

This report serves to update the **boundary** of the Richmond Fen Provincially Significant Wetland contained within the NE portion of Lot 16, Concession IV, Goulbourn Township, Ottawa. It is not meant to be an evaluation or re-evaluation of the entire Richmond Fen PSW, nor the land contained within the area of study.

Upon reviewing the original 1984 WEDSR and mapping at the Kemptville MNR office in the fall of 2023, it has become apparent that MNR staff designated the area a PSW solely using aerial photographs with no attention to, or validation of the species contained within the designated area. Unfortunately the MNR assumed that the entire area under study was 100% *Acer Saccharinum* (Silver Maple) which is a Wetland Indicator and stated that the wetland type is Swamp.

Fieldwork was completed in the fall of 2024 detailing the transition from upland species, to wetland species. A map with associated data has been created showing the consistent location of upland trees at the boundary of the subject area.

This report does not provide an exhaustive list of plant species as would be expected in a complete wetland evaluation but focuses on the OWES 50% wetland vegetation rule. The area is dominated by *Acer Rubrum* (Red Maple) which alone cannot be used to determine a wetland boundary. The forest

canopy is to be considered mature forest with trees having a DBH up to 40” indicating the longstanding nature of the habitat relative to the original OWES study in 1984. The understory of the area of study is dominated by upland species, while boundary delineation was easy to determine by the transition of canopy and understory. This is documented in the tree pictures and associated map of their location. The terrain is hilly sand offering excellent drainage, undulating across the area of study as shown in the DEM map.

Red Maple makes up approximately 60% of the forest canopy while the remaining canopy consists of *Acer Saccharum* (Sugar Maple), *Fagus Grandifolia* (American Beech), *Tilia Americana* (Basswood), *Fraxinus Americana* (White Ash), *Pinus Strobus* (Eastern White Pine), *Prunus Serotina* (Black Cherry), *Betula Papyrifera* (White Birch), *Betula Alleghaniensis* (Yellow Birch), *Tsuga Canadensis* (Eastern Hemlock). The hardwood upland indicators are evenly distributed across the study area. Additionally there were only a handful of Eastern White Cedar, Basam Fir, White Spruce and 2 Silver Maple located randomly within the subject area.

The Digital Elevation Model map is based on current LiDAR data and supports the boundary alignment consistent with the floodplain and flat terrain at the eastern portion of the study area. The infra red map is based on 2014 imagery showing a large Eastern White Pine canopy . This canopy spreads seeds throughout the study area and white pine seedlings have been established at the eastern most portion of the study area with supporting pictures provided.

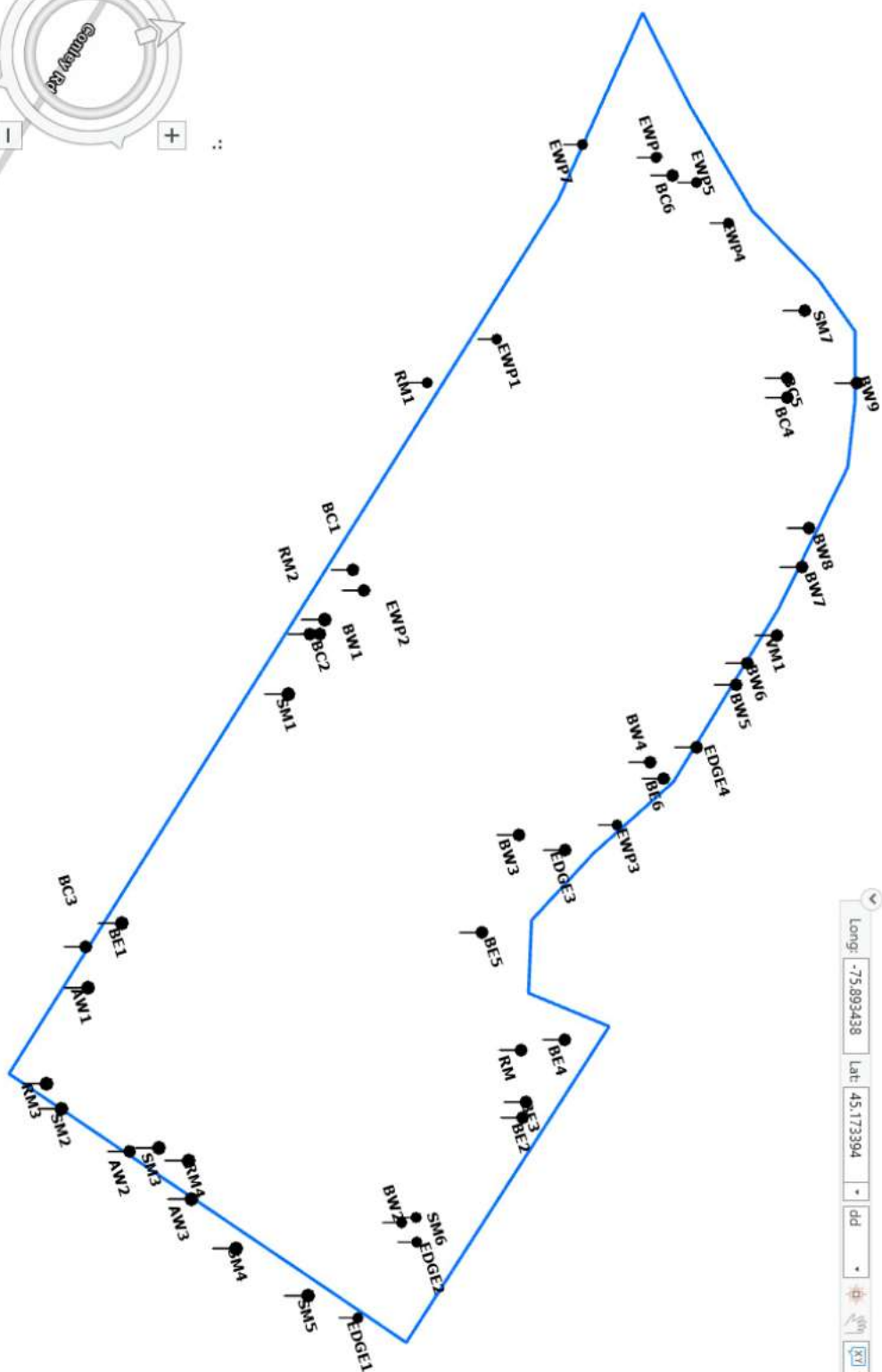
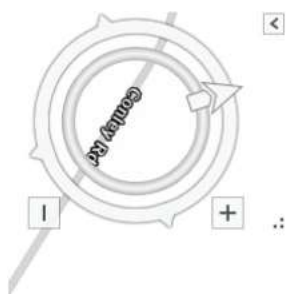
It is also noted there are no watercourses within the study area, the existing watercourse remains entirely within the Richmond Fen PSW. As the purpose of the WEDSR is to produce a “score” to determine the wetland status for evaluations and re-evaluations, much of it is not applicable to a boundary review. As such, only sections 1 & 2 have been filled out with any relevance to a non PSW. The MNR evaluation of 1984 would have excluded the study area based on the 50% canopy rule. The obvious growth of Eastern White Pines in excess of 30” DBH indicate long standing upland habitat and not a mass die off of Silver Maple in 30 years. The assumption by the MNR that the area is 100% Silver Maple was erroneous at the time of the original desk evaluation performed by MNR staff. The property west of the subject study area had the original wetland boundary removed but the evaluator did not extend into the neighboring property which is now the subject of this boundary review.

