (as indicated by dominance of native plants) where greases and/or forbs form the natural climax plant community.</p> <p><input type="checkbox"/> Talus: Homogenous areas of rock rubble ranging in average size 0.15 – 2.0 m (0.5 – 6.5 ft), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.</p> <p><input type="checkbox"/> Caves: A naturally occurring cavity, recess, void, or system of interconnected passages.</p> <p><input type="checkbox"/> Oregon white Oak: Woodlands Stands of pure oak or oak/conifer associations where canopy coverage of the oak component of the stand is 25%.</p> <p><input type="checkbox"/> Urban Natural Open Space: A priority species resides within or is adjacent to the open space and uses it for breeding and/or regular feeding; and/or the open space functions as a corridor connecting other <i>priority habitats</i>, especially those that would otherwise be isolated; and/or the open space is an isolated remnant of natural habitat larger than 4 ha (10 acres) and is surrounded by urban development.</p> <p><input type="checkbox"/> Estuary/Estuary-like: Deepwater tidal habitats and adjacent tidal wetlands, usually semi-enclosed by land but with open, partly obstructed or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land. The salinity may be periodically increased above that of the open ocean by evaporation. Along some low-energy coastlines there is appreciable dilution of sea water. Estuarine habitat extends upstream and landward to where ocean-derived salts measure less than 0.5 ppt. during the period of average annual low flow. Includes both estuaries and lagoons.</p> <p><input checked="" type="checkbox"/> Marine/Estuarine Shorelines: Shorelines include the intertidal and subtidal zones of beaches, and may also include the backshore and adjacent components of the terrestrial landscape (e.g., cliffs, snags, mature trees, dunes, meadows) that are important to shoreline associated fish and wildlife and that contribute to shoreline function (e.g., sand/rock/log recruitment, nutrient contribution, erosion control).</p> <p style="padding-left: 40px;">If wetland has 3 or more priority habitats = 4 points If wetland has 2 priority habit= 3 points If wetland has 1 priority habitats= 1 point No habitats= 0 points</p> <p><i>Note: All vegetated wetlands are by definition a priority habitat but are not included in this list. Nearby wetlands are addressed in question H 2.4)</i></p>	<p>3</p>
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Wetland name or number 13A

<p>H 2.4 <u>Wetland Landscape</u> (choose the one description of the landscape around the wetland that best fits) (see p. 84)</p> <p>There are at least 3 other wetlands within ½ mile, and the connections between them are relatively undisturbed (light grazing between wetlands OK, as is lake shore with some boating, but connections should NOT be bisected by paved roads, fill, fields, or other development. points = 5</p> <p>The wetland is Lake-fringe on a lake with little disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 5</p> <p>There are at least 3 other wetlands within ½ mile, BUT the connections between them are disturbed points = 3</p> <p>The wetland is Lake-fringe on a lake with disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 3</p> <p>There is at least 1 wetland within ½ mile points = 2</p> <p>There are no wetlands within ½ mile points = 0</p>	5
<p>H 2. TOTAL Score – opportunity for providing habitat <i>Add the scores from H2.1, H2.2, H2.3, H2.4</i></p>	13
<p>TOTAL for H 1 from page 14</p>	14
<p>Total Score for Habitat Functions – add the points for H 1, H 2 and record the result on p. 1</p>	27

Wetland name or number 13C

WETLAND RATING FORM – WESTERN WASHINGTON

Version 2 – Updated July 2006 to increase accuracy and reproducibility among users

Name of wetland (if known): 13C Date of site visit: 2006-2007

Rated by M. Gray Trained by Ecology? Yes X No Date of training Apr 2007

SEC: 19 TOWNSHIP: 39N RANGE: 1E Is S/T/R in Appendix D? Yes No X

Map of wetland unit: Figure Estimated size 0.02 acres

SUMMARY OF RATING

Category based on FUNCTIONS provided by wetland

I II III **X** IV

Category I = Score >=70
Category II = Score 51-69
Category III = Score 30-50
Category IV = Score <30

Score for Water Quality Functions	14
Score for Hydrologic Functions	5
Score for Habitat Functions	16
TOTAL score for Functions	35

Category based on SPECIAL CHARACTERISTICS of Wetland

I II Does not Apply

III

Final Category (choose the “highest” category from above)

Summary of basic information about the wetland unit

Wetland Unit has Special Characteristics		Wetland HGM Class used for Rating	
Estuarine		Depressional	X
Natural Heritage Wetland		Riverine	
Bog		Lake-fringe	
Mature Forest		Slope	
Old Growth Forest		Flats	
Coastal Lagoon		Freshwater Tidal	
Interdunal			
None of the above	X	Check if unit has multiple HGM classes present	

Does the wetland unit being rated meet any of the criteria below?

If you answer YES to any of the questions below you will need to protect the wetland according to the regulations regarding the special characteristics found in the wetland.

Check List for Wetlands That May Need Additional Protection (in addition to the protection recommended for its category)	YES	NO
SP1. <i>Has the wetland unit been documented as a habitat for any Federally listed Threatened or Endangered animal or plant species (T/E species)?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state or federal database.		X
SP2. <i>Has the wetland unit been documented as habitat for any State listed Threatened or Endangered animal species?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state database. Note: Wetlands with State listed plant species are categorized as Category I Natural Heritage Wetlands (see p. 19 of data form).		X
SP3. <i>Does the wetland unit contain individuals of Priority species listed by the WDFW for the state?</i>		X
SP4. <i>Does the wetland unit have a local significance in addition to its functions?</i> For example, the wetland has been identified in the Shoreline Master Program, the Critical Areas Ordinance, or in a local management plan as having special significance.		X

To complete the next part of the data sheet you will need to determine the Hydrogeomorphic Class of the wetland being rated.

The hydrogeomorphic classification groups wetlands into those that function in similar ways. This simplifies the questions needed to answer how well the wetland functions. The Hydrogeomorphic Class of a wetland can be determined using the key below. See p. 24 for more detailed instructions on classifying wetlands.

D Depressional and Flats Wetlands		Points
WATER QUALITY FUNCTIONS – Indicators that the wetland unit functions to improve water quality		(only 1 score per box)
D	D 1. Does the wetland unit have the <u>potential</u> to improve water quality?	(see p. 38)
D	<p>D 1.1 Characteristics of surface water flows out of the wetland:</p> <p>Unit is a depression with no surface water leaving it (no outlet) points = 3</p> <p>Unit has an intermittently flowing, OR highly constricted permanently flowing outlet points = 2</p> <p>Unit has an unconstricted, or slightly constricted, surface outlet (<i>permanently flowing</i>) points = 1</p> <p>Unit has a “flat” depression (Q. 7 on key), or in the Flats class, with permanent surface outflow and no obvious natural outlet and/or outlet is a man-made ditch points = 1</p> <p>(If ditch is not permanently flowing treat unit as “intermittently flowing”)</p> <p style="text-align: right;">Provide photo or drawing</p>	Figure _____ 2
D	<p>S 1.2 The soil 2 inches below the surface (or duff layer) is clay or organic (<i>use NRCS definitions</i>)</p> <p>YES points = 4</p> <p>NO points = 0</p>	0
D	<p>D 1.3 Characteristics of persistent vegetation (emergent, shrub, and/or forest Cowardin class)</p> <p>Wetland has persistent, ungrazed, vegetation > = 95% of area points = 5</p> <p>Wetland has persistent, ungrazed, vegetation > = ½ of area points = 3</p> <p>Wetland has persistent, ungrazed, vegetation > = 1/10 of area points = 1</p> <p>Wetland has persistent, ungrazed, vegetation < 1/10 of area points = 0</p> <p style="text-align: right;">Map of Cowardin vegetation classes</p>	Figure _____ 3
D	<p>D 1.4 Characteristics of seasonal ponding or inundation.</p> <p><i>This is the area of the wetland unit that is ponded for at least 2 months, but dries out sometime during the year. Do not count the area that is permanently ponded. Estimate area as the average condition 5 out of 10 years.</i></p> <p>Area seasonally ponded is > ½ total area of wetland points = 4</p> <p>Area seasonally ponded is > ¼ total area of wetland points = 2</p> <p>Area seasonally ponded is < ¼ total area of wetland points = 0</p> <p style="text-align: right;">Map of hydroperiods</p>	Figure _____ 2
D	Total for D 1	Add the points in the boxes above 7
D	D 2. Does the wetland have the <u>opportunity</u> to improve water quality?	(see p. 44)
	<p>Answer YES if you know or believe there are pollutants in groundwater or surface water coming into the wetland that would otherwise reduce water quality in streams, lakes or groundwater downgradient from the wetland. <i>Note which of the following conditions provide the sources of pollutants. A unit may have pollutants coming from several sources, but any single source would qualify as opportunity.</i></p> <p><input type="checkbox"/> Grazing in the wetland or within 150 ft</p> <p><input type="checkbox"/> Untreated stormwater discharges to wetland</p> <p><input type="checkbox"/> Tilled fields or orchards within 150 ft of wetland</p> <p><input checked="" type="checkbox"/> A stream or culvert discharges into wetland that drains developed areas, residential area, farmed fields, roads, or clear-cut logging</p> <p><input type="checkbox"/> Residential, urban areas, golf courses are within 150 ft of wetland</p> <p><input type="checkbox"/> Wetland is fed by groundwater high in phosphorus or nitrogen</p> <p><input type="checkbox"/> Other _____</p> <p>YES multiplier is 2 NO multiplier is 1</p>	multiplier 2
D	TOTAL – Water Quality Functions	Multiply the score from D1 by D2 Add score to table on p. 1 14

