

<b>Black Wetland Complex</b>		
<b>Wetland Evaluation Edition</b>		<b>3rd</b>
<b>August 28 2012</b>		
<b>Comments</b>		
<p>The following evaluation was completed using polygon information derived from a "Geographic Information Layer" provided by LIO. The wetland polygon's were identified from 2010 Colour Ortho aerial photography provided by NextEra.</p>		
<p>This analysis of significance was conducted as a result of wetland polygons being within 120 m of a proposed windfarm project component. MNR was consulted to determine which wetland should be included in the complex and all those within 120 m have been included in this assessment. All wetlands features identified in this assessment were field visited and boundaries delineated on site. A visible wetland feature (through air photo) between units 19 and 23 was not included in the analysis as it is currently under agricultural use and the species typical of wetlands were not present. Wetland plants present are associated with a small drainage ditch along the east side.</p>		
<b>Additional Information</b>		
<i>Include relevant information that can not be entered in the wetland data record( Ex. Sections that have not been completed.)</i>		
NextEra Energy Canada has and continues to consult with Aboriginal communities identified by the Director's List under Ontario values that may be of concern. No pertinent information has been gathered at this time however discussions are on-going and will be updated when they become available.		
Official Name:	Black Wetland Complex	
Evaluation Edition:	3rd	Class:
Wetland Significance	Year/Month Last Evaluated	Wetland ID.:
		August 28 2012
	Year/Month Last Updated	
Special Planning Considerations:		<b>Scores</b>
Wetland Area:	44.00	Biological:
Dentention Area:	47.5	Social:
Catchment Area:	552.97	Hydrological:
OMNR Source		Special Features:
Information Source	Jennifer Noel	Overall:
Submitted by:	Jennifer Noel	
Date:	August 28, 2012	

[Wetland Manual](#)**WETLAND DATA AND SCORING RECORD**

- i) **WETLAND NAME:** Black Wetland Complex
- ii) **MNR ADMINISTRATIVE REGION:** Southern **DISTRICT:** Midhurst  
**AREA OFFICE (if different from District):** \_\_\_\_\_
- iii) **CONSERVATION AUTHORITY JURISDICTION:** Saugeen Valley Conservation Authority  
 (If not within a designated CA, check here: \_\_\_\_\_)
- iv) **COUNTY OR REGIONAL MUNICIPALITY:** West Grey
- v) **TOWNSHIP:** Durham
- vi) **LOTS & CONCESSIONS:** Glenelg  
 (attach separate sheet if necessary) PT LT19-20, 23-25 CON 4, PT LT 19-25 CON 5
- vii) **MAP AND AIR PHOTO REFERENCES**
- a) Latitude: 44.14'15" Longitude: 80.40'45"
- b) UTM grid reference: Zone: 17 Block: NU  
 Grid:E 256 Grid:N 984
- c) National Topographic Series:  
 map name(s) Durham  
 map number(s) 41A/2 edition \_\_\_\_\_  
 scale 1:50000
- d) Aerial photographs: Date photo taken: 2010 Scale: 1:5000  
 Flight & plate numbers: SWOOP 2010, resolution (20cm)  
 \_\_\_\_\_  
 (attach separate sheet if necessary)
- e) Ontario Base Map numbers & scale 1017520048950, 1017525048950  
scale: 1:10,000  
 (attach separate sheets if necessary)

WETLAND UNIT #	DOMINATE FORM	WETLAND TYPE	COMMUNITY CODE	COMMUNITY SUB_CODE	AREA (ha)	SITE TYPE	SOIL	FORMS	# OF FORMS	% OPEN WATER	ha OPEN WATER	FISH HABITAT (LM / HM)	Dominate Species	Additional Species	COMMENTS
1	h	Swamp	hS1		1.38	Palustrine	sand	h, ls, ne	3		-	none	Populus balsamifera, Fraxinus nigra; Cornus sericea; Carex flava, Scirpus atrovirens	Ulmus americana, Typha latifolia, Eupatorium maculatum, Onoclea sensibilis	roadside survey
1	ts	Swamp	tsS2		0.31	Palustrine	clay/loam	ts	1		-	unknown	n/a		air photo assessed
2	c	Swamp	cS3		0.99	Palustrine	humic/mesic	c, ts, ne, re	4		-	none	Abies balsamifera, Thuja occidentalis; Salix sp.; Phalaris arundinacea; Typha latifolia	Fraxinus nigra, Populus tremuloides	roadside survey
2	c	Swamp	cS4		2.94	Palustrine	humic/mesic	c, ts, ge, ne	4		-	none	Larix laricina, Abies balsamifera; Cornus sericea, Salix sp, Sambucus racemosa; Impatiens capensis, Chelone glabra, Eupatorium maculatum, Slidago rugosa; Leersia oryzoides, Phalaris arundinacea	Fraxinus nigra, Acer rubrum, Ulmus americana	roadside survey
2	re	Marsh	reM1		0.62	Palustrine	humic/mesic	re, f, ff	3	40	0.25	LM	Typha latifolia; Nuphar variegata; Lemna minor		roadside survey
2	ts	Swamp	tsS5		2.11	Palustrine	humic/mesic	ts, ls, re, gc, ne	5		-	none	Salix discolor, Salix eriocephala; Cornus sericea; Typha latifolia; Aaster lanceolatus, Eupatorium maculatum; Scirpus atrovirens	Larix laricina, Ulmus americana, Fraxinus pennsylvanica	roadside survey
2	be	Marsh	beM2		0.14	Palustrine	clay/loam	be, ff	2		-	LM	Nuphar variegata; Lemna minor		roadside survey
3	h	Swamp	hS6		2.04	Palustrine	clay/loam	h, ls, ne	3	25	0.51	none	Acer rubrum, Fraxinus nigra; Salix eriocephala; Phalaris arundinacea, Carex lacustris	Populus balsamifera, Larix laricina, Thuja occidentalis	roadside survey
4	ts	Swamp	tsS7		0.67	Palustrine	sand	ts	1		-	unknown	n/a		air photo assessed
4	ne	Marsh	neM3		0.46	Palustrine	clay/loam	ne	1		-	unknown	n/a		air photo assessed
4	su	Marsh	suM4		0.13	Palustrine	clay/loam	su	1	80	0.10	unknown	n/a		air photo assessed
5	c	Swamp	cS8		15.51	Palustrine	humic/mesic	c, ne, gc, m	4		-	none	Abies balsamifera, Thuja occidentalis, Larix laricina; Eupatorium maculatum, Eupatorium perfoliatum, Solidago rugosa; Thypa latifolia; moss sp.		roadside survey
5	c	Swamp	cS9		0.53	Palustrine	sand	c, ne, gc	3		-	none	Thuja occidentalis; Carex flava; Parnassia glauca, Tusilago farfara, Euthamia graminifolia		roadside survey, seepage area
6	ts	Swamp	tsS10		1.34	Palustrine	humic/mesic	ts, gc, ne, m	4		-	none	Salix bebbiana, Salix discolor, Abies balsamifera; Chelone glabra, Eupatorium maculatum; Phalaris arundinacea, Bromus ciliatus; Shagnum sp	Ulmus americana, Acer rubrum, Lemna minor, Calla palustris	roadside survey
6	c	Swamp	cS11		6.96	Palustrine	humic/mesic	c, h, ts, ne, m	5		-	none	Larix laricina, Abies balsamifera; Acer rubrum, Fraxinus nigra; Abies balsamifera; Equisetum palustre, Thelypteris palustris, Rubus pubescens, Solidago rugosa; Spagnum sp.	Aralia nudicaulis, Parnassia glauca, Clintonia borealis	roadside survey
6	ne	Fen	neF1		0.59	Isolated	humic/mesic	ne, be, m	3	5	0.03	none	Carex limosa, Carex flava; Tofieldia glutinosa, Parnassia glauca, Cypripedium calceolus; Sphagnum sp	Larix laricina, Platanthera hyperborea, Pogonia ophioglossoides, Comarum palustre, Chamaedaphne calyculata, Vaccinium oxycoccos	field surveyed
6	c	Swamp	cS12		0.31	Palustrine	sand	c, ne, gc	3		-	none	Thuja occidentalis; Carex lacustris, Carex flava; Parnassia glauca, Tusilago farfara, Euthamia graminifolia	Larix laricina, Abies balsamifera, Cepripedium calceolus, Lobelia kalmii	field surveyed, seepage area
6	h	Swamp	hS13		3.21	Palustrine	humic/mesic	h, ls, m, gc	4		-	none	Acer rubrum, Fraxinus nigra; Cornus sericea, Rhamnus alnifolia; Osmunda regalis, Onoclea sensibilis Laportea canadensis; moss sp.	Pyrola asarifolia, Lysimachi ciliata, Tiarella cordifolia, Rubus pubescens, Sium suave	field surveyed
6	c	Swamp	cS14		0.50	Palustrine	humic/mesic	c, h, ne, m	4		-	none	Abies balsamifera, Thuja occidentalis; Ulmus americana; Osmunda regalis, Solidago rugosa, Rubus pubescens; Carex grayi, Carex vulpinoidea	Osmunda cinnamomea	field surveyed



viii) **WETLAND SIZE AND BOUNDARIES**

- a) **Single contiguous wetland area:**   hectares
- b) **Wetland complex comprised of** 25 individual wetlands:

Wetland Unit Number (for reference)		Size of each wetland unit
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Ha

Wetland Unit No.	1	1.69
Wetland Unit No.	2	6.80
Wetland Unit No.	3	2.04
Wetland Unit No.	4	1.26
Wetland Unit No.	5	16.04
Wetland Unit No.	6	12.91
Wetland Unit No.	7	0.78
Wetland Unit No.	8	2.33
Wetland Unit No.	9	0.42
Wetland Unit No.	10	0.20
Wetland Unit No.	11	0.00
Wetland Unit No.	12	0.00
Wetland Unit No.	13	0.00
Wetland Unit No.	14	0.00
Wetland Unit No.	15	0.00
Wetland Unit No.	16	0.00
Wetland Unit No.	17	0.00
Wetland Unit No.	18	0.00
Wetland Unit No.	19	0.00
Wetland Unit Totals:		<span style="border: 1px solid black; padding: 2px 20px;">44.47</span>

(Attach additional sheets if necessary)

**TOTAL WETLAND SIZE**

44.47

- c) **Brief documentation of reasons for including any areas less than 0.5 ha in size:**

MNR Midhurst Wetland Specialist was consulted to help focus the assessment effort and the number of wetlands due to the large number of wetlands identified through air photo interp and LIO layers within the catchment area. Several wetlands beyond the 120 m and within 750m of complex rules were excluded due to property access. MNR stated that for the purpose of REA they only require wetland within 120 m and where access is granted to be assess. for Sig

(Attach separate sheets if necessary .)

**1.0 BIOLOGICAL COMPONENT**

**1.1 PRODUCTIVITY**

**1.1.1 GROWING DEGREE-DAYS/SOILS**

**GROWING DEGREE DAYS** [MAP](#)

(check one)

- 1)   x   <2800
- 2)        2800 -3200
- 3)        3200 -3600
- 4)        3600 -4000
- 5)        >4000

**SOILS**

Estimated Fractional Area

0.12	clay/loam
0.03	silt/marl
0.00	limestone
0.06	sand
0.78	humic/mesic
0.00	fibric
0.00	granite

*Determine the soil type from the appropriate OMAF soils maps*

SCORING:

Growing Degree-Days	Clay-Loam	Silt-Marl	Lime-stone	Sand	Humic-Mesic	Fibric	Granite
<2800	15	13	11	9	8	7	5
2800-3200	18	15	13	11	9	8	7
3200-3600	22	18	15	13	11	9	7
3600-4000	26	21	18	15	13	10	8
>4000	30	25	20	18	15	12	8

(maximum score 30; if wetland contains more than one soil type, evaluate based on the fractional area)

Steps required for evaluation: \_\_\_\_\_ (maximum score 30 points)

1. Select GDD line in evaluation table applicable to your wetland;
2. Determine fractional area of the wetland for each soil type;
3. Multiply fractional area of each soil type by score;
4. Sum individual soil type scores (round to nearest whole number).

In wetland complexes the evaluator should aim at determining the percentage of area occupied by the categories for the complex as a whole.

