

APPENDIX B
WETLAND RATING FIELD DATA FORMS

Wetlands Rating Field Data Form

Background Information:

Name of Rater: Becky Gurshaw Affiliation: Coldee Date: 7/13/01

Name of wetland (if known): Wetland C

Government Jurisdiction of wetland: Whatcom County

Location: 1/4 Section: NW of 1/4 S: NW Section: 8 Township: 39N Range: 1E

Sources of Information: (Check all sources that apply)

Site visit: USGS Topo Map: NWI map: Aerial Photo: Soils survey:

Other: Describe: Previous delineations.

When The Field Data form is complete enter Category here: CATEGORY III

Q.1. High Quality Natural Wetland

Circle Answers

Answer this question if you have adequate information or experience to do so. If not find someone with the expertise to answer the questions. Then, if the answer to questions 1a, 1b and 1c are all NO, contact the Natural Heritage program of DNR.

1a. Human caused disturbances.

Is there significant evidence of human-caused changes to topography or hydrology of the wetland as indicated by any of the following conditions? Consider only changes that may have taken place in the last 5 decades. The impacts of changes done earlier have probably been stabilized and the wetland ecosystem will be close to reaching some new equilibrium that may represent a high quality wetland.

2022

- 1a.1 Upstream watershed > 12% impervious.
- 1a.2 Wetland is ditched and water flow is not obstructed.
- 1a.3 Wetland has been graded, filled, logged.
- 1a.4 Water in wetland is controlled by dikes, weirs, etc.
- 1a.5 Wetland is grazed. - potentially grazed in past 50 yrs
- 1a.6 Other indicators of disturbance (list below)

- Yes: go to Q.2
- No: go to 1b.

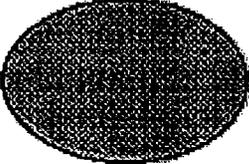
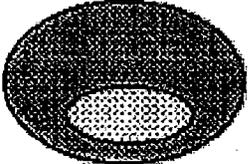
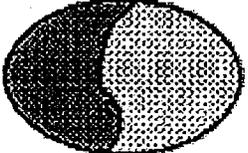
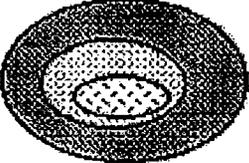
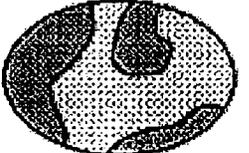
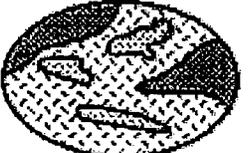
<p>1b Are there populations of non-native plants which are currently present, cover more than 10% of the wetland, and appear to be invading native populations? Briefly describe any non-native plant populations and Information source(s): <u>Non-native grasses including tall fescue, meadow foxtail, velvetgrass.</u></p> <p>1c. Is there evidence of human-caused disturbances which have visibly degraded water quality. Evidence of the degradation of water quality include: direct (untreated) runoff from roads or parking lots; presence, or historic evidence, of waste dumps; oily sheens; the smell of organic chemicals; or livestock use. Briefly describe:</p> <hr/> <hr/>	<p>YES: go to Q.2 No: go to 1c.</p> <p>YES: go to Q.2 NO: Possible Cat. I Contact DNR</p>
<p>Q.2. Irreplaceable Ecological Functions: Does the wetland:</p> <p>have at least 1/4 acre of organic soils deeper than 16 inches and the wetland is relatively undisturbed; OR [If the answer is NO because the wetland is disturbed briefly describe: Indicators of disturbance may include:</p> <ul style="list-style-type: none"> - Wetland has been graded, filled, logged; - Organic soils on the surface are dried-out for more than half of the year; - Wetland receives direct stormwater runoff from urban or agricultural areas.]; <p>OR</p> <p>have a forested class greater than 1 acre; OR have characteristics of an estuarine system; OR have eel grass floating or non-floating kelp beds?</p>	<p>(NO to all: go to Q.3) YES go to 2a</p> <p>YES: Go to 2b</p> <p>Yes: Go to 2c</p> <p>Yes: Go to 2d</p>
<p>2a. Bogs and Fens Are any of the three following conditions met for the area of organic soil?</p> <p>2a.1. Are Sphagnum mosses a common ground cover (>30%) and the cover of invasive species (see Table 3) is less than 10%?</p> <p>Is the area of sphagnum mosses and deep organic soils > 1/2 acre? Is the area of sphagnum mosses and deep organic soils 1/4-1/2 acre?</p> <p>2a.2. Is there an area of organic soil which has an emergent class with at least one species from Table 2, and cover of invasive species is < 10% (see Table 3)?</p> <p>Is the area of herbaceous plants and deep organic soils > 1/2 acre? Is the area of herbaceous plants and deep organic soils 1/4-1/2acre?</p>	<p>YES: Category I YES: Category II NO: Go to 2a.3</p> <p>YES: Category I YES: Category II NO: Go to 2a.3</p>

<p>2a.3. Is the vegetation a mixture of only herbaceous plants and Sphagnum mosses with no scrub/shrub or forested classes? Is the area of herbaceous plants, Sphagnum, and deep organic soils > 1/2 acre? Is the area of herbaceous plants, Sphagnum, and deep organic soils ¼-1/2 acre?</p>	<p>YES: Category I YES: Category II NO: Go to Q.3.</p>
<p>Q.2b. Mature forested wetland.</p> <p>2b.1. Does 50% of the cover of upper forest canopy consist of evergreen trees older than 80 years or deciduous trees older than 50 years? <i>Note:</i> The size of trees is often not a measure of age, and size cannot be used as a surrogate for age (see guidance).</p> <p>2b.2. Does 50% of the cover of forest canopy consist of evergreen trees older than 50 years, AND is the structural diversity of the forest high as characterized by an additional layer of trees 20'-49' tall, shrubs 6'- 20', tall, and a herbaceous groundcover?</p> <p>2b.3. Does < 25% of the areal cover in the herbaceous/groundcover or the shrub layer consist of invasive/exotic plant species from the list on p. 19?</p>	<p>YES: Category I NO: Go to 2b.2</p> <p>YES: Go to 2b.3 NO: Go to Q.3</p> <p>YES: Category I NO: Go to Q.3</p>
<p>Q.2c. Estuarine wetlands.</p> <p>2c.1. Is the wetland listed as National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park, or Educational, Environmental or Scientific Reserves designated under WAC 332-30-151?</p> <p>2c.2. Is the wetland > 5 acres; <i>Note:</i> If an area contains patches of salt tolerant vegetation that are 1) less than 600 feet apart and that are separated by mudflats that go dry on a Mean Low Tide, or 2) separated by tidal channels that are less than 100 feet wide; all the vegetated areas are to be considered together in calculating the wetland area.</p> <p>or is the wetland 1-5 acres;</p> <p>or is the wetland < 1 acre?</p>	<p>YES: Category I NO: Go to 2c.2</p> <p>YES: Category I</p> <p>YES: Go to 2c.3</p> <p>YES: Go to 2c.4</p>

<p>2c.3. Does the wetland meet at least 3 of the following 4 criteria:</p> <ul style="list-style-type: none"> - minimum existing evidence of human related disturbance such as diking, ditching, filling, cultivation, grazing or the presence of non-native plant species (see guidance for definition); - surface water connection with tidal saltwater or tidal freshwater; - at least 75% of the wetland has a 100 buffer of ungrazed pasture, open water, shrub or forest; - has at least 3 of the following features: low marsh; high marsh; tidal channels; lagoon(s);woody debris; or contiguous freshwater wetland. <p>2c.4. Does the wetland meet all of the four criteria under 2c3? (above)?</p>	<p>YES: Category I NO Category II</p> <p>YES: Category II NO: Category III</p>
<p>Q.2d. Eel Grass and Kelp Beds.</p> <p>2d.1. Are eelgrass beds present?</p> <p>2d.2. Are their floating or non-floating kelp bed(s) present with greater than 50% macro algal cover in the month of August or September?.....</p>	<p>YES: Category I NO: go to 2d.2</p> <p>YES: Category I NO: Category II</p>
<p>Q.3. Category IV wetlands.</p> <p>3a. Is the wetland: less than 1 acre <u>and</u>, hydrologically isolated <u>and</u>, comprised of one vegetated class that is dominated (> 80% areal cover) by one species from Table 3 (page 19) or Table 4 (page 20)</p> <p>3b. Is the wetland: less than two acres and, hydrologically isolated, with one vegetated class, and > 90% of areal cover in any combination of species from Table 3 (page 19)</p> <p>3c. Is the wetland excavated from upland <u>and</u> a pond smaller than 1 acre without a surface water connection to streams, lakes, rivers, or other wetland, and has < 0.1 acre of vegetation.</p>	<p>YES: Category IV NO: go to 3b</p> <p>YES: Category IV NO: go to 3c</p> <p>YES: Category IV NO: go to Q.4</p>

<p>Q.4. Significant habitat value. Answer all questions and enter data requested.</p>		<p>Circle scores that qualify</p>		
<p>4a. Total wetland area Estimate area, select from choices in the near-right column, and score in the far column: Enter acreage of wetland here: <u>4.38</u> acres, and source: _____</p>		<p><u>acres</u></p>	<p><u>points</u></p>	
		>200	6	
		40-200	5	
		10-40	4	
		5-103		
		1-5	<u>2</u>	
		0.1-1	1	
		<0.10		
<p>4b. Wetland classes: Circle the wetland classes below that qualify: Open Water: if the area of open water is > 1/4 acre Aquatic Beds: if the area of aquatic beds > 1/4 acre, <u>Emergent</u>: if the area of emergent class is > 1/4 acre, Scrub-Shrub: if the area of scrub-shrub class is > 1/4 acre, Forested: if area of forested class is > 1/4 acre, Add the number of wetland classes, above, that qualify, and then Score according to the columns at right. e.g. If there are 4 classes (aquatic beds, open water, emergent & Scrub-shrub), you would circle 8 points in the far right column.</p>		<p><u>#of classes</u></p>	<p><u>Points</u></p>	
		1	<u>0</u>	
		2	3	
		3	6	
		4	8	
		5	10	
<p>4c. Plant species diversity. For each wetland class (at right) that qualifies in 4b above, count the number of different plant species you can find that cover more than 5% of the ground. You do not have to name them. Score in column at far right: e.g. If a wetland has an aquatic bed class with 3 species, an emergent class with 4 species and a scrub-shrub class with 2 species you would circle 2, 2, and 1 in the far column. <i>Note: Any plant species with a cover of > 5% qualifies for points within a class, even those that are not of that class.</i></p>		<p><u>Class</u></p>	<p><u># species in class</u></p>	<p><u>Points</u></p>
		Aquatic	1	0
			2	1
			3	2
			>3	3
		Emergent	1	0
			2-3	1
			<u>4-5</u>	<u>2</u>
			>5	3
		Scrub-Scrub	1	0
			2	1
			3-4	2
			>4	3
		Forested	1	0
			2	1
			3-4	2
			>4	3

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<p>4d. Structural diversity. If the wetland has a forested class, add 1 point if each of the following classes is present within the forested class and is <u>larger than 1/4 acre</u>:</p> <ul style="list-style-type: none"> -trees > 50' tall..... -trees 20'- 49' tall..... -shrubs..... -herbaceous ground cover..... <p>Also add 1 point if there is any "open water" or "aquatic bed" class immediately next to the forested area (i.e. there is no scrub/shrub or emergent vegetation between them).</p>	<p style="text-align: center;">No</p> <p>YES - 1 YES - 1 YES - 1 YES - 1 YES - 1</p>
<p>4e. Decide from the diagrams below whether interspersions between wetland classes is high, moderate, low or none? If you think the amount of interspersions falls in between the diagrams score accordingly (i.e. a moderately high amount of interspersions would score a 4, while a moderately low amount would score a 2)</p> <div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="text-align: center;">  <p>none</p> </div> <div style="text-align: center;">  <p>low</p> </div> <div style="text-align: center;">  <p>low</p> </div> <div style="text-align: center;">  <p>moderate</p> </div> <div style="text-align: center;">  <p>moderate</p> </div> <div style="text-align: center;">  <p>high</p> </div> </div>	<p>High - 5 Moderate - 3 Low - 1 <u>None - 0</u></p>
<p>4f Habitat features. Answer questions below, circle features that apply, and score to right:</p> <ul style="list-style-type: none"> Is there evidence that the open or standing water was caused by beavers? <input checked="" type="checkbox"/> N Is a heron rookery located within 300'? <input checked="" type="checkbox"/> N Are raptor nest/s located within 300'? <input checked="" type="checkbox"/> N Are there at least 3 standing dead trees (snags) per acre greater than 10" in diameter at "breast height" (DBH)? <input checked="" type="checkbox"/> N Are there at least 3 downed logs per acre with a diameter > 6" for at least 10' in length? <input checked="" type="checkbox"/> N Are there areas (vegetated or unvegetated) within the wetland that are ponded for at least 4 months out of the year, and the wetland has not qualified as having an open water class in Question 4b.? <input checked="" type="checkbox"/> inundated, not ponded 	<p>YES = 2 YES = 1 YES = 1 YES = 1 YES = 1 YES = 2</p>

0

4g. Connection to streams. (Score one answer only.)	
4g.1. Does the wetland provide habitat for fish at any time of the year AND does it have a perennial surface water connection to a fish-bearing stream. <i>N</i>	YES = 6
4g.2 Does the wetland provide fish habitat seasonally AND does it have a seasonal surface water connection to a fish-bearing stream. <i>N</i>	YES = 4
4g.3 Does the wetland function to export organic matter through a surface water connection at all times of the year to a perennial stream. <i>N</i>	YES = 4
4g.4 Does the wetland function to export organic matter through a surface water connection to a stream on a seasonal basis? <i>Terrell Creek</i>	YES = 2
4h. Buffers.	
Score the existing buffers on a scale of 1-5 based on the following four descriptions. If the condition of the buffers do not exactly match the description, score either a point higher or lower depending on whether the buffers are less or more degraded.	
Forest, scrub, native grassland or open water buffers are present for more than 100' around 95% of the circumference.	Score = 5
Forest, scrub, native grassland, or open water buffers wider than 100' for more than 1/2 of the wetland circumference, or a forest, scrub, grasslands, or open water buffers for more than 50' around 95 % of the circumference.	Score = 3
Forest, scrub, native grassland, or open water buffers wider than 100' for more than 1/4 of the wetland circumference, or a forest, scrub, native grassland, or open water buffers wider than 50' for more than 1/2 of the wetland circumference. <i>(Non-native grassland) +1</i>	Score = 2
No roads, buildings or paved areas within 100' of the wetland for more than 95% of the wetland circumference.	Score = 2 <i>+1</i>
No roads, buildings or paved areas within 25' of the wetland for more than 95% of the circumference, or No roads buildings or paved areas within 50' of the wetland for more than 1/2 of the wetland circumference.	Score = 1
Paved areas, industrial areas or residential construction (with less than 50' between houses) are less than 25 feet from the wetland for more than 95 % of the circumference of the wetland.	Score = 0

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4i. Connection to other habitat areas: Select the description, which best matches the site being evaluated.	
-Is the wetland connected to, or part of, a riparian corridor at least 100' wide connecting two or more wetlands; or, is there an upland connection present >100' wide with good forest or shrub cover (>25% cover) connecting it with a Significant Habitat Area?	YES = 5
-Is the wetland connected to any other Habitat Area with either 1) a forested/shrub corridor < 100' wide, or 2) a corridor that is > 100' wide, but has a low vegetative cover less than 6 feet in height?	Yes = 3
-Is the wetland connected to, or a part of, a riparian corridor between 50 - 100' wide with scrub/shrub or forest cover connection to other wetlands?	Yes = 3
* - Is the wetland connected to any other Habitat Area with narrow corridor (<100') of low vegetation (< 6' in height)?	Yes = 1
- Is the wetland and its buffer (if the buffer is less than 50' wide) completely isolated by development (urban, residential with a density greater than 2/acre, or industrial)?	Yes = 0
Now add the scores circled (for Q.5a – Q.5i above) to get a total. Is the Total greater than or equal to 22 points? 10 points	
YES = Category II NO = Category III	

Wetlands Rating Field Data Form

Background Information:

Name of Rater: Becky Gurschaw Affiliation: Grobb Date: 7/13/02

Name of wetland (if known): Wetland D

Government Jurisdiction of wetland: Whatcom Co

Location: 1/4 Section: NW of 1/4 S: NW Section: 8 Township: 39N Range: 1E

Sources of Information: (Check all sources that apply)

Site visit: USGS Topo Map: NWI map: Aerial Photo: Soils survey:

Other: Describe: Previous delineation

When The Field Data form is complete enter Category here:

Category III (21 pts - close to Category II)

Q.1. High Quality Natural Wetland

Answer this question if you have adequate information or experience to do so. If not find someone with the expertise to answer the questions. Then, if the answer to questions 1a, 1b and 1c are all NO, contact the Natural Heritage program of DNR.