Bruce Chrustie

OWES Evaluator

Appendix A

Tree Mapping and Data



EWP1

Pinus Strobus (Eastern White Pine)



28" DBH



RM1

Acer Rubrum (Red Maple, Swamp Maple)

Beech background, upland understory



BC1

Prunus Serotina (Black Cherry)



EWP2

Pinus Strobus (Eastern White Pine)



RM2

Acer Rubrum (Red Maple, Swamp Maple)

Beech background, upland understory



BW1

Tilia Americana (Basswood)



BC2

Prunus Serotina (Black Cherry)



SM1

Acer Saccharum (Sugar Maple)



BE1

Fagus Grandifolia (American Beech)



BC3

Prunus serotina (Black Cherry)



AW1

Fraxinus Americana (White Ash)

Black Cherry in background



RM3

Acer Rubrum (Red Maple, Swamp Maple)

Upland understory



SM2

Acer Saccharum (Sugar Maple)



AW2

Fraxinus Americana (White Ash)



40" DBH



SM3

Acer Saccharum (Sugar Maple)



RM3

Acer Rubrum (Red Maple, Swamp Maple)

Upland understory



AW3

Fraxinus Americana (White Ash)



SM4

Acer Saccharum (Sugar Maple)



SM5

Acer Saccharum (Sugar Maple)



EDGE1

Transition to marsh in background, facing east



EDGE2

Transition to marsh in background, facing east



BW2

Tilia Americana (Basswood)



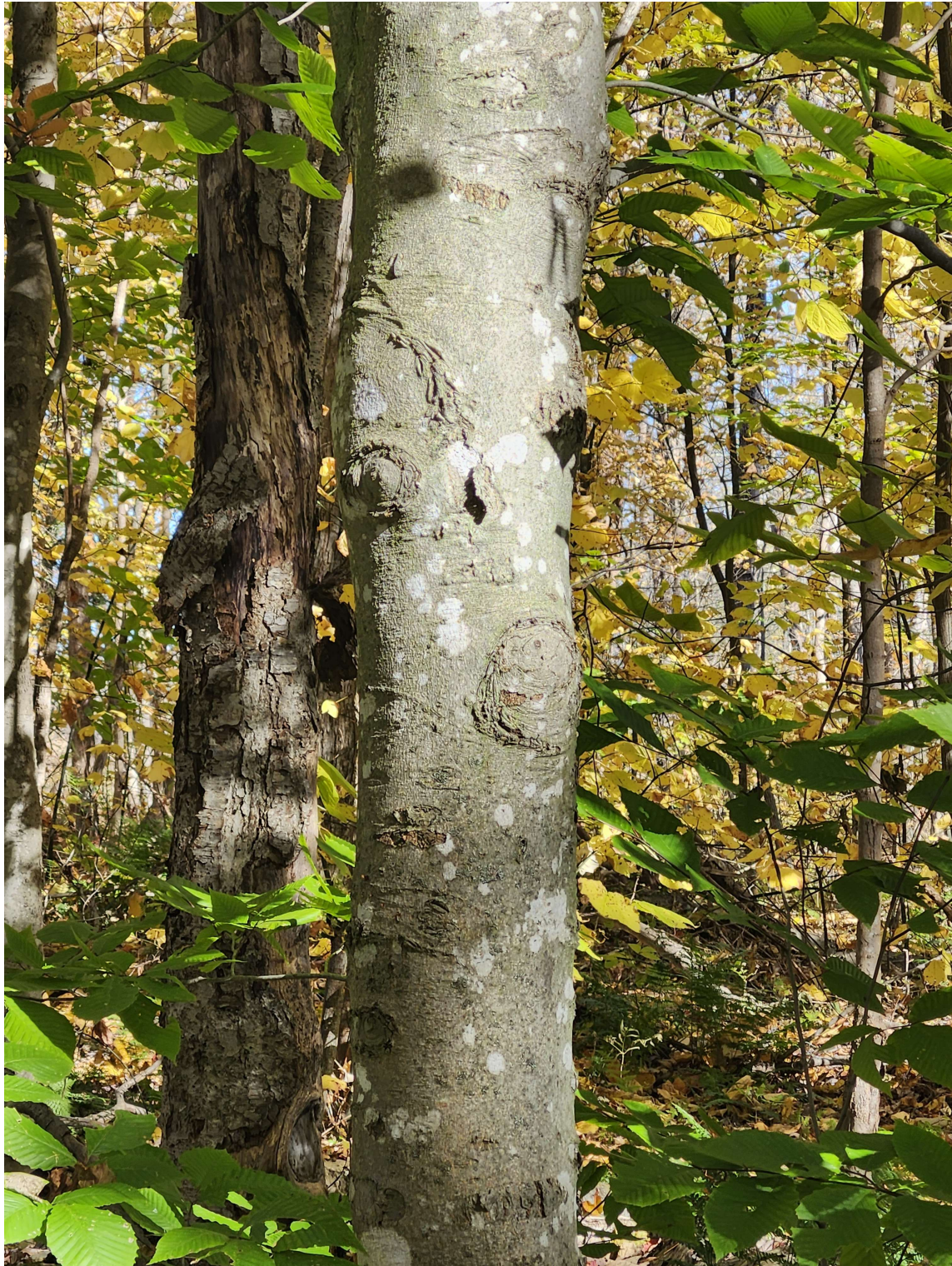
SM6

Acer Saccharum (Sugar Maple)



BE2

Fagus Grandifolia (American Beech)



BE3

Fagus Grandifolia (American Beech)



28" DBH



RM4

Acer Rubrum (Red Maple, Swamp Maple)

Upland understory



BE4

Fagus Grandifolia (American Beech)



Marsh in background, facing north

BE5

Fagus Grandifolia (American Beech)



BW3

Tilia Americana (Basswood)



EDGE3

Transition to marsh in background, facing east



EW P3

Pinus Strobus (Eastern White Pine)



BE6

Fagus Grandifolia (American Beech)



BW4

Tilia Americana (Basswood)



EDGE4

Transition to marsh & swamp in background, facing east



BW5

Tilia Americana (Basswood)



34" DBH



BW6

Tilia Americana (Basswood)

Transition in background



VM1

Acer Saccharinum (Silver Maple, Swamp Maple)



BW7

Tilia Americana (Basswood)

Transition in background



BW8

Tilia Americana (Basswood)

Transition in background



BC4

Prunus Serotina (Black Cherry)



BC5

Prunus Serotina (Black Cherry)



BW9

Tilia Americana (Basswood)



SM7

Acer Saccharum (Sugar Maple)



EWP4

Pinus Strobus (Eastern White Pine)



EWP5

Pinus Strobus (Eastern White Pine)



EW P6

Pinus Strobus (Eastern White Pine)



BC6

Prunus Serotina (Black Cherry)