Score		
15	clay/loam	1.80
13	silt/marl	0.43
	limestone	0.00
9	sand	0.58
8	humic/mesic	6.26
	fibric	0.00
	granite	0.00

**Final Score Growing Degree-Days/Soils (maximum 30 points)**

**9**

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1.1.2 **WETLAND TYPE** (Fractional Area = area of wetland type/total wetland area)

*Estimate the Wetland Type from air photos or default to "swamp" (8)*

Fractional Area		Score	
Bog	<u>0.00</u>	x 3	<u>0.0</u>
Fen	<u>0.01</u>	x 6	<u>0.1</u>
Swamp	<u>0.96</u>	x 8	<u>7.7</u>
Marsh	<u>0.03</u>	x 15	<u>0.5</u>
		Subtotal:	<u>8.2</u>
<b>Wetland type score (maximum 15 points)</b>			<b>8</b>

1.1.3 **SITE TYPE** (Fractional Area = area of site type/total wetland area)

*Estimate from air photos*

	Fractional Area		Score
Isolated	<u>0.01</u>	x 1 =	<u>0.01</u>
Palustrine (permanent or intermittent flow)	<u>0.99</u>	x 2 =	<u>1.97</u>
Riverine	<u>0.00</u>	x 4 =	<u>0.00</u>
Riverine (at rivermouth)	<u>0.00</u>	x 5 =	<u>0.00</u>
Lacustrine (at rivermouth)	<u>0.00</u>	x 5 =	<u>0.00</u>
Lacustrine (on enclosed bay, with barrier beach)	<u>0.00</u>	x 3 =	<u>0.00</u>
Lacustrine (exposed to lake)	<u>0.00</u>	x 2 =	<u>0.00</u>
		Sub Total:	<u>1.99</u>
<b>Site Type Score (maximum 5 points)</b>			<b>2</b>

**1.2 BIODIVERSITY**

1.2.1 **NUMBER OF WETLAND TYPES**

(Check only one)	Score
1) <u>          </u> one	9 points
2) <u>          </u> two	13
3) <u>  20  </u> three	20
4) <u>          </u> four	30

**Number of Wetland Types Score (maximum 30 points)** **20**

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1.2.2 VEGETATION COMMUNITIES [Veg Ref](#)

Attach a separate sheet listing community (map) codes, vegetation forms and dominant species. Use the form on the following page to record percent area by dominant vegetation form. This information will be used in other parts of the evaluation.

Communities should be grouped by number of forms. For example, 2 form communities might appear as follows:

2 forms

<u>Code</u>	<u>Forms</u>	<u>Dominant Species</u>
M6	re, ff	re, <i>Typha latifolia</i> ; ff, <i>Lemna minor</i> , <i>Wolffia</i>
S1	ts, gc	ts, <i>Salix discolor</i> ; gc, <i>Impatiens capensis</i> , <i>Thelypteris palustris</i>

Note that the dominant species for each form are separated by a semicolon. The dominant species (maximum of 2) within a form are separated by commas.

Scoring:

Total # of communities with 1-3 forms	Total # of communities with 4 -5 forms	Total # of communities with 6 or more forms
1 = 1.5 points	1 = 2 points	1 = 3 points
2 = 2.5	2 = 3.5	2 = 5
3 = 3.5	3 = 5	3 = 7
4 = 4.5	4 = 6.5	4 = 9
5 = 5	5 = 7.5	5 = 10.5
6 = 5.5	6 = 8.5	6 = 12
7 = 6	7 = 9.5	7 = 13.5
8 = 6.5	8 = 10.5	8 = 15
9 = 7	9 = 11.5	9 = 16.5
10 = 7.5	10 = 12.5	10 = 18
11 = 8	11 = 13	11 = 19
+ .5 each additional community = <u>8.5</u>	+ .5 each additional community = <u>13.5</u>	+ 1 each additional community = <u>0.0</u>
e.g., a wetland with 3 one form communities and 8 six form communities would score:	4 two form communities	12 four form communities and
$6 + 13.5 + 15 = 34.5 = 35$ points		SubTotal: <u>22</u>
<b>Vegetation Communities Score (maximum 45 points)</b>		<b><u>22</u></b>



Wetland Name: **Black Wetland Complex**Wetland Size (ha): **44.47**

<u>Vegetation Form</u>	<u>% area in which form is dominant</u>
h	<u>16.78</u>
c	<u>67.03</u>
dh	<u>0.00</u>
dc	<u>0.00</u>
ts	<u>11.83</u>
ls	<u>0.00</u>
ds	<u>0.00</u>
gc	<u>0.00</u>
m	<u>0.00</u>
ne	<u>2.36</u>
be	<u>0.31</u>
re	<u>1.39</u>
ff	<u>0.00</u>
f	<u>0.00</u>
su	<u>0.29</u>
u (unvegetated)	<u>0.00</u>
Total = 100%	<b><u>100.00</u></b>

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1.2.3 **DIVERSITY OF SURROUNDING HABITAT**

(Check all appropriate items(1))

*Determine from air photos*

1	row crop
1	pasture
	abandoned agricultural land
1	deciduous forest
1	coniferous forest
1	mixed forest (at least 25% conifer and 75% deciduous or vice versa)
	abandoned pits and quarries
	open lake or deep river
1	fence rows with cover, or shelterbelts
1	terrain appreciably undulating,hilly,or with ravines
1	creek flood plain
8	Subtotal

**Diversity of Surrounding Habitat Score (1 for each, maximum 7 points)**

7

1.2.4 **PROXIMITY TO OTHER WETLANDS**

(Check first appropriate category only)

Scoring

*Determine from air photos and other wetlands evaluations in the vicinity*

1)	Hydrologically connected by surface water to other wetlands (different dominant wetland type) or to open lake or deep river within 1.5 km	8 points
2)	Hydrologically connected by surface water to other wetlands (same dominant wetland type) within 0.5 km	8
3)	Hydrologically connected by surface water to other wetlands (different dominant wetland type),or to open lake or deep river from 1.5 to 4 km away	5
4)	Hydrologically connected by surface water to other wetlands (same dominant wetland type) from 0.5 to 1.5 km away	5
5)	Within 0.75 km of other wetlands (different dominant wetland type) or open water body, but not hydrologically connected by surface water	5
6)	Within 1 km of other wetlands,but not hydrologically connected by surface water	2
7)	No wetland within 1 km	0

**Proximity to other Wetlands Score (Choose one only, maximum 8 points)**

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1.2.5 INTERSPERSION

*Optional: Complete as time permits or as scoring dictates.*

Number of Intersections			Score
(Check one)			
1)	26 or less	<input type="checkbox"/>	3
2)	27 to 40	<input type="checkbox"/>	6
3)	41 to 60	<input type="checkbox"/>	9
4)	61 to 80	<input checked="" type="checkbox"/> 74	12
5)	81 to 100	<input type="checkbox"/>	15
6)	101 to 125	<input type="checkbox"/>	18
7)	126 to 150	<input type="checkbox"/>	21
8)	151 to 175	<input type="checkbox"/>	24
9)	176 to 200	<input type="checkbox"/>	27
10)	>200	<input type="checkbox"/>	30

**Interspersion Score (Choose one only maximum 30 points)**

74

1.2.6 OPEN WATER TYPES [Ref](#)

*Determine from aerial photos.*

Permanently flooded:			Score
(Check one)			
1)	<input type="checkbox"/>	type 1	8
2)	<input type="checkbox"/>	type 2	8
3)	<input checked="" type="checkbox"/> 14	type 3	14
4)	<input type="checkbox"/>	type 4	20
5)	<input type="checkbox"/>	type 5	30
6)	<input type="checkbox"/>	type 6	8
7)	<input type="checkbox"/>	type 7	14
8)	<input type="checkbox"/>	type 8	3
9)	<input type="checkbox"/>	no open water	0

**Open Water Type Score (Choose one only maximum 30 points)**

14

**1.3 SIZE**

Score may be lower than actual if "Vegetation Community and Interspersion" have not been calculated.

44.5 hectares 142 Subtotal for Biodiversity

**Size Score (Biological Component) (maximum 50 points)**

**50**

Evaluation Table Size Score (Biological component)

Wetland size (ha)	Total Score for Biodiversity Subcomponent									
	<37	37-48	49-60	61-72	73-84	85-96	97-108	109-120	121-132	>132
<21 ha	1	5	7	8	9	17	25	34	43	50
21-40	5	7	8	9	10	19	28	37	46	50
41-60	6	8	9	10	11	21	31	40	49	50
61-80	7	9	10	11	13	23	34	43	50	50
81-100	8	10	11	13	15	25	37	46	50	50
101-120	9	11	13	15	18	28	40	49	50	50
121-140	10	13	15	17	21	31	43	50	50	50
141-160	11	15	17	19	23	34	46	50	50	50
161-180	13	17	19	21	25	37	49	50	50	50
181-200	15	19	21	23	28	40	50	50	50	50
201-400	17	21	23	25	31	43	50	50	50	50
401-600	19	23	25	28	34	46	50	50	50	50
601-800	21	25	28	31	37	49	50	50	50	50
801-1000	23	28	31	34	40	50	50	50	50	50
1001-1200	25	31	34	37	43	50	50	50	50	50
1201-1400	28	34	37	40	46	50	50	50	50	50
1401-1600	31	37	40	43	49	50	50	50	50	50
1601-1800	34	40	43	46	50	50	50	50	50	50
1801-2000	37	43	47	49	50	50	50	50	50	50
>2000	40	46	50	50	50	50	50	50	50	50

**2.0 SOCIAL COMPONENT**

**2.1 ECONOMICALLY VALUABLE PRODUCTS**

**2.1.1 WOOD PRODUCTS**

*Determine the percentage of the wetland area dominated by "h" or "c" by using aerial photograph.*

Area of wetland forested (ha), i.e. dominant form is h or c. Note that this is not wetland size. (Check one only)

h:	7.46	c:	29.81
----	------	----	-------

		Score
1)	<5 ha	0
2)	5 -25 ha	3
3)	26 -50 ha	6
4)	51- 100 ha	9
5)	101 -200 ha	12
6)	>200 ha	18

Source of information: airphoto interpretation and field investigation

**Wood Products Score (Score one only, maximum 18 points)**

**3**

**2.1.2 WILD RICE**

(Check one)

Present (minimum size 0.5 ha)

1)

6

Score (Choose one)

6 points

Absent

2)

0

0

Source of information: field observation

Jennifer Noel

**Wild Rice Score (maximum 6 points)**

**0**

**2.1.3 COMMERCIAL FISH (BAIT FISH AND/OR COARSE FISH)**

(Check one)

Present

1)

12

Score (Choose one)

12 points

Habitat not suitable for fish

2)

0

0

Source of information: field observation Lynette Renzetti

*If any part of the wetland is riverine or the District fisheries files indicate presence of fish score "present"*

**Commercial Fish Score (maximum 12 points)**

**12**

**2.1.4 BULLFROGS**

(Check one)

Present

1)

1

Score (Choose one)

1 points

Absent

2)

0

0

Source of information: Field observation

Allison Featherstone

**Bullfrog Score (maximum 1 point)**

**0**

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2.1.5 SNAPPING TURTLES

(Check one)

Present

1)

1

Score (Choose one)

1 point

Absent

2)

0

0

Source of information:

communication with neighbours

Lynette Renzetti

**Snapping Turtle Score (maximum 1 point)**

1

2.1.6 FURBEARERS [Fur Ref](#)

(Consult Appendix 9)

Name of furbearer

Source of information

1)	raccoon	3
2)	mink	3
3)		
4)		
5)		
<b>SubTotal</b>		<b>6</b>

Jennifer Noel  
Dave Martin

Scoring: 3 points for each species. maximum 12

**Furbearer Score (maximum 12 points)**

6

2.2 RECREATIONAL ACTIVITIES

Type of Wetland-Associated Use						
Intensity of Use	Hunting		Nature Enjoyment/ Ecosystem Study		Fishing	
High	40 points		40 points		40 points	
Moderate	20		20		20	
Low	8	8	8		8	8
Not possible/NotKnown	0		0	0	0	0
<b>Totals</b>		<b>8</b>		<b>0</b>		<b>8</b>
						<b>16</b>

(score one level for each of the three wetland uses; scores are cumulative; maximum score 80 points)

Sources of information:

Hunting: evidence of deer stand  
Jennifer Noel

Nature: not known

Fishing: Low Marsh Habitat Present  
Jennifer Noel

**Recreational Activities Score (maximum 80 points)**

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**2.3 LANDSCAPE AESTHETICS**

*Score using ortho-aerial photography*

**2.3.1 DISTINCTNESS**

(Check one)		Score (Choose one)
Clearly distinct	1) <input checked="" type="checkbox"/>	3 points
Indistinct	2) <input type="checkbox"/>	0