1a. Human caused disturbances.

Is there significant evidence of human-caused changes to topography or hydrology of the wetland as indicated by any of the following conditions? Consider only changes that may have taken place in the last 5 decades. The impacts of changes done earlier have probably been stabilized and the wetland ecosystem will be close to reaching some new equilibrium that may represent a high quality wetland.

- 1a.1 Upstream watershed > 12% impervious.
- 1a.2 Wetland is ditched and water flow is not obstructed.
- 1a.3 Wetland has been graded, filled, logged.
- 1a.4 Water in wetland is controlled by dikes, weirs, etc.
- 1a.5 Wetland is grazed. Potentially grazed ?
- 1a.6 Other indicators of disturbance (list below)

Circle Answers

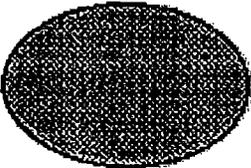
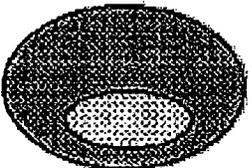
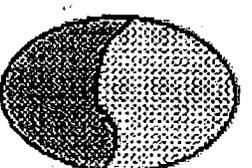
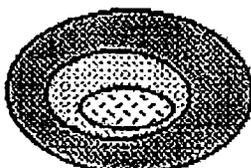
Yes: go to Q.2

No: go to 1b.

<p>1b Are there populations of non-native plants which are currently present, cover more than 10% of the wetland, and appear to be invading native populations? Briefly describe any non-native plant populations and Information source(s): <u>Blackberry, colonial bentgrass, velvetgrass, meadow foxtail, English plantain, etc.</u></p> <p>1c. Is there evidence of human-caused disturbances which have visibly degraded water quality. Evidence of the degradation of water quality include: direct (untreated) runoff from roads or parking lots; presence, or historic evidence, of waste dumps; oily sheens; the smell of organic chemicals; or livestock use. Briefly describe:</p> <hr/> <hr/>	<p>YES: go to Q.2 No: go to 1c.</p> <p>YES: go to Q.2 NO: Possible Cat. I Contact DNR</p>
<p>Q.2. Irreplaceable Ecological Functions: Does the wetland:</p> <p>have at least 1/4 acre of organic soils deeper than 16 inches and the wetland is relatively undisturbed; OR [If the answer is NO because the wetland is disturbed briefly describe: Indicators of disturbance may include:</p> <ul style="list-style-type: none"> - Wetland has been graded, filled, logged; - Organic soils on the surface are dried-out for more than half of the year; - Wetland receives direct stormwater runoff from urban or agricultural areas.]; <p>OR</p> <p>have a forested class greater than 1 acre; OR have characteristics of an estuarine system; OR have eel grass floating or non-floating kelp beds?</p>	<p>(NO to all: go to Q.3) YES go to 2a</p> <p>YES: Go to 2b Yes: Go to 2c Yes: Go to 2d</p>
<p>2a. Bogs and Fens Are any of the three following conditions met for the area of organic soil?</p> <p>2a.1. Are Sphagnum. mosses a common ground cover (>30%) and the cover of invasive species (see Table 3) is less than 10%?</p> <p>Is the area of sphagnum mosses and deep organic soils > 1/2 acre? Is the area of sphagnum mosses and deep organic soils 1/4-1/2 acre?</p> <p>2a.2. Is there an area of organic soil which has an emergent class with at least one species from Table 2, and cover of invasive species is < 10% (see Table 3)?</p> <p>Is the area of herbaceous plants and deep organic soils > 1/2 acre? Is the area of herbaceous plants and deep organic soils 1/4-1/2acre?</p>	<p>YES: Category I YES: Category II</p> <p>NO: Go to 2a.3</p> <p>YES: Category I YES: Category II</p> <p>NO: Go to 2a.3</p>

<p>2a.3. Is the vegetation a mixture of only herbaceous plants and Sphagnum mosses with no scrub/shrub or forested classes? Is the area of herbaceous plants, Sphagnum, and deep organic soils > 1/2 acre? Is the area of herbaceous plants, Sphagnum, and deep organic soils ¼-1/2 acre?</p>	<p>YES: Category I YES: Category II NO: Go to Q.3.</p>
<p>Q.2b. Mature forested wetland.</p> <p>2b.1. Does 50% of the cover of upper forest canopy consist of evergreen trees older than 80 years or deciduous trees older than 50 years? <i>Note:</i> The size of trees is often not a measure of age, and size cannot be used as a surrogate for age (see guidance).</p> <p>2b.2. Does 50% of the cover of forest canopy consist of evergreen trees older than 50 years, AND is the structural diversity of the forest high as characterized by an additional layer of trees 20'-49' tall, shrubs 6'- 20', tall, and a herbaceous groundcover?</p> <p>2b.3. Does < 25% of the areal cover in the herbaceous/groundcover or the shrub layer consist of invasive/exotic plant species from the list on p. 19?</p>	<p>YES: Category I NO: Go to 2b.2</p> <p>YES: Go to 2b.3 NO: Go to Q.3</p> <p>YES: Category I NO: Go to Q.3</p>
<p>Q.2c: Estuarine wetlands.</p> <p>2c.1. Is the wetland listed as National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park, or Educational, Environmental or Scientific Reserves designated under WAC 332-30-151?</p> <p>2c.2. Is the wetland > 5 acres; <i>Note:</i> If an area contains patches of salt tolerant vegetation that are 1) less than 600 feet apart and that are separated by mudflats that go dry on a Mean Low Tide, or 2) separated by tidal channels that are less than 100 feet wide; all the vegetated areas are to be considered together in calculating the wetland area.</p> <p>or is the wetland 1-5 acres;</p> <p>or is the wetland < 1 acre?</p>	<p>YES: Category I NO: Go to 2c.2</p> <p>YES: Category I</p> <p>YES: Go to 2c.3</p> <p>YES: Go to 2c.4</p>

<p>2c.3. Does the wetland meet at least 3 of the following 4 criteria:</p> <ul style="list-style-type: none"> - minimum existing evidence of human related disturbance such as diking, ditching, filling, cultivation, grazing or the presence of non-native plant species (see guidance for definition); - surface water connection with tidal saltwater or tidal freshwater; - at least 75% of the wetland has a 100 buffer of ungrazed pasture, open water, shrub or forest; - has at least 3 of the following features: low marsh; high marsh; tidal channels; lagoon(s); woody debris; or contiguous freshwater wetland. <p>2c.4. Does the wetland meet all of the four criteria under 2c3? (above)?</p>	<p>YES: Category I NO: Category II</p> <p>YES: Category II NO: Category III</p>
<p>Q.2d. Eel Grass and Kelp Beds.</p> <p>2d.1. Are eelgrass beds present?</p> <p>2d.2. Are their floating or non-floating kelp bed(s) present with greater than 50% macro algal cover in the month of August or September?.....</p>	<p>YES: Category I NO: go to 2d.2</p> <p>YES: Category I NO: Category II</p>
<p>Q.3. Category IV wetlands.</p> <p>3a. Is the wetland: less than 1 acre <u>and</u>, hydrologically isolated <u>and</u>, comprised of one vegetated class that is dominated (> 80% areal cover) by one species from Table 3 (page 19) or Table 4 (page 20)</p> <p>3b. Is the wetland: less than two acres and, hydrologically isolated, with one vegetated class, and > 90% of areal cover in any combination of species from Table 3 (page 19)</p> <p>3c. Is the wetland excavated from upland <u>and</u> a pond smaller than 1 acre without a surface water connection to streams, lakes, rivers, or other wetland, and has < 0.1 acre of vegetation.</p>	<p>YES: Category IV NO: go to 3b</p> <p>YES: Category IV NO: go to 3c</p> <p>YES: Category IV NO: go to Q.4</p>

<p>4d. Structural diversity. If the wetland has a forested class, add 1 point if each of the following Classes is present within the forested class and is <u>larger than 1/4 acre</u>:</p> <ul style="list-style-type: none"> -trees > 50' tall..... -trees 20'- 49' tall..... -shrubs..... -herbaceous ground cover..... <p>Also add 1 point if there is any "open water" or "aquatic bed" class Immediately next to the forested area (i.e. there is no scrub/shrub or emergent vegetation between them).</p>	<p><i>Not forested</i></p> <p>YES - 1 YES - 1 YES - 1 YES - 1</p> <p>YES - 1</p>
<p>4e. Decide from the diagrams below whether interspersions between wetland classes is high, moderate, low or none? If you think the amount of interspersions falls in between the diagrams score accordingly (i.e. a moderately high amount of interspersions would score a 4, while a moderately low amount would score a 2)</p> <div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="text-align: center;">  <p>none</p> </div> <div style="text-align: center;">  <p>low</p> </div> <div style="text-align: center;">  <p>low</p> </div> <div style="text-align: center;">  <p>moderate</p> </div> <div style="text-align: center;">  <p>moderate</p> </div> <div style="text-align: center;">  <p>high</p> </div> </div>	<p>High - 5 Moderate - 3 Low - 1 <u>None - 0</u></p>
<p>4f Habitat features. Answer questions below, circle features that apply, and score to right:</p> <p>Is there evidence that the open or standing water was caused by beavers? <i>Potentially</i></p> <p>Is a heron rookery located within 300'?</p> <p>Are raptor nest/s located within 300'?</p> <p>Are there at least 3 standing dead trees (snags) per acre greater than 10" in diameter at "breast height" (DBH)?</p> <p>Are there at least 3 downed logs per acre with a diameter > 6" for at least 10' in length?</p> <p>Are there areas (vegetated or unvegetated) within the wetland that are ponded for at least 4 months out of the year, and the wetland has not qualified as having an open water class in Question 4b.?</p>	<p>YES = 2 YES = 1 YES = 1 YES = 1 YES = 1 YES = 1 <u>YES = 2</u></p>

2
2
2
2
2

2

2

4g. Connection to streams. (Score one answer only.)	
4g.1. Does the wetland provide habitat for fish at any time of the year AND does it have a perennial surface water connection to a fish-bearing stream. <i>N</i>	YES = 6
4g.2 Does the wetland provide fish habitat seasonally AND does it have a seasonal surface water connection to a fish-bearing stream. <i>N</i>	YES = 4
4g.3 Does the wetland function to export organic matter through a surface water connection at all times of the year to a perennial stream. <i>y - main east-west ditch</i>	YES = 4
4g.4 Does the wetland function to export organic matter through a surface water connection to a stream on a seasonal basis? <i>y</i>	YES = 2
4h. Buffers.	
Score the existing buffers on a scale of 1-5 based on the following four descriptions. If the condition of the buffers do not exactly match the description, score either a point higher or lower depending on whether the buffers are less or more degraded.	
Forest, scrub, native grassland or open water buffers are present for more than 100' around 95% of the circumference.	Score = 5
Forest, scrub, native grassland, or open water buffers wider than 100' for more than 1/2 of the wetland circumference, or a forest, scrub, grasslands, or open water buffers for more than 50' around 95 % of the circumference.	Score = 3
Forest, scrub, native grassland, or open water buffers wider than 100' for more than 1/4 of the wetland circumference, or a forest, scrub, native grassland, or open water buffers wider than 50' for more than 1/2 of the wetland circumference. <i>Not native grassland</i>	Score = 2
No roads, buildings or paved areas within 100' of the wetland for more than 95% of the wetland circumference.	Score = 2
No roads, buildings or paved areas within 25' of the wetland for more than 95% of the circumference, or No roads buildings or paved areas within 50' of the wetland for more than 1/2 of the wetland circumference.	Score = 1
Paved areas, industrial areas or residential construction (with less than 50' between houses) are less than 25 feet from the wetland for more than 95 % of the circumference of the wetland.	Score = 0

6

2

8

4i. Connection to other habitat areas: Select the description, which best matches the site being evaluated.	
-Is the wetland connected to, or part of, a riparian corridor at least 100' wide connecting two or more wetlands; or, is there an upland connection present >100' wide with good forest or shrub cover (>25% cover) connecting it with a Significant Habitat Area?	YES = 5
-Is the wetland connected to any other Habitat Area with either 1) a forested/shrub corridor < 100' wide, or 2) a corridor that is > 100' wide, but has a low vegetative cover less than 6 feet in height?	Yes = 3
-Is the wetland connected to, or a part of, a riparian corridor between 50 - 100' wide with scrub/shrub or forest cover connection to other wetlands?	Yes = 3
- Is the wetland connected to any other Habitat Area with narrow corridor (<100') of low vegetation (< 6' in height)?	Yes = 1
- Is the wetland and its buffer (if the buffer is less than 50' wide) completely isolated by development (urban, residential with a density greater than 2/acre, or industrial)?	Yes = 0
Now add the scores circled (for Q.5a – Q.5i above) to get a total. Is the Total greater than or equal to 22 points?	
21 pts	YES = Category II NO = Category III

W

Wetlands Rating Field Data Form

Background Information:

Name of Rater: Rocky Gurshaw Affiliation: Goode Assoc. Date: 1/23/02

Name of wetland (if known): Wetland H (access road)

Government Jurisdiction of wetland: Whatcom County

Location: 1/4 Section: NW of 1/4 S: NW Section: 8 Township: 39N Range: 1E

Sources of Information: (Check all sources that apply)

Site visit: USGS Topo Map: NWI map: Aerial Photo: Soils survey:

Other: Describe: previous delineations for area

When The Field Data form is complete enter Category here: CATEGORY III

Q.1. High Quality Natural Wetland

Circle Answers

Answer this question if you have adequate information or experience to do so. If not find someone with the expertise to answer the questions. Then, if the answer to questions 1a, 1b and 1c are all NO, contact the Natural Heritage program of DNR.