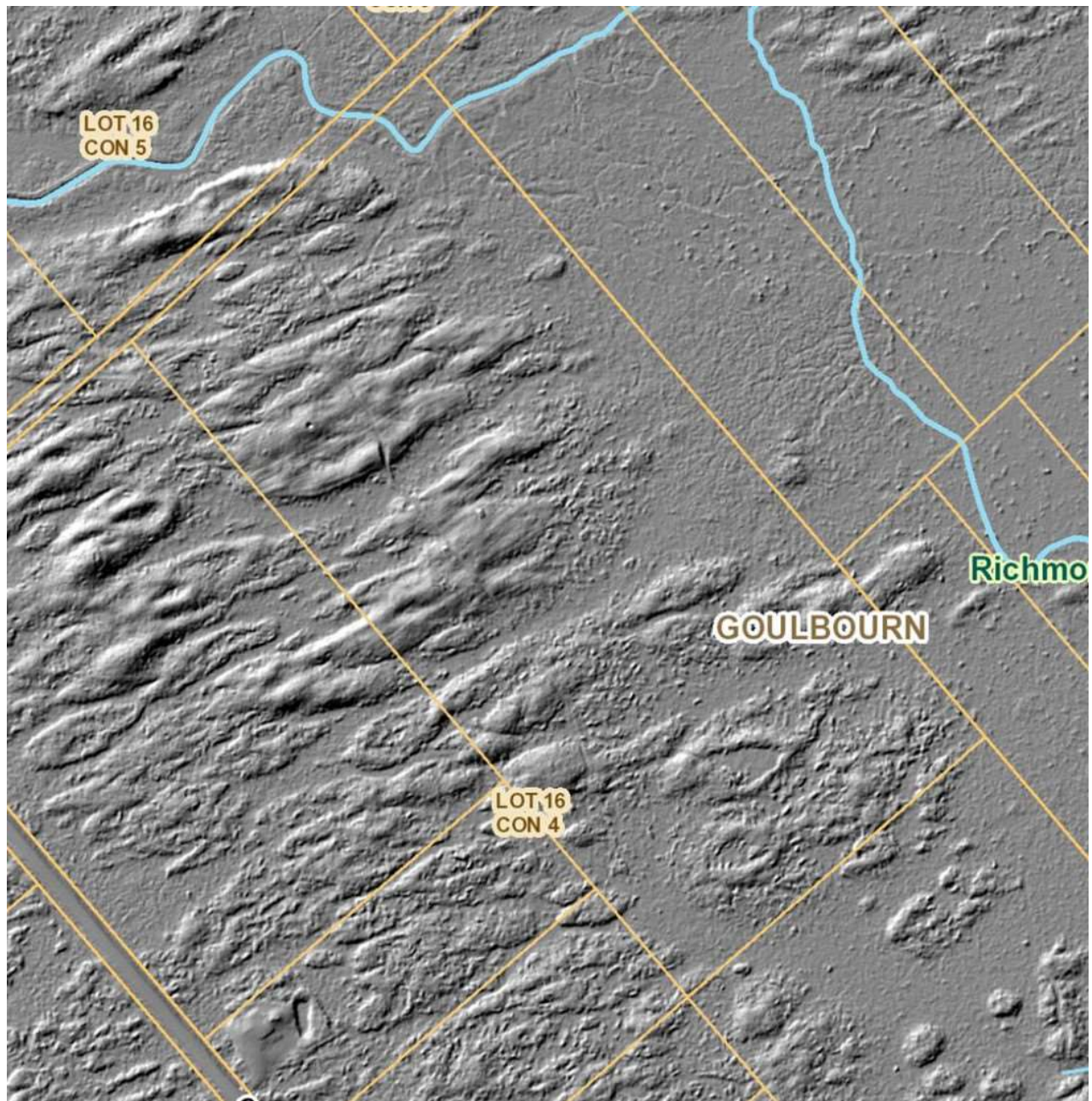
EWP7

Pinus Strobus (Eastern White Pine)



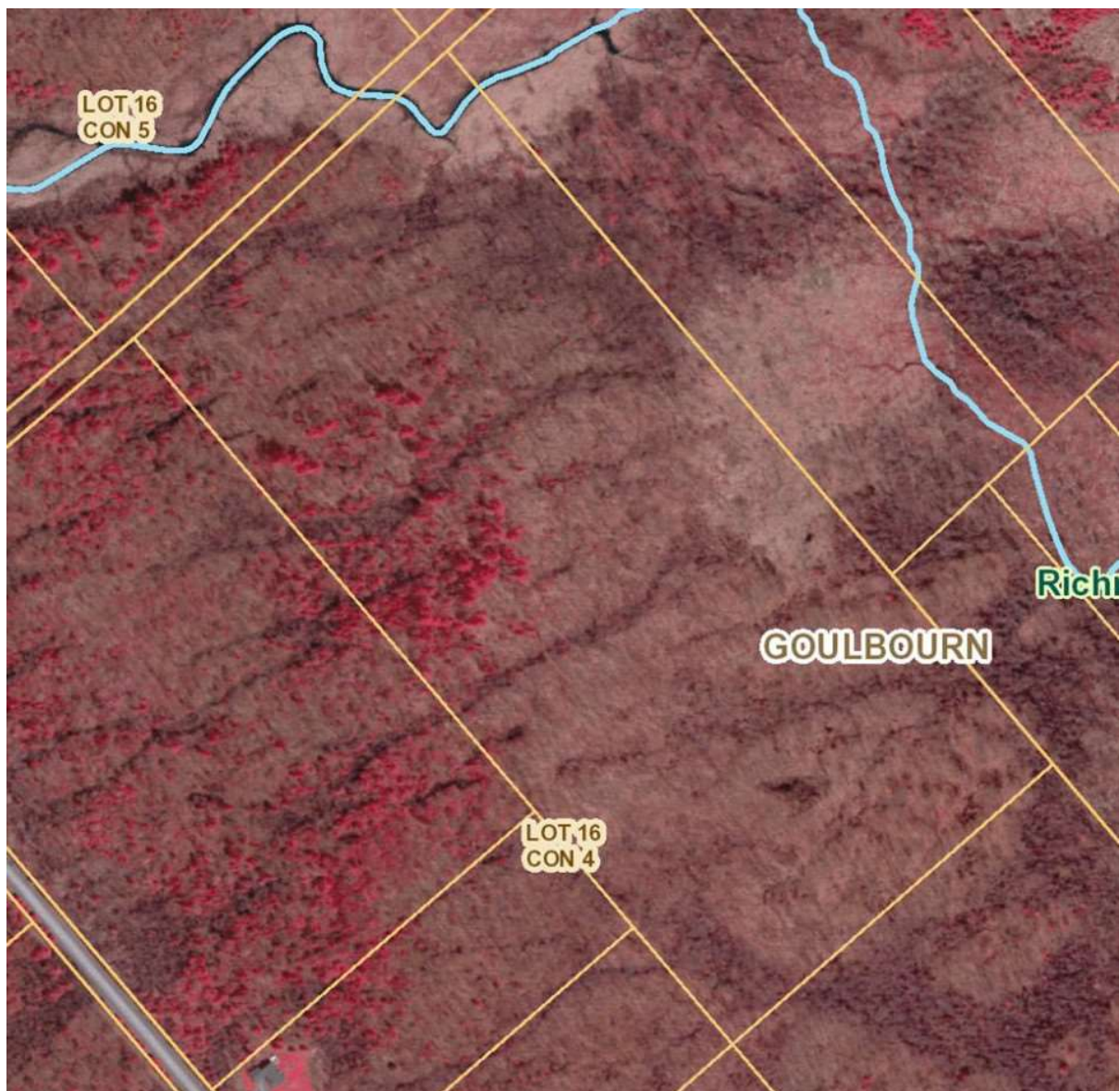
Appendix B

DEM of Study Area



Appendix C

2014 Infra Red Imagery of Study Area



Appendix D

WEDSR of Study Area

WETLAND EVALUATION DATA
AND SCORING RECORD

Wetland Name: Richmond Fen

Geographic Location (municipality, lot/concession, etc):

Lot 16 Con IV Goulbourn, Ottawa

Map / Photo Locational Reference (e.g., latitude/longitude, NTS map, UTM):

45.173257, -75.889922

Eco-District: Smiths Falls 6E-11

Wetland Size (hectares): N/A

| Vegetation Form | FA |
|--------------------|-----|
| h | .90 |
| c | .10 |
| dh | |
| dc | |
| ts | |
| ls | |
| ds | |
| gc | |
| m | |
| ne | |
| be | |
| re | |
| ff | |
| f | |
| su | |
| u | |

1.0 BIOLOGICAL COMPONENT

1.1 PRODUCTIVITY

1.1.1 Growing Degree-Days/Soils (max: 30 pts)

Refer to page 36 of manual for further explanation.

1. Determine the correct GDD value for your wetland (use Figure 5).
2. Circle the appropriate GDD value from the evaluation table below.
3. Determine the Fractional Area (FA) of the wetland for each soil type.
4. Multiply the fractional area of each soil type by the applicable score-factor in the evaluation table.
5. Sum the scores for each soil type to obtain the final score (maximum score is 30 points).

| 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 |

| Soil Type | FA of wetland in soil type | Enter appropriate score-factor from above table | |
|--------------|----------------------------|---|-----|
| Clay/Loam | | X | = |
| Silt/Marl: | | X | = |
| Limestone: | | X | = |
| Sand: | 1.00 | X 9 | = 9 |
| Humic/Mesic: | | X | = |
| Fibric: | | X | = |
| Granite: | | X | = |
| Total | | | |

GDD/Soils Score (maximum 30 points) 9

1.1.2 Wetland Type

(Fractional Areas = area of wetland type/total wetland area)

| | Fractional Area | | Score |
|-------|-----------------|--------|-------|
| Bog | | x 3 = | |
| Fen | | x 6 = | |
| Swamp | | x 8 = | |
| Marsh | | x 15 = | |
| Total | | = | N/A |

Wetland Type Score (maximum 15 points) 0

1.1.3 Site Type

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

| | Fractional Area | | Score |
|---|-----------------|-------|-------|
| Isolated | | x 1 = | |
| Palustrine (permanent or intermittent flow) | | x 2 = | |
| Riverine | | x 4 = | |
| Riverine (at rivermouth) | | x 5 = | |
| Lacustrine (at rivermouth) | | x 5 = | |
| Lacustrine (with barrier beach) | | x 3 = | |
| Lacustrine (exposed to lake) | | x 2 = | |
| Total | | = | N/A |