D Depressional and Flats Wetlands HYDROLOGIC FUNCTIONS – Indicators that the wetland unit functions to reduce flooding and stream degradation.		Points (only 1 score per box)
D	D 3. Does the wetland have the <u>potential</u> to reduce flooding and stream erosion?	<i>(see p. 46)</i>
	<p>D 3.1 Characteristics of surface water flows out of the wetland unit</p> <p>Unit is a depression with no surface water leaving it (no outlet) points = 4</p> <p>Unit has an intermittently flowing, OR highly constricted permanently flowing outlet points = 2</p> <p>Unit is a “flat” depression (Q. 7 on key), or in the Flats class, with permanent surface outflow and no obvious natural outlet and/or outlet is a man-made ditch points = 1 <i>(If ditch is not permanently flowing treat unit as “intermittently flowing”)</i></p> <p>Unit has an unconstricted, or slightly constricted, surface outlet (<i>permanently flowing</i>) points = 0</p>	2
D	<p>D 3.2 Depth of storage during wet periods</p> <p><i>Estimate the height of ponding above the bottom of the outlet. For units with no outlet measure from the surface of permanent water or deepest part (if dry).</i></p> <p>Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7</p> <p>The wetland is a “headwater” wetland points = 5</p> <p>Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5</p> <p>Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points = 3</p> <p>Unit is flat (yes to Q. 2 or Q. 7 on key) but has small depressions on the surface that trap water points = 1</p> <p>Marks of ponding less than 0.5 ft points = 0</p>	3
D	<p>D 3.3 Contribution of wetland unit to storage in the watershed</p> <p><i>Estimate the ration of the area of upstream basin contributing surface water to the wetland to the area of the wetland unit itself.</i></p> <p>The area of the basin is less than 10 times the area of the unit points = 5</p> <p>The area of the basin is 10 to 100 times the area of the unit points = 3</p> <p>The area of the basin is more than 100 times the area of the unit points = 0</p> <p>Entire unit is in the FLATS class points = 5</p>	0
D	Total for D 3 <i>Add the points in the boxes above</i>	5
D	<p>D 4. Does the wetland have the <u>opportunity</u> to reduce flooding and erosion?</p> <p>Answer YES if the unit is in a location in the watershed where the flood storage, or reduction in water velocity, it provides helps protect downstream property and aquatic resources from flooding or excessive and/or erosive flows. Answer NO if the water coming into the wetland is controlled by a structure such as flood gate, tide gate, flap valve, reservoir etc. OR you estimate that more than 90% of the water in the wetland is from groundwater in areas where damaging groundwater flooding does not occur.</p> <p><i>Note which of the following indicators of opportunity apply.</i></p> <p><input type="checkbox"/> Wetland is in a headwater of a river or stream that has flooding problems</p> <p><input type="checkbox"/> Wetland drains to a river or stream that has flooding problems</p> <p><input type="checkbox"/> Wetland has no outlet and impounds surface runoff water that might otherwise flow into a river or stream that has flooding problems</p> <p><input type="checkbox"/> Other _____</p> <p>YES multiplier is 2 NO multiplier is 1</p>	<i>(see p. 49)</i> multiplier <u>1</u>
D	TOTAL – Hydrologic Functions Multiply the score from D 3 by D 4 <i>Add score to table on p. 1</i>	5

<p>H 1.4 Interspersion of habitats (<i>see p. 76</i>) Decide from the diagrams below whether interspersion between Cowardin vegetation classes (described in H1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none.</p> <p>NOTE: If you have four or more vegetation classes or three vegetation types and open water the rating is always "high". Use map of Cowardin vegetation classes</p>	<p>Figure _____</p> <p>1</p>	
<p>H 1.5 Special Habitat Features (<i>see p. 77</i>) Check the habitat features that are present in the wetland. The number of checks is the number of points you put into the next column.</p> <p><input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (> 4in. diameter and 6 ft long).</p> <p><input checked="" type="checkbox"/> Standing snags (diameter at the bottom > 4 inches) in the wetland</p> <p><input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2m) and/or overhanging vegetation extends at least 3.3 ft. (1m) over a stream (or ditch) in, or contiguous with the unit, for at least 33 ft (10m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet turned grey/brown</i>)</p> <p><input type="checkbox"/> At least ¼ acre of thin-stemmed persistent vegetation or woody branches are present in areas that are permanently or seasonally inundated. (<i>structures for egg-laying by amphibians</i>)</p> <p><input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in each stratum of plants</p> <p>NOTE: The 20% stated in early printings of the manual on page 78 is an error.</p>	<p>2</p>	
<p>H 1. TOTAL Score – potential for providing habitat Add the scores from H1.1, H1.2, H1.3, H1.4, H1.5</p>		<p>7</p>

Comments

<p>H 2.3 <u>Near or adjacent to other priority habitats listed by WDFW (see p. 82)</u> Which of the following priority habitats are within 330 ft (100m) of the wetland unit? <i>NOTE: the connections do not have to be relatively undisturbed. These are DFW definitions. Check with your local DFW biologist if there are any questions.</i></p> <p><input type="checkbox"/> Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.</p> <p><input type="checkbox"/> Aspen Stands: Pure or mixed stands of aspen greater than 0.8 ha (2 acres).</p> <p><input type="checkbox"/> Cliffs: Greater than 7.6m (25 ft) high and occurring below 5000 ft.</p> <p><input type="checkbox"/> Old-growth forests: (Old growth west of Cascade Crest) Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings, with at least 20 trees/ha (8 trees/acre) > 81cm (32 in) dbh or > 200 years of age.</p> <p><input type="checkbox"/> Mature forests: Stands with average diameters exceeding 53cm (21 in) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 – 200 years old west of the Cascade crest.</p> <p><input type="checkbox"/> Prairies: Relatively undisturbed areas (as indicated by dominance of native plants) where greases and/or forbs form the natural climax plant community.</p> <p><input type="checkbox"/> Talus: Homogenous areas of rock rubble ranging in average size 0.15 – 2.0 m (0.5 – 6.5 ft), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.</p> <p><input type="checkbox"/> Caves: A naturally occurring cavity, recess, void, or system of interconnected passages.</p> <p><input type="checkbox"/> Oregon white Oak: Woodlands Stands of pure oak or oak/conifer associations where canopy coverage of the oak component of the stand is 25%.</p> <p><input type="checkbox"/> Urban Natural Open Space: A priority species resides within or is adjacent to the open space and uses it for breeding and/or regular feeding; and/or the open space functions as a corridor connecting other <i>priority habitats</i>, especially those that would otherwise be isolated; and/or the open space is an isolated remnant of natural habitat larger than 4 ha (10 acres) and is surrounded by urban development.</p> <p><input type="checkbox"/> Estuary/Estuary-like: Deepwater tidal habitats and adjacent tidal wetlands, usually semi-enclosed by land but with open, partly obstructed or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land. The salinity may be periodically increased above that of the open ocean by evaporation. Along some low-energy coastlines there is appreciable dilution of sea water. Estuarine habitat extends upstream and landward to where ocean-derived salts measure less than 0.5 ppt. during the period of average annual low flow. Includes both estuaries and lagoons.</p> <p><input checked="" type="checkbox"/> Marine/Estuarine Shorelines: Shorelines include the intertidal and subtidal zones of beaches, and may also include the backshore and adjacent components of the terrestrial landscape (e.g., cliffs, snags, mature trees, dunes, meadows) that are important to shoreline associated fish and wildlife and that contribute to shoreline function (e.g., sand/rock/log recruitment, nutrient contribution, erosion control).</p> <p style="padding-left: 40px;">If wetland has 3 or more priority habitats = 4 points If wetland has 2 priority habit= 3 points If wetland has 1 priority habitats= 1 point No habitats= 0 points</p> <p><i>Note: All vegetated wetlands are by definition a priority habitat but are not included in this list. Nearby wetlands are addressed in question H 2.4)</i></p>	<p>1</p>
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<p>H 2.4 <u>Wetland Landscape</u> (choose the one description of the landscape around the wetland that best fits) (see p. 84)</p> <p>There are at least 3 other wetlands within ½ mile, and the connections between them are relatively undisturbed (light grazing between wetlands OK, as is lake shore with some boating, but connections should NOT be bisected by paved roads, fill, fields, or other development. points = 5</p> <p>The wetland is Lake-fringe on a lake with little disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 5</p> <p>There are at least 3 other wetlands within ½ mile, BUT the connections between them are disturbed points = 3</p> <p>The wetland is Lake-fringe on a lake with disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 3</p> <p>There is at least 1 wetland within ½ mile points = 2</p> <p>There are no wetlands within ½ mile points = 0</p>	3
<p>H 2. TOTAL Score – opportunity for providing habitat <i>Add the scores from H2.1, H2.2, H2.3, H2.4</i></p>	9
<p>TOTAL for H 1 from page 14</p>	7
<p>Total Score for Habitat Functions – add the points for H 1, H 2 and record the result on p. 1</p>	16

Wetland name or number 13D

WETLAND RATING FORM – WESTERN WASHINGTON
Version 2 – Updated July 2006 to increase accuracy and reproducibility among users

Name of wetland (if known): 13D Date of site visit: 2006-2007

Rated by M. Gray Trained by Ecology? Yes No Date of training Apr 2007

SEC: 19 TWSHP: 39N RNGE: 1E Is S/T/R in Appendix D? Yes No

Map of wetland unit: Figure Estimated size 0.37 acres

SUMMARY OF RATING

Category based on FUNCTIONS provided by wetland

I II III IV

Category I = Score ≥ 70
Category II = Score 51-69
Category III = Score 30-50
Category IV = Score < 30

Score for Water Quality Functions	14
Score for Hydrologic Functions	6
Score for Habitat Functions	18
TOTAL score for Functions	38

Category based on SPECIAL CHARACTERISTICS of Wetland

I II Does not Apply

III

Final Category (choose the “highest” category from above)

Summary of basic information about the wetland unit

Wetland Unit has Special Characteristics		Wetland HGM Class used for Rating	
Estuarine		Depressional	
Natural Heritage Wetland		Riverine	
Bog		Lake-fringe	
Mature Forest		Slope	X
Old Growth Forest		Flats	
Coastal Lagoon		Freshwater Tidal	
Interdunal			
None of the above	X	Check if unit has multiple HGM classes present	

Does the wetland unit being rated meet any of the criteria below?