1a. Human caused disturbances.

Is there significant evidence of human-caused changes to topography or hydrology of the wetland as indicated by any of the following conditions? Consider only changes that may have taken place in the last 5 decades. The impacts of changes done earlier have probably been stabilized and the wetland ecosystem will be close to reaching some new equilibrium that may represent a high quality wetland.

- No 1a.1 Upstream watershed > 12% impervious.
- No 1a.2 Wetland is ditched and water flow is not obstructed.
- No 1a.3 Wetland has been graded, filled, logged.
- No 1a.4 Water in wetland is controlled by dikes, weirs, etc.
- No 1a.5 Wetland is grazed. → Potentially grazed?
- 1a.6 Other indicators of disturbance (list below)

- Yes: go to Q.2
- No: go to 1b.

<p>1b Are there populations of non-native plants which are currently present, cover more than 10% of the wetland, and appear to be invading native populations? Briefly describe any non-native plant populations and Information source(s): <u>Non-native grasses - Velvetgrass, meadow foxtail, colonial bentgrass</u></p> <p>1c. Is there evidence of human-caused disturbances which have visibly degraded water quality. Evidence of the degradation of water quality include: direct (untreated) runoff from roads or parking lots; presence, or historic evidence, of waste dumps; oily sheens; the smell of organic chemicals; or livestock use. Briefly describe:</p> <hr/> <hr/>	<p>YES: go to Q.2 No: go to 1c.</p> <p>YES: go to Q.2 NO: Possible Cat. I Contact DNR</p>
<p>Q.2. Irreplaceable Ecological Functions:</p> <p>Does the wetland:</p> <p>have at least 1/4 acre of organic soils deeper than 16 inches and the wetland is relatively undisturbed; OR [If the answer is NO because the wetland is disturbed briefly describe: Indicators of disturbance may include:</p> <ul style="list-style-type: none"> - Wetland has been graded, filled, logged; - Organic soils on the surface are dried-out for more than half of the year; - Wetland receives direct stormwater runoff from urban or agricultural areas.]; <p>OR</p> <p>have a forested class greater than 1 acre; OR have characteristics of an estuarine system; OR have eel grass floating or non-floating kelp beds?</p>	<p>(NO to all: go to Q.3) YES go to 2a</p> <p>YES: Go to 2b Yes: Go to 2c Yes: Go to 2d</p>
<p>2a. Bogs and Fens</p> <p>Are any of the three following conditions met for the area of organic soil?</p> <p>2a.1. Are Sphagnum. mosses a common ground cover (>30%) and the cover of invasive species (see Table 3) is less than 10%?</p> <p>Is the area of sphagnum mosses and deep organic soils > 1/2 acre? Is the area of sphagnum mosses and deep organic soils 1/4-1/2 acre?</p> <p>2a.2. Is there an area of organic soil which has an emergent class with at least one species from Table 2, and cover of invasive species is < 10% (see Table 3)?</p> <p>Is the area of herbaceous plants and deep organic soils > 1/2 acre? Is the area of herbaceous plants and deep organic soils 1/4-1/2acre?</p>	<p>YES: Category I YES: Category II</p> <p>NO: Go to 2a.3</p> <p>YES: Category I YES: Category II</p> <p>NO: Go to 2a.3</p>

<p>2a.3. Is the vegetation a mixture of only herbaceous plants and Sphagnum mosses with no scrub/shrub or forested classes? Is the area of herbaceous plants, Sphagnum, and deep organic soils > 1/2 acre? Is the area of herbaceous plants, Sphagnum, and deep organic soils 1/4-1/2 acre?</p>	<p>YES: Category I YES: Category II NO: Go to Q.3.</p>
<p>Q.2b. Mature forested wetland.</p> <p>2b.1. Does 50% of the cover of upper forest canopy consist of evergreen trees older than 80 years or deciduous trees older than 50 years? <i>Note:</i> The size of trees is often not a measure of age, and size cannot be used as a surrogate for age (see guidance).</p> <p>2b.2. Does 50% of the cover of forest canopy consist of evergreen trees older than 50 years, AND is the structural diversity of the forest high as characterized by an additional layer of trees 20'-49' tall, shrubs 6'- 20', tall, and a herbaceous groundcover?</p> <p>2b.3. Does < 25% of the areal cover in the herbaceous/groundcover or the shrub layer consist of invasive/exotic plant species from the list on p. 19?</p>	<p>YES: Category I NO: Go to 2b.2</p> <p>YES: Go to 2b.3 NO: Go to Q.3</p> <p>YES: Category I NO: Go to Q.3</p>
<p>Q.2c: Estuarine wetlands.</p> <p>2c.1. Is the wetland listed as National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park, or Educational, Environmental or Scientific Reserves designated under WAC 332-30-151?</p> <p>2c.2. Is the wetland > 5 acres; <i>Note:</i> If an area contains patches of salt tolerant vegetation that are 1) less than 600 feet apart and that are separated by mudflats that go dry on a Mean Low Tide, or 2) separated by tidal channels that are less than 100 feet wide; all the vegetated areas are to be considered together in calculating the wetland area.</p> <p>or is the wetland 1-5 acres;</p> <p>or is the wetland < 1 acre?</p>	<p>YES: Category I NO: Go to 2c.2</p> <p>YES: Category I</p> <p>YES: Go to 2c.3</p> <p>YES: Go to 2c.4</p>

<p>2c.3. Does the wetland meet at least 3 of the following 4 criteria:</p> <ul style="list-style-type: none"> - minimum existing evidence of human related disturbance such as diking, ditching, filling, cultivation, grazing or the presence of non-native plant species (see guidance for definition); - surface water connection with tidal saltwater or tidal freshwater; - at least 75% of the wetland has a 100 buffer of ungrazed pasture, open water, shrub or forest; - has at least 3 of the following features: low marsh; high marsh; tidal channels; lagoon(s); woody debris; or contiguous freshwater wetland. <p>2c.4. Does the wetland meet all of the four criteria under 2c3? (above)?</p>	<p>YES: Category I NO Category II</p> <p>YES: Category II NO: Category III</p>
<p>Q.2d. Eel Grass and Kelp Beds.</p> <p>2d.1. Are eelgrass beds present?</p> <p>2d.2. Are their floating or non-floating kelp bed(s) present with greater than 50% macro algal cover in the month of August or September?.....</p>	<p>YES: Category I NO: go to 2d.2</p> <p>YES: Category I NO: Category II</p>
<p>Q.3. Category IV wetlands.</p> <p>3a. Is the wetland: less than 1 acre <u>and</u>, hydrologically isolated <u>and</u>, comprised of one vegetated class that is dominated (> 80% areal cover) by one species from Table 3 (page 19) or Table 4 (page 20)</p> <p>3b. Is the wetland: less than two acres and, hydrologically isolated, with one vegetated class, and > 90% of areal cover in any combination of species from Table 3 (page 19)</p> <p>3c. Is the wetland excavated from upland <u>and</u> a pond smaller than 1 acre without a surface water connection to streams, lakes, rivers, or other wetland, and has < 0.1 acre of vegetation.</p>	<p>YES: <u>Category IV</u> NO: <u>go to 3b</u></p> <p>YES: <u>Category IV</u> NO: <u>go to 3c</u></p> <p>YES: <u>Category IV</u> NO: <u>go to Q.4</u></p>

Q.4. Significant habitat value.

Answer all questions and enter data requested.

4a. Total wetland area

Estimate area, select from choices in the near-right column, and score in the far column:

Enter acreage of wetland here: 8 acres, and source: *

**Entire wetland size unknown, estimated from aerial.*

Circle scores that qualify

acres	points
>200	6
40-200	5
10-40	4
<u>5-103</u>	<u>3</u>
1-5	<u>2</u>
0.1-1	1
<0.10	

4b. Wetland classes: Circle the wetland classes below that qualify:

Open Water: if the area of open water is > 1/4 acre

Aquatic Beds: if the area of aquatic beds > 1/4 acre,

Emergent: if the area of emergent class is > 1/4 acre,

Scrub-Shrub: if the area of scrub-shrub class is > 1/4 acre,

Forested: if area of forested class is > 1/4 acre,

Add the number of wetland classes, above, that qualify, and then Score according to the columns at right.

e.g. If there are 4 classes (aquatic beds, open water, emergent & Scrub-shrub), you would circle 8 points in the far right column.

#of classes	Points
<u>1</u>	<u>0</u>
2.....	3
3.....	6
4.....	8
5.....	10

4c. Plant species diversity.

For each wetland class (at right) that qualifies in 4b above, count the number of different plant species you can find that cover more than 5% of the ground.

You do not have to name them.

Score in column at far right:

e.g. If a wetland has an aquatic bed class with 3 species, an emergent class with 4 species and a scrub-shrub class with 2 species you would circle 2, 2, and 1 in the far column.

Note: Any plant species with a cover of > 5% qualifies for points within a class, even those that are not of that class.

Class	# species in class	Points
Aquatic	1	0
	2	1
	3	2
	>3	3
Emergent	1	0
	2-3	1
	<u>4-5</u>	<u>2</u>
	>5	3
Scrub-Scrub	1	0
	2	1
	3-4	2
	>4	3
Forested	1	0
	2	1
	3-4	2
	>4	3

4d. Structural diversity.

If the wetland has a forested class, add 1 point if each of the following Classes is present within the forested class and is larger than 1/4 acre:

- trees > 50' tall.....
- trees 20'- 49' tall.....
- shrubs.....
- herbaceous ground cover.....

Also add 1 point if there is any "open water" or "aquatic bed" class Immediately next to the forested area (i.e. there is no scrub/shrub or emergent vegetation between them).

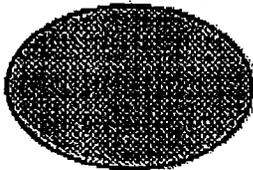
Not forested

- YES - 1
- YES - 1
- YES - 1
- YES - 1

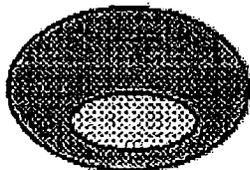
YES - 1

4e. Decide from the diagrams below whether interspersions between wetland classes is high, moderate, low or none? If you think the amount of interspersions falls in between the diagrams score accordingly (i.e. a moderately high amount of interspersions would score a 4, while a moderately low amount would score a 2)

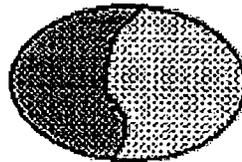
- High - 5
- Moderate - 3
- Low - 1
- None - 0



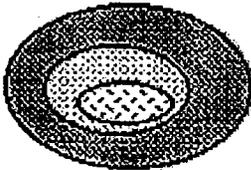
none



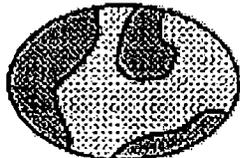
low



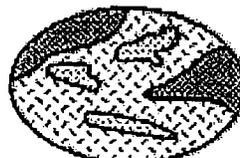
low



moderate



moderate



high

4f Habitat features.

Answer questions below, circle features that apply, and score to right:

Is there evidence that the open or standing water was caused by beavers

YES = 2

Is a heron rookery located within 300'?

YES = 1

Are raptor nest/s located within 300'?

YES = 1

Are there at least 3 standing dead trees (snags) per acre greater than 10" in diameter at "breast height" (DBH)?

YES = 1

Are there at least 3 downed logs per acre with a diameter > 6" for at least 10' in length?

YES = 1

Are there areas (vegetated or unvegetated) within the wetland that are ponded for at least 4 months out of the year, and the wetland has not qualified as having an open water class in Question 4b.?

YES = 2

inundated, not ponded > 4 months

0

2
2
2
1

4g. Connection to streams. (Score one answer only.)	
4g.1 Does the wetland provide habitat for fish at any time of the year AND does it have a perennial surface water connection to a fish-bearing stream.	YES = 6
4g.2 Does the wetland provide fish habitat seasonally AND does it have a seasonal surface water connection to a fish-bearing stream.	YES = 4
4g.3 Does the wetland function to export organic matter through a surface water connection at all times of the year to a perennial stream.	YES = 4
4g.4 Does the wetland function to export organic matter through a surface water connection to a stream on a seasonal basis?	YES = 2
4h. Buffers.	
Score the existing buffers on a scale of 1-5 based on the following four descriptions. If the condition of the buffers do not exactly match the description, score either a point higher or lower depending on whether the buffers are less or more degraded.	
Forest, scrub, native grassland or open water buffers are present for more than 100' around 95% of the circumference.	Score = 5
Forest, scrub, native grassland, or open water buffers wider than 100' for more than 1/2 of the wetland circumference, or a forest, scrub, grasslands, or open water buffers for more than 50' around 95 % of the circumference.	Score = 3
Forest, scrub, native grassland, or open water buffers wider than 100' for more than 1/4 of the wetland circumference, or a forest, scrub, native grassland, or open water buffers wider than 50' for more than 1/2 of the wetland circumference. (+ non-native grasses)	Score = 2
No roads, buildings or paved areas within 100' of the wetland for more than 95% of the wetland circumference.	Score = 2
No roads, buildings or paved areas within 25' of the wetland for more than 95% of the circumference, or No roads buildings or paved areas within 50' of the wetland for more than 1/2 of the wetland circumference.	Score = 1
Paved areas, industrial areas or residential construction (with less than 50' between houses) are less than 25 feet from the wetland for more than 95 % of the circumference of the wetland. (+ grassland on other side of fence)	Score = 0

3

4i. Connection to other habitat areas: Select the description, which best matches the site being evaluated.	
-Is the wetland connected to, or part of, a riparian corridor at least 100' wide connecting two or more wetlands; or, is there an upland connection present >100' wide with good forest or shrub cover (>25% cover) connecting it with a Significant Habitat Area?	YES = 5
-Is the wetland connected to any other Habitat Area with either 1) a forested/shrub corridor < 100' wide, or 2) a corridor that is > 100' wide, but has a low vegetative cover less than 6 feet in height?	Yes = 3
-Is the wetland connected to, or a part of, a riparian corridor between 50 - 100' wide with scrub/shrub or forest cover connection to other wetlands?	Yes = 3
- Is the wetland connected to any other Habitat Area with narrow corridor (<100') of low vegetation (<6' in height)? <i>(on other side of fence)</i>	Yes = 1
- Is the wetland and its buffer (if the buffer is less than 50' wide) completely isolated by development (urban, residential with a density greater than 2/acre, or industrial)?	Yes = 0
Now add the scores circled (for Q.5a – Q.5i above) to get a total. Is the Total greater than or equal to 22 points?	
YES = Category II NO = Category III	

9 pts

Wetlands Rating Field Data Form

Background Information:

Name of Rater: Becky Gurshaw Affiliation: Goldco Date: 1/23/02

Name of wetland (if known): Wetland G (Laydown Area 3)

Government Jurisdiction of wetland: Whatcom Co.