Site Type Score (maximum 5 points) 0

1.2 BIODIVERSITY

1.2.1 Number of Wetland Types

(Check only one)

| | | | |
|--|-------|---|----------|
| | One | = | 9 points |
| | Two | = | 13 |
| | Three | = | 20 |
| | Four | = | 30 |

Number of Wetland Types Score
(maximum 30 points) 0

1.2.2. Vegetation Communities

Use the data sheet provided in Appendix 4 to record and score vegetation communities (the completed form must be attached to this data record)

Scoring (circle only one option for each of the columns below):

| 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 pts | 1 = 2 pts | 1 = 3 pts |
| 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 |
| + 0.5 for each additional community = | + 0.5 for each additional community = | + 1.0 for each additional community = |

Vegetation Communities Score
(maximum 45 points) 1.5

1.2.3 Diversity of Surrounding Habitat

Check all appropriate items. Only habitat within 1.5 km of the wetland boundary and at least 0.5 ha in size are to be scored.

| | |
|-------------------------------------|---|
| <input type="checkbox"/> | row crop |
| <input type="checkbox"/> | pasture |
| <input checked="" type="checkbox"/> | abandoned agricultural land |
| <input checked="" type="checkbox"/> | deciduous forest |
| <input checked="" type="checkbox"/> | coniferous forest |
| <input type="checkbox"/> | mixed forest* |
| <input type="checkbox"/> | abandoned pits and quarries |
| <input type="checkbox"/> | open lake or deep river |
| <input type="checkbox"/> | fence rows with deep cover, or shelterbelts |
| <input type="checkbox"/> | terrain appreciably undulating, hilly or with ravines |
| <input checked="" type="checkbox"/> | creek flood plain |

* "Mixed forest" is defined as either 25% coniferous trees distributed singly or in clumps in deciduous forest, or 25% deciduous trees distributed singly or in clumps in coniferous forest. Note that Forest Resource Inventory (FRI) maps can be misleading since 25% conifer within a unit could be entirely concentrated around a lake.

Score 1 point for each feature checked, up to a maximum of 7 points.

Diversity of Surrounding Habitat Score
(maximum 7 points) 3

1.2.4 Proximity to Other Wetlands

Check highest appropriate category. (Note: if the wetland is lacustrine, score option #1 at 8 points).

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

Name and distance (from wetland) of wetlands/waterbodies scored above:

Proximity to other Wetlands Score
(maximum 8 points) N/A

1.2.5 Interspersion

Number of Intersections = N/A

| ✓ | Number of Intersections (Check one only) | Points |
|---|---|--------|
| | 26 or less | = 3 |
| | 27 to 40 | = 6 |
| | 41 to 60 | = 9 |
| | 61 to 80 | = 12 |
| | 81 to 100 | = 15 |
| | 101 to 125 | = 18 |
| | 126 to 150 | = 21 |
| | 151 to 175 | = 24 |
| | 176 to 200 | = 27 |
| | >200 | = 30 |

Interspersion Score (maximum 30 points) N/A

1.2.6 Open Water Types

NOTE: this attribute is only to be scored for permanently flooded open water within the wetland (adjacent lakes do not count). Check one option only.

| ✓ | Open Water Type | Characteristic | Points |
|---|-----------------|---|--------|
| | Type 1 | Open water occupies < 5 % of wetland area | = 8 |
| | Type 2 | Open water occupies 5-25% of wetland (occurring in central area) | = 8 |
| | Type 3 | Open water occupies 5-25% (occurring in various-sized ponds, dense patches of vegetation or vegetation in diffuse stands) | = 14 |
| | Type 4 | Open water occupies 26-75% of wetland (occurring in a central area) | = 20 |
| | Type 5 | Open water occupies 26-75% of wetlands (small ponds and embayments are common) | = 30 |
| | Type 6 | Open water occupies 76-95% of wetland (occurring in large central area; vegetation is peripheral) | = 8 |
| | Type 7 | Open water occupies 76-95% of wetland (vegetation in patches or diffuse open stands) | = 14 |
| | Type 8 | Open water occupies more than 95% of wetland area | = 3 |
| | No open water | | = 0 |

Open Water Type Score (maximum 30 points) 0

1.3 SIZE (BIOLOGICAL COMPONENT)

Total Size of Wetland = N/A ha

Sum of scores from Biodiversity Subcomponent

1.2.1
+ 1.2.2
+ 1.2.3
+ 1.2.4
+ 1.2.5
+ 1.2.6

Circle the appropriate score from the table below.

| | Total Score for Biodiversity Subcomponent | | | | | | | | | |
|-----------|---|-------|-------|-------|-------|-------|--------|---------|---------|------|
| | <37 | 37-47 | 48-60 | 61-72 | 73-84 | 85-96 | 97-108 | 109-120 | 121-132 | >132 |
| <20 ha | 1 | 5 | 7 | 8 | 9 | 17 | 25 | 34 | 43 | 50 |
| 20-40 | 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 |

Size Score (Biological Component)
(maximum 50 points) N/A

2.0 SOCIAL COMPONENT

2.1 ECONOMICALLY VALUABLE PRODUCTS

2.1.1 Wood Products

Check the option that best reflects the total area (ha) of forested wetland (i.e., areas where the dominant vegetation form is h or c). Note that this is the area of all the forested vegetation communities, not total wetland size. Do not include areas where harvest is not permitted. Check only one option.

Area of wetland used for scoring 2.1.1: _____

| | | | |
|---|--------------|---|-------|
| | < 5 ha | = | 0 pts |
| | 5 - 25 ha | = | 3 |
| | 26 - 50 ha | = | 6 |
| ✓ | 51 - 100 ha | = | 9 |
| | 101 - 200 ha | = | 12 |
| | > 200 ha | = | 18 |

Source of information:

~~area~~ aerial photos

Wood Products Score (maximum 18 points) 9

2.1.2 Wild Rice

Check only one.

| | | | |
|---|----------------------------|---|-------|
| ✓ | Present (min. size 0.5 ha) | = | 6 pts |
| | Absent | = | 0 |
| | Harvest not permitted | = | 0 |

Source of information:

Wild Rice Score (maximum 6 points) 0

2.1.3 Commercial Baitfish

Check only one.

| | | |
|-------------------------------------|-----------------------|----------|
| <input checked="" type="checkbox"/> | Present | = 12 pts |
| <input type="checkbox"/> | Absent | = 0 |
| <input type="checkbox"/> | Fishing not permitted | = 0 |

Source of information:

Commercial Fish Score (maximum 12 points)

6

2.1.4 Furbearers

Only species recognized as furbearers under the Fish & Wildlife Conservation Act may be scored here. Score 3 points for each furbearer species listed, up to a maximum of 12 points. Score 0 points if trapping is prohibited.

| | Name of furbearer | Source of information |
|----|-------------------|-----------------------|
| 1. | beaver | visual 10 |
| 2. | fisher | visual 10 |
| 3. | | |
| 4. | | |
| 5. | | |
| 6. | | |

Furbearer Score (maximum 12 points)

6

2.2 RECREATIONAL ACTIVITIES

Sources of information and reasons for scoring a wetland under high or moderate use below, must be included below.