If you answer YES to any of the questions below you will need to protect the wetland according to the regulations regarding the special characteristics found in the wetland.

Check List for Wetlands That May Need Additional Protection (in addition to the protection recommended for its category)	YES	NO
SP1. <i>Has the wetland unit been documented as a habitat for any Federally listed Threatened or Endangered animal or plant species (T/E species)?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state or federal database.		X
SP2. <i>Has the wetland unit been documented as habitat for any State listed Threatened or Endangered animal species?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state database. Note: Wetlands with State listed plant species are categorized as Category I Natural Heritage Wetlands (see p. 19 of data form).		X
SP3. <i>Does the wetland unit contain individuals of Priority species listed by the WDFW for the state?</i>		X
SP4. <i>Does the wetland unit have a local significance in addition to its functions?</i> For example, the wetland has been identified in the Shoreline Master Program, the Critical Areas Ordinance, or in a local management plan as having special significance.		X

To complete the next part of the data sheet you will need to determine the Hydrogeomorphic Class of the wetland being rated.

The hydrogeomorphic classification groups wetlands into those that function in similar ways. This simplifies the questions needed to answer how well the wetland functions. The Hydrogeomorphic Class of a wetland can be determined using the key below. See p. 24 for more detailed instructions on classifying wetlands.

S Slope Wetlands		Points
WATER QUALITY FUNCTIONS – Indicators that the wetland unit functions to improve water quality		(only 1 score per box)
S	S 1. Does the wetland unit have the <u>potential</u> to improve water quality?	<i>(see p. 64)</i>
S	<p>S 1.1 Characteristics of average slope of unit: Slope is 1% or less (<i>a 1% slope has a 1 foot vertical drop in elevation for every 100 ft horizontal distance</i>) points = 3 Slope is 1% - 2% points = 2 Slope is 2% - 5% points = 1 Slope is greater than 5% points = 0</p>	1
S	<p>S 1.2 The soil 2 inches below the surface (or duff layer) is clay or organic (<i>use NRCS definitions</i>) YES = 3 points NO = 0 points</p>	0
S	<p>S 1.3 Characteristics of the vegetation in the wetland that trap sediments and pollutants: <i>Choose the points appropriate for the description that best fits the vegetation in the wetland. Dense vegetation means you have trouble seeing the soil surface (>75% cover), and uncut means not grazed or mowed and plants are higher than 6 inches.</i> Dense, uncut, herbaceous vegetation > 90% of the wetland area points = 6 Dense, uncut, herbaceous vegetation > ½ of area points = 3 Dense, woody, vegetation > ½ of area points = 2 Dense, uncut, herbaceous vegetation > ¼ of area points = 1 Does not meet any of the criteria above for vegetation points = 0 Aerial photo or map with vegetation polygons</p>	Figure _____ 6
S	Total for S 1	<i>Add the points in the boxes above</i> 7
S	<p>S 2. Does the wetland have the <u>opportunity</u> to improve water quality? Answer YES if you know or believe there are pollutants in groundwater or surface water coming into the wetland that would otherwise reduce water quality in streams, lakes or groundwater downgradient from the wetland. <i>Note which of the following conditions provide the sources of pollutants. A unit may have pollutants coming from several sources, but any single source would qualify as opportunity.</i></p> <p> <input type="checkbox"/> Grazing in the wetland or within 150 ft <input checked="" type="checkbox"/> Untreated stormwater discharges to wetland <input type="checkbox"/> Tilled fields, logging, or orchards within 150 ft of wetland <input type="checkbox"/> Residential, urban areas, or golf courses are within 150 ft upslope of wetland <input type="checkbox"/> Other _____ YES multiplier is 2 NO multiplier is 1 </p>	<i>(see p. 67)</i> multiplier 2
S	TOTAL – Water Quality Functions	Multiply the score from S1 by S2 <i>Add score to table on p. 1</i> 14

Comments

<p>H 1.4 Interspersion of habitats (<i>see p. 76</i>) Decide from the diagrams below whether interspersion between Cowardin vegetation classes (described in H1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none.</p> <p>None = 0 points Low = 1 point Moderate = 2 points</p> <p>High = 3 points [riparian braided channels]</p> <p>NOTE: If you have four or more vegetation classes or three vegetation types and open water the rating is always "high". Use map of Cowardin vegetation classes</p>	<p>Figure _____</p> <p>1</p>	
<p>H 1.5 Special Habitat Features (<i>see p. 77</i>) Check the habitat features that are present in the wetland. The number of checks is the number of points you put into the next column.</p> <p><input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (> 4in. diameter and 6 ft long).</p> <p><input checked="" type="checkbox"/> Standing snags (diameter at the bottom > 4 inches) in the wetland</p> <p><input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2m) and/or overhanging vegetation extends at least 3.3 ft. (1m) over a stream (or ditch) in, or contiguous with the unit, for at least 33 ft (10m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet turned grey/brown</i>)</p> <p><input type="checkbox"/> At least ¼ acre of thin-stemmed persistent vegetation or woody branches are present in areas that are permanently or seasonally inundated. (<i>structures for egg-laying by amphibians</i>)</p> <p><input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in each stratum of plants</p> <p>NOTE: The 20% stated in early printings of the manual on page 78 is an error.</p>	<p>2</p>	
<p align="center">H 1. TOTAL Score – potential for providing habitat Add the scores from H1.1, H1.2, H1.3, H1.4, H1.5</p>		<p align="center">8</p>

Comments

H 2.3 Near or adjacent to other priority habitats listed by WDFW (see p. 82)

Which of the following priority habitats are within 330 ft (100m) of the wetland unit? *NOTE: the connections do not have to be relatively undisturbed. These are DFW definitions. Check with your local DFW biologist if there are any questions.*

- Riparian:** The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.
- Aspen Stands:** Pure or mixed stands of aspen greater than 0.8 ha (2 acres).
- Cliffs:** Greater than 7.6m (25 ft) high and occurring below 5000 ft.
- Old-growth forests:** (Old growth west of Cascade Crest) Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings, with at least 20 trees/ha (8 trees/acre) > 81cm (32 in) dbh or > 200 years of age.
- Mature forests:** Stands with average diameters exceeding 53cm (21 in) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 – 200 years old west of the Cascade crest.
- Prairies:** Relatively undisturbed areas (as indicated by dominance of native plants) where greases and/or forbs form the natural climax plant community.
- Talus:** Homogenous areas of rock rubble ranging in average size 0.15 – 2.0 m (0.5 – 6.5 ft), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.
- Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages.
- Oregon white Oak:** Woodlands Stands of pure oak or oak/conifer associations where canopy coverage of the oak component of the stand is 25%.
- Urban Natural Open Space:** A priority species resides within or is adjacent to the open space and uses it for breeding and/or regular feeding; and/or the open space functions as a corridor connecting other *priority habitats*, especially those that would otherwise be isolated; and/or the open space is an isolated remnant of natural habitat larger than 4 ha (10 acres) and is surrounded by urban development.
- Estuary/Estuary-like:** Deepwater tidal habitats and adjacent tidal wetlands, usually semi-enclosed by land but with open, partly obstructed or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land. The salinity may be periodically increased above that of the open ocean by evaporation. Along some low-energy coastlines there is appreciable dilution of sea water. Estuarine habitat extends upstream and landward to where ocean-derived salts measure less than 0.5 ppt. during the period of average annual low flow. Includes both estuaries and lagoons.
- Marine/Estuarine Shorelines:** Shorelines include the intertidal and subtidal zones of beaches, and may also include the backshore and adjacent components of the terrestrial landscape (e.g., cliffs, snags, mature trees, dunes, meadows) that are important to shoreline associated fish and wildlife and that contribute to shoreline function (e.g., sand/rock/log recruitment, nutrient contribution, erosion control).

- If wetland has **3 or more** priority habitats = **4 points**
- If wetland has **2** priority habit= **3 points**
- If wetland has **1** priority habitats= **1 point** No habitats= 0 points

Note: All vegetated wetlands are by definition a priority habitat but are not included in this list. Nearby wetlands are addressed in question H 2.4)

Wetland name or number 13D

<p>H 2.4 <u>Wetland Landscape</u> (choose the one description of the landscape around the wetland that best fits) (see p. 84)</p> <p>There are at least 3 other wetlands within ½ mile, and the connections between them are relatively undisturbed (light grazing between wetlands OK, as is lake shore with some boating, but connections should NOT be bisected by paved roads, fill, fields, or other development. points = 5</p> <p>The wetland is Lake-fringe on a lake with little disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 5</p> <p>There are at least 3 other wetlands within ½ mile, BUT the connections between them are disturbed points = 3</p> <p>The wetland is Lake-fringe on a lake with disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 3</p> <p>There is at least 1 wetland within ½ mile points = 2</p> <p>There are no wetlands within ½ mile points = 0</p>	3
<p>H 2. TOTAL Score – opportunity for providing habitat <i>Add the scores from H2.1, H2.2, H2.3, H2.4</i></p>	10
<p>TOTAL for H 1 from page 14</p>	8
<p>Total Score for Habitat Functions – add the points for H 1, H 2 and record the result on p. 1</p>	18

Wetland name or number 13E

WETLAND RATING FORM – WESTERN WASHINGTON
Version 2 – Updated July 2006 to increase accuracy and reproducibility among users

Name of wetland (if known): 13E Date of site visit: 2006-2007

Rated by Gray Trained by Ecology? Yes X No Date of training Oct 2006

SEC: 19 TOWNSHIP: 39N RANGE: 1E Is S/T/R in Appendix D? Yes No X

Map of wetland unit: Figure Estimated size Cont. off property

SUMMARY OF RATING

Category based on FUNCTIONS provided by wetland

I II X III IV

Category I = Score >=70
Category II = Score 51-69
Category III = Score 30-50
Category IV = Score <30

Score for Water Quality Functions	20
Score for Hydrologic Functions	18
Score for Habitat Functions	26
TOTAL score for Functions	64

Category based on SPECIAL CHARACTERISTICS of Wetland

I II Does not Apply X

II

Final Category (choose the “highest” category from above)

Summary of basic information about the wetland unit

Wetland Unit has Special Characteristics		Wetland HGM Class used for Rating	
Estuarine		Depressional	
Natural Heritage Wetland		Riverine (depression)	X
Bog		Lake-fringe	
Mature Forest		Slope	
Old Growth Forest		Flats	
Coastal Lagoon		Freshwater Tidal	
Interdunal			
None of the above	X	Check if unit has multiple HGM classes present	X

Does the wetland unit being rated meet any of the criteria below?

