Elfrida Subwatershed Study	
A DDENIDIV I .	Wetland Evaluation Forms
APPENDIX L:	vveuand Evaluation Forms
Aquafor Beech Limited	Ref: 65726

		Elfr	ida Wetland A	A: Stoney C	Treek			
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		Wetlan	d Evaluation	Edition		3rd		
					1			
			Sept 16	5 2016				
			Comn	nents				
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Include relevant inform	iation that c	can not be e	entered in the	wetland da	ta record(1	Ex. Sections	that have no	ot been
completed.)								
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Official Name:		0 1		la Wetland	A: Stoney (
Evaluation Edition:		3rd	Class:	. 1	Wetla	nd ID.:	C 201 C	
Wetland Significance			th Last Evalu			Sept 1	6 2016	
G : I DI : G :	1	Year/Mont	th Last Updat	ed		i	C	
Special Planning Consi	derations:		0.05				Scores	101
Wetland Area:			8.95				Biological:	121
Dentention Area:			120			**	Social:	52
Catchment Area:			300.00				ydrological:	196
OMNR Source						Speci	al Features:	161
Information Source			. 1 5				Overall:	530
Submitted by:			Ash Baron					
Date:								

Southern Ontario Wetland Evaluation, Data and Scoring Record	March 1993
Wetlands Manual	
INVESTIGATORS	FILIATION
Ash Baron	Aquafor Beech Limited
Rebecca Vito	"
	
DATES WETLAND VISITED	
DATE THIS EVALUATION COMPLETED:	Sept 16 2016
DATE THIS EVALUATION COMPLETED.	Sept 10 2010
ESTIMATED TIME DEVOTED TO COMPLETING THE FIELD	SURVEY IN "PERSON HOURS"
WEATHER CONDITIONS	
WEATHER CONDITIONS	
i) at time of field work fa	ir to cloudy
(Continue in the space below if necessary)	•
ii) summer conditions in general DROUGHT	
ii) summer conditions in general DROCOTT	
OTHER POTENTIALLY USEFUL INFORMATION:	
Wetland is partially located within an aba	undoned golf course.
CHECKLIST OF PLANT AND ANIMAL SPECIES RECORDED IN	THE WETLAND:
Attach a list of all flora and fauna observed in the wetland.	
	. 1
*Indicate if voucher specimens or photos have been obtained, where local	cated, etc.
36	

	WETLAND DA	ATA AND SCORI	NG RECORD	
	WETLAND NAME:	Elfrida W	etland A: Stoney C	reek
	MNR ADMINISTRATIVE REGION:	: Guelph	DISTRICT:	Guelph
	AREA OFFICE (if different from Dist	trict):	Niagara (Vineland)
	CONSERVATION AUTHORITY JU	RISDICTION:	Ha	milton CA
	(If not within a designated CA, check he	ere:		
	COUNTY OR REGIONAL MUNICI	PALITY:	Ham	ilton
	TOWNSHIP:			
)	LOTS & CONCESSIONS:			
	(attach separate sheet if necessary)			
)	MAP AND AIR PHOTO REFERENCE	CES		
	a) Latitude: Longitude	e:		
	b) UTM grid reference:	Zone: 17T Grid:E 60025		Block: n/a Grid:N 4782428
	c) National Topographic Series:			
	map name(s)			
	map number(s)		edition	<u> </u>
	scale			
	d) Aerial photographs: Date photo taken:		Scale:	
	Flight & plate numbers:			
	(attach separate sheet if necessary)			
	e) Ontario Base Map numbers & scale			
	(attach separate sheets if necessary)			

Code: Wetland Name:

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)
1	re	Marsh	MAM	MAM2	3.50	Riverine	clay/loam	ts, gc, ne, be, re, ff, f	7	0	-	
2	gc	Marsh	MAM	MAM2-10	0.15	Palustrine	clay/loam	ls, gc, ne, re	4	0	_	
3	h	Swamp	SWD	SWD2-2	1.20	Palustrine	clay/loam	h, ts, ls, gc, ne	5	0	-	
4	f	Marsh	SAM	SAM1	0.80	Palustrine	clay/loam	h, gc, ne, be, re, ff, f, su	8	90	0.72	hm
5	ne	Marsh	MAM	MAM2		Palustrine	clay/loam	h, tls, gc, ne, re	5	0	-	
6	su	Marsh	SAM	SAM1	2.40	Palustrine	clay/loam	dh, gc, ne, be, re, su	6	90	2.16	hm
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Dominate Species	Additional Species	COMMENTS
	TYPANGU, PHAARUN,	
PHAAUST	ALIPLAN	
	TYPANGU, SOLDULC,	
POLPENN	POLPERS	
FRAPENN	POAPALU, PHAARUN ALIPLAN, BIDTRIP,	
Sago pondweed	ALIPLAN, BIDTRIP, LEEORYZ	Old agricultural pond
видо роничеси	FRAPENN, ASTLANC,	Old agricultural polid
POAPALU	ELEO_SP	
Sago pondweed	TYPANGU, ASTLANC	