Circle one score for each of the activities listed. Score is cumulative – add score for hunting, nature enjoyment and fishing together for final score.

| Intensity of Use | Type of Wetland-Associated Use | | |
|------------------|--------------------------------|--------------------------------------|-----------|
| | Hunting | Nature Enjoyment/ Ecosystem Study | Fishing |
| | High | 40 points | 40 points |
| | Moderate | 20 | 20 |
| | Low | 8 | 8 |
| | Not Possible/ No evidence | 0 | 0 |

Sources of information (include evidence/criteria forming basis for score and any relevant reference used to obtain that information):

Hunting: Land owner

Nature: Land owner

Fishing: Land owner

Recreational Activities Score
(maximum 80 points) 20

2.3 LANDSCAPE AESTHETICS

2.3.1 Distinctness

Check only one.

| | | |
|-------------------------------------|------------------|---------|
| <input checked="" type="checkbox"/> | Clearly Distinct | = 3 pts |
| <input type="checkbox"/> | Indistinct | = 0 |

Landscape Distinctness Score

(maximum 3 points) 3

2.3.2 Absence of Human Disturbance

Check only one.

| | | |
|-------------------------------------|--|---------|
| <input checked="" type="checkbox"/> | Human disturbances absent or nearly so | = 7 pts |
| <input type="checkbox"/> | One or several localized disturbances | = 4 |
| <input type="checkbox"/> | Moderate disturbance; localized water pollution | = 2 |
| <input type="checkbox"/> | Wetland intact but impairment of ecosystem quality intense in some areas | = 1 |
| <input type="checkbox"/> | Extreme ecological degradation, or water pollution severe and widespread | = 0 |

Details regarding type, extent and location of disturbance scored:

mineral Timber harvest

Source of information:

Landowners last 60 years

Absence of Human Disturbance Score

(maximum 7 points) 7

2.4 EDUCATION AND PUBLIC AWARENESS

2.4.1 Educational Uses

Check highest appropriate category.

| | | |
|-------------------------------------|------------|----------|
| <input type="checkbox"/> | Frequent | = 20 pts |
| <input type="checkbox"/> | Infrequent | = 12 |
| <input checked="" type="checkbox"/> | No visits | = 0 |

Details regarding the type and frequency of education uses scored above:

Source of information:

Land owner

Educational Uses Score (maximum 20 points) 0

2.4.2 Facilities and Programs

Check all appropriate options, score highest category checked.

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

Additional Notes/Comments:

Source of information:

Land owner

Facilities and Programs Score
(maximum 8 points) 0

2.4.3 Research and Studies

Check all that apply; score highest category checked.

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

List of reports, publications, research studies etc. scored above:

Research and Studies Score
(maximum 12 points) 0

2.5 PROXIMITY TO AREAS OF HUMAN SETTLEMENT

Name of Settlement:

monster hamlet

Distance of wetland from settlement:

5 km

Population of settlement:

1145

(Source: 2021 Census)

Circle only the highest score applicable

| | population >10,000 | population 2,500-10,000 | population <2,500 or cottage community |
|-----------------------------------|-----------------------|----------------------------|--|
| within or adjoining settlement | 40 points | 26 points | 16 points |
| 0.5 to 10 km from settlement | 26 | 16 | <u>10</u> |
| 10 to 60 km from settlement | 12 | 8 | 4 |
| >60 km from nearest settlement | 5 | 2 | 0 |

Proximity to Human Settlement Score
(maximum 40 points) 10

2.6 OWNERSHIP

| | |
|---|-------------------------|
| FA of wetland held by or held under a legal contract by a conservation body (as defined by the Conservation Land Act) for wetland protection | _____ x 10 = _____ |
| FA of wetland occurring in provincially or nationally protected areas (e.g., parks and conservation reserves) | _____ x 10 = _____ |
| FA of wetland area in Crown/public ownership, not as above | _____ x 8 = _____ |
| FA of wetland area in private ownership, not as above | <u>1</u> x 4 = <u>4</u> |

Source of information: _____

Ownership Score (maximum 10 points) 4

*not a wetland
⇒ 0*

2.7 SIZE (SOCIAL COMPONENT)

Total Size of Wetland = N/A ha Sum of scores from Subcomponents 2.1, 2.2, and 2.5 = _____

Circle the appropriate score from the table below.

Total for Size Dependent Social Features

| | <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 |
| 2-4 | 1 | 2 | 4 | 8 | 12 | 13 | 14 | 14 | 15 | 16 |
| 5-8 | 2 | 2 | 5 | 9 | 13 | 14 | 15 | 15 | 16 | 16 |
| 9-12 | 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 | 10 | 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) N/A

2.8 ABORIGINAL VALUES AND CULTURAL HERITAGE

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

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

2.8.1 Aboriginal Values

| | | |
|-----------------|---|--------|
| Significant | = | 30 pts |
| Not Significant | = | 0 |
| Unknown | = | 0 |

Additional Comments/Notes:

2.8.2 Cultural Heritage

| | | |
|-----------------|---|--------|
| Significant | = | 30 pts |
| Not Significant | = | 0 |
| Unknown | = | 0 |

Additional Comments/Notes:

Aboriginal Values/Cultural Heritage Score
(maximum 30 points) 0

3.0 HYDROLOGICAL COMPONENT

3.1 FLOOD ATTENUATION

Check one of the following options.

- ☐ If wetland is a coastal wetland, \Rightarrow score 0 points for this section.
- ☐ If wetland is entirely isolated in site type, \Rightarrow score 100 points automatically.
- ☐ Wetland not as above – proceed through 'steps' A through F below.

- (A) Total wetland area = _____ ha
- (B) Size of wetland's catchment = _____ ha
- (C) Size of other detention areas in catchment = _____ ha
- (D) Total area of upstream detention areas = $\{A + C\}$ = _____ ha
- (E) Upstream Detention Factor = $\{(A/D) \times 2\}$ = _____ (maximum 1.0)
- (F) Attenuation Factor = $\{(A/B) \times 10\}$ = _____ (maximum 1.0)

Flood Attenuation Final Score = $\{(E + F) / 2\} \times 100$ = _____

Flood Attenuation Score (maximum 100 points) NA

3.2 WATER QUALITY IMPROVEMENT

3.2.1 Short Term Water Quality Improvement

Step 1: Determination of maximum initial score

| | |
|--------------------------|---|
| <input type="checkbox"/> | Wetland on one of the 5 defined large lakes or 5 major rivers (Go to Step 5A) |
| <input type="checkbox"/> | 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)

| | | | |
|--|---|---------|--|
| FA of isolated wetland | = | x 0.5 = | |
| FA of riverine wetland | = | x 1.0 = | |
| FA of palustrine wetland with no inflow | = | x 0.7 = | |
| FA of palustrine wetland with inflows | = | x 1.0 = | |
| FA of lacustrine on lake shoreline | = | x 0.2 = | |
| FA of lacustrine at lake inflow or outflow | = | x 1.0 = | |

Sum (WIF cannot exceed 1.0) NA

Step 3: Determination of Catchment Land Use Factor (LUF)

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

| | | | |
|--------------------------|---|---|-----|
| <input type="checkbox"/> | Over 50% agricultural and/or urban | = | 1.0 |
| <input type="checkbox"/> | Between 30 and 50% agricultural and/or urban | = | 0.8 |
| <input type="checkbox"/> | Over 50% forested or other natural vegetation | = | 0.6 |

LUF (maximum 1.0) NA .8

Step 4: Determination of Pollutant Uptake Factor (PUF)

Calculation of PUF 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 type.

(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) | = x 0.75 = | |
| FA of wetland with emergent, submergent or floating vegetation (re, be, ne, su, f, ff) | = x 1.0 = | |
| FA of wetland with little or no vegetation (u) | = x 0.5 = | |

Sum (PUF cannot exceed 1.0) NA

Step 5: Calculation of final score

| | | |
|---|--|-------|
| <input type="checkbox"/> | Wetland on defined 5 major lakes or 5 major rivers | 0 |
| <input type="checkbox"/> | All other wetlands – calculate as follows | |
| | Initial score | 60 |
| | Watershed Improvement Factor (WIF) | _____ |
| | Land Use Factor (LUF) | _____ |
| | Pollutant Uptake Factor (PUF) | _____ |
| Final score: $60 \times \text{WIF} \times \text{LUF} \times \text{PUF} =$ | | _____ |

Short Term Water Quality Improvement Score
(maximum 60 points) NT

3.2.2 Long Term Nutrient Trap

Step 1:

| | |
|--------------------------|---|
| <input type="checkbox"/> | Wetland on defined 5 major lakes or 5 major rivers = 0 points |
| <input type="checkbox"/> | All other wetlands (Proceed to Step 2) |

