

Ontario Wetland Evaluation System Northern Manual 1.2 Errata – January 2014

- Page 67** In Figure 13, the label for the “su” community that is within the excluded area should say “su < 10%” not “su < 25%”.
- Page 70** In the Evaluation text box, the first option should be “26 or less” not “<26”.
- Page 80** Under 2.1.2. Low Bush Cranberry, Evaluation a) should read:
“__ a law/regulation prohibits harvesting of low bush cranberry (0 points)”
- Page 88** Under 2.5 Proximity to Areas of Human Settlement, Evaluation table:
Fourth row should read “60-100km from nearest settlement” not “> 60km from nearest settlement”.
- Page 100** Information on page 100 is incorrect – replacement page provided below.
- Page 115** In the Evaluation table for 3.6 Groundwater Discharge, 2nd line, 3rd column (Basin Topography) should read “Major Relief Break” instead of “Steep”.
- Page 141** In Table 11, the total area of Vegetation Group 12 (Broadleaf Pondweed) should be 58.9 ha not 36.0 ha.
- Page 143** In Tab 13, the areas, area factors, multiplication factors, and scores for seasonally and permanently flooded swamp are reversed, but the total score in this example does not change. Replace the table with the following:

Table 13: Scoring Swamps for Fish Habitat (Seasonally Flooded; Permanently Flooded)

Swamp Containing Fish Habitat	Present (check)	Total Area (ha)	Area Factor (from Table 8)	Multiplication Factor	Score
Seasonally Flooded Swamp	x	52.9	1.0	10	10
Permanently Flooded Swamp	x	4.0	0.2	1	2
Total Score for Swamp (<i>maximum 20 points</i>)					12

- Page 168b** The data and scoring record is missing one page (FA of Vegetation Form) that should appear between pages 168 and 169. Replacement page provided below.
- Page 175** The points under 2.1.1 Wood Products should read as follows:

	<5 ha	0 pts
	5 - 25 ha	4
	26 – 50 ha	6
	51 - 100ha	8
	101 - 200ha	11
	> 200 ha	14

- Page 175** Under 2.1.2 Lowbush Cranberry:
The first option should read “Present” only, not “Present (min. size of 0.5ha)”.
- Page 176** The title should read “Commercial Baitfish” (not “Commercial Fish (Bait Fish and/or Coarse Fish”)
- Page 181** Under 2.7 Size (Social Component):
- First line should read “Total Size of Wetland = __ha” (the “a” is missing from “ha”)
 - The first row of the table should be deleted
 - The first column of the second row should read “<5” not “2-4”
- Page 183** Information on page 183 is incorrect. Replacement page provided below.
- Page 184** Under 3.2.1 Site Type:
Fifth row of table should read “FA of lacustrine wetland (when wetland is <50% lacustrine)”
- Page 184** Under 3.2.2 Soil Recharge Potential:
Delete the text “LUF (*maximum 1.0*) ____”.
- Page 187** Under 3.4 Carbon Sink
Replace the table with the following:
- | | |
|--|--|
| | Bog or fen with more than 50% coverage by organic soil
= 15 pts |
| | Wetland with between 10 to 50% coverage by organic soil
(i.e., mainly mineral or undesignated soils, any wetland type)
= 6 |
| | Marshes and swamps with more than 50% coverage
organic soil
= 9 |
| | Wetland with less than 10% soils organic
= 0 |
- Page 188** In the Evaluation table for 3.6 Groundwater Discharge, 2nd line, 3rd column (Basin Topography) should read “Major Relief Break” instead of “Steep”.
- Page 199** Under scoring of Low Marsh:
Delete the text “(listed in Table 10)” from the second bullet point.
- Page 200** Under scoring of High Marsh:
Delete the text “(listed in Table 10)” from the second bullet point.
- Page 225** Replace Wetland Data Summary Form with the attached.