Location: 1/4 Section: NW of 1/4 S: NW Section: 8 Township: 39N Range: 1E

Sources of Information: (Check all sources that apply)

Site visit: USGS Topo Map: NWI map: Aerial Photo: Soils survey:

Other: Describe: Previous delineations

When The Field Data form is complete enter Category here: Category III

Q.1. High Quality Natural Wetland

Circle Answers

Answer this question if you have adequate information or experience to do so. If not find someone with the expertise to answer the questions. Then, if the answer to questions 1a, 1b and 1c are all NO, contact the Natural Heritage program of DNR.

1a. Human caused disturbances.

Is there significant evidence of human-caused changes to topography or hydrology of the wetland as indicated by any of the following conditions? Consider only changes that may have taken place in the last 5 decades. The impacts of changes done earlier have probably been stabilized and the wetland ecosystem will be close to reaching some new equilibrium that may represent a high quality wetland.

- 1a.1 Upstream watershed > 12% impervious.
- 1a.2 Wetland is ditched and water flow is not obstructed.
- 1a.3 Wetland has been graded, filled, logged.
- 1a.4 Water in wetland is controlled by dikes, weirs, etc.
- 1a.5 Wetland is grazed.
- 1a.6 Other indicators of disturbance (list below)

- Yes: go to Q.2
- No: go to 1b.

→ Refinery located upgradient - vegetation block surrounded by impervious roads & surfaces

<p>2a.3. Is the vegetation a mixture of only herbaceous plants and Sphagnum mosses with no scrub/shrub or forested classes? Is the area of herbaceous plants, Sphagnum, and deep organic soils > 1/2 acre? Is the area of herbaceous plants, Sphagnum, and deep organic soils ¼-1/2 acre?</p>	<p>YES: Category I YES: Category II NO: Go to Q.3.</p>
<p>Q.2b. Mature forested wetland.</p> <p>2b.1. Does 50% of the cover of upper forest canopy consist of evergreen trees older than 80 years or deciduous trees older than 50 years? <i>Note:</i> The size of trees is often not a measure of age, and size cannot be used as a surrogate for age (see guidance).</p> <p>2b.2. Does 50% of the cover of forest canopy consist of evergreen trees older than 50 years, AND is the structural diversity of the forest high as characterized by an additional layer of trees 20'-49' tall, shrubs 6'- 20', tall, and a herbaceous groundcover?</p> <p>2b.3. Does < 25% of the areal cover in the herbaceous/groundcover or the shrub layer consist of invasive/exotic plant species from the list on p. 19?</p>	<p>YES: Category I NO: Go to 2b.2</p> <p>YES: Go to 2b.3 NO: Go to Q.3</p> <p>YES: Category I NO: Go to Q.3</p>
<p>Q.2c. Estuarine wetlands.</p> <p>2c.1. Is the wetland listed as National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park, or Educational, Environmental or Scientific Reserves designated under WAC 332-30-151?</p> <p>2c.2. Is the wetland > 5 acres; <i>Note:</i> If an area contains patches of salt tolerant vegetation that are 1) less than 600 feet apart and that are separated by mudflats that go dry on a Mean Low Tide, or 2) separated by tidal channels that are less than 100 feet wide; all the vegetated areas are to be considered together in calculating the wetland area.</p> <p>or is the wetland 1-5 acres;</p> <p>or is the wetland < 1 acre?</p>	<p>YES: Category I NO: Go to 2c.2</p> <p>YES: Category I</p> <p>YES: Go to 2c.3</p> <p>YES: Go to 2c.4</p>

<p>2c.3. Does the wetland meet at least 3 of the following 4 criteria:</p> <ul style="list-style-type: none"> - minimum existing evidence of human related disturbance such as diking, ditching, filling, cultivation, grazing or the presence of non-native plant species (see guidance for definition); - surface water connection with tidal saltwater or tidal freshwater; - at least 75% of the wetland has a 100 buffer of ungrazed pasture, open water, shrub or forest; - has at least 3 of the following features: low marsh; high marsh; tidal channels; lagoon(s); woody debris; or contiguous freshwater wetland. 	<p>YES: Category I NO: Category II</p>
<p>2c.4. Does the wetland meet all of the four criteria under 2c3? (above)?</p>	<p>YES: Category II NO: Category III</p>
<p>Q.2d. Eel Grass and Kelp Beds.</p>	
<p>2d.1. Are eelgrass beds present?</p>	<p>YES: Category I NO: go to 2d.2</p>
<p>2d.2. Are their floating or non-floating kelp bed(s) present with greater than 50% macro algal cover in the month of August or September?.....</p>	<p>YES: Category I NO: Category II</p>
<p>Q.3. Category IV wetlands.</p>	
<p>3a. Is the wetland: less than 1 acre <u>and</u>, hydrologically isolated <u>and</u>, comprised of one vegetated class that is dominated (> 80% areal cover) by one species from Table 3 (page 19) or Table 4 (page 20)</p>	<p>YES: Category IV NO: go to 3b</p>
<p>3b. Is the wetland: less than two acres and, hydrologically isolated, with one vegetated class, and > 90% of areal cover in any combination of species from Table 3 (page 19)</p>	<p>YES: Category IV NO: go to 3c</p>
<p>3c. Is the wetland excavated from upland <u>and</u> a pond smaller than 1 acre without a surface water connection to streams, lakes, rivers, or other wetland, and has < 0.1 acre of vegetation.</p>	<p>YES: Category IV NO: go to Q.4</p>

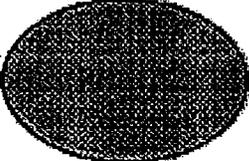
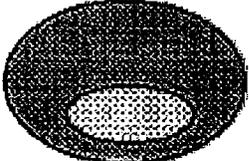
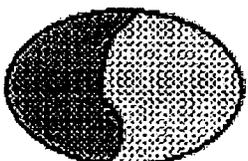
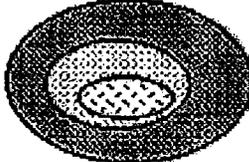
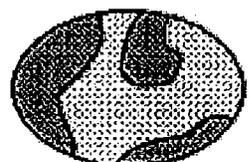
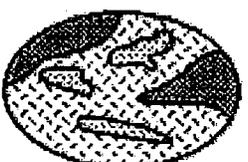
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<p>4d. Structural diversity. If the wetland has a forested class, add 1 point if each of the following classes is present within the forested class and is <u>larger than 1/4 acre</u>:</p> <ul style="list-style-type: none"> -trees > 50' tall..... -trees 20'- 49' tall..... -shrubs..... -herbaceous ground cover..... <p>Also add 1 point if there is any "open water" or "aquatic bed" class immediately next to the forested area (i.e. there is no scrub/shrub or emergent vegetation between them).</p>	<p>Not forested</p> <p>YES - 1 YES - 1 YES - 1 YES - 1</p> <p>YES - 1</p>
<p>4e. Decide from the diagrams below whether interspersions between wetland classes is high, moderate, low or none? If you think the amount of interspersions falls in between the diagrams score accordingly (i.e. a moderately high amount of interspersions would score a 4, while a moderately low amount would score a 2)</p> <div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="text-align: center;">  <p>none</p> </div> <div style="text-align: center;">  <p>low</p> </div> <div style="text-align: center;">  <p>low</p> </div> <div style="text-align: center;">  <p>moderate</p> </div> <div style="text-align: center;">  <p>moderate</p> </div> <div style="text-align: center;">  <p>high</p> </div> </div>	<p>High - 5 Moderate - 3 Low - 1 <u>None - 0</u></p>
<p>4f Habitat features. Answer questions below, circle features that apply, and score to right:</p> <ul style="list-style-type: none"> Is there evidence that the open or standing water was caused by beavers Is a heron rookery located within 300'? Are raptor nest/s located within 300'? Are there at least 3 standing dead trees (snags) per acre greater than 10" in diameter at "breast height" (DBH)? Are there at least 3 downed logs per acre with a diameter > 6" for at least 10' in length? Are there areas (vegetated or unvegetated) within the wetland that are ponded for at least 4 months out of the year, and the wetland has not qualified as having an open water class in Question 4b. ? 	<p>YES = 2 YES = 1 YES = 1</p> <p>YES = 1</p> <p>YES = 1</p> <p>YES = 2</p>

4g. Connection to streams. (Score one answer only.)	
4g.1. Does the wetland provide habitat for fish at any time of the year AND does it have a perennial surface water connection to a fish-bearing stream. <i>N</i>	YES = 6
4g.2 Does the wetland provide fish habitat seasonally AND does it have a seasonal surface water connection to a fish-bearing stream. <i>N</i>	YES = 4
4g.3 Does the wetland function to export organic matter through a surface water connection at all times of the year to a perennial stream. <i>N</i>	YES = 4
4g.4 Does the wetland function to export organic matter through a surface water connection to a stream on a seasonal basis? <i>Y</i>	YES = 2
4h. Buffers.	
Score the existing buffers on a scale of 1-5 based on the following four descriptions. If the condition of the buffers do not exactly match the description, score either a point higher or lower depending on whether the buffers are less or more degraded.	
Forest, scrub, native grassland or open water buffers are present for more than 100' around 95% of the circumference.	Score = 5
Forest, scrub, native grassland, or open water buffers wider than 100' for more than 1/2 of the wetland circumference, or a forest, scrub, grasslands, or open water buffers for more than 50' around 95 % of the circumference.	Score = 3
Forest, scrub, native grassland, or open water buffers wider than 100' for more than 1/4 of the wetland circumference, or a forest, scrub, native grassland, or open water buffers wider than 50' for more than 1/2 of the wetland circumference.	Score = 2
No roads, buildings or paved areas within 100' of the wetland for more than 95% of the wetland circumference.	Score = 2
No roads, buildings or paved areas within 25' of the wetland for more than 95% of the circumference, or No roads buildings or paved areas within 50' of the wetland for more than 1/2 of the wetland circumference.	Score = 1
Paved areas, industrial areas or residential construction (with less than 50' between houses) are less than 25 feet from the wetland for more than 95 % of the circumference of the wetland.	Score = 0

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4i. Connection to other habitat areas: Select the description, which best matches the site being evaluated.	
-Is the wetland connected to, or part of, a riparian corridor at least 100' wide connecting two or more wetlands; or, is there an upland connection present >100' wide with good forest or shrub cover (>25% cover) connecting it with a Significant Habitat Area?	YES = 5
-Is the wetland connected to any other Habitat Area with either 1) a forested/shrub corridor < 100' wide, or 2) a corridor that is > 100' wide, but has a low vegetative cover less than 6 feet in height?	Yes = 3
-Is the wetland connected to, or a part of, a riparian corridor between 50 - 100' wide with scrub/shrub or forest cover connection to other wetlands?	Yes = 3
- Is the wetland connected to any other Habitat Area with narrow corridor (<100') of low vegetation (< 6' in height)?	Yes = 1
- Is the wetland and its buffer (if the buffer is less than 50' wide) completely isolated by development (urban, residential with a density greater than 2/acre, or industrial)?	Yes = 0
Now add the scores circled (for Q.5a – Q.5i above) to get a total. Is the Total greater than or equal to 22 points?	
7	YES = Category II NO = Category III

Wetlands Rating Field Data Form

Background Information:

Name of Rater: Becky Gurek Affiliation: Golden Date: 1/23/02

Name of wetland (if known): Wetland F

Government Jurisdiction of wetland: Whatcom Co.

Location: 1/4 Section: NW of 1/4 S: NW Section: 8 Township: 39N Range: 1E

Sources of Information: (Check all sources that apply)

Site visit: USGS Topo Map: NWI map: Aerial Photo: Soils survey:

Other: Describe: Previous delineations

When The Field Data form is complete enter Category here: Category III (III/II)

Q.1. High Quality Natural Wetland

Answer this question if you have adequate information or experience to do so. If not find someone with the expertise to answer the questions. Then, if the answer to questions 1a, 1b and 1c are all NO, contact the Natural Heritage program of DNR.

1a. Human caused disturbances.

Is there significant evidence of human-caused changes to topography or hydrology of the wetland as indicated by any of the following conditions? Consider only changes that may have taken place in the last 5 decades. The impacts of changes done earlier have probably been stabilized and the wetland ecosystem will be close to reaching some new equilibrium that may represent a high quality wetland.

- 1a.1 Upstream watershed > 12% impervious.
- 1a.2 Wetland is ditched and water flow is not obstructed.
- 1a.3 Wetland has been graded, filled, logged.
- 1a.4 Water in wetland is controlled by dikes, weirs, etc.
- 1a.5 Wetland is grazed. — Potentially
- 1a.6 Other indicators of disturbance (list below)
Evidence of fill on edges

Circle Answers

- Yes: go to Q.2
- No: go to 1b.