Step 2: Choose only one of the following settings that best describes the wetland being evaluated

| | | |
|--------------------------|---|----------|
| <input type="checkbox"/> | Wetland located in a river mouth | = 10 pts |
| <input type="checkbox"/> | Wetland is a bog, fen, or swamp with more than 50% of the wetland being covered with organic soil | = 10 |
| <input type="checkbox"/> | Wetland is a bog, fen, or swamp with less than 50% of the wetland being covered with organic soil | = 3 |
| <input type="checkbox"/> | Wetland is a marsh with more than 50% of the wetland covered with organic soil | = 3 |
| <input type="checkbox"/> | None of the above | = 0 |

Long Term Nutrient Trap Score
(maximum 10 points) NA

3.2.3 Groundwater Discharge

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). Note: for wetland type, wetland type scored does not have to be the dominant type in the wetland.

| Wetland Characteristics | Potential for Discharge | | | |
|--|-------------------------|------------------|----------------------|-----------------|
| | None to Little | Some | High | |
| | Wetland type | Bog = 0 | Swamp/Marsh = 2 | Fen = 5 |
| | Topography | Flat/rolling = 0 | Hilly = 2 | Steep = 5 |
| | Wetland area: | Large (>50%) = 0 | Moderate (5-50%) = 2 | Small (<5%) = 5 |
| | Upslope catchment area | | | |
| | Lagg development | None found = 0 | Minor = 2 | Extensive = 5 |
| | Seeps | None = 0 | ≤ 3 seeps = 2 | > 3 seeps = 5 |
| | Surface marl deposits | None = 0 | ≤ 3 sites = 2 | > 3 sites = 5 |
| | Iron precipitates | None = 0 | ≤ 3 sites = 2 | > 3 sites = 5 |
| Located within 1 km of a major aquifer | N/A = 0 | N/A = 0 | Yes = 10 No = 0 | |

Additional Comments/Notes:

Groundwater Discharge Score
(maximum 30 points) 24

3.3 CARBON SINK

Check only one of the following:

| | |
|---|---------|
| Bog, fen or swamp with more than 50% coverage by organic soil | = 5 pts |
| Bog, fen or swamp with between 10 to 50% coverage by organic soil | = 2 |
| Marsh with more than 50% coverage by organic soil | = 3 |
| Wetlands not in one of the above categories | = 0 |

Source of information:

Carbon Sink Score

(maximum 5 points) NA

3.4 SHORELINE EROSION

CONTROL

From the wetland vegetation map determine the dominant vegetatino type within the erosion zone for lacustrine and riverine site type areas only. Score according to the factors listed below.

Step 1:

| | |
|---|----------------|
| Wetland entirely isolated or palustrine | = 0 pts |
| Any part of the wetland is riverine or lacustrine | = Go to step 2 |

Step 2: Choose the one characteristic that best describes the shoreline vegetation (see page 109 for description of "shoreline".)

| | |
|----------------------------|----------|
| Trees and shrubs | = 15 pts |
| Emergent vegetation | = 8 |
| Submergent vegetation | = 6 |
| Other shoreline vegetation | = 3 |
| No vegetation | = 0 |

Shoreline Erosion Control Score

(maximum 15 points) NA

3.5 GROUNDWATER RECHARGE

3.5.1 Site Type

| | | | |
|---|---|--------|-------|
| Wetland > 50% lacustrine (by area) or located on one of the five major rivers | | = | 0 pts |
| Wetland not as above. Calculate final score as follows: | | | |
| ■ FA of isolated or palustrine wetland | = | x 50 = | |
| ■ FA of riverine wetland | = | x 20 = | |
| ■ FA of lacustrine wetland (not dominant site type) | = | x 0 = | |

Groundwater Recharge/Wetland Site Type Score
(maximum 50 points) N/A

3.5.2 Soil Recharge Potential

Circle only one choice that **best** describes the soils in **the area surrounding the wetland** being evaluated (the soils within the wetland are not scored here).

| Dominant Wetland Type | Group A, B, C (sands, gravels, loams) | Group D (clays, substrates in high water tables, shallow substrates over impervious materials such as bedrock) |
|---------------------------------|---|--|
| | | |
| Lacustrine or major river | 0 | 0 |
| Isolated | 10 | 5 |
| Palustrine | 7 | 4 |
| Riverine (not on a major river) | 5 | 2 |

Groundwater Recharge/Wetland Soil Recharge
Potential Score (maximum 10 points) 5

4.0 SPECIAL FEATURES

COMPONENT

4.1 RARITY

4.1.1 Wetland Types

| Ecodistrict | Rarity within the Landscape (4.1.1.1) | Rarity of Wetland Type (4.1.1.2) | | | |
|-------------|---|----------------------------------|-------|-----|-----|
| | | Marsh | Swamp | Fen | Bog |
| 6E-1 | 60 | 40 | 0 | 80 | 80 |
| 6E-2 | 60 | 40 | 0 | 80 | 80 |
| 6E-4 | 60 | 40 | 0 | 80 | 80 |
| 6E-5 | 20 | 40 | 0 | 80 | 80 |
| 6E-6 | 40 | 20 | 0 | 80 | 80 |
| 6E-7 | 60 | 10 | 0 | 80 | 80 |
| 6E-8 | 20 | 20 | 0 | 80 | 80 |
| 6E-9 | 0 | 20 | 0 | 80 | 80 |
| 6E-10 | 20 | 0 | 20 | 80 | 80 |
| 6E-11 | 0 | 30 | 0 | 80 | 80 |
| 6E-12 | 0 | 30 | 0 | 60 | 80 |
| 6E-13 | 60 | 10 | 0 | 80 | 80 |
| 6E-14 | 40 | 20 | 0 | 40 | 80 |
| 6E-15 | 40 | 0 | 0 | 80 | 80 |
| 6E-16 | 60 | 20 | 0 | 80 | 60 |
| 6E-17 | 40 | 10 | 0 | 30 | 80 |
| 7E-1 | 60 | 0 | 60 | 80 | 80 |
| 7E-2 | 60 | 0 | 0 | 80 | 80 |
| 7E-3 | 60 | 00 | 0 | 80 | 80 |
| 7E-4 | 80 | 0 | 0 | 80 | 80 |
| 7E-5 | 60 | 20 | 0 | 80 | 80 |
| 7E-6 | 80 | 30 | 0 | 80 | 80 |

4.1.1.1 Rarity within the Landscape

Choose appropriate score from 2nd column above.

Score (maximum 80 points) NA

4.1.1.2 Rarity of Wetland Type

Score is cumulative, based on presence/absence. Circle all appropriate scores from above table and sum.

Score (maximum 80 points) NA

4.1.2 Species

4.1.2.1 Provincially Significant Animal Species

| Common Name | Scientific Name | Activity | Dates Observed | Info Source |
|-------------|-----------------|----------|----------------|-------------|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Additional Notes/Comments:

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

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

Provincially Significant Animal Species
(no maximum) NA

4.1.2.2 Provincially Significant Plant Species

| Common Name | Scientific Name | Activity | Dates Observed | Info Source |
|-------------|-----------------|----------|----------------|-------------|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Additional Notes/Comments:

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

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

Provincially Significant Plant Species
(no maximum) NA

4.1.2.3 Regionally Significant Species

| Common Name | Scientific Name | Activity | Dates Observed | Info Source |
|-------------|-----------------|----------|----------------|-------------|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

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

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

Regionally Significant Species Score
(no maximum score) NA

4.1.2.4 Locally Significant Species

| Common Name | Scientific Name | Activity | Dates Observed | Info Source |
|-------------|-----------------|----------|----------------|-------------|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

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

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

Locally Significant Species Score
(no maximum score) NA

4.2 SIGNIFICANT FEATURES AND HABITATS

4.2.1 Colonial Waterbirds

Record all available information. Score the highest applicable category. Include additional information as possible (e.g., nest locations, etc).

| Activity | Species | Info Source | Points |
|---|---------|-------------|--------|
| Currently nesting | | | = 50 |
| Known to have nested within the past 5 years | | | = 25 |
| Active feeding area (great blue heron excluded) | | | = 15 |
| None known | | | = 0 |

Additional Notes/Comments:

Colonial Waterbird Nesting Score
(maximum 50 points) NA

4.2.2 Winter Cover for Wildlife

Score highest appropriate category. Include rationale/sources of information.

| | |
|-----------------------------|-----------|
| Provincially significant | = 100 pts |
| Significant in Ecoregion | = 50 |
| Significant in Ecodistrict | = 25 |
| Locally significant | = 10 |
| Little or poor winter cover | = 0 |