a) Single contiguous wetland area: b) Wetland Complex comprised of Wetland Unit Number (for reference) Wetland Unit No. Wetland Unit N	a) Single contiguous wedand area: b) Wedland Complex comprised of 2 individual wetlands: Wedland Unit Number (for reference) Wetland Unit No. 1 3.50 Wedland Unit No. 2 0.15 Wedland Unit No. 3 1.20 Wetland Unit No. 4 0.80 Wetland Unit No. 5 0.90 Wetland Unit No. 6 2.40 Wetland Unit No. 7 0.00 Wetland Unit No. 9 0.00 Wetland Unit No. 10 0.00 Wetland Unit No. 11 0.00 Wetland Unit No. 11 0.00 Wetland Unit No. 12 0.00 Wetland Unit No. 13 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. 16 0.00 Wetland Unit No. 17 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 No. 10 0.00 W	Southern Ontario Wo	etland Evaluation, Data and Scor	ring Recor	d	March 199
Wetland Unit Number (for reference) Wetland Unit No. Wetland Uni	Wetland Unit Number (for reference) Wetland Unit No. Wetland Unit Totals: 8.95 (Attach additional sheets if necessary) Wetland area 2 collects overland flow and provides direct hydrologic inputs into the wetland.		SIZE AND BOUNDARIES			
Wetland Unit Number (for reference)	Wetland Unit Number (for reference)	a) Single co	ntiguous wetland area:	7.75	hectares	
Wetland Unit Number (for reference)	Wetland Unit Number (for reference)	b) Watland	complex comprised of	2	in dividual westlands.	
Ha Wetland Unit No.	Wetland Unit No.	b) wettallu t	complex comprised of		ilidividual wettalids.	
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Wetland area 2 collects overland flow and provides direct hydrologic inputs into the wetland.	Wetland area 2 collects overland flow and provides direct hydrologic inputs into the wetland.					_
		c) Brief doc	umentation of reasons for includ	ing any are	eas less than 0.5 ha in size:	
		Wet	land area 2 collects overland flo	w and prov	vides direct hydrologic inputs into	the wetland
(Attach separate sheets if necessary .)	(Attach separate sheets if necessary .)		rand area 2 concets overland no	w unu pro	vides direct hydrologic inputs into	the wending.
(Attach separate sheets if necessary .)	(Attach separate sheets if necessary .)	-				
(Attach separate sheets if necessary .)	(Attach separate sheets if necessary .)					
(Attach separate sheets if necessary .)	(Attach separate sheets if necessary .)					
		(Attach se	parate sheets if necessary .)			

Wetland Manual

1.0 BIOLOGICAL COMPONENT

1.1 PRODUCTIVITY

.1.1 GROWING DEGREE-DAYS/SOILS

GROWING DEC	GREE DAYS	MAP	SOILS	S	
(check one)			Estima	ated F	ractional Area
1)	<2800		1.0	00	clay/loam
2)	2800 -32	00	0.0	00	silt/marl
3)	3200 -36	00	0.0	00	limestone
4) x	3600 -40	00	0.0	00	sand
5)	>4000		0.0	00	humic/mesic
·	_		0.0	00	fibric
			0.0	00	granite

Determine the soil type from the appropriate OMAF soils maps

SCORING:

Growing	Clay-	Silt-	Lime-	Sand	Humic-	Fibric	Granite
Degree-	Loam	Marl	stone		Mesic		
Days							
<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		
26	clay/loam	26.00
	silt/marl	0.00
	limestone	0.00
	sand	0.00
	humic/mesic	0.00
	fibric	0.00
	granite	0.00

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

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1.1.2 WETLAND TYPE (Fractional	Area = area of wetland type/total wetland area)	
Estimate the Wetland Type from air phot		
Fractional Area	Score	
Bog 0.00	x 3 0.0	
Fen 0.00	x 6 0.0	
Swamp 0.13	x 8 1.1	
Marsh 0.87	x 15 13.0	
	Subtotal: 14.1 Wetland type score (maximum 15 p	points) 14
	wenami type seore (maximum 20 1	DOINTS)
	= area of site type/total wetland area)	
Estimate from air photos	Fractional Area Sco	re
Isolated	0.00	ın
Palustrine (permanent or		
intermittent flow)	0.61	
Riverine	0.39	
Riverine (at rivermouth) Lacustrine (at rivermouth	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	
Lacustrine (at rivermouth Lacustrine (on enclosed	0.00 A 3 -	0
bay, with barrier beach)	0.00 $x 3 = 0.0$	0
Lacustrine (exposed to lake)	0.00 $x = 0.0$	
	Sub Total: 2.7	
	Site Type Score (maximum 5	points) 3
1.2 BIODIVERSITY		
1.2.1 NUMBER OF WETLAND TYPES		
(Check only one)	Score	
1) one	9 points	
2) 13 two	13	
3) three	20	
4) four	30	
	Number of Wetland Types Score (maximum 30 poin	its) 13
	Trumber of recounts 2, per 20010 (
	4	