<p>1b Are there populations of non-native plants which are currently present, cover more than 10% of the wetland, and appear to be invading native populations? Briefly describe any non-native plant populations and Information source(s): <u>Meadow fox tail, velvetgrass, blackberry, bird's foot trefoil, colonial bentgrass</u></p> <p>1c. Is there evidence of human-caused disturbances which have visibly degraded water quality. Evidence of the degradation of water quality include: direct (untreated) runoff from roads or parking lots; presence, or historic evidence, of waste dumps; oily sheens; the smell of organic chemicals; or livestock use. Briefly describe:</p>	<p>YES: go to Q.2 No: go to 1c.</p> <p>YES: go to Q.2 NO: Possible Cat. I Contact DNR</p>
<p>Q.2. Irreplaceable Ecological Functions: Does the wetland:</p> <p>have at least 1/4 acre of organic soils deeper than 16 inches and the wetland is relatively undisturbed; OR [If the answer is NO because the wetland is disturbed briefly describe: Indicators of disturbance may include:</p> <ul style="list-style-type: none"> - Wetland has been graded, filled, logged; - Organic soils on the surface are dried-out for more than half of the year; - Wetland receives direct stormwater runoff from urban or agricultural areas.]; <p>OR</p> <p>have a forested class greater than 1 acre; OR have characteristics of an estuarine system; OR have eel grass floating or non-floating kelp beds?</p>	<p>(NO to all: go to Q.3) YES go to 2a</p> <p>YES: Go to 2b Yes: Go to 2c Yes: Go to 2d</p>
<p>2a. Bogs and Fens Are any of the three following conditions met for the area of organic soil?</p> <p>2a.1. Are Sphagnum mosses a common ground cover (>30%) and the cover of invasive species (see Table 3) is less than 10%?</p> <p>Is the area of sphagnum mosses and deep organic soils > 1/2 acre? Is the area of sphagnum mosses and deep organic soils 1/4-1/2 acre?</p> <p>2a.2. Is there an area of organic soil which has an emergent class with at least one species from Table 2, and cover of invasive species is < 10% (see Table 3)?</p> <p>Is the area of herbaceous plants and deep organic soils > 1/2 acre? Is the area of herbaceous plants and deep organic soils 1/4-1/2acre?</p>	<p>YES: Category I YES: Category II</p> <p>NO: Go to 2a.3</p> <p>YES: Category I YES: Category II</p> <p>NO: Go to 2a.3</p>

<p>2a.3. Is the vegetation a mixture of only herbaceous plants and Sphagnum mosses with no scrub/shrub or forested classes? Is the area of herbaceous plants, Sphagnum, and deep organic soils > 1/2 acre? Is the area of herbaceous plants, Sphagnum, and deep organic soils 1/4-1/2 acre?</p>	<p>YES: Category I YES: Category II NO: Go to Q.3.</p>
<p>Q.2b. Mature forested wetland.</p> <p>2b.1. Does 50% of the cover of upper forest canopy consist of evergreen trees older than 80 years or deciduous trees older than 50 years? <i>Note:</i> The size of trees is often not a measure of age, and size cannot be used as a surrogate for age (see guidance).</p> <p>2b.2. Does 50% of the cover of forest canopy consist of evergreen trees older than 50 years, AND is the structural diversity of the forest high as characterized by an additional layer of trees 20'-49' tall, shrubs 6'- 20', tall, and a herbaceous groundcover?</p> <p>2b.3. Does < 25% of the areal cover in the herbaceous/groundcover or the shrub layer consist of invasive/exotic plant species from the list on p. 19?</p>	<p>YES: Category I NO: Go to 2b.2</p> <p>YES: Go to 2b.3 NO: Go to Q.3</p> <p>YES: Category I NO: Go to Q.3</p>
<p>Q.2c: Estuarine wetlands.</p> <p>2c.1. Is the wetland listed as National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park, or Educational, Environmental or Scientific Reserves designated under WAC 332-30-151?</p> <p>2c.2. Is the wetland > 5 acres; <i>Note:</i> If an area contains patches of salt tolerant vegetation that are 1) less than 600 feet apart and that are separated by mudflats that go dry on a Mean Low Tide, or 2) separated by tidal channels that are less than 100 feet wide; all the vegetated areas are to be considered together in calculating the wetland area.</p> <p>or is the wetland 1-5 acres;</p> <p>or is the wetland < 1 acre?</p>	<p>YES: Category I NO: Go to 2c.2</p> <p>YES: Category I</p> <p>YES: Go to 2c.3</p> <p>YES: Go to 2c.4</p>

<p>2c.3. Does the wetland meet at least 3 of the following 4 criteria:</p> <ul style="list-style-type: none"> - minimum existing evidence of human related disturbance such as diking, ditching, filling, cultivation, grazing or the presence of non-native plant species (see guidance for definition); - surface water connection with tidal saltwater or tidal freshwater; - at least 75% of the wetland has a 100 buffer of ungrazed pasture, open water, shrub or forest; - has at least 3 of the following features: low marsh; high marsh; tidal channels; lagoon(s); woody debris; or contiguous freshwater wetland. <p>2c.4. Does the wetland meet all of the four criteria under 2c3? (above)?</p>	<p>YES: Category I NO: Category II</p> <p>YES: Category II NO: Category III</p>
<p>Q.2d. Eel Grass and Kelp Beds.</p> <p>2d.1. Are eelgrass beds present?</p> <p>2d.2. Are their floating or non-floating kelp bed(s) present with greater than 50% macro algal cover in the month of August or September?.....</p>	<p>YES: Category I NO: go to 2d.2</p> <p>YES: Category I NO: Category II</p>
<p>Q.3. Category IV wetlands.</p> <p>3a. Is the wetland: less than 1 acre <u>and</u>, hydrologically isolated <u>and</u>, comprised of one vegetated class that is dominated (> 80% areal cover) by one species from Table 3 (page 19) or Table 4 (page 20)</p> <p>3b. Is the wetland: less than two acres and, hydrologically isolated, with one vegetated class, and > 90% of areal cover in any combination of species from Table 3 (page 19)</p> <p>3c. Is the wetland excavated from upland <u>and</u> a pond smaller than 1 acre without a surface water connection to streams, lakes, rivers, or other wetland, and has < 0.1 acre of vegetation.</p>	<p>YES: Category IV NO: go to 3b</p> <p>YES: Category IV NO: go to 3c</p> <p>YES: Category IV NO: go to Q.4</p>

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12

<p>4d. Structural diversity. If the wetland has a forested class, add 1 point if each of the following Classes is present within the forested class and is <u>larger than 1/4 acre</u>:</p> <ul style="list-style-type: none"> -trees > 50' tall..... -trees 20'- 49' tall..... -shrubs..... -herbaceous ground cover..... <p>Also add 1 point if there is any "open water" or "aquatic bed" class Immediately next to the forested area (i.e. there is no scrub/shrub or emergent vegetation between them).</p>	<p><i>Not forested</i></p> <p>YES - 1 YES - 1 YES - 1 YES - 1</p> <p>YES - 1</p>
<p>4e. Decide from the diagrams below whether interspersions between wetland classes is high, moderate, low or none? If you think the amount of interspersions falls in between the diagrams score accordingly (i.e. a moderately high amount of interspersions would score a 4, while a moderately low amount would score a 2)</p>	<p>High - 5 Moderate - 3 <u>Low - 1</u> None - 0</p>
<p>4f Habitat features. Answer questions below, circle features that apply, and score to right:</p> <p>Is there evidence that the open or standing water was caused by beavers?</p> <p>Is a heron rookery located within 300'?</p> <p>Are raptor nest/s located within 300'?</p> <p>Are there at least 3 standing dead trees (snags) per acre greater than 10" in diameter at "breast height" (DBH)?</p> <p>Are there at least 3 downed logs per acre with a diameter > 6" for at least 10' in length?</p> <p>Are there areas (vegetated or unvegetated) within the wetland that are ponded for at least 4 months out of the year, and the wetland has not qualified as having an open water class in Question 4b.? <i>possibly?</i></p>	<p>YES = 2 YES = 1 YES = 1 YES = 1 YES = 1 <u>YES = 2</u></p>

N
N
N
N

2

3

<p>4g. Connection to streams. (Score one answer only.)</p>	
<p>2 4g.1. Does the wetland provide habitat for fish at any time of the year AND does it have a perennial surface water connection to a fish-bearing stream.</p>	<p>YES = 6</p>
<p>2 4g.2 Does the wetland provide fish habitat seasonally AND does it have a seasonal surface water connection to a fish-bearing stream.</p>	<p>YES = 4</p>
<p>2 4g.3 Does the wetland function to export organic matter through a surface water connection at all times of the year to a perennial stream.</p>	<p>YES = 4</p>
<p>4 4g.4 Does the wetland function to export organic matter through a surface water connection to a stream on a seasonal basis?</p>	<p>YES = 2</p>
<p>4h. Buffers.</p>	
<p>Score the existing buffers on a scale of 1-5 based on the following four descriptions. If the condition of the buffers do not exactly match the description, score either a point higher or lower depending on whether the buffers are less or more degraded.</p>	
<p>Forest, scrub, native grassland or open water buffers are present for more than 100' around 95% of the circumference.</p>	<p>Score = 5</p>
<p>Forest, scrub, native grassland, or open water buffers wider than 100' for more than 1/2 of the wetland circumference, or a forest, scrub, grasslands, or open water buffers for more than 50' around 95 % of the circumference.</p>	<p>Score = 3</p>
<p>Forest, scrub, native grassland, or open water buffers wider than 100' for more than 1/4 of the wetland circumference, or a forest, scrub, native grassland, or open water buffers wider than 50' for more than 1/2 of the wetland circumference.</p>	<p>Score = 2</p>
<p>No roads, buildings or paved areas within 100' of the wetland for more than 95% of the wetland circumference.</p>	<p>Score = 2</p>
<p>No roads, buildings or paved areas within 25' of the wetland for more than 95% of the circumference, or No roads buildings or paved areas within 50' of the wetland for more than 1/2 of the wetland circumference.</p>	<p>Score = 1</p>
<p>Paved areas, industrial areas or residential construction (with less than 50' between houses) are less than 25 feet from the wetland for more than 95 % of the circumference of the wetland.</p>	<p>Score = 0</p>

2

H 3

5

4i. Connection to other habitat areas: Select the description, which best matches the site being evaluated.	
-Is the wetland connected to, or part of, a riparian corridor at least 100' wide connecting two or more wetlands; or, is there an upland connection present >100' wide with good forest or shrub cover (>25% cover) connecting it with a Significant Habitat Area?	YES = 5
-Is the wetland connected to any other Habitat Area with either 1) a forested/shrub corridor < 100' wide, or 2) a corridor that is > 100' wide, but has a low vegetative cover less than 6 feet in height?	Yes = 3
-Is the wetland connected to, or a part of, a riparian corridor between 50 - 100' wide with scrub/shrub or forest cover connection to other wetlands?	Yes = 3
- Is the wetland connected to any other Habitat Area with narrow corridor (<100') of low vegetation (< 6' in height)?	Yes = 1
- Is the wetland and its buffer (if the buffer is less than 50' wide) completely isolated by development (urban, residential with a density greater than 2/acre, or industrial)?	Yes = 0
Now add the scores circled (for Q.5a – Q.5i above) to get a total. Is the Total greater than or equal to 22 points?	
	YES = Category II NO = Category III

20 pts

Wetlands Rating Field Data Form

Background Information:

Name of Rater: Becky Gushaw Affiliation: Goble Date: 1/23/02

Name of wetland (if known): Wetland J

Government Jurisdiction of wetland: Whatecom Co.

Location: 1/4 Section: NW of 1/4 S: NW Section: 8 Township: 39N Range: 1E

Sources of Information: (Check all sources that apply)

Site visit: USGS Topo Map: NWI map: Aerial Photo: Soils survey:

Other: Describe: Previous delineations of area

When The Field Data form is complete enter Category here:

Q.1. High Quality Natural Wetland

Circle Answers

Answer this question if you have adequate information or experience to do so. If not find someone with the expertise to answer the questions. Then, if the answer to questions 1a, 1b and 1c are all NO, contact the Natural Heritage program of DNR.

1a. Human caused disturbances.

Is there significant evidence of human-caused changes to topography or hydrology of the wetland as indicated by any of the following conditions? Consider only changes that may have taken place in the last 5 decades. The impacts of changes done earlier have probably been stabilized and the wetland ecosystem will be close to reaching some new equilibrium that may represent a high quality wetland.

- 1a.1 Upstream watershed > 12% impervious.
- 1a.2. Wetland is ditched and water flow is not obstructed.
- 1a.3. Wetland has been graded, filled, logged.
- 1a.4. Water in wetland is controlled by dikes, weirs, etc.
- 1a.5. Wetland is grazed.
- 1a.6. Other indicators of disturbance (list below)

Surrounded on most sides by impervious roads/ surfaces

Yes: go to Q.2

No: go to 1b.

<p>1b Are there populations of non-native plants which are currently present, cover more than 10% of the wetland, and appear to be invading native populations? Briefly describe any non-native plant populations and Information source(s): <u>Yes - Velvetgrass, Reed-canary</u></p> <p>1c. Is there evidence of human-caused disturbances which have visibly degraded water quality. Evidence of the degradation of water quality include: direct (untreated) runoff from roads or parking lots; presence, or historic evidence, of waste dumps; oily sheens; the smell of organic chemicals; or livestock use. Briefly describe:</p>	<p>YES: go to Q.2 No: go to 1c.</p> <p>YES: go to Q.2 NO: Possible Cat. I Contact DNR</p>
<p>Q.2. Irreplaceable Ecological Functions: Does the wetland:</p> <p>have at least 1/4 acre of organic soils deeper than 16 inches and the wetland is relatively undisturbed; OR [If the answer is NO because the wetland is disturbed briefly describe: Indicators of disturbance may include: - Wetland has been graded, filled, logged; - Organic soils on the surface are dried-out for more than half of the year; - Wetland receives direct stormwater runoff from urban or agricultural areas.];</p> <p>OR</p> <p>have a forested class greater than 1 acre; OR have characteristics of an estuarine system; OR have eel grass floating or non-floating kelp beds?</p>	<p>(NO to all: go to Q.3) YES go to 2a</p> <p>YES: Go to 2b Yes: Go to 2c Yes: Go to 2d</p>
<p>2a. Bogs and Fens Are any of the three following conditions met for the area of organic soil?</p> <p>2a.1. Are Sphagnum. mosses a common ground cover (>30%) and the cover of invasive species (see Table 3) is less than 10%?</p> <p>Is the area of sphagnum mosses and deep organic soils > 1/2 acre? Is the area of sphagnum mosses and deep organic soils 1/4-1/2 acre?</p> <p>2a.2. Is there an area of organic soil which has an emergent class with at least one species from Table 2, and cover of invasive species is < 10% (see Table 3)?</p> <p>Is the area of herbaceous plants and deep organic soils > 1/2 acre? Is the area of herbaceous plants and deep organic soils 1/4-1/2acre?</p>	<p>YES: Category I YES: Category II NO: Go to 2a.3</p> <p>YES: Category I YES: Category II NO: Go to 2a.3</p>