Species/habitat/vegetation community scored (e.g., winter deer cover in hemlock swamp, S3 and S4b):

Source of information:

Winter Cover for Wildlife Score
(maximum 100 points) NA

4.2.3 Waterfowl Staging and/or Moulting Areas

Check highest level of significance for both staging and moulting; add scores for staging and for moulting together for final score. However, maximum score for evaluation under this section is 150 points.

| | Staging | Moulting |
|--|-----------|-----------|
| Nationally/internationally significant | = 150 pts | = 150 pts |
| Provincially significant | = 100 | = 100 |
| Significant in the Ecoregion | = 50 | = 50 |
| Significant in Ecodistrict | = 25 | = 25 |
| Known to occur | = 10 | = 10 |
| Not possible/Unknown | = 0 | = 0 |

Species/habitat/vegetation community scored (e.g., approx 20 mallards in W3):

Source of information:

Waterfowl Staging/Moulting Score
(maximum 150 points) NA

4.2.4 Waterfowl Breeding

Check highest level of significance.

| | | |
|--|--|-----------|
| | Nationally/internationally significant | = 150 pts |
| | Provincially significant | = 100 |
| | Significant in the Ecoregion | = 50 |
| | Significant in Ecodistrict | = 25 |
| | Habitat Suitable | = 10 |
| | Habitat not suitable | = 0 |

Species/habitat/vegetation community scored (e.g., mallard in W3):

Source of information:

Waterfowl Breeding Score
(maximum 150 points) NA

4.2.5 Migratory Passerine, Shorebird or Raptor Stopover Area

Check highest level of significance.

| | | |
|--|--|-----------|
| | Nationally / internationally significant | = 150 pts |
| | Provincially significant | = 100 |
| | Significant in Ecoregion | = 50 |
| | Significant in Ecodistrict | = 25 |
| | Known to occur | = 10 |
| | Not possible / Unknown | = 0 |

Species/habitat/vegetation community scored:

Source of information:

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

4.2.6 Fish Habitat

4.2.6.1 Spawning and Nursery Habitat

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 + | 1.0 |

Step 1:

☐
☐

Fish habitat is not present within the wetland

Go to Step 7, Score 0 points

Fish habitat is present within the wetland

Go to Step 2

Step 2: Choose only one option

☐

Significance of the spawning and nursery habitat within the wetland is known

Go to Step 3

☐

Significance of the spawning and nursery habitat within the wetland is not known

Go through Steps 4, 5 and 6

Step 3: Select the highest appropriate category below, attach documentation:

Significant in Ecoregion

Go to Step 7, Score 100 points

Significant in Ecodistrict

Go to Step 7, Score 50 points

Locally Significant Habitat (5.0+ ha)

Go to Step 7, Score 25 points

Locally Significant Habitat (<5.0 ha)

Go to Step 7, Score 15 points

Source of information:

Step 4: Low Marsh = the 'permanent' marsh area, from the existing water line out to the outer boundary of the wetland.

☐
☐

Low marsh not present

Go to Step 5

Low marsh present

Continue through Step 4, scoring as noted below

Scoring of Low Marsh:

1. Check the appropriate **Vegetation Group** (see Appendix 7) for each Low Marsh community. (Based on the one most clearly dominant plant species of the dominant form in each Low Marsh vegetation community.)
2. Sum the areas (ha) of the vegetation communities assigned to each **Vegetation Group**.
3. Use these areas to assign an **Area Factor** (from Table 7) for each checked **Vegetation Group**.
4. Multiply the **Area Factor** by the **Multiplication Factor** for each row to calculate **Score**.
5. Sum all numbers in Score column to get **Total Score for Low Marsh**.

| Scoring for Presence of Key Vegetation Groups – Low Marsh | | | | | | |
|---|-----------------------------|------------------------------------|-----------------|----------------------------|-----------------------|-------|
| Vegetation Group Number | Vegetation Group Name | Present as a Dominant Form (check) | Total Area (ha) | Area Factor (from Table 7) | Multiplication Factor | Score |
| 1 | Tallgrass | | | | 6 | |
| 2 | Shortgrass-Sedge | | | | 11 | |
| 3 | Cattail-Bulrush-Burreed | | | | 5 | |
| 4 | Arrowhead-Pickerelweed | | | | 5 | |
| 5 | Duckweed | | | | 2 | |
| 6 | Smartweed-Waterwillow | | | | 6 | |
| 7 | Waterlily-Lotus | | | | 11 | |
| 8 | Waterweed-Watercress | | | | 9 | |
| 9 | Ribbongrass | | | | 10 | |
| 10 | Coontail-Naiad-Watermilfoil | | | | 13 | |
| 11 | Narrowleaf Pondweed | | | | 5 | |
| 12 | Broadleaf Pondweed | | | | 8 | |
| Total Score for Low Marsh (maximum 75 points) | | | | | | |

Continue to Step 5

NA

Step 5: High Marsh = the 'seasonal' 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.

☐
☐

High marsh not present

Go to Step 6

High marsh present

Continue through Step 5, scoring as noted below

Scoring of High Marsh:

1. Check the appropriate **Vegetation Group** (see Appendix 7) for each High Marsh community. (Based on the one most clearly dominant plant species of the dominant form in each High Marsh vegetation community.)
2. Sum the areas (ha) of the vegetation communities assigned to each **Vegetation Group**.
3. Use these areas to assign an **Area Factor** (from Table 7) for each checked **Vegetation Group**.
4. Multiply the **Area Factor** by the **Multiplication Factor** for each row to calculate **Score**.
5. Sum all numbers in Score column to get **Total Score for High Marsh**.

Scoring for Presence of Key Vegetation Groups – High Marsh

| Vegetation Group Number | Vegetation Group Name | Present as a Dominant Form (check) | Total Area (ha) | Area Factor (from Table 7) | Multiplication Factor | Score |
|--|-------------------------|------------------------------------|-----------------|----------------------------|-----------------------|-------|
| 1 | Tallgrass | | | | 6 | |
| 2 | Shortgrass-Sedge | | | | 11 | |
| 3 | Cattail-Bulrush-Burreed | | | | 5 | |
| 4 | Arrowhead-Pickerelweed | | | | 5 | |
| Total Score for High Marsh (maximum 25 points) | | | | | | |

Continue to Step 6

NA

Step 6:

| | |
|--------------------------|---|
| <input type="checkbox"/> | Swamp containing fish habitat not present |
| <input type="checkbox"/> | Swamp containing fish habitat present |

Go to Step 7

Continue through Step 6, scoring as follows

Scoring of Swamp:

1. Determine the total area (ha) of seasonally flooded swamp communities within the wetland containing fish habitat and record below.
2. Determine the total area (ha) of permanently flooded swamp communities within the wetland containing fish habitat and record below.
3. Use these areas to assign an **Area Factor** (from Table 7).
4. Multiply the Area Factor by the **Multiplication Factor** for each row to calculate **Score**.
5. Sum all numbers in Score column to get **Total Score for Swamp**.

| Scoring Swamps for Fish Habitat (Seasonally flooded; Permanently flooded) | | | | | |
|---|-----------------|-----------------|----------------------------|-----------------------|-------|
| Swamp Containing Fish Habitat | Present (check) | Total Area (ha) | Area Factor (from Table 7) | Multiplication Factor | Score |
| Seasonally Flooded Swamp | | | | 10 | |
| Permanently Flooded Swamp | | | | 10 | |
| Total Score for Swamp (maximum 20 points) | | | | | |

Continue to Step 7

NA

Step 7: CALCULATION OF FINAL SCORE

NOTE: Scores for Steps 4, 5 and 6 are only recorded if Steps 1 and 3 have not been scored.