If you answer YES to any of the questions below you will need to protect the wetland according to the regulations regarding the special characteristics found in the wetland.

Check List for Wetlands That May Need Additional Protection (in addition to the protection recommended for its category)	YES	NO
SP1. <i>Has the wetland unit been documented as a habitat for any Federally listed Threatened or Endangered animal or plant species (T/E species)?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state or federal database.		X
SP2. <i>Has the wetland unit been documented as habitat for any State listed Threatened or Endangered animal species?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state database. Note: Wetlands with State listed plant species are categorized as Category I Natural Heritage Wetlands (see p. 19 of data form).		X
SP3. <i>Does the wetland unit contain individuals of Priority species listed by the WDFW for the state?</i>		X
SP4. <i>Does the wetland unit have a local significance in addition to its functions?</i> For example, the wetland has been identified in the Shoreline Master Program, the Critical Areas Ordinance, or in a local management plan as having special significance.		X

To complete the next part of the data sheet you will need to determine the Hydrogeomorphic Class of the wetland being rated.

The hydrogeomorphic classification groups wetlands into those that function in similar ways. This simplifies the questions needed to answer how well the wetland functions. The Hydrogeomorphic Class of a wetland can be determined using the key below. See p. 24 for more detailed instructions on classifying wetlands.

<p>H 1.4 Interspersion of habitats (<i>see p. 76</i>) Decide from the diagrams below whether interspersion between Cowardin vegetation classes (described in H1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none.</p> <p>None = 0 points Low = 1 point Moderate = 2 points</p> <p>High = 3 points [riparian braided channels]</p> <p>NOTE: If you have four or more vegetation classes or three vegetation types and open water the rating is always "high". Use map of Cowardin vegetation classes</p>	<p>Figure _____</p> <p style="text-align: center;">3</p>
<p>H 1.5 Special Habitat Features (<i>see p. 77</i>) Check the habitat features that are present in the wetland. The number of checks is the number of points you put into the next column.</p> <p><input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (> 4in. diameter and 6 ft long).</p> <p><input checked="" type="checkbox"/> Standing snags (diameter at the bottom > 4 inches) in the wetland</p> <p><input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2m) and/or overhanging vegetation extends at least 3.3 ft. (1m) over a stream (or ditch) in, or contiguous with the unit, for at least 33 ft (10m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet turned grey/brown</i>)</p> <p><input type="checkbox"/> At least ¼ acre of thin-stemmed persistent vegetation or woody branches are present in areas that are permanently or seasonally inundated. (<i>structures for egg-laying by amphibians</i>)</p> <p><input checked="" type="checkbox"/> Invasive plants cover less than 25% of the wetland area in each stratum of plants</p> <p>NOTE: The 20% stated in early printings of the manual on page 78 is an error.</p>	<p style="text-align: center;">3</p>
<p>H 1. TOTAL Score – potential for providing habitat Add the scores from H1.1, H1.2, H1.3, H1.4, H1.5</p>	<p>13</p>

Comments

<p>H 2.3 <u>Near or adjacent to other priority habitats listed by WDFW (see p. 82)</u> Which of the following priority habitats are within 330 ft (100m) of the wetland unit? <i>NOTE: the connections do not have to be relatively undisturbed. These are DFW definitions. Check with your local DFW biologist if there are any questions.</i></p> <p><input checked="" type="checkbox"/> Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.</p> <p><input type="checkbox"/> Aspen Stands: Pure or mixed stands of aspen greater than 0.8 ha (2 acres).</p> <p><input type="checkbox"/> Cliffs: Greater than 7.6m (25 ft) high and occurring below 5000 ft.</p> <p><input type="checkbox"/> Old-growth forests: (Old growth west of Cascade Crest) Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings, with at least 20 trees/ha (8 trees/acre) > 81cm (32 in) dbh or > 200 years of age.</p> <p><input type="checkbox"/> Mature forests: Stands with average diameters exceeding 53cm (21 in) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 – 200 years old west of the Cascade crest.</p> <p><input type="checkbox"/> Prairies: Relatively undisturbed areas (as indicated by dominance of native plants) where greases and/or forbs form the natural climax plant community.</p> <p><input type="checkbox"/> Talus: Homogenous areas of rock rubble ranging in average size 0.15 – 2.0 m (0.5 – 6.5 ft), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.</p> <p><input type="checkbox"/> Caves: A naturally occurring cavity, recess, void, or system of interconnected passages.</p> <p><input type="checkbox"/> Oregon white Oak: Woodlands Stands of pure oak or oak/conifer associations where canopy coverage of the oak component of the stand is 25%.</p> <p><input type="checkbox"/> Urban Natural Open Space: A priority species resides within or is adjacent to the open space and uses it for breeding and/or regular feeding; and/or the open space functions as a corridor connecting other <i>priority habitats</i>, especially those that would otherwise be isolated; and/or the open space is an isolated remnant of natural habitat larger than 4 ha (10 acres) and is surrounded by urban development.</p> <p><input type="checkbox"/> Estuary/Estuary-like: Deepwater tidal habitats and adjacent tidal wetlands, usually semi-enclosed by land but with open, partly obstructed or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land. The salinity may be periodically increased above that of the open ocean by evaporation. Along some low-energy coastlines there is appreciable dilution of sea water. Estuarine habitat extends upstream and landward to where ocean-derived salts measure less than 0.5 ppt. during the period of average annual low flow. Includes both estuaries and lagoons.</p> <p><input checked="" type="checkbox"/> Marine/Estuarine Shorelines: Shorelines include the intertidal and subtidal zones of beaches, and may also include the backshore and adjacent components of the terrestrial landscape (e.g., cliffs, snags, mature trees, dunes, meadows) that are important to shoreline associated fish and wildlife and that contribute to shoreline function (e.g., sand/rock/log recruitment, nutrient contribution, erosion control).</p> <p style="padding-left: 40px;">If wetland has 3 or more priority habitats = 4 points If wetland has 2 priority habit= 3 points If wetland has 1 priority habitats= 1 point No habitats= 0 points</p> <p><i>Note: All vegetated wetlands are by definition a priority habitat but are not included in this list. Nearby wetlands are addressed in question H 2.4)</i></p>	<p>3</p>
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Wetland name or number 13E

<p>H 2.4 <u>Wetland Landscape</u> (choose the one description of the landscape around the wetland that best fits) (see p. 84)</p> <p>There are at least 3 other wetlands within ½ mile, and the connections between them are relatively undisturbed (light grazing between wetlands OK, as is lake shore with some boating, but connections should NOT be bisected by paved roads, fill, fields, or other development. points = 5</p> <p>The wetland is Lake-fringe on a lake with little disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 5</p> <p>There are at least 3 other wetlands within ½ mile, BUT the connections between them are disturbed points = 3</p> <p>The wetland is Lake-fringe on a lake with disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 3</p> <p>There is at least 1 wetland within ½ mile points = 2</p> <p>There are no wetlands within ½ mile points = 0</p>	5
<p>H 2. TOTAL Score – opportunity for providing habitat <i>Add the scores from H2.1, H2.2, H2.3, H2.4</i></p>	13
<p>TOTAL for H 1 from page 14</p>	13
<p>Total Score for Habitat Functions – add the points for H 1, H 2 and record the result on p. 1</p>	26

Wetland name or number 13F

WETLAND RATING FORM – WESTERN WASHINGTON

Version 2 – Updated July 2006 to increase accuracy and reproducibility among users

Name of wetland (if known): 13F Date of site visit: 2006-2007

Rated by M. Gray Trained by Ecology? Yes X No Date of training Apr 2007

SEC: 19 TWSHP: 39 RNGE: 1E Is S/T/R in Appendix D? Yes No X

Map of wetland unit: Figure Estimated size

SUMMARY OF RATING

Category based on FUNCTIONS provided by wetland

I II III X IV

Category I = Score >=70
Category II = Score 51-69
Category III = Score 30-50
Category IV = Score <30

Score for Water Quality Functions	14
Score for Hydrologic Functions	7
Score for Habitat Functions	15
TOTAL score for Functions	36

Category based on SPECIAL CHARACTERISTICS of Wetland

I II Does not Apply X

III

Final Category (choose the “highest” category from above)

Summary of basic information about the wetland unit

Wetland Unit has Special Characteristics		Wetland HGM Class used for Rating	
Estuarine		Depressional	X
Natural Heritage Wetland		Riverine	
Bog		Lake-fringe	
Mature Forest		Slope	
Old Growth Forest		Flats	
Coastal Lagoon		Freshwater Tidal	
Interdunal			
None of the above	X	Check if unit has multiple HGM classes present	

Does the wetland unit being rated meet any of the criteria below?