**Landscape Distinctness Score (maximum 3 points)**

**3**

**2.3.2 ABSENCE OF HUMAN DISTURBANCE**

(Check one)		Score (Choose one)
Human disturbances absent or nearly so	1) <input type="checkbox"/>	7 points
One or several localized disturbances	2) <input checked="" type="checkbox"/>	4
Moderate disturbance; localized water pollution	3) <input type="checkbox"/>	2
Wetland intact but impairment of ecosystem quality intense in some areas	4) <input type="checkbox"/>	1
Extreme ecological degradation, or water pollution severe and widespread	5) <input type="checkbox"/>	0

Source of information: cattle access to wetland  
Jennifer Noel

**Absence of Human Disturbance Score (maximum 7 points)**

**4**

**2.4 EDUCATION AND PUBLIC AWARENESS**

*Optional: complete as time and scoring dictates.*

**2.4.1 EDUCATIONAL USES**

(Check one)		Score (Choose one)
Frequent	1) <input type="checkbox"/>	20 points
Infrequent	2) <input type="checkbox"/>	12
No visits	3) <input checked="" type="checkbox"/>	0

Source of information: Jennifer Noel

*Requires contact with Local Boards of Education.*

**Educational Uses Score (maximum 20 points)**

**0**

**2.4.2 FACILITIES AND PROGRAMS**

(check one)		Score (Choose one)
Staffed interpretation centre	1) <input type="checkbox"/>	8 points
No interpretation centre or staff but a system of self-guiding trails or brochures available	2) <input type="checkbox"/>	4
Facilities such as maintained paths (e.g., woodchips) boardwalks, boat launches or observation towers but no brochures or other interpretation	3) <input type="checkbox"/>	2
No facilities or programs	4) <input checked="" type="checkbox"/>	0

Source of information: Jennifer Noel

**Facilities and Programs Score (maximum 8 points)**

**0**

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**2.4.3 RESEARCH AND STUDIES**

(check appropriate spaces)

Long term research has been done	<input type="checkbox"/>	Score	12 points
Research papers published in refereed scientific journal or as a thesis	<input type="checkbox"/>		10
One or more (non-research) reports have been written on some aspect of the wetland 's flora fauna hydrology etc.	<input type="checkbox"/>		5
No research or reports	<input type="checkbox"/>		0
	<b>0</b>		
	<b>0</b>		

Subtotal:

Attach list of known reports by above categories

Refer to *ESPA, EPA and ANSI reports.*

**Research and Studies Score (Score is cumulative, maximum 12 points)**

**0**

**2.5 PROXIMITY TO AREAS OF HUMAN SETTLEMENT**

Circle the highest applicable score

Distance of wetland from settlement	1) population > 10,000	2) population 2,500 -10,000	3) population <2,500 or cottage community
1) Within or adjoining settlement	40 points	26	16
2) 0.5 to 10 km from settlement	26	16	10
3) 10 to 60 km from settlement	12	8	4
4) >60 km from settlement	5	2	0
	<b>0</b>	<b>0</b>	<b>10</b>

Name of settlement: Irish Lake, Ontario

**Proximity to Human Settlement Score (maximum 40 points)**

**10**

**2.6 OWNERSHIP** (FA= fraction Area)

Score

Select a default value of "4" if no other information exists.

FA of wetland in public or private ownership held under contract or in trust for wetland protection	<input type="checkbox"/>	x	10	=	<input type="checkbox"/>
FA of wetland area in public ownership,not as above	<input type="checkbox"/>	x	8	=	<input type="checkbox"/>
FA of wetland area in private ownership,not as above	<input type="checkbox"/>	x	4	=	<input type="checkbox"/>
	<b>1.00</b>				<b>4.00</b>

Source of information: land ownernship data from Client

**Ownership Score (maximum 10 points)**

**4**





[Wetlands Manual](#)2.7 **SIZE**

*The score may be lower than actual since economic and recreational values have not been completed.*

**44.5** hectares      **48** Subtotal for Social

Evaluation Table for Size Score (Social Component)

Wetland Size (ha)	Total for Size Dependent Score									
	<31	31-45	46-60	61-75	76-90	91-105	106-120	121-135	136-150	>150
<2 ha	1	2	4	8	10	12	14	14	14	15
2 - 4ha	1	2	4	8	12	13	14	14	15	16
5 - 8ha	2	2	5	9	13	14	15	15	16	16
9 - 12ha	3	3	6	10	14	15	15	16	17	17
13-17	3	4	7	10	14	15	16	16	17	17
18-28	4	5	8	11	15	16	16	17	17	18
29-37	5	7	10	13	16	17	18	18	19	19
38-49	5	7	<b>10</b>	13	16	17	18	18	19	20
50-62	5	8	11	14	17	17	18	19	20	20
63-81	5	8	11	15	17	18	19	20	20	20
82-105	6	9	11	15	18	18	19	20	20	20
106-137	6	9	12	16	18	19	20	20	20	20
138-178	6	9	13	16	18	19	20	20	20	20
179-233	6	9	13	16	18	20	20	20	20	20
234-302	7	9	13	16	18	20	20	20	20	20
303-393	7	9	14	17	18	20	20	20	20	20
394-511	7	10	14	17	18	20	20	20	20	20
512-665	7	10	14	17	18	20	20	20	20	20
666-863	7	10	14	17	19	20	20	20	20	20
864-1123	8	12	15	17	19	20	20	20	20	20
1124-1460	8	12	15	17	19	20	20	20	20	20
1461-1898	8	13	15	18	19	20	20	20	20	20
1899-2467	8	14	16	18	20	20	20	20	20	20
>2467	8	14	16	18	20	20	20	20	20	20

**Total Size Score (Social Component)**

**10.0**

**2.8 ABORIGINAL AND CULTURAL HERITAGE VALUES**

Either or both Aboriginal or Cultural Values may be scored. However, the maximum score permitted for 2.8 is 30 points. Attach documentation.

**2.8.1 ABORIGINAL VALUES**

Full documentation of sources must be attached to the data record.

1) Significant		=	30 points
2) Not Significant		=	0
3) Unknown	0.0	=	0
Total:	0		

**2.8.2 CULTURAL HERITAGE**

1) Significant		=	30 points
2) Not Significant		=	0
3) Unknown	0.0	=	0
Total:	0		

**Aboriginal Values/Cultural Heritage Score (maximum 30 points)**

0.0

**3.0 HYDROLOGICAL COMPONENT**

**3.1 FLOOD ATTENUATION**

*Estimated & Calculated values can be obtained from G.I.S. data layers.*

If the wetland is a complex including isolated wetlands, apportion the 100 points according to area.

For example if 10 ha of a 100 ha complex is isolated, the isolated portion receives the maximum proportional score of 10. The remainder of the wetland is then evaluated out of 90.

**Step 1:** Detennination of Maximum Score

- \_\_\_\_\_ Wetland is located on one of the defined 5 large lakes or 5 major rivers (Go to Step 4)
- \_\_\_\_\_ Wetland is entirely isolated (i.e. not part of a complex) (Go to Step 4)
- x**   All other wetland types (Go through Steps 2,3 and 4B)

**Step 2:** Determination of Upstream Detention Factor (DF)

- (a) Wetland area (ha) 43.88
- (b) Total area (ha) of upstream detention areas 91.97 *estimate*  
(include the wetland itself)
- (c) Ratio of (a):(b) 0.48
- (d) Upstream detention factor: (c) x 2 = 1.0 0.95  
(maximum allowable factor = 1)

**Step 3:** Determination of Wetland Attenuation Factor (AF)

- (a) Wetland area (ha) 43.88
- (b) Size of catchment basin (ha) upstream of wetland 552.97 *calculate*  
(include wetland itself in catchment area)
- (c) Ratio of (a):(b) 0.08
- (d) Wetland attenuation factor: (c) x 10 = 0.8 0.79  
(maximum allowable factor = 1)

**Step 4:** Calculation of final score

- (a) Wetlands on large lakes or major rivers 0
- (b) Wetland entirely isolated 100
- (b) All other wetlands --calculate as follows:
- (c) \* Complex Formula - Isolated portion 98.67
- Initial Score 100 \*
- Upstream detention factor (DF) (Step 2) 0.95
- Wetland attenuation factor (AF) (Step 3) 0.79
- Final score: [(DF + AF)/2] x Initial score = 87.39
- (c) \* Final score:= 88
- \*Unless wetland is a complex with isolated portions (see above).

**Flood Attenuation Score (maximum 100 points) 100.0**

**3.2 WATER QUALITY IMPROVEMENT**

**3.2.1 SHORT TERM WATER QUALITY IMPROVEMENT**

**Step 1: Determination of maximum initial score**

Wetland on one of the 5 defined large lakes or 5 major rivers (Go to Step 5a)  
      
     **x** All other wetlands (Go through Steps 2, 3, 4, and 5b)

**Step 2: Determination of watershed improvement factor (WIF)**

Calculation of WIF is based on the fractional area (FA) of each site type that makes up the total area of the wetland.

(FA= area of site type/total area of wetland)	Fractional Area				
FA of isolated wetland	<u>0.01</u>	x	0.5	=	<u>0.01</u>
FA of riverine wetland	<u>0.00</u>	x	1	=	<u>0.00</u>
FA of palustrine wetland with no inflow	<u>    </u>	x	0.7	=	<u>0.00</u>
FA of palustrine wetland with inflows	<u>0.99</u>	x	1	=	<u>0.99</u>
FA of lacustrine on lake shoreline	<u>0.00</u>	x	0.2	=	<u>0.00</u>
FA of lacustrine at lake inflow or outflow	<u>    </u>	x	1	=	<u>0.00</u>
			Sub Total:		<u>0.99</u>
			<b>Sum (WIF cannot exceed 1.0)</b>		<b>0.99</b>

**Step 3: Determination of catchment land use factor (LUF)**

(Choose the first category that fits upstream landuse in the catchment.)

1)	<u>1.0</u>	Over 50% agricultural and/or urban	1.0
2)	<u>    </u>	Between 30 and 50% agricultural and/or urban	0.8
3)	<u>    </u>	Over 50% forested or other natural vegetation	0.6
		<b>LUF (maximum 1.0)</b>	<b>1.00</b>

**Step 4: Determination of pollutant uptake factor (PUT)**

Calculation of PUT is based on the fractional area (FA) of each vegetation type that makes up the total area of the wetland. Base assessment on the dominant vegetation form for each community except where dead trees or shrubs dominate. In that case base assessment on the dominant live vegetation. (FA = area of vegetation type/total area of wetland)

FA of wetland with live trees, shrubs, herbs or mosses (c,h,ts,ls,gc,m)	<u>0.96</u>	x	0.75	=	<u>0.72</u>
FA of wetland with emergent, submergent or floating vegetation (re,be,ne,su,f,ff)	<u>0.04</u>	x	1	=	<u>0.04</u>
FA of wetland with little or no vegetation (u)	<u>0.00</u>	x	0.5	=	<u>0.00</u>
			Subtotal:		<u>0.76</u>
<i>Estimate FA from air photos or use default factor of "0.75"</i>			<b>Sum (PUT cannot exceed 1.0)</b>		<b>0.76</b>

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**Step 5: Calculation of final score**

(a)	Wetland on large lakes or major rivers	0
(b)	All other wetlands -calculate as follows	
	Initial score	60
	Water quality improvement factor (WQF)	0.99
	Land use factor (LUF)	1.00
	Pollutant uptake factor (PUT)	0.76
<b>Final score: 60 x WQF x LUF x PUT =</b>		<b>45.35</b>

**Short Term Water Quality Improvement Score (maximum 60 points)** 45

**3.2.2 LONG TERM NUTRIENT TRAP**

*Determine wetland type from aerial photos and soil type from OMAF soils maps.*

**Step 1:**

- Wetland on large lakes or 5 major rivers 0 points
- All other wetlands (proceed to Step 2)

**Step 2:**

Choose only one of the following settings that best describes the wetland being evaluated

- 1)  Wetland located in a river mouth 10 points
- 2)  Wetland is a bog, fen or swamp with more than 50% of the wetland being covered with organic soil 10
- 3)  Wetland is a bog, fen or swamp with less than 50% of the wetland being covered with organic soil 3
- 4)  Wetland is a marsh with more than 50% of the wetland covered with organic soil 3
- 5)  None of the above 0

**Long Term Nutrient Trap Score (maximum 10 points)** 3

**3.2.3 GROUNDWATER DISCHARGE**

*The final score will be underestimated since some of the wetland characteristics cannot be scored*

(Circle the characteristics that best describe the wetland being evaluated and then sum the scores. If the sum exceeds 30 points assign the maximum score of 30.)