<p>2a.3. Is the vegetation a mixture of only herbaceous plants and Sphagnum mosses with no scrub/shrub or forested classes? Is the area of herbaceous plants, Sphagnum, and deep organic soils > 1/2 acre? Is the area of herbaceous plants, Sphagnum, and deep organic soils ¼-1/2 acre?</p>	<p>YES: Category I YES: Category II NO: Go to Q.3.</p>
<p>Q.2b. Mature forested wetland.</p> <p>2b.1. Does 50% of the cover of upper forest canopy consist of evergreen trees older than 80 years or deciduous trees older than 50 years? <i>Note:</i> The size of trees is often not a measure of age, and size cannot be used as a surrogate for age (see guidance).</p> <p>2b.2. Does 50% of the cover of forest canopy consist of evergreen trees older than 50 years, AND is the structural diversity of the forest high as characterized by an additional layer of trees 20'-49' tall, shrubs 6'- 20', tall, and a herbaceous groundcover?</p> <p>2b.3. Does < 25% of the areal cover in the herbaceous/groundcover or the shrub layer consist of invasive/exotic plant species from the list on p. 19?</p>	<p>YES: Category I NO: Go to 2b.2</p> <p>YES: Go to 2b.3 NO: Go to Q.3</p> <p>YES: Category I NO: Go to Q.3</p>
<p>Q.2c. Estuarine wetlands.</p> <p>2c.1. Is the wetland listed as National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park, or Educational, Environmental or Scientific Reserves designated under WAC 332-30-151?</p> <p>2c.2. Is the wetland > 5 acres; <i>Note:</i> If an area contains patches of salt tolerant vegetation that are 1) less than 600 feet apart and that are separated by mudflats that go dry on a Mean Low Tide, or 2) separated by tidal channels that are less than 100 feet wide; all the vegetated areas are to be considered together in calculating the wetland area.</p> <p>or is the wetland 1-5 acres;</p> <p>or is the wetland < 1 acre?</p>	<p>YES: Category I NO: Go to 2c.2</p> <p>YES: Category I</p> <p>YES: Go to 2c.3</p> <p>YES: Go to 2c.4</p>

<p>2c.3. Does the wetland meet at least 3 of the following 4 criteria:</p> <ul style="list-style-type: none"> - minimum existing evidence of human related disturbance such as diking, ditching, filling, cultivation, grazing or the presence of non-native plant species (see guidance for definition); - surface water connection with tidal saltwater or tidal freshwater; - at least 75% of the wetland has a 100 buffer of ungrazed pasture, open water, shrub or forest; - has at least 3 of the following features: low marsh; high marsh; tidal channels; lagoon(s); woody debris; or contiguous freshwater wetland. <p>2c.4. Does the wetland meet all of the four criteria under 2c3? (above)?</p>	<p>YES: Category I NO Category II</p> <p>YES: Category II NO: Category III</p>
<p>Q.2d. Eel Grass and Kelp Beds.</p> <p>2d.1. Are eelgrass beds present?</p> <p>2d.2. Are their floating or non-floating kelp bed(s) present with greater than 50% macro algal cover in the month of August or September?.....</p>	<p>YES: Category I NO: go to 2d.2</p> <p>YES: Category I NO: Category II</p>
<p>Q.3. Category IV wetlands.</p> <p>3a. Is the wetland: less than 1 acre <u>and</u>, hydrologically isolated <u>and</u>, comprised of one vegetated class that is dominated (> 80% areal cover) by one species from Table 3 (page 19) or Table 4 (page 20)</p> <p>3b. Is the wetland: less than two acres and, hydrologically isolated, with one vegetated class, and > 90% of areal cover in any combination of species from Table 3 (page 19)</p> <p>3c. Is the wetland excavated from upland <u>and</u> a pond smaller than 1 acre without a surface water connection to streams, lakes, rivers, or other wetland, and has < 0.1 acre of vegetation.</p>	<p>YES: Category IV NO: go to 3b</p> <p>YES: Category IV NO: go to 3c</p> <p>YES: Category IV NO: go to Q.4</p>

Q.4. Significant habitat value.
 Answer all questions and enter data requested.

4a. Total wetland area
 Estimate area, select from choices in the near-right column, and score in the far column:

Enter acreage of wetland here: 4.28 acres, and source: Survey

Circle scores that qualify	
acres	points
>200	6
40-200	5
10-40	4
5-10 3	<u>3</u>
<u>1-5</u>	2
0.1-1	1
<0.10	

4b. Wetland classes: Circle the wetland classes below that qualify:
 Open Water: if the area of open water is > 1/4 acre
 Aquatic Beds: if the area of aquatic beds > 1/4 acre,
Emergent: if the area of emergent class is > 1/4 acre,
 Scrub-Shrub: if the area of scrub-shrub class is > 1/4 acre,
 Forested: if area of forested class is > 1/4 acre,

Add the number of wetland classes, above, that qualify, and then Score according to the columns at right.
 e.g. If there are 4 classes (aquatic beds, open water, emergent & Scrub-shrub), you would circle 8 points in the far right column.

#of classes	Points
1.....	<u>0</u>
2.....	3
3.....	6
4.....	8
5.....	10

4c. Plant species diversity.
 For each wetland class (at right) that qualifies in 4b above, count the number of different plant species you can find that cover more than 5% of the ground. You do not have to name them.

Score in column at far right:
 e.g. If a wetland has an aquatic bed class with 3 species, an emergent class with 4 species and a scrub-shrub class with 2 species you would circle 2, 2, and 1 in the far column.

Note: Any plant species with a cover of > 5% qualifies for points within a class, even those that are not of that class.

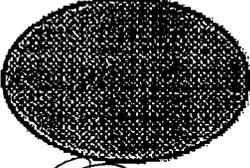
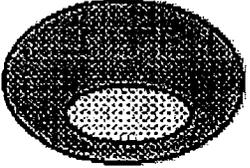
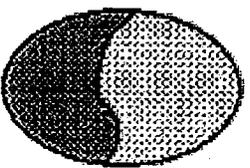
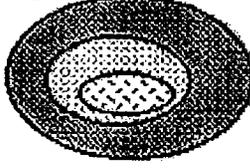
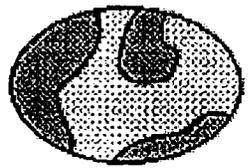
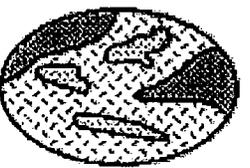
Class	# species in class	Points
Aquatic	1	0
	2	1
	3	2
	>3	3
Emergent	1	0
	2-3	1
	<u>4-5</u>	2
	>5	3
Scrub-Scrub	1	0
	2	1
	3-4	2
	>4	3
Forested	1	0
	2	1
	3-4	2
	>4	3

2

0

2

4

<p>4d. Structural diversity. If the wetland has a forested class, add 1 point if each of the following classes is present within the forested class and is <u>larger than 1/4 acre</u>:</p> <ul style="list-style-type: none"> -trees > 50' tall..... -trees 20'- 49' tall..... -shrubs..... -herbaceous ground cover..... <p>Also add 1 point if there is any "open water" or "aquatic bed" class immediately next to the forested area (i.e. there is no scrub/shrub or emergent vegetation between them).</p>	<p><i>Not Forested</i></p> <p>YES - 1 YES - 1 YES - 1 YES - 1</p> <p>YES - 1</p>
<p>4e. Decide from the diagrams below whether interspersions between wetland classes is high, moderate, low or none? If you think the amount of interspersions falls in between the diagrams score accordingly (i.e. a moderately high amount of interspersions would score a 4, while a moderately low amount would score a 2)</p> <div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="text-align: center;">  <p><i>none</i></p> </div> <div style="text-align: center;">  <p>low</p> </div> <div style="text-align: center;">  <p>low</p> </div> <div style="text-align: center;">  <p>moderate</p> </div> <div style="text-align: center;">  <p>moderate</p> </div> <div style="text-align: center;">  <p>high</p> </div> </div>	<p>High - 5 Moderate - 3 Low - 1 <u>None - 0</u></p>
<p>4f Habitat features. Answer questions below, circle features that apply, and score to right:</p> <p><i>N</i> Is there evidence that the open or standing water was caused by beavers</p> <p><i>N</i> Is a heron rookery located within 300'?</p> <p><i>N</i> Are raptor nest/s located within 300'?</p> <p><i>N</i> Are there at least 3 standing dead trees (snags) per acre greater than 10" in diameter at "breast height" (DBH)?</p> <p><i>N</i> Are there at least 3 downed logs per acre with a diameter > 6" for at least 10' in length?</p> <p><i>N</i> Are there areas (vegetated or unvegetated) within the wetland that are ponded for at least 4 months out of the year, and the wetland has not qualified as having an open water class in Question 4b. ?</p> <p style="text-align: center;"><i>Not > 4mos inundated</i></p>	<p>YES = 2 YES = 1 YES = 2</p>

<p>4g. Connection to streams. (Score one answer only.)</p> <p>4g.1. Does the wetland provide habitat for fish at any time of the year AND does it have a perennial surface water connection to a fish-bearing stream. <i>N</i></p> <p>4g.2 Does the wetland provide fish habitat seasonally AND does it have a seasonal surface water connection to a fish-bearing stream. <i>N</i></p> <p>4g.3 Does the wetland function to export organic matter through a surface water connection at all times of the year to a perennial stream. <i>N</i></p> <p>4g.4 Does the wetland function to export organic matter through a surface water connection to a stream on a seasonal basis? <i>Y</i></p>	<p>YES = 6</p> <p>YES = 4</p> <p>YES = 4</p> <p>YES = 2</p>
<p>4h. Buffers.</p> <p>Score the existing buffers on a scale of 1-5 based on the following four descriptions. If the condition of the buffers do not exactly match the description, score either a point higher or lower depending on whether the buffers are less or more degraded.</p> <p>Forest, scrub, native grassland or open water buffers are present for more than 100' around 95% of the circumference.</p> <p>Forest, scrub, native grassland, or open water buffers wider than 100' for more than 1/2 of the wetland circumference, or a forest, scrub, grasslands, or open water buffers for more than 50' around 95 % of the circumference.</p> <p>Forest, scrub, native grassland, or open water buffers wider than 100' for more than 1/4 of the wetland circumference, or a forest, scrub, native grassland, or open water buffers wider than 50' for more than 1/2 of the wetland circumference.</p> <p>No roads, buildings or paved areas within 100' of the wetland for more than 95% of the wetland circumference.</p> <p>No roads, buildings or paved areas within 25' of the wetland for more than 95% of the circumference, or No roads buildings or paved areas within 50' of the wetland for more than 1/2 of the wetland circumference.</p> <p>Paved areas, industrial areas or residential construction (with less than 50' between houses) are less than 25 feet from the wetland for more than 95 % of the circumference of the wetland.</p>	<p>Score = 5</p> <p>Score = 3</p> <p>Score = 2</p> <p>Score = 2</p> <p>Score = 1</p> <p>Score = 0</p>

2

1

3

4i. Connection to other habitat areas: Select the description, which best matches the site being evaluated.	
-Is the wetland connected to, or part of, a riparian corridor at least 100' wide connecting two or more wetlands; or, is there an upland connection present >100' wide with good forest or shrub cover (>25% cover) connecting it with a Significant Habitat Area?	YES = 5
-Is the wetland connected to any other Habitat Area with either 1) a forested/shrub corridor < 100' wide, or 2) a corridor that is > 100' wide, but has a low vegetative cover less than 6 feet in height?	Yes = 3
-Is the wetland connected to, or a part of, a riparian corridor between 50 - 100' wide with scrub/shrub or forest cover connection to other wetlands?	Yes = 3
- Is the wetland connected to any other Habitat Area with narrow corridor (<100') of low vegetation (< 6' in height)?	Yes = 1
- Is the wetland and its buffer (if the buffer is less than 50' wide) completely isolated by development (urban, residential with a density greater than 2/acre, or industrial)?	Yes = 0
Now add the scores circled (for Q.5a – Q.5i above) to get a total. Is the Total greater than or equal to 22 points?	
8 pts	YES = Category II NO = Category III

1

Wetlands Rating Field Data Form

Background Information:

Name of Rater: Becky Gurschaw Affiliation: Golder Assoc. Date: 7/13/01

Name of wetland (if known): Wetland B (B1-B4)

Government Jurisdiction of wetland: Whatcom County

Location: 1/4 Section: NW of 1/4 S: NW Section: 8 Township: 39N Range: 1E

Sources of Information: (Check all sources that apply)

Site visit: USGS Topo Map: NWI map: Aerial Photo: Soils survey:

Other: Describe: Previous delineations of area

When The Field Data form is complete enter Category here: CATEGORY III

Q.1. High Quality Natural Wetland

Answer this question if you have adequate information or experience to do so. If not find someone with the expertise to answer the questions. Then, if the answer to questions 1a, 1b and 1c are all NO, contact the Natural Heritage program of DNR.

1a. Human caused disturbances.

Is there significant evidence of human-caused changes to topography or hydrology of the wetland as indicated by any of the following conditions? Consider only changes that may have taken place in the last 5 decades. The impacts of changes done earlier have probably been stabilized and the wetland ecosystem will be close to reaching some new equilibrium that may represent a high quality wetland.

- 1a.1 Upstream watershed > 12% impervious.
 - 1a.2 Wetland is ditched and water flow is not obstructed.
 - 1a.3 Wetland has been graded, filled, logged.
 - 1a.4 Water in wetland is controlled by dikes, weirs, etc.
 - 1a.5 Wetland is grazed.
 - 1a.6 Other indicators of disturbance (list below)
-
-
-
-

Circle Answers

- Yes: go to Q.2
- No: go to 1b.