If you answer YES to any of the questions below you will need to protect the wetland according to the regulations regarding the special characteristics found in the wetland.

Check List for Wetlands That May Need Additional Protection (in addition to the protection recommended for its category)	YES	NO
SP1. <i>Has the wetland unit been documented as a habitat for any Federally listed Threatened or Endangered animal or plant species (T/E species)?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state or federal database.		X
SP2. <i>Has the wetland unit been documented as habitat for any State listed Threatened or Endangered animal species?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state database. Note: Wetlands with State listed plant species are categorized as Category I Natural Heritage Wetlands (see p. 19 of data form).		X
SP3. <i>Does the wetland unit contain individuals of Priority species listed by the WDFW for the state?</i>		X
SP4. <i>Does the wetland unit have a local significance in addition to its functions?</i> For example, the wetland has been identified in the Shoreline Master Program, the Critical Areas Ordinance, or in a local management plan as having special significance.		X

To complete the next part of the data sheet you will need to determine the Hydrogeomorphic Class of the wetland being rated.

The hydrogeomorphic classification groups wetlands into those that function in similar ways. This simplifies the questions needed to answer how well the wetland functions. The Hydrogeomorphic Class of a wetland can be determined using the key below. See p. 24 for more detailed instructions on classifying wetlands.

D Depressional and Flats Wetlands HYDROLOGIC FUNCTIONS – Indicators that the wetland unit functions to reduce flooding and stream degradation.		Points (only 1 score per box)
D	D 3. Does the wetland have the <u>potential</u> to reduce flooding and stream erosion?	<i>(see p. 46)</i>
	<p>D 3.1 Characteristics of surface water flows out of the wetland unit</p> <p>Unit is a depression with no surface water leaving it (no outlet) points = 4</p> <p>Unit has an intermittently flowing, OR highly constricted permanently flowing outlet <u>points = 2</u></p> <p>Unit is a “flat” depression (Q. 7 on key), or in the Flats class, with permanent surface outflow and no obvious natural outlet and/or outlet is a man-made ditch points = 1</p> <p><i>(If ditch is not permanently flowing treat unit as “intermittently flowing”)</i></p> <p>Unit has an unconstricted, or slightly constricted, surface outlet (<i>permanently flowing</i>) points = 0</p>	2
D	<p>D 3.2 Depth of storage during wet periods</p> <p><i>Estimate the height of ponding above the bottom of the outlet. For units with no outlet measure from the surface of permanent water or deepest part (if dry).</i></p> <p>Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7</p> <p>The wetland is a “headwater” wetland points = 5</p> <p>Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5</p> <p>Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points = 3</p> <p>Unit is flat (yes to Q. 2 or Q. 7 on key) but has small depressions on the surface that trap water points = 1</p> <p>Marks of ponding less than 0.5 ft points = 0</p>	5
D	<p>D 3.3 Contribution of wetland unit to storage in the watershed</p> <p><i>Estimate the ration of the area of upstream basin contributing surface water to the wetland to the area of the wetland unit itself.</i></p> <p>The area of the basin is less than 10 times the area of the unit points = 5</p> <p>The area of the basin is 10 to 100 times the area of the unit points = 3</p> <p>The area of the basin is more than 100 times the area of the unit points = 0</p> <p>Entire unit is in the FLATS class points = 5</p>	0
D	Total for D 3 <i>Add the points in the boxes above</i>	7
D	<p>D 4. Does the wetland have the <u>opportunity</u> to reduce flooding and erosion?</p> <p>Answer YES if the unit is in a location in the watershed where the flood storage, or reduction in water velocity, it provides helps protect downstream property and aquatic resources from flooding or excessive and/or erosive flows. Answer NO if the water coming into the wetland is controlled by a structure such as flood gate, tide gate, flap valve, reservoir etc. OR you estimate that more than 90% of the water in the wetland is from groundwater in areas where damaging groundwater flooding does not occur.</p> <p><i>Note which of the following indicators of opportunity apply.</i></p> <p><input type="checkbox"/> Wetland is in a headwater of a river or stream that has flooding problems</p> <p><input type="checkbox"/> Wetland drains to a river or stream that has flooding problems</p> <p><input type="checkbox"/> Wetland has no outlet and impounds surface runoff water that might otherwise flow into a river or stream that has flooding problems</p> <p><input type="checkbox"/> Other _____</p> <p>YES multiplier is 2 NO multiplier is 1</p>	<i>(see p. 49)</i> multiplier <u>1</u>
D	TOTAL – Hydrologic Functions Multiply the score from D 3 by D 4 <i>Add score to table on p. 1</i>	7

<p>H 1.4 Interspersion of habitats (<i>see p. 76</i>) Decide from the diagrams below whether interspersion between Cowardin vegetation classes (described in H1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none.</p> <p>NOTE: If you have four or more vegetation classes or three vegetation types and open water the rating is always "high". Use map of Cowardin vegetation classes</p>	<p>Figure _____</p> <p>1</p>	
<p>H 1.5 Special Habitat Features (<i>see p. 77</i>) Check the habitat features that are present in the wetland. The number of checks is the number of points you put into the next column.</p> <p><input type="checkbox"/> Large, downed, woody debris within the wetland (> 4in. diameter and 6 ft long).</p> <p><input checked="" type="checkbox"/> Standing snags (diameter at the bottom > 4 inches) in the wetland</p> <p><input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2m) and/or overhanging vegetation extends at least 3.3 ft. (1m) over a stream (or ditch) in, or contiguous with the unit, for at least 33 ft (10m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet turned grey/brown</i>)</p> <p><input type="checkbox"/> At least ¼ acre of thin-stemmed persistent vegetation or woody branches are present in areas that are permanently or seasonally inundated. (<i>structures for egg-laying by amphibians</i>)</p> <p><input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in each stratum of plants</p> <p>NOTE: The 20% stated in early printings of the manual on page 78 is an error.</p>	<p>1</p>	
<p align="center">H 1. TOTAL Score – potential for providing habitat Add the scores from H1.1, H1.2, H1.3, H1.4, H1.5</p>		<p align="center">6</p>

Comments

<p>H 2.3 <u>Near or adjacent to other priority habitats listed by WDFW (see p. 82)</u> Which of the following priority habitats are within 330 ft (100m) of the wetland unit? <i>NOTE: the connections do not have to be relatively undisturbed. These are DFW definitions. Check with your local DFW biologist if there are any questions.</i></p> <p><input type="checkbox"/> Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.</p> <p><input type="checkbox"/> Aspen Stands: Pure or mixed stands of aspen greater than 0.8 ha (2 acres).</p> <p><input type="checkbox"/> Cliffs: Greater than 7.6m (25 ft) high and occurring below 5000 ft.</p> <p><input type="checkbox"/> Old-growth forests: (Old growth west of Cascade Crest) Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings, with at least 20 trees/ha (8 trees/acre) > 81cm (32 in) dbh or > 200 years of age.</p> <p><input type="checkbox"/> Mature forests: Stands with average diameters exceeding 53cm (21 in) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 – 200 years old west of the Cascade crest.</p> <p><input type="checkbox"/> Prairies: Relatively undisturbed areas (as indicated by dominance of native plants) where greases and/or forbs form the natural climax plant community.</p> <p><input type="checkbox"/> Talus: Homogenous areas of rock rubble ranging in average size 0.15 – 2.0 m (0.5 – 6.5 ft), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.</p> <p><input type="checkbox"/> Caves: A naturally occurring cavity, recess, void, or system of interconnected passages.</p> <p><input type="checkbox"/> Oregon white Oak: Woodlands Stands of pure oak or oak/conifer associations where canopy coverage of the oak component of the stand is 25%.</p> <p><input type="checkbox"/> Urban Natural Open Space: A priority species resides within or is adjacent to the open space and uses it for breeding and/or regular feeding; and/or the open space functions as a corridor connecting other <i>priority habitats</i>, especially those that would otherwise be isolated; and/or the open space is an isolated remnant of natural habitat larger than 4 ha (10 acres) and is surrounded by urban development.</p> <p><input type="checkbox"/> Estuary/Estuary-like: Deepwater tidal habitats and adjacent tidal wetlands, usually semi-enclosed by land but with open, partly obstructed or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land. The salinity may be periodically increased above that of the open ocean by evaporation. Along some low-energy coastlines there is appreciable dilution of sea water. Estuarine habitat extends upstream and landward to where ocean-derived salts measure less than 0.5 ppt. during the period of average annual low flow. Includes both estuaries and lagoons.</p> <p><input checked="" type="checkbox"/> Marine/Estuarine Shorelines: Shorelines include the intertidal and subtidal zones of beaches, and may also include the backshore and adjacent components of the terrestrial landscape (e.g., cliffs, snags, mature trees, dunes, meadows) that are important to shoreline associated fish and wildlife and that contribute to shoreline function (e.g., sand/rock/log recruitment, nutrient contribution, erosion control).</p> <p style="padding-left: 40px;">If wetland has 3 or more priority habitats = 4 points If wetland has 2 priority habit= 3 points If wetland has 1 priority habitats= 1 point No habitats= 0 points</p> <p><i>Note: All vegetated wetlands are by definition a priority habitat but are not included in this list. Nearby wetlands are addressed in question H 2.4)</i></p>	<p>1</p>
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<p>H 2.4 <u>Wetland Landscape</u> (choose the one description of the landscape around the wetland that best fits) (see p. 84)</p> <p>There are at least 3 other wetlands within ½ mile, and the connections between them are relatively undisturbed (light grazing between wetlands OK, as is lake shore with some boating, but connections should NOT be bisected by paved roads, fill, fields, or other development. points = 5</p> <p>The wetland is Lake-fringe on a lake with little disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 5</p> <p>There are at least 3 other wetlands within ½ mile, BUT the connections between them are disturbed points = 3</p> <p>The wetland is Lake-fringe on a lake with disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 3</p> <p>There is at least 1 wetland within ½ mile points = 2</p> <p>There are no wetlands within ½ mile points = 0</p>	3
<p>H 2. TOTAL Score – opportunity for providing habitat <i>Add the scores from H2.1, H2.2, H2.3, H2.4</i></p>	9
<p>TOTAL for H 1 from page 14</p>	6
<p>Total Score for Habitat Functions – add the points for H 1, H 2 and record the result on p. 1</p>	15