Wetland Characteristics	Potential for Discharge					
	None to Little		Some		High	
Wetland type	1) Bog = 0		2) Swamp/Marsh = 2	2	3) Fen = 5	5
Topography	1) Flat/rolling = 0		2) Hilly = 2	2	3) Steep = 5	
Wetland Area: Upslope Catchment Area	Large (>50%) = 0		Moderate (5-50%) = 2	2	Small <(5%) = 5	
Lagg Development	1) None found = 0	0	2) Minor = 2		3) Extensive = 5	
Seeps	1) None = 0		2) = or < 3 seeps = 2		3) > 3 seeps = 5	5
Surface marl deposits	1) None = 0		2) = or < 3 sites = 2	2	3) > 3 sites = 5	
Iron precipitates	1) None = 0	0	2) = or < 3 sites = 2		3) > 3 sites = 5	
Located within 1 km of a major aquifer	N/A = 0	0	N/A = 0		Yes = 10	
<b>Totals</b>		<b>0</b>		<b>8</b>		<b>10</b>

(Scores are cumulative maximum score 30 points)

Percentage of Catchment: 0.08

**Groundwater Discharge Score (maximum 30 points)**

**18**

**3.3 CARBON SINK**

Choose only one of the following

- 1) Bog, fen or swamp with more than 50% coverage by organic soil            5 points
- 2) Bog, fen or swamp with between 10 to 49% coverage by organic soil            2
- 3) Marsh with more than 50% coverage by organic soil 3 3
- 4) Wetlands not in one of the above categories            0

**Carbon Sink Score (maximum 5 points)**

**3**

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**3.4 SHORELINE EROSION CONTROL**

**Step 1:** *Determine from ortho-aerial photography*

Score

<u>    x    </u>	Wetland entirely isolated or palustrine	0
<u>        </u>	Any part of the Wetland riverine or lacustrine (proceed to Step 2)	

**Step 2:**

Choose the **one** characteristic that best describes the shoreline vegetation (see text for a definition of shoreline)

		Score
1)	<u>        </u> Trees and shrubs	15
2)	<u>        </u> Emergent vegetation	8
3)	<u>        </u> Submergent vegetation	6
4)	<u>        </u> Other shoreline vegetation	3
5)	<u>        </u> No vegetation	0

**Shoreline Erosion Control Score (maximum 15 points)**

    0    

**3.5 GROUND WATER RECHARGE**

**3.5.1 WETLAND SITE TYPE**

		Score
(a)	Wetland > 50% lacustrine (by area) or located on one of the five major rivers	0
(b)	Wetland not as above. Calculate final score as follows: (FA= area of site type/total area of wetland)	

	Fractional Area			
FA of isolated or palustrine wetland	<u>    1.00    </u>	x	50 =	<u>    50.0    </u>
FA of riverine wetland	<u>    0.00    </u>	x	20 =	<u>    0.0    </u>
FA of lacustrine wetland (wetland <50% lacustrine)	<u>    0.00    </u>	x	0 =	<u>    0.0    </u>
			Subtotal:	<u>    50.0    </u>

**Ground Water Recharge Wetland Site Type Component Score (maximum 50 points)**

    50



**3.5.2 WETLAND SOIL RECHARGE POTENTIAL**

*Determine from OMAF soils maps.*

(Circle only one choice that best describes the hydrologic soil class of the area surrounding the wetland being evaluated.)

Dominant Wetland Type	1) Sand, loam, gravel, till	2) Clay or bedrock	
1) Lacustrine or on a major river	0	0	
2) Isolated	10	5	
3) Palustrine	7	4	
4) Riverine (not a major river)	5	2	
Totals			0

**Ground Water Recharge Wetland Soil Recharge Potential Score (maximum 10 points)**

**7**

**4.0 SPECIAL FEATURES COMPONENT**

**4.1 RARITY**

**4.1.1 WETLANDS** [Ref Map](#)

Site District 6E-5  
 Presence of wetland type (check one or more)  
 Bog  
 Fen  
 Swamp  
 Marsh

Score for rarity within the landscape and rarity of the wetland type. Score for rarity of wetland type is cumulative (maximum 80 points) based on presence or absence.

Site District	Score for Rarity within the Landscape	Score for Rarity of Wetland Type			
		Marsh	Swamp	Fen	Bog
6-1	60	40	0	80	80
6-2	60	40	0	80	80
6-3	40	10	0	40	80
6-4	60	40	0	80	80
6-5	20	40	0	80	80
6-6	40	20	0	80	80
6-7	60	10	0	80	80
6-8	20	20	0	80	80
6-9	0	20	0	80	80
6-10	20	0	20	80	80
6-11	0	30	0	80	80
6-12	0	30	0	60	80
6-13	60	10	0	80	80
6-14	40	20	0	40	80
6-15	40	0	0	80	80
7-1	60	0	60	80	80
7-2	60	0	0	80	80
7-3	60	0	0	80	80
7-4	80	0	0	80	80
7-5	60	20	0	80	80
7-6	80	30	0	80	80

**Rarity within the Landscape Score (maximum 80 points)**

20

**Rarity of Wetland Type Score (maximum 80 points)**

80

The updated scores for rarity in Site Region 7-5 are in the stages of review and still require official confirmation.( June 8, 2004)

**4.1.2 SPECIES** [Spp Ref](#)

**4.1.2.1 BREEDING HABITAT FOR AN ENDANGERED OR THREATENED SPECIES**

	Name of species		Source of information
1)	None found	<input type="text"/>	Dave Martin
2)		<input type="text"/>	
3)		<input type="text"/>	
4)		<input type="text"/>	
5)		<input type="text"/>	
Total:		0	

Attach documentation.

Scoring:

For each species 250 points

(score is cumulative, no maximum score)

**Breeding Habitat for Endangered or Threatened Species Score (no maximum)**

0

**4.1.2.2 TRADITIONAL MIGRATION OR FEEDING HABITAT FOR AN ENDANGERED OR THREATENED SPECIES**

	Name of species		Source of information
1)	None found	<input type="text"/>	Dave Martin
2)		<input type="text"/>	
3)		<input type="text"/>	
4)		<input type="text"/>	
5)		<input type="text"/>	
Total:		0	

Attach documentation.

Scoring:

For one species 150 points

For each additional species 75

(score is cumulative, no maximum score)

**Traditional Habitat for Endangered Species Score (no maximum)**

0

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4.1.2.3 PROVINCIALY SIGNIFICANT ANIMAL SPECIES [Prov Ref](#)

Name of species	Source of information
1) <u>snapping turtle (S3)</u>	<u>NHIC, MNR</u>
2) _____	_____
3) _____	_____
4) _____	_____
5) _____	_____
6) _____	_____
7) _____	_____
8) _____	_____
9) _____	_____
10) _____	_____
11) _____	_____
12) _____	_____
13) _____	_____
14) _____	_____
15) _____	_____

Attach separate list if necessary; Attach documentation

Scoring:

Number of provincially significant animal species in the wetland:

1 species = 50 points	14 species = 154
2 species = 80	15 species = 156
3 species = 95	16 species = 158
4 species = 105	17 species = 160
5 species = 115	18 species = 162
6 species = 125	19 species = 164
7 species = 130	20 species = 166
8 species = 135	21 species = 168
9 species = 140	22 species = 170
10 species = 143	23 species = 172
11 species = 146	24 species = 174
12 species = 149	25 species = 176
13 species = 152	

Add one point for every species past 25 (for example, 26 species = 177 points, 27 species = 178 points etc.)

(no maximum score)

**Provincially Significant Animal Species Score (no maximum)**

**50**

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4.1.2.4 PROVINCIALY SIGNIFICANT PLANT SPECIES

(Scientific names must be recorded)

	Common Name	Scientific Name	Source of information
1)	None known	Viburnum acerifolium	NHIC, MNR
2)		#N/A	
3)		#N/A	
4)		#N/A	
5)		#N/A	
6)		#N/A	
7)		#N/A	
8)		#N/A	
9)		#N/A	
10)		#N/A	
11)		#N/A	
12)		#N/A	
13)		#N/A	
14)		#N/A	
15)		#N/A	

Attach separate list if necessary; Attach documentation

Scoring:

Number of provincially significant plant species in the wetland:

1 species	=	50 points	14 species	=	154
2 species	=	80	15 species	=	156
3 species	=	95	16 species	=	158
4 species	=	105	17 species	=	160
5 species	=	115	18 species	=	162
6 species	=	125	19 species	=	164
7 species	=	130	20 species	=	166
8 species	=	135	21 species	=	168
9 species	=	140	22 species	=	170
10 species	=	143	23 species	=	172
11 species	=	146	24 species	=	174
12 species	=	149	25 species	=	176
13 species	=	152			

Add one point for every species past 25 (for example, 26 species = 177 points, 27 species = 178 points etc.)

**Provincially Significant Plant Species Score (no maximum)**

0

Scientific names must be recorded for plant species. **Lists of significant species must be approved by MNR.**

**SIGNIFICANT IN SITE REGION:**

	Common Name	Scientific Name	Source of information
1)	none known		Jennifer Noel
2)			
3)			
4)			
5)			
6)			
7)			
8)			
9)			
10)			
11)			
12)			
13)			
14)			
15)			

Attach separate list if necessary .Attach documentation.

Scoring:

No. of species significant in Site Region

1 species	=	20	6 species	=	55
2 species	=	30	7 species	=	58
3 species	=	40	8 species	=	61
4 species	=	45	9 species	=	64
5 species	=	50	10 species	=	67

Add one point for every species past 10. (no maximum score)

**Regionally Significant Species Score (Site Region)(no maximum)**

0

Black Property Wetland Complex Vascular Plant list

Scientific Name	Common Name	GRank	SRank	MNR	COSEWIC	Local Status
<b>SPHAGNACEAE</b>	<b>PEAT MOSS FAMILY</b>					
<i>Sphagnum sp.</i>	peat moss	G5	S5			
<b>EQUISETACEAE</b>	<b>HORSETAIL FAMILY</b>					
<i>Equisetum arvense</i>	field horsetail	G5	S5			
<i>Equisetum palustre</i>	marsh horsetail	G5	S5			R
<i>Equisetum scirpoides</i>	dwarf scouring-rush	G5	S5			U
<i>Equisetum variegatum ssp. variegatum</i>	variegated horsetail	G5T	S5			U
<b>OSMUNDACEAE</b>	<b>ROYAL FERN FAMILY</b>					
<i>Osmunda cinnamomea</i>	cinnamon fern	G5	S5			
<i>Osmunda claytoniana</i>	interrupted fern	G5	S5			U
<i>Osmunda regalis var. spectabilis</i>	royal fern	G5T	S5			
<b>DENNSTAEDTIACEAE</b>	<b>BRACKEN FERN FAMILY</b>					
<i>Pteridium aquilinum var. latiusculum</i>	eastern bracken-fern	G5T	S5			
<b>THELYPTERIDACEAE</b>	<b>MARSH FERN</b>					
<i>Thelypteris palustris var. pubescens</i>	marsh fern	G5T?	S5			
<b>DRYOPTERIDACEAE</b>	<b>WOOD FERN FAMILY</b>					
<i>Athyrium filix-femina var. angustum</i>	northern lady fern	G5T5	S5			
<i>Cystopteris bulbifera</i>	bulbet bladder fern	G5	S5			
<i>Dryopteris carthusiana</i>	spinulose wood fern	G5	S5			
<i>Dryopteris cristata</i>	crested wood fern	G5	S5			
<i>Gymnocarpium dryopteris</i>	oak fern	G5	S5			
<i>Matteuccia struthiopteris var. pensylvanica</i>	ostrich fern	G5	S5			
<i>Onoclea sensibilis</i>	sensitive fern	G5	S5			
<b>PINACEAE</b>	<b>PINE FAMILY</b>					
<i>Abies balsamea</i>	balsam fir	G5	S5			
<i>Larix laricina</i>	tamarack	G5	S5			
<i>Picea glauca</i>	white spruce	G5	S5			
<i>Tsuga canadensis</i>	eastern hemlock	G5	S5			
<b>CUPRESSACEAE</b>	<b>CEDAR FAMILY</b>					
<i>Thuja occidentalis</i>	eastern white cedar	G5	S5			
<b>NYMPHAEACEAE</b>	<b>WATER-LILY FAMILY</b>					
<i>Nuphar variegata</i>	bulhead pond-lily	G5	S5			
<b>RANUNCULACEAE</b>	<b>BUTTERCUP FAMILY</b>					
<i>Caltha palustris</i>	marsh-marigold	G5	S5			
<i>Clematis virginiana</i>	virgin's-bower	G5	S5			
<i>Coptis trifolia</i>	goldthread	G5T5	S5			
* <i>Ranunculus acris</i>	tall buttercup	G5	SE5			I
<b>ULMACEAE</b>	<b>ELM FAMILY</b>					
<i>Ulmus americana</i>	white elm	G5?	S5			
<b>URTICACEAE</b>	<b>NETTLE FAMILY</b>					
<i>Laportea canadensis</i>	wood nettle	G5	S5			
<b>URTICACEAE</b>	<b>NETTLE FAMILY</b>					
* <i>Urtica dioica ssp. dioica</i>	European stinging nettle	G5T?	SE2			I
<b>FAGACEAE</b>	<b>BEECH FAMILY</b>					
<i>Fagus grandifolia</i>	American beech	G5	S5			
<b>BETULACEAE</b>	<b>BIRCH FAMILY</b>					
<i>Betula alleghaniensis</i>	yellow birch	G5	S5			
<i>Ostrya virginiana</i>	ironwood	G5	S5			
<b>PORTULACACEAE</b>	<b>PURSLANE FAMILY</b>					
<i>Claytonia virginica</i>	Virginia spring beauty	G5	S5			Rh
<b>POLYGONACEAE</b>	<b>SMARTWEED FAMILY</b>					
* <i>Polygonum hydropiper</i>	water-pepper	G5	SE5			I
* <i>Polygonum persicaria</i>	lady's-thumb	G?	SE5			I
* <i>Rumex crispus</i>	curly-leaf dock	G?	SE5			I
<b>GUTTIFERAE</b>	<b>ST. JOHN'S-WORT FAMILY</b>					