2
2
2
2
2
2
2

<p>1b Are there populations of non-native plants which are currently present, cover more than 10% of the wetland, and appear to be invading native populations? Briefly describe any non-native plant populations and Information source(s): <u>Black berry on edges; non-native grasses + forbs within</u></p> <p>1c. Is there evidence of human-caused disturbances which have visibly degraded water quality. Evidence of the degradation of water quality include: direct (untreated) runoff from roads or parking lots; presence, or historic evidence, of waste dumps; oily sheens; the smell of organic chemicals; or livestock use. Briefly describe:</p> <hr/> <hr/>	<p>YES: go to Q.2 No: go to 1c.</p> <p>YES: go to Q.2 NO: Possible Cat. I Contact DNR</p>
<p>Q.2. Irreplaceable Ecological Functions: Does the wetland:</p> <p>have at least 1/4 acre of organic soils deeper than 16 inches and the wetland is relatively undisturbed; OR [If the answer is NO because the wetland is disturbed briefly describe: Indicators of disturbance may include: - Wetland has been graded, filled, logged; - Organic soils on the surface are dried-out for more than half of the year; - Wetland receives direct stormwater runoff from urban or agricultural areas.];</p> <p>OR</p> <p>have a forested class greater than 1 acre; OR have characteristics of an estuarine system; OR have eel grass floating or non-floating kelp beds?</p>	<p>(NO to all: go to Q.3) YES go to 2a</p> <p>YES: Go to 2b Yes: Go to 2c Yes: Go to 2d</p>
<p>2a. Bogs and Fens Are any of the three following conditions met for the area of organic soil?</p> <p>2a.1. Are Sphagnum mosses a common ground cover (>30%) and the cover of invasive species (see Table 3) is less than 10%?</p> <p>Is the area of sphagnum mosses and deep organic soils > 1/2 acre? Is the area of sphagnum mosses and deep organic soils 1/4-1/2 acre?</p> <p>2a.2. Is there an area of organic soil which has an emergent class with at least one species from Table 2, and cover of invasive species is < 10% (see Table 3)?</p> <p>Is the area of herbaceous plants and deep organic soils > 1/2 acre? Is the area of herbaceous plants and deep organic soils 1/4-1/2acre?</p>	<p>YES: Category I YES: Category II NO: Go to 2a.3</p> <p>YES: Category I YES: Category II NO: Go to 2a.3</p>

<p>2a.3. Is the vegetation a mixture of only herbaceous plants and Sphagnum mosses with no scrub/shrub or forested classes? Is the area of herbaceous plants, Sphagnum, and deep organic soils > 1/2 acre? Is the area of herbaceous plants, Sphagnum, and deep organic soils ¼-1/2 acre?</p>	<p>YES: Category I YES: Category II NO: Go to Q.3.</p>
<p>Q.2b. Mature forested wetland.</p> <p>2b.1. Does 50% of the cover of upper forest canopy consist of evergreen trees older than 80 years or deciduous trees older than 50 years? <i>Note:</i> The size of trees is often not a measure of age, and size cannot be used as a surrogate for age (see guidance).</p> <p>2b.2. Does 50% of the cover of forest canopy consist of evergreen trees older than 50 years, AND is the structural diversity of the forest high as characterized by an additional layer of trees 20'-49' tall, shrubs 6'- 20', tall, and a herbaceous groundcover?</p> <p>2b.3. Does < 25% of the areal cover in the herbaceous/groundcover or the shrub layer consist of invasive/exotic plant species from the list on p. 19?</p>	<p>YES: Category I NO: Go to 2b.2</p> <p>YES: Go to 2b.3 NO: Go to Q.3</p> <p>YES: Category I NO: Go to Q.3</p>
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<p>2c.3. Does the wetland meet at least 3 of the following 4 criteria:</p> <ul style="list-style-type: none"> - minimum existing evidence of human related disturbance such as diking, ditching, filling, cultivation, grazing or the presence of non-native plant species (see guidance for definition); - surface water connection with tidal saltwater or tidal freshwater; - at least 75% of the wetland has a 100 buffer of ungrazed pasture, open water, shrub or forest; - has at least 3 of the following features: low marsh; high marsh; tidal channels; lagoon(s); woody debris; or contiguous freshwater wetland. <p>2c.4. Does the wetland meet all of the four criteria under 2c3? (above)?</p>	<p>YES: Category I NO Category II</p> <p>YES: Category II NO: Category III</p>
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Q.4. Significant habitat value.		Circle scores that qualify																																								
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4c. Plant species diversity. For each wetland class (at right) that qualifies in 4b above, count the number of different plant species you can find that cover more than 5% of the ground. You do not have to name them. Score in column at far right: e.g. If a wetland has an aquatic bed class with 3 species, an emergent class with 4 species and a scrub-shrub class with 2 species you would circle 2, 2, and 1 in the far column. <i>Note:</i> Any plant species with a cover of > 5% qualifies for points within a class, even those that are not of that class.		<table border="1"> <thead> <tr> <th>Class</th> <th># species in class</th> <th>Points</th> </tr> </thead> <tbody> <tr> <td rowspan="4">Aquatic</td> <td>1</td> <td>0</td> </tr> <tr> <td>2</td> <td>1</td> </tr> <tr> <td>3</td> <td>2</td> </tr> <tr> <td>>3</td> <td>3</td> </tr> <tr> <td rowspan="4">Emergent</td> <td>1</td> <td>0</td> </tr> <tr> <td>2-3</td> <td>1</td> </tr> <tr> <td><u>4-5</u></td> <td><u>2</u></td> </tr> <tr> <td>>5</td> <td>3</td> </tr> <tr> <td rowspan="4">Scrub-Scrub</td> <td>1</td> <td>0</td> </tr> <tr> <td>2</td> <td>1</td> </tr> <tr> <td>3-4</td> <td>2</td> </tr> <tr> <td>>4</td> <td>3</td> </tr> <tr> <td rowspan="4">Forested</td> <td>1</td> <td>0</td> </tr> <tr> <td>2</td> <td>1</td> </tr> <tr> <td>3-4</td> <td>2</td> </tr> <tr> <td>>4</td> <td>3</td> </tr> </tbody> </table>	Class	# species in class	Points	Aquatic	1	0	2	1	3	2	>3	3	Emergent	1	0	2-3	1	<u>4-5</u>	<u>2</u>	>5	3	Scrub-Scrub	1	0	2	1	3-4	2	>4	3	Forested	1	0	2	1	3-4	2	>4	3	
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4

4d. Structural diversity.

If the wetland has a forested class, add 1 point if each of the following classes is present within the forested class and is larger than 1/4 acre:

- trees > 50' tall.....
- trees 20'- 49' tall.....
- shrubs.....
- herbaceous ground cover.....

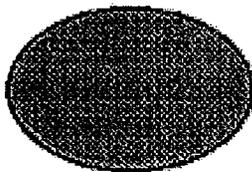
- YES - 1
- YES - 1
- YES - 1
- YES - 1

Also add 1 point if there is any "open water" or "aquatic bed" class immediately next to the forested area (i.e. there is no scrub/shrub or emergent vegetation between them).

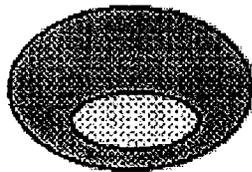
YES - 1

4e. Decide from the diagrams below whether interspersions between wetland classes is high, moderate, low or none? If you think the amount of interspersions falls in between the diagrams score accordingly (i.e. a moderately high amount of interspersions would score a 4, while a moderately low amount would score a 2)

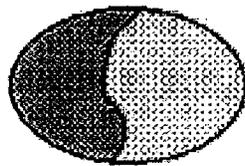
- High - 5
- Moderate - 3
- Low - 1
- None - 0



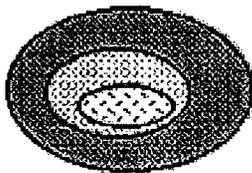
none



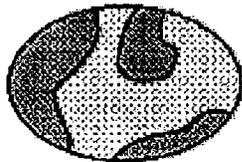
low



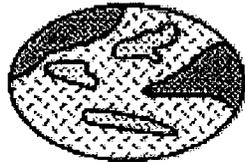
low



moderate



moderate



high

4f Habitat features.

Answer questions below, circle features that apply, and score to right:

- YES = 2
- YES = 1
- YES = 2

- Is there evidence that the open or standing water was caused by beavers
- Is a heron rookery located within 300'?
- Are raptor nest/s located within 300'?
- Are there at least 3 standing dead trees (snags) per acre greater than 10" in diameter at "breast height" (DBH)?
- Are there at least 3 downed logs per acre with a diameter > 6" for at least 10' in length?
- Are there areas (vegetated or unvegetated) within the wetland that are ponded for at least 4 months out of the year, and the wetland has not qualified as having an open water class in Question 4b. ?

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<p>4g. Connection to streams. (Score one answer only.)</p>	
<p>N 4g.1. Does the wetland provide habitat for fish at any time of the year AND does it have a perennial surface water connection to a fish-bearing stream.</p>	<p>YES = 6</p>
<p>N 4g.2 Does the wetland provide fish habitat seasonally AND does it have a seasonal surface water connection to a fish-bearing stream.</p>	<p>YES = 4</p>
<p>N 4g.3 Does the wetland function to export organic matter through a surface water connection at all times of the year to a perennial stream.</p>	<p>YES = 4</p>
<p>Terrell Creek? 4g.4 Does the wetland function to export organic matter through a surface water connection to a stream on a seasonal basis?</p>	<p>YES = 2</p>
<p>4h. Buffers.</p>	
<p>Score the existing buffers on a scale of 1-5 based on the following four descriptions. If the condition of the buffers do not exactly match the description, score either a point higher or lower depending on whether the buffers are less or more degraded.</p>	
<p>Forest, scrub, native grassland or open water buffers are present for more than 100' around 95% of the circumference.</p>	<p>Score = 5</p>
<p>Forest, scrub, native grassland, or open water buffers wider than 100' for more than 1/2 of the wetland circumference, or a forest, scrub, grasslands, or open water buffers for more than 50' around 95 % of the circumference.</p>	<p>Score = 3</p>
<p>1 Forest, scrub, native grassland, or open water buffers wider than 100' for more than 1/4 of the wetland circumference, or a forest, scrub, native grassland, or open water buffers wider than 50' for more than 1/2 of the wetland circumference. (NON-NATIVE)</p>	<p>1 Score = 2</p>
<p>★ No roads, buildings or paved areas within 100' of the wetland for more than 95% of the wetland circumference.</p>	<p>Score = 2</p>
<p>No roads, buildings or paved areas within 25' of the wetland for more than 95% of the circumference, or No roads buildings or paved areas within 50' of the wetland for more than 1/2 of the wetland circumference.</p>	<p>Score = 1</p>
<p>Paved areas, industrial areas or residential construction (with less than 50' between houses) are less than 25 feet from the wetland for more than 95 % of the circumference of the wetland.</p>	<p>Score = 0</p>

5

4i. Connection to other habitat areas:	
Select the description, which best matches the site being evaluated.	
-Is the wetland connected to, or part of, a riparian corridor at least 100' wide connecting two or more wetlands; or, is there an upland connection present >100' wide with good forest or shrub cover (>25% cover) connecting it with a Significant Habitat Area?	YES = 5
-Is the wetland connected to any other Habitat Area with either 1) a forested/shrub corridor < 100' wide, or 2) a corridor that is > 100' wide, but has a low vegetative cover less than 6 feet in height?	Yes = 3
-Is the wetland connected to, or a part of, a riparian corridor between 50 - 100' wide with scrub/shrub or forest cover connection to other wetlands?	Yes = 3
★ - Is the wetland connected to any other Habitat Area with narrow corridor (<100') of low vegetation (< 6' in height)?	Yes = 1
- Is the wetland and its buffer (if the buffer is less than 50' wide) completely isolated by development (urban, residential with a density greater than 2/acre, or industrial)?	Yes = 0
<p>Now add the scores circled (for Q.5a – Q.5i above) to get a total.</p> <p>Is the Total greater than or equal to 22 points?</p> <p style="text-align: right;">YES = Category II NO = Category III</p>	

7 Points Total - Category III

Wetlands Rating Field Data Form

Background Information:

Name of Rater: B. Gurshaw Affiliation: Goldlee Associates Date: 7/13/01

Name of wetland (if known): Wetland A (Cottonwood Area)

Government Jurisdiction of wetland: Whatcom County

Location: 1/4 Section: NW of 1/4 S: NW Section: 8 Township: 39N Range: 1E

Sources of Information: (Check all sources that apply)

Site visit: USGS Topo Map: NWI map: Aerial Photo: Soils survey:

Other: Describe: Previous delineations

When The Field Data form is complete enter Category here: CATEGORY III

Q.1. High Quality Natural Wetland

Circle Answers

Answer this question if you have adequate information or experience to do so. If not find someone with the expertise to answer the questions. Then, if the answer to questions 1a, 1b and 1c are all NO, contact the Natural Heritage program of DNR.

1a. Human caused disturbances.

Is there significant evidence of human-caused changes to topography or hydrology of the wetland as indicated by any of the following conditions? Consider only changes that may have taken place in the last 5 decades. The impacts of changes done earlier have probably been stabilized and the wetland ecosystem will be close to reaching some new equilibrium that may represent a high quality wetland.

- 1a.1 Upstream watershed > 12% impervious.
- 1a.2 Wetland is ditched and water flow is not obstructed.
- 1a.3 Wetland has been graded, filled, logged.
- 1a.4 Water in wetland is controlled by dikes, weirs, etc.
- 1a.5 Wetland is grazed.
- 1a.6 Other indicators of disturbance (list below)

- Yes: go to Q.2
- No: go to 1b.

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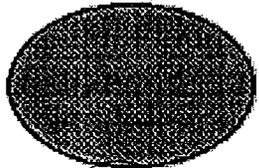
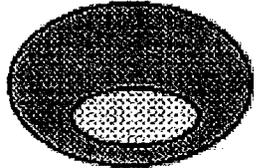
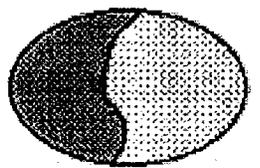
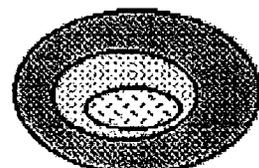
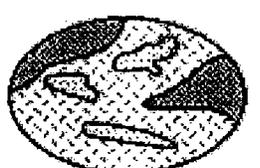
<p>1b Are there populations of non-native plants which are currently present, cover more than 10% of the wetland, and appear to be invading native populations? Briefly describe any non-native plant populations and Information source(s): <u>Creeping buttercup; non-native grasses & blackberry on fringe</u></p> <p>1c. Is there evidence of human-caused disturbances which have visibly degraded water quality. Evidence of the degradation of water quality include: direct (untreated) runoff from roads or parking lots; presence, or historic evidence, of waste dumps; oily sheens; the smell of organic chemicals; or livestock use. Briefly describe:</p> <hr/> <hr/>	<p>YES: go to Q.2 No: go to 1c.</p> <p>YES: go to Q.2 NO: Possible Cat. I Contact DNR</p>
<p>Q.2. Irreplaceable Ecological Functions: Does the wetland:</p> <p>have at least 1/4 acre of organic soils deeper than 16 inches and the wetland is relatively undisturbed; OR [If the answer is NO because the wetland is disturbed briefly describe: Indicators of disturbance may include: - Wetland has been graded, filled, logged; - Organic soils on the surface are dried-out for more than half of the year; - Wetland receives direct stormwater runoff from urban or agricultural areas.];</p> <p>OR</p> <p>have a forested class greater than 1 acre; OR have characteristics of an estuarine system; OR have eel grass floating or non-floating kelp beds?</p>	<p>(NO to all: go to Q.3) YES go to 2a</p> <p>YES: Go to 2b Yes: Go to 2c Yes: Go to 2d</p>
<p>2a. Bogs and Fens Are any of the three following conditions met for the area of organic soil?</p> <p>2a.1. Are Sphagnum mosses a common ground cover (>30%) and the cover of invasive species (see Table 3) is less than 10%?</p> <p>Is the area of sphagnum mosses and deep organic soils > 1/2 acre? Is the area of sphagnum mosses and deep organic soils 1/4-1/2 acre?</p> <p>2a.2. Is there an area of organic soil which has an emergent class with at least one species from Table 2, and cover of invasive species is < 10% (see Table 3)?</p> <p>Is the area of herbaceous plants and deep organic soils > 1/2 acre? Is the area of herbaceous plants and deep organic soils 1/4-1/2acre?</p>	<p>YES: Category I YES: Category II NO: Go to 2a.3</p> <p>YES: Category I YES: Category II NO: Go to 2a.3</p>