- A. Score from Step 1 (fish habitat not present) = _____
- B. Score from Step 3 (significance known) = _____
- C. Score from Step 4 (Low Marsh) = _____
- D. Score from Step 5 (High Marsh) = _____
- E. Score from Step 6 (Swamp) = _____

Calculation of Final Score for Spawning and Nursery Habitat = A or B or Sum of C, D, and E

Score for Spawning and Nursery Habitat
(maximum 100 points) NA

4.2.6.2 Migration and Staging Habitat

Step 1:

| | | |
|--------------------------|--|------------------------------|
| <input type="checkbox"/> | Staging or Migration Habitat is not present in the wetland | Go to Step 4, Score 0 points |
| <input type="checkbox"/> | Staging or Migration Habitat is present in the wetland, significance of the habitat is known | Go to Step 2 |
| <input type="checkbox"/> | Staging or Migration Habitat is present in the wetland, significance of the habitat is not known | Go to Step 3 |

Step 2: Select the highest appropriate category below. Ensure that documentation is attached to the data record.

| | | |
|--------------------------|---|---------------------------|
| <input type="checkbox"/> | Significant in Ecoregion | Score 25 points in Step 4 |
| <input type="checkbox"/> | Significant in Ecodistrict | Score 15 points in Step 4 |
| <input type="checkbox"/> | Locally Significant | Score 10 points in Step 4 |
| <input type="checkbox"/> | Fish staging and/or migration habitat present, but not as above | Score 5 points in Step 4 |

Source of information:

Step 3: Select the highest appropriate category below based on presence of the designated site type (i.e. does not have to be the dominant site type). Refer to Site Types recorded earlier (section 1.1.3). Attach documentation.

| | | |
|--------------------------|---|---------------------------|
| <input type="checkbox"/> | Wetland is riverine at rivermouth or lacustrine at rivermouth | Score 25 points in Step 4 |
| <input type="checkbox"/> | Wetland is riverine, within 0.75 km of rivermouth | Score 15 points in Step 4 |
| <input type="checkbox"/> | Wetland is lacustrine, within 0.75 km of rivermouth | Score 10 points in Step 4 |
| <input type="checkbox"/> | Fish staging and/or migration habitat present, but not as above | Score 5 points in Step 4 |

Step 4: Enter a score from only one of the three above Steps.

| |
|--|
| <p>Score for Staging and Migration Habitat (maximum 25 points) <u>NA</u></p> |
|--|

4.3 ECOSYSTEM AGE

| | Fractional Area | Score |
|---|-----------------|--------|
| Bog = | | x 25 = |
| Fen, on deeper soils; floating mats or marl = | | x 20 = |
| Fen, on limestone rock = | | x 5 = |
| Swamp = | | x 3 = |
| Marsh = | | x 0 = |
| Total | | = |

Ecosystem Age Score (maximum 25 points) NA

4.4 GREAT LAKES COASTAL

WETLANDS

Choose one only.

| | | |
|-------------------|---|--------|
| Wetland < 10 ha | = | 10 pts |
| Wetland 10-50 ha | = | 25 |
| Wetland 51-100 ha | = | 50 |
| Wetland > 100 ha | = | 75 |

Great Lakes Coastal Wetland Score
(maximum 75 points) NA

GENERAL INFORMATION

Wetland Evaluator(s)

Name: Bruce Chrostio Affiliation: _____

Signature: [Signature]

(by signing, I confirm that this evaluation has been undertaken and completed in accordance with the Ontario Wetland Evaluation System Southern Manual 4th Edition / Northern Manual 2nd Edition)

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Date(s) wetland visited (in field): Oct 17, 2024

Date evaluation completed: Oct 30, 2024

Estimated time devoted to completing the field survey in person hours: 50

Weather Conditions

- i) at time of field work: Sunny 20 c
- ii) summer conditions in general: average temp, above average precipitation

WETLAND EVALUATION SCORING RECORD

WETLAND NAME: _____

1.0 BIOLOGICAL COMPONENT

1.1 PRODUCTIVITY

- 9 / 1.1.1 Growing Degree-Days/Soils
- 1.1.2 Wetland Type
- 1.1.3 Site Type

9

1.2 BIODIVERSITY

- 1.2.1 Number of Wetland Types
- 1.5 / 1.2.2 Vegetation Communities
- 3 / 1.2.3 Diversity of Surrounding Habitat
- 1.2.4 Proximity to Other Wetlands
- 1.2.5 Interspersion
- 1.2.6 Open Water Type

4.5

1.3 SIZE (Biological Component)

13.5 TOTAL (Biological Component)

2.0 SOCIAL COMPONENT

| | |
|------------|---|
| <u>9</u> | 2.1 ECONOMICALLY VALUABLE PRODUCTS |
| | 2.1.1 Wood Products |
| | 2.1.2 Wild Rice |
| | 2.1.3 Commerical Baitfish |
| <u>206</u> | 2.1.4 Furbearers |
| <u>315</u> | Total for Economically Valuable Products |
| <u>20</u> | 2.2 RECREATIONAL ACTIVITIES |
| | 2.3 LANDSCAPE AESTHETICS |
| <u>3</u> | 2.3.1 Distinctness |
| <u>7</u> | 2.3.2 Absence of Human Disturbance |
| <u>10</u> | Total for Landscape Aesthetics |
| <u>0</u> | 2.4 EDUCATION AND PUBLIC AWARENESS |
| <u>0</u> | 2.4.1 Educational Uses |
| <u>0</u> | 2.4.2 Facilities and Programs |
| <u>0</u> | 2.4.3 Research and Studies |
| <u>0</u> | Total for Education and Public Awareness |
| <u>10</u> | 2.5 PROXIMITY TO AREAS OF HUMAN SETTLEMENT |
| <u>0</u> | 2.6 OWNERSHIP |
| <u>0</u> | 2.7 SIZE (Social Component) |
| | 2.8 ABORIGINAL VALUES AND CULTURAL HERITAGE |
| <u>0</u> | 2.8.1 Aboriginal Values |
| <u>0</u> | 2.8.2 Cultural Heritage |
| <u>50</u> | TOTAL (Social Component) |

3.0 HYDROLOGICAL COMPONENT

| | |
|-----------|--|
| <u>1</u> | 3.1 FLOOD ATTENUATION |
| <u> </u> | 3.2 WATER QUALITY IMPROVEMENT |
| <u>1</u> | 3.2.1 Short Term Water Quality Improvement |
| <u>1</u> | 3.2.2 Long Term Nutrient Trap |
| <u> </u> | 3.2.3 Groundwater Discharge |
| <u>0</u> | Total for Water Quality Improvement |
| <u>0</u> | 3.3 CARBON SINK |
| <u>0</u> | 3.4 SHORELINE EROSION CONTROL |
| <u> </u> | 3.5 GROUNDWATER RECHARGE |
| <u>0</u> | 3.5.1 Site Type |
| <u>5</u> | 3.5.2 Soil Recharge Potential |
| <u>5</u> | Total for Groundwater Recharge |
| <u>5</u> | TOTAL (Hydrological Component) |

4.0 SPECIAL FEATURES COMPONENT

4.1 RARITY

4.1.1 Wetlands

4.1.1.1 Rarity within the Landscape

4.1.1.2 Rarity of Wetland Type

Total for Wetland Rarity

4.1.2 Species

4.1.2.1 Provincially Significant Animals

4.1.2.2 Provincially Significant Plants

4.1.2.3 Regionally Significant Species

4.1.2.4 Locally Significant Species

Total for Species Rarity

4.2 SIGNIFICANT FEATURES AND HABITATS

4.2.1 Colonial Waterbirds

4.2.2 Winter Cover for Wildlife

4.2.3 Waterfowl Staging and/or Moulting Areas

4.2.4 Waterfowl Breeding

4.2.5 Migratory Passerine, Shorebird or Raptor Stopover Area

4.2.6 Fish Habitat

4.2.6.1 Spawning and Nursery Habitat

4.2.6.2 Migration and Staging Habitat

Total for Significant Features and Habitats

4.3 ECOSYSTEM AGE

4.4 GREAT LAKES COASTAL WETLANDS

TOTAL FOR SPECIAL FEATURES COMPONENT (*not to exceed 250*)

SUMMARY OF EVALUATION RESULT

Wetland _____

13.5

1.0 TOTAL FOR BIOLOGICAL COMPONENT

50

2.0 TOTAL FOR SOCIAL COMPONENT

5

3.0 TOTAL FOR HYDROLOGICAL COMPONENT

0

4.0 TOTAL FOR SPECIAL FEATURES COMPONENT

68.5

TOTAL WETLAND SCORE