Scientific Name	Common Name	GRank	SRank	MNR	COSEWIC	Local Status
<i>Hypericum perforatum</i>	common St. John's-wort	G?	SE5			
<b>SARRACENIACEAE</b>	<b>PITCHER-PLANT FAMILY</b>					
<i>Sarracenia purpurea</i>	pitcher-plant	G5	S5			
<b>DROSERACEAE</b>	<b>SUNDEW FAMILY</b>					
<i>Drosera rotundifolia</i>	round-leaved sundew	G5	S5			
<b>VIOLACEAE</b>	<b>VIOLET FAMILY</b>					
<i>Viola sp.</i>	violet					
<b>SALICACEAE</b>	<b>WILLOW FAMILY</b>					
<i>Populus balsamifera ssp. balsamifera</i>	balsam poplar	G5T?	S5			
<i>Populus grandidentata</i>	large-tooth aspen	G5	S5			
<i>Populus tremuloides</i>	trembling aspen	G5	S5			
<i>Salix bebbiana</i>	long-beaked willow	G5	S5			
<i>Salix discolor</i>	pussy willow	G5	S5			
<i>Salix eriocephala</i>	Missouri willow	G5	S5			U
<i>Salix petiolaris</i>	slender willow	G4	S5			
<i>Salix sp.</i>	willow		?			
* <i>Salix X rubens</i>	reddish willow	HYB	SE4			
<b>BRASSICACEAE</b>	<b>MUSTARD FAMILY</b>					
<i>Cardamine diphylla</i>	two-leaved toothwort	G5	S5			
<b>ERICACEAE</b>	<b>HEATH FAMILY</b>					
<i>Andromeda polifolia var. glaucophylla</i>	bog rosemary	G5T5	S5			
<i>Chamaedaphne calyculata</i>	leatherleaf	G5	S5			
<i>Gaultheria procumbens</i>	wintergreen	G5	S5			U
<i>Kalmia angustifolia</i>	sheep laurel	G5	S5			
<i>Vaccinium oxycoccos</i>	small cranberry	G5	S5			U
<b>PYROLACEAE</b>	<b>WINTERGREEN FAMILY</b>					
<i>Pyrola asarifolia</i>	pink pyrola	G5	S5			
<b>PRIMULACEAE</b>	<b>PRIMROSE FAMILY</b>					
<i>Lysimachia ciliata</i>	fringed loosestrife	G5	S5			
<i>Trientalis borealis ssp. borealis</i>	star-flower	G5T?	S5			
<b>GROSSULARIACEAE</b>	<b>GOOSEBERRY FAMILY</b>					
<i>Ribes americanum</i>	wild black currant	G5	S5			
<i>Ribes cynosbati</i>	prickly gooseberry	G5	S5			
<i>Ribes triste</i>	wild red currant	G5	S5			
<b>SAXIFRAGACEAE</b>	<b>SAXIFRAGE FAMILY</b>					
<i>Mitella nuda</i>	naked mitrewort	G5	S5			
<i>Parnassia glauca</i>	American grass-of-parnassus	G5	S5			
<i>Tiarella cordifolia</i>	false mitrewort	G5	S5			
<b>ROSACEAE</b>	<b>ROSE FAMILY</b>					
<i>Agrimonia gryposepala</i>	tall hairy agrimony	G5	S5			
<i>Comarum palustre</i>	marsh cinquefoil	G5	S5			
<i>Fragaria virginiana ssp. virginiana</i>	scarlet strawberry	G5T?	SU			
<i>Geum aleppicum</i>	yellow avens	G5	S5			
<i>Geum macrophyllum</i>	large-leaved avens	G5	S5			
<i>Photinia melanocarpa</i>	black chokeberry	G5	S5			
<i>Prunus serotina</i>	black cherry	G5	S5			
<i>Prunus virginiana var. virginiana</i>	choke cherry	G5T?	S5			
<i>Rubus idaeus ssp. strigosus</i>	wild red raspberry	G5T	S5			
<i>Rubus pubescens</i>	dwarf raspberry	G5	S5			
<i>Sorbus americana</i>	American mountain-ash	G5	S5			R
<b>FABACEAE</b>	<b>PEA FAMILY</b>					
* <i>Vicia cracca</i>	tufted vetch	G?	SE5			I
<b>ONAGRACEAE</b>	<b>EVENING-PRIMROSE FAMILY</b>					
<i>Circaea lutetiana ssp. canadensis</i>	yellowish enchanter's nightshade	G5T5	S5			
<i>Epilobium ciliatum ssp. glandulosum</i>	northern willow-herb	G5T?	SU			
* <i>Epilobium hirsutum</i>	great hairy willow-herb	G?	SE5			I



Scientific Name	Common Name	GRank	SRank	MNR	COSEWIC	Local Status
<i>Epilobium sp.</i>	willow-herb					
<b>CORNACEAE</b>	<b>DOGWOOD FAMILY</b>					
<i>Cornus alternifolia</i>	alternate-leaved dogwood	G5	S5			
<i>Cornus canadensis</i>	bunchberry	G5	S5			
<i>Cornus sericea ssp. sericea</i>	red-osier dogwood	G5	S5			
<b>RHAMNACEAE</b>	<b>BUCKTHORN FAMILY</b>					
<i>Rhamnus alnifolia</i>	alder-leaved buckthorn	G5	S5			
<b>VITACEAE</b>	<b>GRAPE FAMILY</b>					
<i>Parthenocissus vitacea</i>	inserted Virginia-creeper	G5	S5			
<i>Vitis riparia</i>	riverbank grape	G5	S5			
<b>ACERACEAE</b>	<b>MAPLE FAMILY</b>					
<i>Acer pensylvanicum</i>	striped maple	G5	S5			R
<i>Acer rubrum</i>	red maple	G5	S5			
<i>Acer saccharum var. saccharum</i>	sugar maple	G5T?	S5			
<b>ANACARDIACEAE</b>	<b>SUMAC FAMILY</b>					
<i>Toxicodendron radicans ssp. negundo</i>	poison-ivy	G5T	S5			
<b>OXALIDACEAE</b>	<b>WOOD SORREL FAMILY</b>					
<i>Oxalis stricta</i>	upright yellow wood-sorrel	G5	S5			
<b>GERANIACEAE</b>	<b>GERANIUM FAMILY</b>					
* <i>Geranium robertianum</i>	herb-robert	G5	SE5			I
<b>BALSAMINACEAE</b>	<b>TOUCH-ME-NOT FAMILY</b>					
<i>Impatiens capensis</i>	spotted touch-me-not	G5	S5			
<b>ARALIACEAE</b>	<b>GINSENG FAMILY</b>					
<i>Aralia nudicaulis</i>	wild sarsaparilla	G5	S5			
<b>APIACEAE</b>	<b>PARSLEY FAMILY</b>					
<i>Cicuta bulbifera</i>	bulb-bearing water-hemlock	G5	S5			
<i>Cicuta maculata</i>	spotted water-hemlock	G5	S5			
* <i>Daucus carota</i>	wild carrot	G?	SE5			I
<i>Sanicula marilandica</i>	black snakeroot	G5	S5			
<i>Sium suave</i>	hemlock water-parsnip	G5	S5			
<b>ASCLEPIADACEAE</b>	<b>MILKWEED FAMILY</b>					
<i>Asclepias incarnata ssp. incarnata</i>	swamp milkweed	G5T5	S5			
<i>Asclepias syriaca</i>	common milkweed	G5	S5			
<b>SOLANACEAE</b>	<b>POTATO FAMILY</b>					
* <i>Solanum dulcamara</i>	bitter nightshade	G?	SE5			I
<b>MENYANTHACEAE</b>	<b>BUCKBEAN FAMILY</b>					
<i>Menyanthes trifoliata</i>	three-leaved buckbean	G5	S5			
<b>LAMIACEAE</b>	<b>MINT FAMILY</b>					
<i>Lycopus uniflorus</i>	northern water-horehound	G5	S5			
<i>Mentha arvensis</i>	American wild mint	G5T5	S5			
* <i>Prunella vulgaris ssp. vulgaris</i>	common heal-all	G5T?	SE3			
<i>Scutellaria lateriflora</i>	mad-dog skullcap	G5	S5			
<b>OLEACEAE</b>	<b>OLIVE FAMILY</b>					
<i>Fraxinus nigra</i>	black ash	G5	S5			
<i>Fraxinus pennsylvanica</i>	red ash	G5	S5			
<b>SCROPHULARIACEAE</b>	<b>FIGWORT FAMILY</b>					
<i>Chelone glabra</i>	turtlehead	G5	S5			
<b>CAMPANULACEAE</b>	<b>BLUEBELL FAMILY</b>					
<i>Campanula aparinoides</i>	marsh bellflower	G5	S5			
<i>Lobelia kalmii</i>	Kalm's lobelia	G5	S5			
<i>Lobelia siphilitica</i>	great lobelia	G5	S5			R
<b>RUBIACEAE</b>	<b>MADDER FAMILY</b>					
<i>Galium asprellum</i>	rough bedstraw	G5	S5			
<i>Galium palustre</i>	marsh bedstraw	G5	S5			
<i>Galium trifidum ssp. trifidum</i>	small bedstraw	G5T?	S5			
<i>Mitchella repens</i>	creeping partridge-berry	G5	S5			