<p>2a.3. Is the vegetation a mixture of only herbaceous plants and Sphagnum mosses with no scrub/shrub or forested classes? Is the area of herbaceous plants, Sphagnum, and deep organic soils > 1/2 acre? Is the area of herbaceous plants, Sphagnum, and deep organic soils ¼-1/2 acre?</p>	<p>YES: Category I YES: Category II NO: Go to Q.3.</p>
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<p>2c.3. Does the wetland meet at least 3 of the following 4 criteria:</p> <ul style="list-style-type: none"> - minimum existing evidence of human related disturbance such as diking, ditching, filling, cultivation, grazing or the presence of non-native plant species (see guidance for definition); - surface water connection with tidal saltwater or tidal freshwater; - at least 75% of the wetland has a 100 buffer of ungrazed pasture, open water, shrub or forest; - has at least 3 of the following features: low marsh; high marsh; tidal channels; lagoon(s); woody debris; or contiguous freshwater wetland. <p>2c.4. Does the wetland meet all of the four criteria under 2c3? (above)?</p>	<p>YES: Category I NO Category II</p> <p>YES: Category II NO: Category III</p>
<p>Q.2d. Eel Grass and Kelp Beds.</p> <p>2d.1. Are eelgrass beds present?</p> <p>2d.2. Are their floating or non-floating kelp bed(s) present with greater than 50% macro algal cover in the month of August or September?.....</p>	<p>YES: Category I NO: go to 2d.2</p> <p>YES: Category I NO: Category II</p>
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<p>4d. Structural diversity. If the wetland has a forested class, add 1 point if each of the following Classes is present within the forested class and is <u>larger than 1/4 acre</u>:</p> <ul style="list-style-type: none"> -trees > 50' tall..... -trees 20'- 49' tall..... -shrubs..... -herbaceous ground cover..... <p>Also add 1 point if there is any "open water" or "aquatic bed" class Immediately next to the forested area (i.e. there is no scrub/shrub or emergent vegetation between them).</p>	<p>YES - 1 YES - 1 YES - 1 YES - 1 YES - 1</p>
<p>4e. Decide from the diagrams below whether interspersions between wetland classes is high, moderate, low or none? If you think the amount of interspersions falls in between the diagrams score accordingly (i.e. a moderately high amount of interspersions would score a 4, while a moderately low amount would score a 2)</p> <div style="display: flex; flex-wrap: wrap; justify-content: space-around; text-align: center;"> <div style="margin: 10px;"> none</div> <div style="margin: 10px;"> low</div> <div style="margin: 10px;"> low</div> <div style="margin: 10px;"> moderate</div> <div style="margin: 10px;"> moderate</div> <div style="margin: 10px;"> high</div> </div>	<p>High - 5 Moderate - 3 Low - 1 <u>None - 0</u></p>
<p>4f Habitat features. Answer questions below, circle features that apply, and score to right:</p> <ul style="list-style-type: none"> N Is there evidence that the open or standing water was caused by beavers N Is a heron rookery located within 300'? N Are raptor nest/s located within 300'? N Are there at least 3 standing dead trees (snags) per acre greater than 10" in diameter at "breast height" (DBH)? N Are there at least 3 downed logs per acre with a diameter > 6" for at least 10' in length? N Are there areas (vegetated or unvegetated) within the wetland that are ponded for at least 4 months out of the year, and the wetland has not qualified as having an open water class in Question 4b. ? 	<p>YES = 2 YES = 1 YES = 1 YES = 1 YES = 1 YES = 2</p>

0

<p>4g. Connection to streams. (Score one answer only.)</p>	
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<p>4g.2 Does the wetland provide fish habitat seasonally AND does it have a seasonal surface water connection to a fish-bearing stream.</p>	<p>YES = 4</p>
<p>4g.3 Does the wetland function to export organic matter through a surface water connection at all times of the year to a perennial stream.</p>	<p>YES = 4</p>
<p>4g.4 Does the wetland function to export organic matter through a surface water connection to a stream on a seasonal basis?</p>	<p>YES = 2</p>
<p>4h. Buffers. Score the existing buffers on a scale of 1-5 based on the following four descriptions. If the condition of the buffers do not exactly match the description, score either a point higher or lower depending on whether the buffers are less or more degraded.</p> <p>Forest, scrub, native grassland or open water buffers are present for more than 100' around 95% of the circumference.</p> <p>Score = 5</p> <p>Forest, scrub, native grassland, or open water buffers wider than 100' for more than 1/2 of the wetland circumference, or a forest, scrub, grasslands, or open water buffers for more than 50' around 95 % of the circumference.</p> <p>Score = 3</p> <p>Forest, scrub, native grassland, or open water buffers wider than 100' for more than 1/4 of the wetland circumference, or a forest, scrub, native grassland, or open water buffers wider than 50' for more than 1/2 of the wetland circumference.</p> <p>Score = 2</p> <p>No roads, buildings or paved areas within 100' of the wetland for more than 95% of the wetland circumference.</p> <p>Score = 2</p> <p>No roads, buildings or paved areas within 25' of the wetland for more than 95% of the circumference, or No roads buildings or paved areas within 50' of the wetland for more than 1/2 of the wetland circumference.</p> <p>Score = 1</p> <p>Paved areas, industrial areas or residential construction (with less than 50' between houses) are less than 25 feet from the wetland for more than 95 % of the circumference of the wetland.</p> <p>Score = 0</p>	

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4i. Connection to other habitat areas: Select the description, which best matches the site being evaluated.	
-Is the wetland connected to, or part of, a riparian corridor at least 100' wide connecting two or more wetlands; or, is there an upland connection present >100' wide with good forest or shrub cover (>25% cover) connecting it with a Significant Habitat Area?	YES = 5
-Is the wetland connected to any other Habitat Area with either 1) a forested/shrub corridor < 100' wide, or 2) a corridor that is > 100' wide, but has a low vegetative cover less than 6 feet in height?	Yes = 3
-Is the wetland connected to, or a part of, a riparian corridor between 50 - 100' wide with scrub/shrub or forest cover connection to other wetlands?	Yes = 3
- Is the wetland connected to any other Habitat Area with narrow corridor (<100') of low vegetation (< 6' in height)?	Yes = 1
- Is the wetland and its buffer (if the buffer is less than 50' wide) completely isolated by development (urban, residential with a density greater than 2/acre, or industrial)?	Yes = 0
Now add the scores circled (for Q.5a – Q.5i above) to get a total. Is the Total greater than or equal to 22 points? TOTAL = 11 PTS	
YES = Category II NO = Category III	

Wetlands Rating Field Data Form

Background Information:

Name of Rater: Packy Gurschaw Affiliation: Golden Associates Dates: July 13, '01

Name of wetland (if known): Forested Wetland E

Government Jurisdiction of wetland: Whatcom County

Location: 1/4 Section: NW of 1/4 S: NW Section: 8 Township: 39N Range: 1E

Sources of Information: (Check all sources that apply)

Site visit: USGS Topo Map: NWI map: Aerial Photo: Soils survey:

Other: Describe: previous delineations

When The Field Data form is complete enter Category here: CATEGORY II/III

Q.1. High Quality Natural Wetland

Answer this question if you have adequate information or experience to do so. If not find someone with the expertise to answer the questions. Then, if the answer to questions 1a, 1b and 1c are all NO, contact the Natural Heritage program of DNR.

1a. Human caused disturbances.

Is there significant evidence of human-caused changes to topography or hydrology of the wetland as indicated by any of the following conditions? Consider only changes that may have taken place in the last 5 decades. The impacts of changes done earlier have probably been stabilized and the wetland ecosystem will be close to reaching some new equilibrium that may represent a high quality wetland.

- N 1a.1 Upstream watershed > 12% impervious.
 - N 1a.2 Wetland is ditched and water flow is not obstructed.
 - N 1a.3 Wetland has been graded, filled, logged.
 - N 1a.4 Water in wetland is controlled by dikes, weirs, etc.
 - N 1a.5 Wetland is grazed.
 - N 1a.6 Other indicators of disturbance (list below)
-
-
-
-

Circle Answers

- Yes: go to Q.2
- No: go to 1b.

<p>2a.3. Is the vegetation a mixture of only herbaceous plants and Sphagnum mosses with no scrub/shrub or forested classes? Is the area of herbaceous plants, Sphagnum, and deep organic soils > 1/2 acre? Is the area of herbaceous plants, Sphagnum, and deep organic soils 1/4-1/2 acre?</p>	<p>YES: Category I YES: Category II NO: Go to Q.3.</p>
<p>Q.2b. Mature forested wetland.</p> <p>2b.1. Does 50% of the cover of upper forest canopy consist of evergreen trees older than 80 years or deciduous trees older than 50 years? <i>Note:</i> The size of trees is often not a measure of age, and size cannot be used as a surrogate for age (see guidance).</p> <p>2b.2. Does 50% of the cover of forest canopy consist of evergreen trees older than 50 years, AND is the structural diversity of the forest high as characterized by an additional layer of trees 20'-49' tall, shrubs 6'- 20' tall, and a herbaceous groundcover?</p> <p>2b.3. Does < 25% of the areal cover in the herbaceous/groundcover or the shrub layer consist of invasive/exotic plant species from the list on p. 19?</p>	<p>YES: Category I NO: Go to 2b.2</p> <p>YES: Go to 2b.3 NO: Go to Q.3</p> <p>YES: Category I NO: Go to Q.3</p>
<p>Q.2c. Estuarine wetlands.</p> <p>2c.1. Is the wetland listed as National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park, or Educational, Environmental or Scientific Reserves designated under WAC 332-30-151?</p> <p>2c.2. Is the wetland > 5 acres; <i>Note:</i> If an area contains patches of salt tolerant vegetation that are 1) less than 600 feet apart and that are separated by mudflats that go dry on a Mean Low Tide, or 2) separated by tidal channels that are less than 100 feet wide; all the vegetated areas are to be considered together in calculating the wetland area.</p> <p>or is the wetland 1-5 acres;</p> <p>or is the wetland < 1 acre?</p>	<p>YES: Category I NO: Go to 2c.2</p> <p>YES: Category I</p> <p>YES: Go to 2c.3</p> <p>YES: Go to 2c.4</p>

<p>2c.3. Does the wetland meet at least 3 of the following 4 criteria:</p> <ul style="list-style-type: none"> - minimum existing evidence of human related disturbance such as diking, ditching, filling, cultivation, grazing or the presence of non-native plant species (see guidance for definition); - surface water connection with tidal saltwater or tidal freshwater; - at least 75% of the wetland has a 100 buffer of ungrazed pasture, open water, shrub or forest; - has at least 3 of the following features: low marsh; high marsh; tidal channels; lagoon(s); woody debris; or contiguous freshwater wetland. <p>2c.4. Does the wetland meet all of the four criteria under 2c3? (above)?</p>	<p>YES: Category I NO Category II</p> <p>YES: Category II NO: Category III</p>
<p>Q.2d. Eel Grass and Kelp Beds.</p> <p>2d.1. Are eelgrass beds present?</p> <p>2d.2. Are their floating or non-floating kelp bed(s) present with greater than 50% macro algal cover in the month of August or September?.....</p>	<p>YES: Category I NO: go to 2d.2</p> <p>YES: Category I NO: Category II</p>
<p>Q.3. Category IV wetlands.</p> <p>3a. Is the wetland: less than 1 acre <u>and</u>, hydrologically isolated <u>and</u>, comprised of one vegetated class that is dominated (> 80% areal cover) by one species from Table 3 (page 19) or Table 4 (page 20)</p> <p>3b. Is the wetland: less than two acres and, hydrologically isolated, with one vegetated class, and > 90% of areal cover in any combination of species from Table 3 (page 19)</p> <p>3c. Is the wetland excavated from upland <u>and</u> a pond smaller than 1 acre without a surface water connection to streams, lakes, rivers, or other wetland, and has < 0.1 acre of vegetation.</p>	<p>YES: Category IV NO: go to 3b</p> <p>YES: Category IV NO: go to 3c</p> <p>YES: Category IV NO: go to Q.4</p>

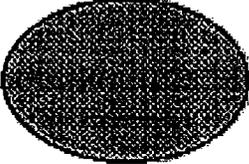
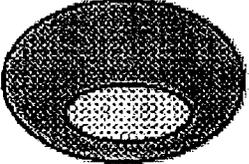
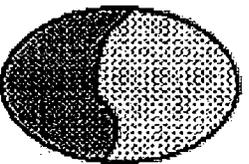
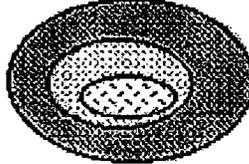
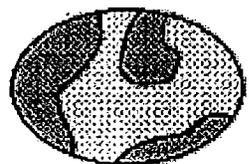
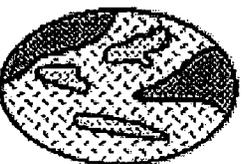
<p>Q.4. Significant habitat value. Answer all questions and enter data requested.</p> <p>4a. Total wetland area Estimate area, select from choices in the near-right column, and score in the far column: Enter acreage of wetland here: <u>1.25</u> acres, and source: _____</p>		<p>Circle scores that qualify</p> <table border="0"> <tr> <td><u>acres</u></td> <td><u>points</u></td> </tr> <tr> <td>>200</td> <td>6</td> </tr> <tr> <td>40-200</td> <td>5</td> </tr> <tr> <td>10-40</td> <td>4</td> </tr> <tr> <td>5-103</td> <td></td> </tr> <tr> <td>1-5</td> <td>2</td> </tr> <tr> <td>0.1-1</td> <td>1</td> </tr> <tr> <td><0.10</td> <td></td> </tr> </table>	<u>acres</u>	<u>points</u>	>200	6	40-200	5	10-40	4	5-103		1-5	2	0.1-1	1	<0.10																								
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-Is the wetland connected to, or part of, a riparian corridor at least 100' wide connecting two or more wetlands; or, is there an upland connection present >100' wide with good forest or shrub cover (>25% cover) connecting it with a Significant Habitat Area?	YES = 5
-Is the wetland connected to any other Habitat Area with either 1) a forested/shrub corridor < 100' wide, or 2) a corridor that is > 100' wide, but has a low vegetative cover less than 6 feet in height?	Yes = 3
-Is the wetland connected to, or a part of, a riparian corridor between 50 - 100' wide with scrub/shrub or forest cover connection to other wetlands?	Yes = 3
- Is the wetland connected to any other Habitat Area with narrow corridor (<100') of low vegetation (< 6' in height)?	Yes = 1
- Is the wetland and its buffer (if the buffer is less than 50' wide) completely isolated by development (urban, residential with a density greater than 2/acre, or industrial)?	Yes = 0
Now add the scores circled (for Q.5a – Q.5i above) to get a total. Is the Total greater than or equal to 22 points?	
II / III	YES = Category II NO = Category III

17 pts