Wetland name or number 13G

WETLAND RATING FORM – WESTERN WASHINGTON

Version 2 – Updated July 2006 to increase accuracy and reproducibility among users

Name of wetland (if known): 13G Date of site visit: 2006-2007

Rated by M. Gray Trained by Ecology? Yes X No Date of training Apr 2007

SEC: 19 TWSHP: 39 RNGE: 1E Is S/T/R in Appendix D? Yes No X

Map of wetland unit: Figure Estimated size

SUMMARY OF RATING

Category based on FUNCTIONS provided by wetland

I II III X IV

Category I = Score ≥ 70 Category II = Score 51-69 Category III = Score 30-50 Category IV = Score < 30

Score for Water Quality Functions	14
Score for Hydrologic Functions	7
Score for Habitat Functions	18
TOTAL score for Functions	39

Category based on SPECIAL CHARACTERISTICS of Wetland

I II Does not Apply X

III

Final Category (choose the “highest” category from above)

Summary of basic information about the wetland unit

Wetland Unit has Special Characteristics		Wetland HGM Class used for Rating	
Estuarine		Depressional	X
Natural Heritage Wetland		Riverine	
Bog		Lake-fringe	
Mature Forest		Slope	
Old Growth Forest		Flats	
Coastal Lagoon		Freshwater Tidal	
Interdunal			
None of the above	X	Check if unit has multiple HGM classes present	

Does the wetland unit being rated meet any of the criteria below?

If you answer YES to any of the questions below you will need to protect the wetland according to the regulations regarding the special characteristics found in the wetland.

Check List for Wetlands That May Need Additional Protection (in addition to the protection recommended for its category)	YES	NO
SP1. <i>Has the wetland unit been documented as a habitat for any Federally listed Threatened or Endangered animal or plant species (T/E species)?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state or federal database.		X
SP2. <i>Has the wetland unit been documented as habitat for any State listed Threatened or Endangered animal species?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state database. Note: Wetlands with State listed plant species are categorized as Category I Natural Heritage Wetlands (see p. 19 of data form).		X
SP3. <i>Does the wetland unit contain individuals of Priority species listed by the WDFW for the state?</i>		X
SP4. <i>Does the wetland unit have a local significance in addition to its functions?</i> For example, the wetland has been identified in the Shoreline Master Program, the Critical Areas Ordinance, or in a local management plan as having special significance.		X

To complete the next part of the data sheet you will need to determine the Hydrogeomorphic Class of the wetland being rated.

The hydrogeomorphic classification groups wetlands into those that function in similar ways. This simplifies the questions needed to answer how well the wetland functions. The Hydrogeomorphic Class of a wetland can be determined using the key below. See p. 24 for more detailed instructions on classifying wetlands.

D Depressional and Flats Wetlands		Points
WATER QUALITY FUNCTIONS – Indicators that the wetland unit functions to improve water quality		(only 1 score per box)
D	D 1. Does the wetland unit have the <u>potential</u> to improve water quality?	(see p. 38)
D	D 1.1 Characteristics of surface water flows out of the wetland: Unit is a depression with no surface water leaving it (no outlet) points = 3 Unit has an intermittently flowing, OR highly constricted permanently flowing outlet points = 2 Unit has an unconstricted, or slightly constricted, surface outlet (<i>permanently flowing</i>) points = 1 Unit has a “flat” depression (Q. 7 on key), or in the Flats class, with permanent surface outflow and no obvious natural outlet and/or outlet is a man-made ditch points = 1 (<i>If ditch is not permanently flowing treat unit as “intermittently flowing”</i>) Provide photo or drawing	Figure _____ 2
	D 1.2 The soil 2 inches below the surface (or duff layer) is clay or organic (<i>use NRCS definitions</i>) YES points = 4 NO points = 0	0
D	D 1.3 Characteristics of persistent vegetation (emergent, shrub, and/or forest Cowardin class) Wetland has persistent, ungrazed, vegetation > = 95% of area points = 5 Wetland has persistent, ungrazed, vegetation > = ½ of area points = 3 Wetland has persistent, ungrazed, vegetation > = 1/10 of area <u>points = 1</u> Wetland has persistent, ungrazed, vegetation < 1/10 of area points = 0 Map of Cowardin vegetation classes	Figure _____ 1
	D 1.4 Characteristics of seasonal ponding or inundation. <i>This is the area of the wetland unit that is ponded for at least 2 months, but dries out sometime during the year. Do not count the area that is permanently ponded. Estimate area as the average condition 5 out of 10 years.</i> Area seasonally ponded is > ½ total area of wetland <u>points = 4</u> Area seasonally ponded is > ¼ total area of wetland points = 2 Area seasonally ponded is < ¼ total area of wetland points = 0 Map of hydroperiods	Figure _____ 4
D	Total for D 1 <i>Add the points in the boxes above</i>	7
D	D 2. Does the wetland have the <u>opportunity</u> to improve water quality? Answer YES if you know or believe there are pollutants in groundwater or surface water coming into the wetland that would otherwise reduce water quality in streams, lakes or groundwater downgradient from the wetland. <i>Note which of the following conditions provide the sources of pollutants. A unit may have pollutants coming from several sources, but any single source would qualify as opportunity.</i> <input type="checkbox"/> Grazing in the wetland or within 150 ft <input checked="" type="checkbox"/> Untreated stormwater discharges to wetland <input type="checkbox"/> Tilled fields or orchards within 150 ft of wetland <input type="checkbox"/> A stream or culvert discharges into wetland that drains developed areas, residential area, farmed fields, roads, or clear-cut logging <input checked="" type="checkbox"/> Residential, urban areas, golf courses are within 150 ft of wetland <input type="checkbox"/> Wetland is fed by groundwater high in phosphorus or nitrogen <input type="checkbox"/> Other _____ YES multiplier is 2 NO multiplier is 1	(see p. 44) multiplier _____ 2
D	TOTAL – Water Quality Functions Multiply the score from D1 by D2 <i>Add score to table on p. 1</i>	14

D Depressional and Flats Wetlands HYDROLOGIC FUNCTIONS – Indicators that the wetland unit functions to reduce flooding and stream degradation.		Points (only 1 score per box)
D	D 3. Does the wetland have the <u>potential</u> to reduce flooding and stream erosion?	<i>(see p. 46)</i>
	<p>D 3.1 Characteristics of surface water flows out of the wetland unit</p> <p>Unit is a depression with no surface water leaving it (no outlet) points = 4</p> <p>Unit has an intermittently flowing, OR highly constricted permanently flowing outlet <u>points = 2</u></p> <p>Unit is a “flat” depression (Q. 7 on key), or in the Flats class, with permanent surface outflow and no obvious natural outlet and/or outlet is a man-made ditch points = 1 <i>(If ditch is not permanently flowing treat unit as “intermittently flowing”)</i></p> <p>Unit has an unconstricted, or slightly constricted, surface outlet (<i>permanently flowing</i>) points = 0</p>	2
D	<p>D 3.2 Depth of storage during wet periods</p> <p><i>Estimate the height of ponding above the bottom of the outlet. For units with no outlet measure from the surface of permanent water or deepest part (if dry).</i></p> <p>Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7</p> <p>The wetland is a “headwater” wetland points = 5</p> <p>Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5</p> <p>Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points = 3</p> <p>Unit is flat (yes to Q. 2 or Q. 7 on key) but has small depressions on the surface that trap water points = 1</p> <p>Marks of ponding less than 0.5 ft points = 0</p>	5
D	<p>D 3.3 Contribution of wetland unit to storage in the watershed</p> <p><i>Estimate the ration of the area of upstream basin contributing surface water to the wetland to the area of the wetland unit itself.</i></p> <p>The area of the basin is less than 10 times the area of the unit points = 5</p> <p>The area of the basin is 10 to 100 times the area of the unit points = 3</p> <p>The area of the basin is more than 100 times the area of the unit points = 0</p> <p>Entire unit is in the FLATS class points = 5</p>	0
D	Total for D 3 <i>Add the points in the boxes above</i>	7
D	<p>D 4. Does the wetland have the <u>opportunity</u> to reduce flooding and erosion?</p> <p>Answer YES if the unit is in a location in the watershed where the flood storage, or reduction in water velocity, it provides helps protect downstream property and aquatic resources from flooding or excessive and/or erosive flows. Answer NO if the water coming into the wetland is controlled by a structure such as flood gate, tide gate, flap valve, reservoir etc. OR you estimate that more than 90% of the water in the wetland is from groundwater in areas where damaging groundwater flooding does not occur.</p> <p><i>Note which of the following indicators of opportunity apply.</i></p> <p><input type="checkbox"/> Wetland is in a headwater of a river or stream that has flooding problems</p> <p><input type="checkbox"/> Wetland drains to a river or stream that has flooding problems</p> <p><input type="checkbox"/> Wetland has no outlet and impounds surface runoff water that might otherwise flow into a river or stream that has flooding problems</p> <p><input type="checkbox"/> Other _____</p> <p>YES multiplier is 2 NO multiplier is 1</p>	<i>(see p. 49)</i> multiplier <u>1</u>
D	TOTAL – Hydrologic Functions Multiply the score from D 3 by D 4 <i>Add score to table on p. 1</i>	7