Scientific Name	Common Name	GRank	SRank	MNR	COSEWIC	Local Status
<b>CAPRIFOLIACEAE</b>	<b>HONEYSUCKLE FAMILY</b>					
<i>Linnaea borealis ssp. longiflora</i>	twinflower	G5T?	S5			
<i>Lonicera dioica</i>	glaucous honeysuckle	G5	S5			
<i>Lonicera oblongifolia</i>	swamp fly honeysuckle	G4	S5			
<i>Sambucus nigra ssp. canadensis</i>	common elderberry	G5	S5			
<i>Sambucus racemosa var. racemosa</i>	red-berried elderberry	G5T4T5	S5			
<i>Sambucus sp.</i>	elderberry					
<i>Viburnum lentago</i>	nannyberry	G5	S5			
<b>ASTERACEAE</b>	<b>ASTER FAMILY</b>					
<i>Aster lanceolatus ssp. lanceolatus</i>	tall white aster	G5T?	S5			
<i>Aster puniceus var. puniceus</i>	purple-stemmed aster	G5T?	S5			
<i>Aster sp.</i>	aster					
<i>Bidens cernua</i>	stick-tight	G5	S5			
<i>Bidens frondosa</i>	devil's beggar-ticks	G5	S5			
* <i>Centaurea nigra</i>	black knapweed	G?	SE?			I
<i>Eupatorium maculatum var. maculatum</i>	spotted joe-pye-weed	G5T5	S5			
<i>Eupatorium perfoliatum</i>	perfoliate thoroughwort	G5	S5			
<i>Euthamia graminifolia</i>	flat-topped bushy goldenrod	G5	S5			
<i>Hieracium sp.</i>	hawkweed					
<i>Prenanthes alba</i>	white rattlesnake-root	G5	S5			U
<i>Senecio congestus</i>	marsh groundsel	G5	S5			
<i>Senecio sp.</i>	groundsel	G?	S?			
<i>Solidago canadensis</i>	canada goldenrod	G5	S5			
<i>Solidago rugosa ssp. rugosa</i>	rough goldenrod	G5T?	S5			
<i>Solidago uliginosa</i>	marsh goldenrod	G4G5	S5			
<i>Symphyotrichum puniceum var. puniceum</i>	shining aster	G5T?Q	SU			
* <i>Tussilago farfara</i>	coltsfoot	G?	SE5			I
<b>ALISMATACEAE</b>	<b>WATER-PLANTAIN FAMILY</b>					
<i>Sagittaria sp.</i>	arrowhead					
<b>JUNCAGINACEAE</b>	<b>ARROW-GRASS FAMILY</b>					
<i>Triglochin maritimum</i>	seaside arrow-grass	G5	S5			R
<b>ARACEAE</b>	<b>ARUM FAMILY</b>					
<i>Arisaema triphyllum ssp. triphyllum</i>	small jack-in-the-pulpit	G5T5	S5			
<i>Calla palustris</i>	wild calla	G5	S5			U
<b>LEMNACEAE</b>	<b>DUCKWEED FAMILY</b>					
<i>Lemna minor</i>	lesser duckweed	G5	S5			
<b>XYRIDACEAE</b>	<b>YELLOW-EYED GRASS FAMILY</b>					
<i>Xyris montana</i>	northern yellow-eyed-grass	G4	S4			
<b>JUNCACEAE</b>	<b>RUSH FAMILY</b>					
<i>Juncus effusus ssp. solutus</i>	soft rush	G5T?	S5			
<b>CYPERACEAE</b>	<b>SEDGE FAMILY</b>					
<i>Carex bebbii</i>	Bebb's sedge	G5	S5			
<i>Carex flava</i>	yellow sedge	G5	S5			
<i>Carex grayi</i>	gray's sedge	G4	S4			
<i>Carex interior</i>	inland sedge	G5	S5			
<i>Carex intumescens</i>	bladder sedge	G5	S5			
<i>Carex limosa</i>	mud sedge	G5	S5			U
<i>Carex lupulina</i>	hop sedge	G5	S5			
<i>Carex sp.</i>	sedge					
<i>Carex stipata</i>	awl-fruited sedge	G5	S5			
<i>Carex vulpinoidea</i>	fox sedge	G5	S5			
<i>Cyperus sp.</i>	cyperus		S?			
<i>Scirpus atrovirens</i>	dark-green bulrush	G5?	S5			
<i>Scirpus cyperinus</i>	wool-grass	G5	S5			
<b>POACEAE</b>	<b>GRASS FAMILY</b>					
<i>Bromus ciliatus</i>	fringed brome	G5	S5			

Scientific Name	Common Name	GRank	SRank	MNR	COSEWIC	Local Status
* <i>Bromus inermis ssp. inermis</i>	awnless brome	G4G5T?	SE5			I
<i>Glyceria striata</i>	fowl manna grass	G5	S5			
<i>Leersia oryzoides</i>	rice cut grass	G5	S5			
<i>Phalaris arundinacea</i>	reed canary grass	G5	S5			
<i>Poa palustris</i>	fowl meadow grass	G5	S5			
<b>SPARGANIACEAE</b>	<b>BUR-REED FAMILY</b>					
<i>Sparganium eurycarpum</i>	broad-fruited bur-reed	G5	S5			R
<b>TYPHACEAE</b>	<b>CATTAIL FAMILY</b>					
<i>Typha angustifolia</i>	narrow-leaved cattail	G5	S5			U
<i>Typha latifolia</i>	broad-leaved cattail	G5	S5			
<b>LILIACEAE</b>	<b>LILY FAMILY</b>					
<i>Clintonia borealis</i>	bluebead-lily	G5	S5			
<i>Maianthemum canadense</i>	wild lily-of-the-valley	G5	S5			
<i>Maianthemum racemosum ssp. racemosum</i>	false Solomon's seal	G5T	S5			
<i>Maianthemum stellatum</i>	star-flowered Solomon's seal	G5	S5			
<i>Polygonatum pubescens</i>	hairy Solomon's seal	G5	S5			
<i>Tofieldia glutinosa ssp. brevistyla</i>	sticky false asphodel	G5T4	S4?			R
<b>IRIDACEAE</b>	<b>IRIS FAMILY</b>					
<i>Iris versicolor</i>	multi-coloured blue-flag	G5	S5			
<b>SMILACACEAE</b>	<b>CATBRIER FAMILY</b>					
<i>Smilax tamnoides</i>	bristly greenbrier	G5Q	S4			
<b>ORCHIDACEAE</b>	<b>ORCHID FAMILY</b>					
<i>Cypripedium calceolus var. pubescens</i>	large yellow lady's slipper	G5T	S5			
* <i>Epipactis helleborine</i>	common helleborine	G?	SE5			I
<i>Liparis loeselii</i>	fen twayblade	G5	S4S5			U
<i>Malaxis unifolia</i>	green adder's-mouth	G5	S4S5			R
<i>Platanthera hyperborea</i>	tall leafy green orchis	G5	S5			
<i>Pogonia ophioglossoides</i>	rose pogonia	G5	S4S5			R

Local Species Status Olhdam 1993 *Distribution and Status of the Vascular Plants of Southwestern Ontario*.

R Rare

U Uncommon

I Introduced

Rh Historic

Wetlands Manual

4.2.1.6      LOCALLY SIGNIFICANT SPECIES (SITE DISTRICT)

Scientific names must be recorded for plant species. **Lists of significant species must be approved by MNR.**

	Common Name	Scientific Name	Source of information
1	marsh horsetail	Equisetum palustre	Oldham 1993
2	dwarf scouring-rush	Equisetum scirpoides	Oldham 1993
3	variegated horsetail	Equisetum variegatum	Oldham 1993
4	interrupted fern	Osmunda claytoniana	Oldham 1993
5	wintergreen	Gaultheria procumbens	Oldham 1993
6	small cranberry	Vaccinium oxycoccos	Oldham 1993
7	striped maple	Acer pensylvanicum	Oldham 1993
8	great lobelia	Lobelia siphilitica	Oldham 1993
9	white rattlesnake-root	Prenanthes alba	Oldham 1993
10	seaside arrow-grass	Triglochin maritimum	Oldham 1993
11	wild calla	Calla palustris	Oldham 1993
12	mud sedge	Carex limosa	Oldham 1993
13	broad-fruited bur-reed	Sparganium eurycarpum	Oldham 1993
14	sticky false asphodel	Tofieldia glutinosa	Oldham 1993
15	fen twayblade	Liparis loeselii	Oldham 1993
16	green adder's-mouth	Malaxis unifolia	Oldham 1993
17	rose pogonia	Pogonia ophioglossoides	Oldham 1993
18	marsh rose	Rosa plaustris	Oldham 1993

Attach separate list if necessary .Attach documentation.

Scoring:

No. of species significant in Site District

1 species	=	10	6 species	=	41
2 species	=	17	7 species	=	43
3 species	=	24	8 species	=	45
4 species	=	31	9 species	=	47
5 species	=	38	10 species	=	49

For each significant species over 10 in the wetland, add 1 point.

**Locally Significant Species Score (Site District) (no maximum)**

**56**

**4.2 SIGNIFICANT FEATURES AND/OR FISH & WILDLIFE HABITAT**

**4.2.1 NESTING OF COLONIAL WATERBIRDS**

Status	Name of species	Source of Information	Score	
1) Currently nesting			50	
2) Known to have nested within past 5 years			25	
3) Active feeding area (Do not include feeding by great blue herons)			15	
4) None known	none found	Dave Martin	0	0

*Consult the Ontario Heronry database at Bird Studies Canada.*

Subtotal:

0

Attach documentation (nest locations etc., if known)

Score highest applicable category only; maximum score 50 points.

**Score for Nesting Colonial Waterbirds (maximum 50 points)**

0

**4.2.2. WINTER COVER FOR WILDLIFE**

Score "locally significant" if trees & shrubs are present, also consult District deer yard data.

(Check only highest level of significance)

Score

**(one only)**

- |    |                                     |                                     |     |
|----|-------------------------------------|-------------------------------------|-----|
| 1) | <input type="checkbox"/>            | Provincially significant            | 100 |
| 2) | <input type="checkbox"/>            | Significant in Site Region          | 50  |
| 3) | <input type="checkbox"/>            | Significant in Site District        | 25  |
| 3) | <input type="checkbox"/>            | Locally significant                 | 10  |
| 4) | <input checked="" type="checkbox"/> | Little or poor winter cover present | 0   |

Source of information:

MNR LIO layer

**Winter Cover for Wildlife Score (maximum 100 points)**

0

[Wetlands Manual](#)

**4.2.3 WATERFOWL STAGING AND/OR MOULTING**

(Check only highest level of significance for both staging and moulting; score is cumulative across columns, maximum score 150)

	Staging	Score <b>(one only)</b>	Moulting	Score <b>(one only)</b>
1) Nationally significant		150		150
2) Provincially significant		100		100
3) Regionally significant		50		50
4) Known to occur		10		10
5) Not possible		0		0
6) Unknown	0	0	0	0
Total:	0		0	
Subtotal:		0		

Source of information: Dave Martin

**Waterfowl Moulting and Staging Score (maximum 150 points)**

0

**4.2.4 WATERFOWL BREEDING**

(Check only highest level of significance) Score

1) <input type="checkbox"/>	Provincially significant	100
2) <input type="checkbox"/>	Regionally significant	50
3) <input type="checkbox"/>	Habitat suitable	10
4) <input checked="" type="checkbox"/>	Habitat not suitable	0

Source of information: Dave Martin

**Waterfowl Breeding Score (maximum 100 points)**

0

**4.2.5 MIGRATOR PASSERINE, SHOREBIRD OR RAPTOR STOPOVER AREA**

(check highest applicable category)

1) <input type="checkbox"/>	Provincially significant	100
2) <input type="checkbox"/>	Significant in Site Region	50
3) <input type="checkbox"/>	Significant in Site District	10
4) <input checked="" type="checkbox"/>	Not significant	0

Source of information: Dave Martin

**Passerine, Shorebird or Raptor Stopover Score (maximum 100 points)**

0

**4.2.6 FISH HABITAT**

*Consult District Fisheries files. If fish are present in the wetland, score 15 or 25 points depending on the size of the fish habitat present.*

**4.2.6. Spawning and Nursery Habitat**

**Table 5. Area Factors for Low Marsh, High Marsh, and Swamp Communities.**

No. of ha of Fish Habitat	Area Factor
< 0.5 ha	0.1
0.5- 4.9	0.2
5.0- 9.9	0.4
10.0- 14.9	0.6
15.0 -19.9	0.8
20.0+ ha	1.0

**Step 1:**

Fish habitat is not present within the wetland (Score = 0)

Fish habitat is present within the wetland (Go to Step 2)

**Step 2:**

Choose only one option

1)  Significance of the spawning and nursery habitat within the wetland is known (Go to Step 3)

2)  Significance of the spawning and nursery habitat within the wetland is not known (Go through Steps 4, 5, 6 and 7)

**Step 3:**

Select the highest appropriate category below attach documentation:

1)  Significant in Site Region 100 points

2)  Significant in Site District 50

3)  Locally Significant Habitat (5.0+ ha) 25

4)  Locally Significant Habitat (<5.0 ha) 15

**Score for Spawning and Nursery Habitat (maximum score 100 points)**

**0**

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**Step 4:** Proceed to Steps 4 to 7 only if Step 3 was not answered.

(**Low Marsh:** marsh area from the existing water line out to the outer boundary of the wetland)

\_\_\_\_\_ Low marsh not present (Continue to Step 5)

  x   Low marsh present (Score as follows)

**Scoring for Presence of Key Vegetation Groups**

Scoring is based on the one most clearly dominant plant species of the dominant form in each Low Marsh vegetation community. Check the appropriate Vegetation Group (see Appendix 16 Table 16-2) for each Low Marsh community. Sum the areas of the communities assigned to each Vegetation Group and multiply by the appropriate size factor from Table 5.