Pages 245-277

The following plant species should be added to the Appendix 10 List of Vascular Plants:

Scientific Name	Synonyms	Common Name	Wetland Indicator	Wetland Type	OWES Area (South, North, All)	Non-native	Dominant/ Co-Dominant
<i>Alisma subcordatum</i>		Small-flowered Water-plantain	Y	M	South		Y
<i>Althaea officinalis</i>		Common Marsh Mallow		M	South	Y	
<i>Betula pendula</i>		European White Birch		S, B	South	Y	Y
<i>Carex acutiformis</i>		Swamp Sedge; European Lake Sedge	Y	M	South	Y	Y
<i>Carex alata</i>		Broad-winged Sedge	Y	S	South		
<i>Lysimachia vulgaris</i>		Garden Loosestrife		M	South	Y	Y
<i>Populus deltoides</i>		Eastern Cottonwood		S	All		Y
<i>Populus tremuloides</i>		Trembling Aspen		S	All		Y

Missing Page (insert the following between pages 168 and 169):

Vegetation Form	FA
h	
c	
dh	
dc	
ts	
ls	
ds	
gc	
m	
ne	
be	
re	
ff	
f	
su	
u	

Replace page 100 with the following:

EVALUATION (worked example based on Figure 22: explanatory notes follow):

Check one of the following five options:

___ If wetland is a *single contiguous coastal wetland*¹ → **score 0 points** for the section.

___ If the wetland is a single contiguous lacustrine wetland where the ratio of wetland area to lake area is less than 0.1 → **score 0 points** for this section.

___ If all wetland units of the wetland complex are *coastal wetland units*², or if all wetland units are all lacustrine and the ratio of the wetland area (total area of all wetland units) to the lake areas is less than 0.1 → **score 0 points** for this section.

___ If wetland or wetland complex is entirely isolated in site type, **score 100 points automatically**.

x Wetland not as above – proceed through steps **A through P** below.

(A) Total wetland area = 338 ha

(B) Size of wetland's catchment³ = 4023 ha

(C) Size of other detention areas in catchment⁴ = 141 ha

(D) Size of 'isolated' portions of wetland = 20 ha (FA = 0.06)

(E) Size of coastal units of wetland complex = 96 ha (FA = 0.28)

(F) Size of small lacustrine units of a wetland complex (when wetland area : lake area < 0.1)⁵ = 11 ha (FA = 0.03)

Wetland Surface Form (select the form which best describes the non-coastal units of the wetland):

___ flooded with little or no aquatic vegetation = 0

___ flooded but with submergent, emergent, or floating vegetation = 0.2

___ flat (lawn) vegetation (typical of fens) = 0.5

x hummock-depression microtopography = 0.7

___ patterned (e.g. string bog, ribbed fen) = 1.0

(G) **Wetland Surface Form Factor** = 0.7 (maximum 1.0)

Points for Isolated Wetland Unit(s) (if not applicable, enter '0'):

(H) (FA of D) x 100 pts = 6 pts

Points for Coastal Wetland Unit(s) (if not applicable, enter '0'):

(I) (FA of E) x 100 pts = 28 pts

Points for Small Lacustrine Wetland Unit(s) (if not applicable, enter '0'):

(J) (FA of F) x 100 pts = 3 pts

(K) Size of wetland minus isolated, coastal and small lacustrine portions = {A – D – E – F} = 211 ha

(L) Number of points available to score 'rest' of wetland = {100 – H – I – J} = 63 pts

(M) Total area of upstream detention areas = {A + C} = 479 ha

(N) **Upstream Detention Factor** = {(K/M) x 2} = 0.88 (maximum 1.0)

(O) **Attenuation Factor** = {(K/B) x 10} = 0.52 (maximum 1.0)

Flood Attenuation Final Score = {([N + O + G] / 3) x L } + H = 50.1

Flood Attenuation Score (maximum 100 points) 50

NOTE: Evaluators need only enter in unique values for A through G; the remaining items (H through O) are simple formulas that use the entered values to calculate the final score.

Explanatory Footnotes for scoring Flood Attenuation

¹For scoring this section, a 'single contiguous coastal wetland' is a wetland located at least partially on (i.e., directly adjacent to) Lake Huron, Lake Superior, or the St. Mary's River.