<p>H 1.4 Interspersion of habitats (<i>see p. 76</i>) Decide from the diagrams below whether interspersion between Cowardin vegetation classes (described in H1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none.</p> <p>NOTE: If you have four or more vegetation classes or three vegetation types and open water the rating is always "high". Use map of Cowardin vegetation classes</p>	<p>Figure _____</p> <p>1</p>	
<p>H 1.5 Special Habitat Features (<i>see p. 77</i>) Check the habitat features that are present in the wetland. The number of checks is the number of points you put into the next column.</p> <p><input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (> 4in. diameter and 6 ft long).</p> <p><input checked="" type="checkbox"/> Standing snags (diameter at the bottom > 4 inches) in the wetland</p> <p><input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2m) and/or overhanging vegetation extends at least 3.3 ft. (1m) over a stream (or ditch) in, or contiguous with the unit, for at least 33 ft (10m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet turned grey/brown</i>)</p> <p><input type="checkbox"/> At least ¼ acre of thin-stemmed persistent vegetation or woody branches are present in areas that are permanently or seasonally inundated. (<i>structures for egg-laying by amphibians</i>)</p> <p><input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in each stratum of plants</p> <p>NOTE: The 20% stated in early printings of the manual on page 78 is an error.</p>	<p>2</p>	
<p align="center">H 1. TOTAL Score – potential for providing habitat Add the scores from H1.1, H1.2, H1.3, H1.4, H1.5</p>		<p align="center">9</p>

Comments

<p>H 2.3 <u>Near or adjacent to other priority habitats listed by WDFW (see p. 82)</u> Which of the following priority habitats are within 330 ft (100m) of the wetland unit? <i>NOTE: the connections do not have to be relatively undisturbed. These are DFW definitions. Check with your local DFW biologist if there are any questions.</i></p> <p><input type="checkbox"/> Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.</p> <p><input type="checkbox"/> Aspen Stands: Pure or mixed stands of aspen greater than 0.8 ha (2 acres).</p> <p><input type="checkbox"/> Cliffs: Greater than 7.6m (25 ft) high and occurring below 5000 ft.</p> <p><input type="checkbox"/> Old-growth forests: (Old growth west of Cascade Crest) Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings, with at least 20 trees/ha (8 trees/acre) > 81cm (32 in) dbh or > 200 years of age.</p> <p><input type="checkbox"/> Mature forests: Stands with average diameters exceeding 53cm (21 in) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 – 200 years old west of the Cascade crest.</p> <p><input type="checkbox"/> Prairies: Relatively undisturbed areas (as indicated by dominance of native plants) where greases and/or forbs form the natural climax plant community.</p> <p><input type="checkbox"/> Talus: Homogenous areas of rock rubble ranging in average size 0.15 – 2.0 m (0.5 – 6.5 ft), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.</p> <p><input type="checkbox"/> Caves: A naturally occurring cavity, recess, void, or system of interconnected passages.</p> <p><input type="checkbox"/> Oregon white Oak: Woodlands Stands of pure oak or oak/conifer associations where canopy coverage of the oak component of the stand is 25%.</p> <p><input type="checkbox"/> Urban Natural Open Space: A priority species resides within or is adjacent to the open space and uses it for breeding and/or regular feeding; and/or the open space functions as a corridor connecting other <i>priority habitats</i>, especially those that would otherwise be isolated; and/or the open space is an isolated remnant of natural habitat larger than 4 ha (10 acres) and is surrounded by urban development.</p> <p><input type="checkbox"/> Estuary/Estuary-like: Deepwater tidal habitats and adjacent tidal wetlands, usually semi-enclosed by land but with open, partly obstructed or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land. The salinity may be periodically increased above that of the open ocean by evaporation. Along some low-energy coastlines there is appreciable dilution of sea water. Estuarine habitat extends upstream and landward to where ocean-derived salts measure less than 0.5 ppt. during the period of average annual low flow. Includes both estuaries and lagoons.</p> <p><input checked="" type="checkbox"/> Marine/Estuarine Shorelines: Shorelines include the intertidal and subtidal zones of beaches, and may also include the backshore and adjacent components of the terrestrial landscape (e.g., cliffs, snags, mature trees, dunes, meadows) that are important to shoreline associated fish and wildlife and that contribute to shoreline function (e.g., sand/rock/log recruitment, nutrient contribution, erosion control).</p> <p style="padding-left: 40px;">If wetland has 3 or more priority habitats = 4 points If wetland has 2 priority habit= 3 points If wetland has 1 priority habitats= 1 point No habitats= 0 points</p> <p><i>Note: All vegetated wetlands are by definition a priority habitat but are not included in this list. Nearby wetlands are addressed in question H 2.4)</i></p>	<p>1</p>
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Wetland name or number 13G

<p>H 2.4 <u>Wetland Landscape</u> (choose the one description of the landscape around the wetland that best fits) (see p. 84)</p> <p>There are at least 3 other wetlands within ½ mile, and the connections between them are relatively undisturbed (light grazing between wetlands OK, as is lake shore with some boating, but connections should NOT be bisected by paved roads, fill, fields, or other development. points = 5</p> <p>The wetland is Lake-fringe on a lake with little disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 5</p> <p>There are at least 3 other wetlands within ½ mile, BUT the connections between them are disturbed points = 3</p> <p>The wetland is Lake-fringe on a lake with disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 3</p> <p>There is at least 1 wetland within ½ mile points = 2</p> <p>There are no wetlands within ½ mile points = 0</p>	3
<p>H 2. TOTAL Score – opportunity for providing habitat <i>Add the scores from H2.1, H2.2, H2.3, H2.4</i></p>	9
<p>TOTAL for H 1 from page 14</p>	9
<p>Total Score for Habitat Functions – add the points for H 1, H 2 and record the result on p. 1</p>	18

Wetland name or number 14

WETLAND RATING FORM – WESTERN WASHINGTON
Version 2 – Updated July 2006 to increase accuracy and reproducibility among users

Name of wetland (if known): _____ 14 _____ Date of site visit: 2006-2007

Rated by M. Gray Trained by Ecology? Yes X No ___ Date of training Apr 2007

SEC: 19 TWSHP: 39 RNGE: 1E Is S/T/R in Appendix D? Yes ___ No X

Map of wetland unit: Figure _____ Estimated size _____

SUMMARY OF RATING

Category based on FUNCTIONS provided by wetland

I ___ II ___ III X IV ___

Category I = Score >=70
Category II = Score 51-69
Category III = Score 30-50
Category IV = Score <30

Score for Water Quality Functions	18
Score for Hydrologic Functions	5
Score for Habitat Functions	14
TOTAL score for Functions	37

Category based on SPECIAL CHARACTERISTICS of Wetland

I ___ II ___ Does not Apply ___ X

III

Final Category (choose the “highest” category from above)

Summary of basic information about the wetland unit

Wetland Unit has Special Characteristics		Wetland HGM Class used for Rating	
Estuarine		Depressional	X
Natural Heritage Wetland		Riverine	
Bog		Lake-fringe	
Mature Forest		Slope	
Old Growth Forest		Flats	
Coastal Lagoon		Freshwater Tidal	
Interdunal			
None of the above	X	Check if unit has multiple HGM classes present	

Does the wetland unit being rated meet any of the criteria below?

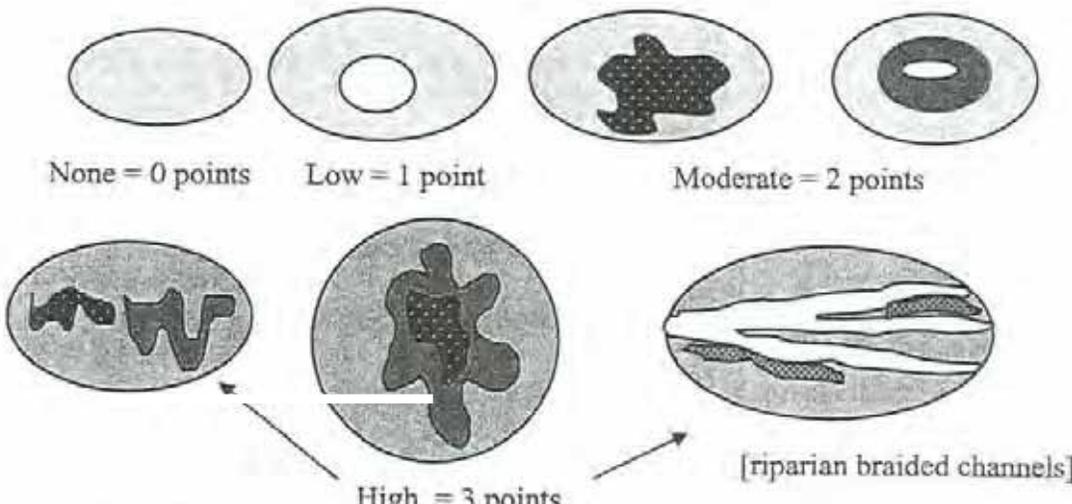
If you answer YES to any of the questions below you will need to protect the wetland according to the regulations regarding the special characteristics found in the wetland.