Vegetation Group Number	Vegetation Group Name	Present as a Dominant Form (check)	Total Area (ha)	Area Factor (see Table 5)	Score	Final Score (area factor x score)
1	Tallgrass				6 pts	0.0
2	Shortgrass-Sedge				11	0.0
3	Cattail-Bulrush-Burreed				5	0.0
4	Arrowhead-Pickerelweed				5	0.0
5	Duckweed				2	0.0
6	Smartweed-Waterwillow				6	0.0
7	Waterlily-Lotus		0.879	0.1	11	1.1
8	Waterweed-Watercress				9	0.0
9	Ribongrass				10	0.0
10	Coontail-Naiad-Watermilfoil				13	0.0
11	Narrowleaf Pondweed				5	0.0
12	Broadleaf Pondweed				8	0.0
Sub Total Score (maximum 75 points)						1.1
Total Score (maximum 75 points)						1.1

**Step 5:** (**High Marsh:** area from the water line to the inland boundary of marsh wetland type. This is essentially what is commonly referred to as a wet meadow, in that there is insufficient standing water to provide fisheries habitat except during flood or high water conditions.)

  x   High marsh not present (Continue to Step 6)

\_\_\_\_\_ High marsh present (Score as follows)



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**Scoring for Presence of Key Vegetation Groups**

Scoring is based on the one most clearly dominant plant species of the dominant form in each High 1 Marsh vegetation community. Check the appropriate Vegetation Group (see Appendix 16 Table 16-2) for each High Marsh community. Sum the areas of the communities assigned to each Vegetation Group and multiply by the appropriate size factor from Table 5.

Vegetation Group Number	Vegetation Group Name	Present as a Dominant Form (check)	Total Area (ha)	Area Factor (see Table 5)	Score	Final Score (area factor x score)
1	Tallgrass				6 pts	0.0
2	Shortgrass-Sedge				11	0.0
3	Cattail-Bulrush-Burreed				5	0.0
4	Arrowhead-Pickerelweed	0			5	0.0
Sub Total Score (maximum 25 points)						0.0
Total Score (maximum 25 points)						0.0

**Step 6:** (Swamp: Swamp communities containing fish habitat, either seasonally or permanently. Determine the total area of seasonally flooded swamps and permanently flooded swamps containing fish habitat.)

Swamp containing fish habitat not present (Continue to Step 7)

Swamp containing fish habitat present (Score as follows)

Swamp containing fish Habitat	Present (check)	Total area (ha)	Area Factor (see Table 5)	Score	TOTAL SCORE (factor x score)
Seasonally flooded				10	0.0
Permanently flooded				10	0.0
Sub SCORE (maximum 20 points)					0.0
SCORE (maximum 20 points)					0.0

**Step 7:** Calculation of final score

Score for Spawning and Nursery Habitat (Low Marsh) (maximum 75) = 1.1

Score for Spawning and Nursery Habitat (High Marsh) (maximum 25) = 0.0

Score for Swamp Containing Fish Habitat (maximum 20) = 0.0

Subtotal: 1.1

**Sum (maximum score 100 points) = 1.1**

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**4.2.6.2 Migration and Staging Habitat**

*Score only if information on fish migration and staging exists, e.g. migration of northern pike through a wetland to access spawning areas.*

**Step 1:**

- 1)   0   Staging or Migration Habitat is not present in the wetland (Score = 0)
- 2)        Staging or Migration Habitat is present in the wetland significance of the habitat is known (Go to Step 2)
- 3)        Staging or Migration Habitat is present in the wetland significance of the habitat is not known (Go to Step 3)

**NOTE: Only one of Step 2 or Step 3 is to be scored.**

**Step 2:** Select the highest appropriate category below, attach documentation:

- |  | Score     |
|--|-----------|
| 1) <u>      </u> Significant in Site Region                                      | 25 points |
| 2) <u>      </u> Significant in Site District                                    | 15        |
| 3) <u>      </u> Locally Significant   | 10        |
| 4) <u>      </u> Fish staging and/or migration habitat present, but not as above | 5         |

**Score for Fish Migration and Staging Habitat (maximum score 25 points)**

**0**

**Step 3:** Select the highest appropriate category below based on presence of the designated site type (does not have to be dominant). See Section 1.1.3. Note name of river for 2) and 3).

- |  | Score     |
|--|-----------|
| 1) <u>      </u> Wetland is riverine at rivermouth or lacustrine at rivermouth   | 25 points |
| 2) <u>      </u> Wetland is riverine, within 0.75 km of rivermouth               | 15        |
| 3) <u>      </u> Wetland is lacustrine, within 0.75 km of rivermouth             | 10        |
| 4) <u>      </u> Fish staging and/or migration habitat present, but not as above | 5         |

**Score for Staging and Migration Habitat (maximum score 25 points)**

**0**

**4.3 ECOSYSTEM AGE**

(Fractional Area = area of wetland/total wetland area)

	Fractional Area			Scoring
Bog	0.00	x	25 =	0.0
Fen, treed to open on deep soils floating mats or marl		x	20 =	0.0
Fen, on limestone rock		x	5 =	0.0
Swamp	0.96	x	3 =	2.9
Marsh	0.03	x	0 =	0.0
			Sub Total:	2.9

**Ecosystem Age Score (maximum 25 points)**

2.9

**4.4 GREAT LAKES COASTAL WETLANDS**

Score for coastal (see text for definition) wetlands only

Choose one only

wetland < 10 ha	=	0 points
wetland 10- 50 ha	=	25
wetland 51 -100 ha	=	50
wetland > 100 ha	=	75

**Great Lakes Coastal Wetlands Score (maximum 75 points)**

0

x The wetland is not within the Coastal zone for either the Great Lakes or associated major rivers and as such will not be scored within this section.

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**5.0 EXTRA INFORMATION**

5.1 PURPLE LOOSESTRIFE

Absent/Not seen

Present

(a) One location in wetland \_\_\_\_\_  
 Two to many locations \_\_\_\_\_

Abundance code

(b) (1 < 20 stems \_\_\_\_\_  
 (2 20-99 stems \_\_\_\_\_  
 (3 100-999 stems \_\_\_\_\_  
 (4 >1000 stems \_\_\_\_\_

5.2 SEASONALLY FLOODED AREAS

Check one or more

Ephemeral	(less than 2 weeks)	_____
Temporal	(2 weeks to 1 month)	<input checked="" type="checkbox"/> _____
Seasonal	(1 to 3 months)	<input checked="" type="checkbox"/> _____
Semi-permanent	(>3 months)	_____
No seasonal flooding		_____

**5.3 SPECIES OF SPECIAL SIGNIFICANCE**

5.3.1 Osprey

Present and nesting \_\_\_\_\_  
 Known to have nested in last 5 yr \_\_\_\_\_  
 Feeding area for osprey \_\_\_\_\_  
 Not as above  \_\_\_\_\_

5.3.2 Common Loon

Nesting in wetland \_\_\_\_\_  
 Feeding at edge of wetland \_\_\_\_\_  
 Observed or heard on lake or  
 river adjoining the wetland \_\_\_\_\_  
 Not as above  \_\_\_\_\_

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**INVESTIGATORS**

**AFFILIATION**

Jennifer Noel

LGL Limited

**DATES WETLAND VISITED**

February 29th to March 1, 22, May 15, 16, June 26, July 12, 18, 19, August 8, 9, 10, 2012

**DATE THIS EVALUATION COMPLETED:**

August 28 2012

**ESTIMATED TIME DEVOTED TO COMPLETING THE FIELD SURVEY IN "PERSON HOURS"**

60

**WEATHER CONDITIONS**

i) at time of field work overcast skies, sunny, fog with rain, cold and hot

(Continue in the space below if necessary)

ii) summer conditions in general

**OTHER POTENTIALLY USEFUL INFORMATION:**

Early dates were used to get a sense of wetland features within property limits and where additional work would be required.

Victoria Kennedy and Lynette Renzetti provided assistance and support during the field visits.

Wildlife and amphibian surveys information was sourced through field effort by Biologist from LGL Limited: Allison Featherstone, Victoria Kennedy, Lynette Renzetti and Martin O'Halloran as well as information provided by Dave Martin.

**CHECKLIST OF PLANT AND ANIMAL SPECIES RECORDED IN THE WETLAND:**

Attach a list of all flora and fauna observed in the wetland.

\*Indicate if voucher specimens or photos have been obtained, where located, etc.

**WETLAND EVALUATION SCORING RECORD**

WETLAND NAME AND/OR NUMBER		Black Wetland Complex	
<u>1.0 BIOLOGICAL COMPONENT</u>			
1.1	<u>PRODUCTIVITY</u>		
1.1.1	Growing Degree-Days/Soils	9.1	
1.1.2	Wetland Type	8.2	
1.1.3	Site Type	2.0	
	Total for Productivity		19
1.2	<u>BIODIVERSITY</u>		
1.2.1	Number of Wetland Types	20.0	
1.2.2	Vegetation Communities (maximum 45)	22.0	
1.2.3	Diversity of Surrounding Habitat (maximum 7)	7.0	
1.2.4	Proximinty to Other Wetlands	5.0	
1.2.5	Interspersion	74.0	
1.2.6	Open Water Type	14.0	
	Total for Biodiversity		142
	Sub Total for Biodiversity	142	
1.3	<u>SIZE</u> (Biological Component)		50
	Sub Total:		211
<u>TOTAL FOR BIOLOGICAL COMPONENT (not to exceed 250)</u>			211

**2.0 SOCIAL COMPONENT****2.1 ECONOMICALLY VALUABLE PRODUCTS**

2.1.1 Wood Products	3
2.1.2 Wild Rice	0
2.1.3 Commercial Fish	12
2.1.4 Bullfrogs	0
2.1.5 Snapping Turtles	1
2.1.6 Furbearers	6

Total for Economically Valuable Products **22**

**2.2 RECREATIONAL ACTIVITIES (maximum 80)** **16**

**2.3 LANDSCAPE AESTHETICS**

2.3.1 Distinctness	3
2.3.2 Absence of Human Disturbance	4

Total for Landscape Aesthetics **7**

**2.4 EDUCATION AND PUBLIC AWARENESS**

2.4.1 Educational Uses	0
2.4.2 Facilities and Programs	0
2.4.3 Research and Studies	0

Total for Education and Public Awareness **0**

**2.5 PROXIMITY TO AREAS OF HUMAN SETTLEMENT** **10**

**2.6 OWNERSHIP** **4**

Subtotal for Social Component **48.0**

**2.7 SIZE (Social Component)** **10**

**2.8 ABORIGINAL AND CULTURAL VALUES** **0**

Sub Total: **69**

**TOTAL FOR SOCIAL COMPONENT (not to exceed 250)** **69**

**3.0 HYDROLOGICAL COMPONENT**

3.1	<u>FLOOD ATTENUATION</u>		100
3.2	<u>WATER QUALITY IMPROVEMENT</u>		
3.2.1	Short Term Improvement	45.4	
3.2.2	Long Term Improvement	3.0	
3.2.3	Groundwater Discharge (maximum 30)	18.0	
	Total for Water Quality Improvement		66
3.3	<u>CARBON SINK</u>		3
3.4	<u>SHORELINE EROSION CONTROL</u>		0
3.5	<u>GROUNDWATER RECHARGE</u>		
3.5.1	Site Type	50.00	
3.5.2	Soils	7.0	
	Total for Groundwater Recharge		57
		Sub Total:	226
	<u>TOTAL FOR HYDROLOGICAL COMPONENT (not to exceed 250)</u>		226



**4.0 SPECIAL FEATURES****4.1 RARITY**

## 4.1.1 Wetlands

4.1.1.1 Rarity within the Landscape 20.0

4.1.1.2 Rarirty of Wetland Type (maximum 80) 80.0

Total for Wetland Rarity

100

## 4.1.2 Species

4.1.2.1 Endangered or Threatened Species Breeding 0.0

4.1.2.2 Traditional Use by Endangered or Threatened Species 0.0

4.1.2.3 Provincially Significant Animals 50.0

4.1.2.4 Provincially Significant Plants 0.0

4.1.2.5 Regionally Significant Species 0.0

4.1.2.6 Locally Significant Species 56.0

Total for Species Rarity

106

**4.2 SIGNIFICANT FEATURES OR HABITAT**

4.2.1 Colonial Waterbirds 0.0

4.2.2 Winter Cover for Wildlife 0.0

4.2.3 Waterfowl Staging and Moulting 0.0

4.2.4 Waterfowl Breeding 0.0

4.2.5 Migratory Passerine, Shorebird or Raptor Stopover 0.0

4.2.6 Fish Habitat 1.1

Total for Significant Features and Habitat

1

**4.3 ECOSYSTEM AGE**

3

**4.4 GREAT LAKES COASTAL WETLANDS**

0

Sub Total:

210

TOTAL FOR SPECIAL FEATURES (maximum 250)

210

**SUMMARY OF EVALUATION RESULT**

Wetland	Black Wetland Complex	
TOTAL FOR 1.0 BIOLOGICAL COMPONENT		211
TOTAL FOR 2.0 SOCIAL COMPONENT		69
TOTAL FOR 3.0 HYDROLOGICAL COMPONENT		226
TOTAL FOR 4.0 SPECIAL FEATURES COMPONENT		210
	<u>WETLAND TOTAL</u>	<u>717</u>

**INVESTIGATORS**

Jennifer Noel	
0	
0	
0	
0	

**AFFILIATION**

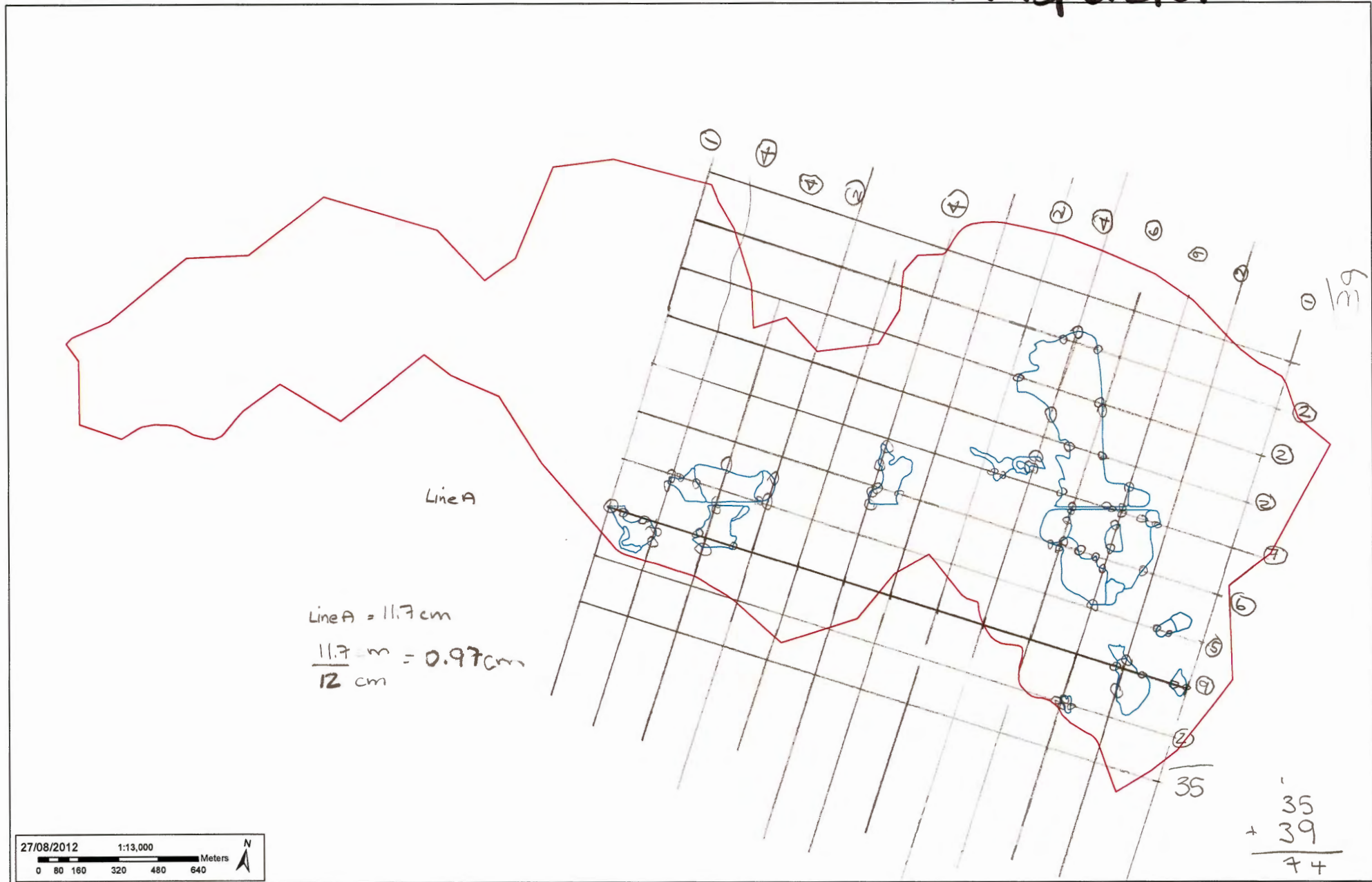
LGL Limited	
0	
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**DATE**

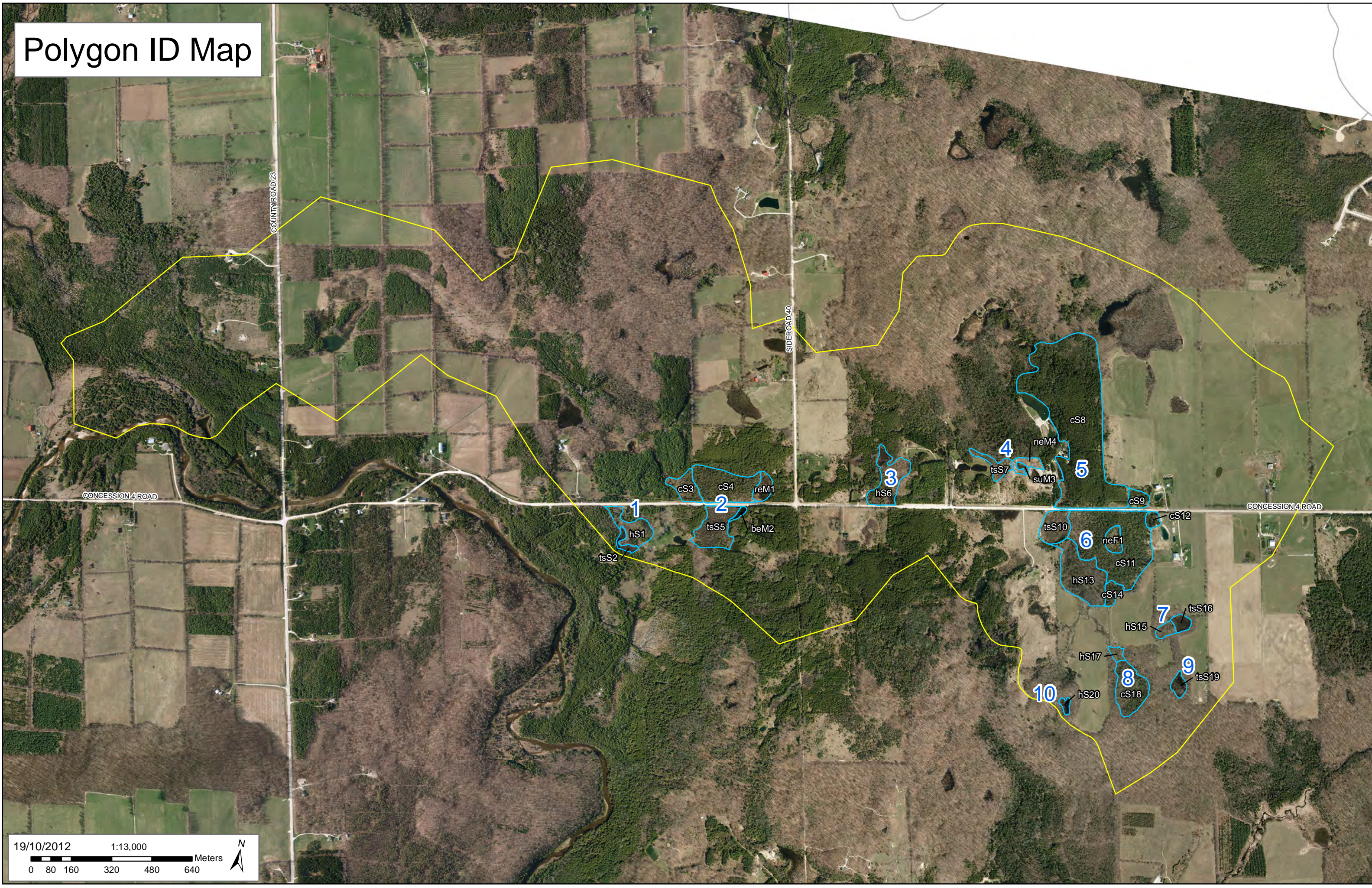
August 28 2012

# Black Property Wetland Complex

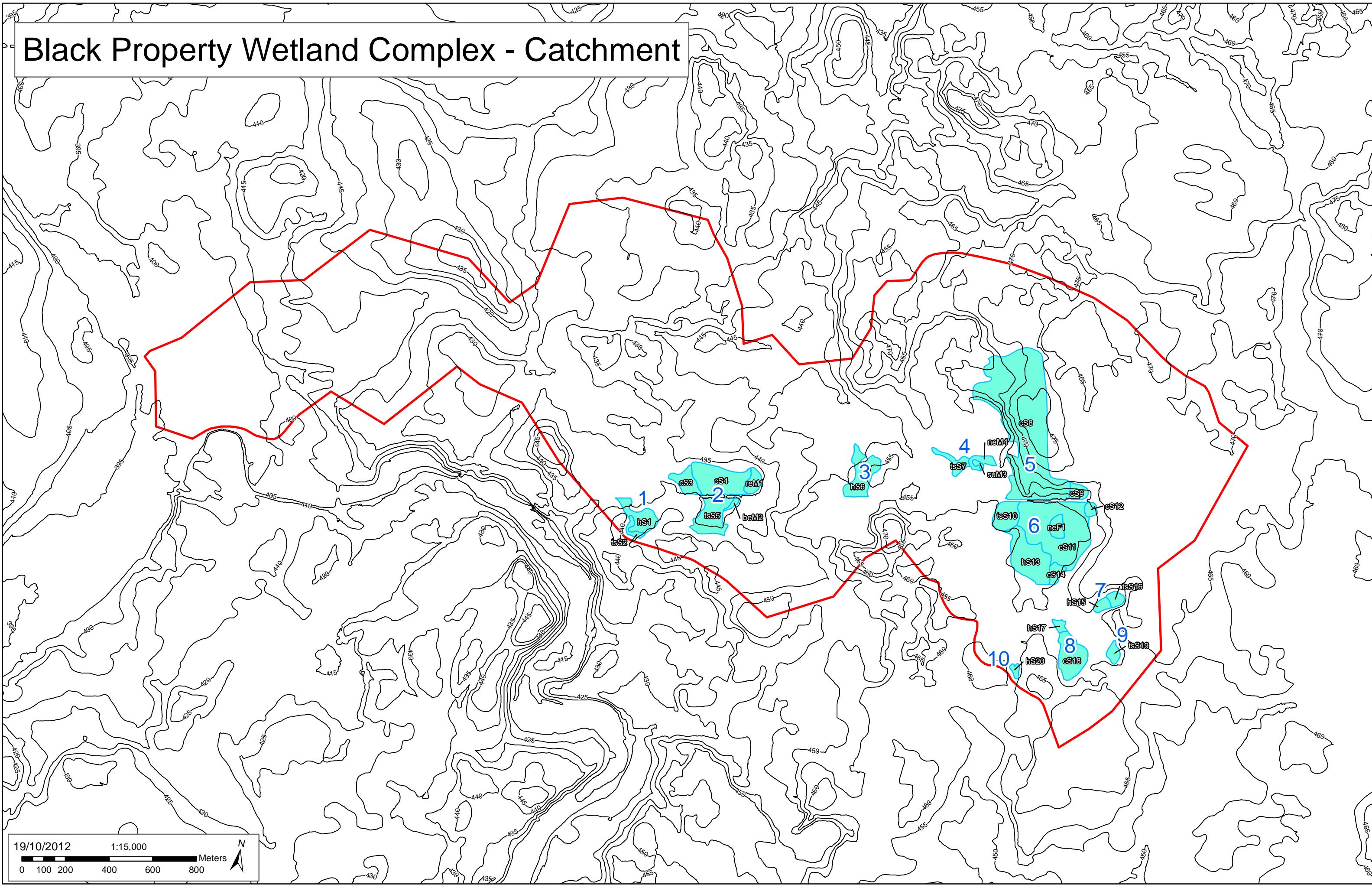
## Interspersion



# Polygon ID Map



# Black Property Wetland Complex - Catchment



19/10/2012 1:15,000  
0 100 200 400 600 800 Meters N