²For scoring this section, a 'coastal wetland unit' is any unit of a wetland complex is located on (i.e., directly adjacent to) Lake Huron, Lake Superior, or the St. Mary's River **and/or** is located on a tributary to Lake Huron, Lake Superior or the St. Mary's River within 2 km of their 1:100 year floodline (plus wave run-up). (Note: if 1:100 floodline is not known, use a line 2km from shore of the major lake/river).

³For "inland" lacustrine wetlands, calculate the catchment for the lake and then subtract from this area the size of the lake as determined by the 'Ontario Base Map' boundary of the lake (including any wetlands in the lake that are considered within the boundary of lake on the OBM map).

⁴For inland wetlands (i.e., wetlands not on a defined large lake or major river), only other detention areas within the wetland's catchment can be used. These "other detention areas" can be other wetlands, lakes, large rivers, reservoirs, ponds, flooded pits or quarries. For inland lacustrine wetlands the area of the lake, including other wetland areas directly associated with the lake that are not part of the wetland areas being evaluated, are not to be considered as an additional detention area unless the wetland area, or part of a wetland complex is located at the outflow of the lake.

⁵Small Lacustrine Units: Only count the area of lacustrine wetlands or wetland units where the ratio of area of the wetland to the area of the lake is less than 0.1. Larger lacustrine wetlands where this ratio is greater than 0.1 are not included in the calculation for 'F' or 'J'.

Replace page 183 with the following:

3.0 HYDROLOGICAL COMPONENT

3.1 FLOOD ATTENUATION

Check one of the following five options:

- ___ If wetland is a *single contiguous coastal wetland* → **score 0 points** for the section.
- ___ If the wetland is a single contiguous lacustrine wetland where the ratio of wetland area to lake area is less than 0.1 → **score 0 points** for this section.
- ___ If all wetland units of the wetland complex are *coastal wetland units*, or if all wetland units are all lacustrine and the ratio of the wetland area (total area of all wetland units) to the lake areas is less than 0.1 → **score 0 points** for this section.
- ___ If wetland or wetland complex is entirely isolated in site type, **score 100 points automatically**.
- ___ Wetland not as above – proceed through steps **A through P** below.

- (A) Total wetland area = ____ ha
- (B) Size of wetland's catchment = ____ ha
- (C) Size of other detention areas in catchment = ____ ha
- (D) Size of 'isolated' portions of wetland = ____ ha (FA = ____)
- (E) Size of coastal units of wetland complex = ____ ha (FA = ____)
- (F) Size of small lacustrine units of a wetland complex (when wetland area : lake area < 0.1)⁵ = ____ ha (FA = ____)

Wetland Surface Form (select the form which best describes the non-coastal units of the wetland):

- ___ flooded with little or no aquatic vegetation = 0
- ___ flooded but with submergent, emergent, or floating vegetation = 0.2
- ___ flat (lawn) vegetation (typical of fens) = 0.5
- ___ hummock-depression microtopography = 0.7
- ___ patterned (e.g. string bog, ribbed fen) = 1.0

(G) **Wetland Surface Form Factor** = ____ (maximum 1.0)

Points for Isolated Wetland Unit(s) (if not applicable, enter '0'):

(H) (FA of D) x 100 pts = ____ pts

Points for Coastal Wetland Unit(s) (if not applicable, enter '0'):

(I) (FA of E) x 100 pts = ____ pts

Points for Small Lacustrine Wetland Unit(s) (if npt applicable enter '0'):

(J) (FA of F) x 100 pts = ____ pts

(K) Size of wetland minus isolated, coastal and small lacustrine portions = {A – D – E – F} = ____ ha

(L) Number of points available to score 'rest' of wetland = {100 – H – I – J}

(M) Total area of upstream detention areas* = {A + C} = ____ ha

(N) **Upstream Detention Factor** = {(K/M) x 2} = ____ (maximum 1.0)

(O) **Attenuation Factor** = {(K/b) x 10} = ____ (maximum 1.0)

Flood Attenuation Final Score = {[N + O + G] / 3} x L + H = ____

Flood Attenuation Score (maximum 100 points) ____