Check List for Wetlands That May Need Additional Protection (in addition to the protection recommended for its category)	YES	NO
SP1. <i>Has the wetland unit been documented as a habitat for any Federally listed Threatened or Endangered animal or plant species (T/E species)?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state or federal database.		X
SP2. <i>Has the wetland unit been documented as habitat for any State listed Threatened or Endangered animal species?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state database. Note: Wetlands with State listed plant species are categorized as Category I Natural Heritage Wetlands (see p. 19 of data form).		X
SP3. <i>Does the wetland unit contain individuals of Priority species listed by the WDFW for the state?</i>		X
SP4. <i>Does the wetland unit have a local significance in addition to its functions?</i> For example, the wetland has been identified in the Shoreline Master Program, the Critical Areas Ordinance, or in a local management plan as having special significance.		X

To complete the next part of the data sheet you will need to determine the Hydrogeomorphic Class of the wetland being rated.

The hydrogeomorphic classification groups wetlands into those that function in similar ways. This simplifies the questions needed to answer how well the wetland functions. The Hydrogeomorphic Class of a wetland can be determined using the key below. See p. 24 for more detailed instructions on classifying wetlands.

D Depressional and Flats Wetlands HYDROLOGIC FUNCTIONS – Indicators that the wetland unit functions to reduce flooding and stream degradation.		Points (only 1 score per box)
D	D 3. Does the wetland have the <u>potential</u> to reduce flooding and stream erosion?	<i>(see p. 46)</i>
	<p>D 3.1 Characteristics of surface water flows out of the wetland unit</p> <p>Unit is a depression with no surface water leaving it (no outlet) points = 4</p> <p>Unit has an intermittently flowing, OR highly constricted permanently flowing outlet <u>points = 2</u></p> <p>Unit is a “flat” depression (Q. 7 on key), or in the Flats class, with permanent surface outflow and no obvious natural outlet and/or outlet is a man-made ditch points = 1 <i>(If ditch is not permanently flowing treat unit as “intermittently flowing”)</i></p> <p>Unit has an unconstricted, or slightly constricted, surface outlet (<i>permanently flowing</i>) points = 0</p>	2
D	<p>D 3.2 Depth of storage during wet periods</p> <p><i>Estimate the height of ponding above the bottom of the outlet. For units with no outlet measure from the surface of permanent water or deepest part (if dry).</i></p> <p>Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7</p> <p>The wetland is a “headwater” wetland points = 5</p> <p>Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5</p> <p>Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet <u>points = 3</u></p> <p>Unit is flat (yes to Q. 2 or Q. 7 on key) but has small depressions on the surface that trap water points = 1</p> <p>Marks of ponding less than 0.5 ft points = 0</p>	3
D	<p>D 3.3 Contribution of wetland unit to storage in the watershed</p> <p><i>Estimate the ration of the area of upstream basin contributing surface water to the wetland to the area of the wetland unit itself.</i></p> <p>The area of the basin is less than 10 times the area of the unit points = 5</p> <p>The area of the basin is 10 to 100 times the area of the unit points = 3</p> <p>The area of the basin is more than 100 times the area of the unit points = 0</p> <p>Entire unit is in the FLATS class points = 5</p>	0
D	Total for D 3 <i>Add the points in the boxes above</i>	5
D	<p>D 4. Does the wetland have the <u>opportunity</u> to reduce flooding and erosion?</p> <p>Answer YES if the unit is in a location in the watershed where the flood storage, or reduction in water velocity, it provides helps protect downstream property and aquatic resources from flooding or excessive and/or erosive flows. Answer NO if the water coming into the wetland is controlled by a structure such as flood gate, tide gate, flap valve, reservoir etc. OR you estimate that more than 90% of the water in the wetland is from groundwater in areas where damaging groundwater flooding does not occur.</p> <p><i>Note which of the following indicators of opportunity apply.</i></p> <p><input type="checkbox"/> Wetland is in a headwater of a river or stream that has flooding problems</p> <p><input type="checkbox"/> Wetland drains to a river or stream that has flooding problems</p> <p><input type="checkbox"/> Wetland has no outlet and impounds surface runoff water that might otherwise flow into a river or stream that has flooding problems</p> <p><input type="checkbox"/> Other _____</p> <p>YES multiplier is 2 NO multiplier is 1</p>	<i>(see p. 49)</i> multiplier <u>1</u>
D	TOTAL – Hydrologic Functions Multiply the score from D 3 by D 4 <i>Add score to table on p. 1</i>	5

<p>H 1.4 Interspersion of habitats (see p. 76) Decide from the diagrams below whether interspersion between Cowardin vegetation classes (described in H1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none.</p>  <p>NOTE: If you have four or more vegetation classes or three vegetation types and open water the rating is always "high". Use map of Cowardin vegetation classes</p>	<p>Figure _____</p> <p>1</p>
<p>H 1.5 Special Habitat Features (see p. 77) Check the habitat features that are present in the wetland. The number of checks is the number of points you put into the next column.</p> <p><input type="checkbox"/> Large, downed, woody debris within the wetland (> 4in. diameter and 6 ft long).</p> <p><input checked="" type="checkbox"/> Standing snags (diameter at the bottom > 4 inches) in the wetland</p> <p><input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2m) and/or overhanging vegetation extends at least 3.3 ft. (1m) over a stream (or ditch) in, or contiguous with the unit, for at least 33 ft (10m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet turned grey/brown</i>)</p> <p><input type="checkbox"/> At least ¼ acre of thin-stemmed persistent vegetation or woody branches are present in areas that are permanently or seasonally inundated. (<i>structures for egg-laying by amphibians</i>)</p> <p><input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in each stratum of plants</p> <p>NOTE: The 20% stated in early printings of the manual on page 78 is an error.</p>	<p>1</p>
<p align="center">H 1. TOTAL Score – potential for providing habitat Add the scores from H1.1, H1.2, H1.3, H1.4, H1.5</p>	

5

Comments

<p>H 2.3 <u>Near or adjacent to other priority habitats listed by WDFW (see p. 82)</u> Which of the following priority habitats are within 330 ft (100m) of the wetland unit? <i>NOTE: the connections do not have to be relatively undisturbed. These are DFW definitions. Check with your local DFW biologist if there are any questions.</i></p> <p><input type="checkbox"/> Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.</p> <p><input type="checkbox"/> Aspen Stands: Pure or mixed stands of aspen greater than 0.8 ha (2 acres).</p> <p><input type="checkbox"/> Cliffs: Greater than 7.6m (25 ft) high and occurring below 5000 ft.</p> <p><input type="checkbox"/> Old-growth forests: (Old growth west of Cascade Crest) Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings, with at least 20 trees/ha (8 trees/acre) > 81cm (32 in) dbh or > 200 years of age.</p> <p><input type="checkbox"/> Mature forests: Stands with average diameters exceeding 53cm (21 in) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 – 200 years old west of the Cascade crest.</p> <p><input type="checkbox"/> Prairies: Relatively undisturbed areas (as indicated by dominance of native plants) where greases and/or forbs form the natural climax plant community.</p> <p><input type="checkbox"/> Talus: Homogenous areas of rock rubble ranging in average size 0.15 – 2.0 m (0.5 – 6.5 ft), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.</p> <p><input type="checkbox"/> Caves: A naturally occurring cavity, recess, void, or system of interconnected passages.</p> <p><input type="checkbox"/> Oregon white Oak: Woodlands Stands of pure oak or oak/conifer associations where canopy coverage of the oak component of the stand is 25%.</p> <p><input type="checkbox"/> Urban Natural Open Space: A priority species resides within or is adjacent to the open space and uses it for breeding and/or regular feeding; and/or the open space functions as a corridor connecting other <i>priority habitats</i>, especially those that would otherwise be isolated; and/or the open space is an isolated remnant of natural habitat larger than 4 ha (10 acres) and is surrounded by urban development.</p> <p><input type="checkbox"/> Estuary/Estuary-like: Deepwater tidal habitats and adjacent tidal wetlands, usually semi-enclosed by land but with open, partly obstructed or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land. The salinity may be periodically increased above that of the open ocean by evaporation. Along some low-energy coastlines there is appreciable dilution of sea water. Estuarine habitat extends upstream and landward to where ocean-derived salts measure less than 0.5 ppt. during the period of average annual low flow. Includes both estuaries and lagoons.</p> <p><input checked="" type="checkbox"/> Marine/Estuarine Shorelines: Shorelines include the intertidal and subtidal zones of beaches, and may also include the backshore and adjacent components of the terrestrial landscape (e.g., cliffs, snags, mature trees, dunes, meadows) that are important to shoreline associated fish and wildlife and that contribute to shoreline function (e.g., sand/rock/log recruitment, nutrient contribution, erosion control).</p> <p style="padding-left: 40px;">If wetland has 3 or more priority habitats = 4 points If wetland has 2 priority habit= 3 points If wetland has 1 priority habitats= 1 point No habitats= 0 points</p> <p><i>Note: All vegetated wetlands are by definition a priority habitat but are not included in this list. Nearby wetlands are addressed in question H 2.4)</i></p>	<p>1</p>
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Wetland name or number 14

<p>H 2.4 <u>Wetland Landscape</u> (choose the one description of the landscape around the wetland that best fits) (see p. 84)</p> <p>There are at least 3 other wetlands within ½ mile, and the connections between them are relatively undisturbed (light grazing between wetlands OK, as is lake shore with some boating, but connections should NOT be bisected by paved roads, fill, fields, or other development. points = 5</p> <p>The wetland is Lake-fringe on a lake with little disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 5</p> <p>There are at least 3 other wetlands within ½ mile, BUT the connections between them are disturbed points = 3</p> <p>The wetland is Lake-fringe on a lake with disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 3</p> <p>There is at least 1 wetland within ½ mile points = 2</p> <p>There are no wetlands within ½ mile points = 0</p>	3
<p>H 2. TOTAL Score – opportunity for providing habitat <i>Add the scores from H2.1, H2.2, H2.3, H2.4</i></p>	9
<p>TOTAL for H 1 from page 14</p>	5
<p>Total Score for Habitat Functions – add the points for H 1, H 2 and record the result on p. 1</p>	14