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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

Code	Form	ıs	Dominant Species				
M6	re,	ff	re,	Typha latifolia;	ff,	Lemna minor,	Wolffia
S 1	ts,	gc	ts,	Salix discolor;	gc,	lmpatiens capens	sis, Thelypteris palustris

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	Total # of communities	Total # of communities
with 1-3 forms	with 4 -5 forms	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	+.5 each additional	+ 1 each additional
community =	community = 5.0	community = 7.0

e.g., a wetland with 3 one form communities

4 two form communities

12 four form communities and

8 six form communities would score:

$$6 + 13.5 + 15 = 34.5 = 35$$
 points

SubTotal:

12

Vegetation Communities Score (maximum 45 points)

		March 1993
Vetland Name:	Elfrida Wetland A: Stoney Creek	
Vetland Size (ha):	8.95	
egetation Form	% area in which form is dominant	
h	13.41	
c	0.00	
dh	0.00	
dc	0.00	
ts	0.00	
ls	0.00	
ds	0.00	
gc	1.68	
m	0.00	
ne	10.06	
be	0.00	
re	39.11	
ff	0.00	
f	8.94	
su	26.82	
u (unvegetated)	0.00	
Total = 100%	100.00	

	ario Wetland Evaluation Data and Scoring Record	March 1993
Wetland Manu	<u>al</u>	
	Y OF SURROUNDING HABITAT	
Check all approp		
etermine from a	-	
1	row crop	
	pasture	
1	abandoned agricultural land	
	deciduous forest	
	coniferous forest	
	mixed forest (at least 25% conifer and 75% deciduous or vice versa)	
	abandoned pits and quarries	
- 1	open lake or deep river	
1	fence rows with cover, or shelterbelts	
1	terrain appreciably undulating, hilly, or with ravines	
4	creek flood plain Subtotal	
4		4
	Diversity of Surrounding Habitat Score (1 for each, maximum 7 points)	4
2.4 DDOVING	Y TO OTHER WETLANDS	
	appropriate category only)	Capring
		Scoring
	ir photos and other wetlands evaluations in the vicinity	
1) 0	Hydrologically connected by surface water to other wetlands	
	(different dominant wetlaI1d type) or to open lake or deep river	0:
	within 1.5 km	8 points
2) 0	Hydrologically, compacted by confece water to other water de	
2) 0	Hydrologically connected by surface water to other wetlands	8
	(same dominant wetland type) within 0.5 km	0
3) 5	Hydrologica11y connected by surface water to other wetlands	
3)3	(different dominant wetland type),or to open lake or deep river from	
	1.5 to 4 km away	5
	1.5 to 4 km away	3
4) 0	Hydrologically connected by surface water to other wetlands	
4) 0	·	5
	(same dominant wetland type) from 0.5 to 1.5 km away	3
5) 0	Within 0.75 km of other wetlands (different dominant wetland type)	
3)0	or open water body, but not hydrologically connected by	
	surface water	5
	Surface water	5
6) 0	Within 1 km of other wetlands, but not hydrologically	
0	connected by surface water	2
	Connected by Surface water	۷
7) 0	No wetland within 1 km	0
7)	110 wettalia within 1 km	U
	Proximity to other Wetlands Score (Choose one only, maximum 8 points)	5
	Hydrologically connected to	

	uation Data and Scoring Record	May 1994
Wetland Manual		
1.2.5 INTERSPERSION		
Optional: Complete as time permits	s or as scoring dictates.	
Number of Interse	ections	
(Check one)	Score	
1) 26 or less	3	
2) 27 to 40	6	
3) 41 to 60	9	
4) 61 to 80	12	
5) 81 to 100	15	
6) 101 to 125	18	
7) 126 to 150		
8) 151 to 175	24	
9) 176 to 200	27	
10) >200	30	
	Interspersion Score (Choose one only maximum 30 po	ints) 6
1.2.6 OPEN WATER TYPES	<u>Ref</u>	
Determine from aerial photos.	1701	
Permanently flooded:		
(Check one)	Score	
,		
1) type 1	1 8	
2) type 2		
3) type 3		
4) type 4		
5) 30 type 5		
6) type 6		
7) type 7		
8) type 8		
	pen water 0	
Onor	n Water Type Score (Choose one only maximum 30 poi	nts) 30
Open	water Type Score (Choose one only maximum 50 por	iits) <u>50</u>
	8	

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1.3 SIZE

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

9.0 hectares 70 Subtotal for Biodiversity

Size Score (Biological Component) (maximum 50 points)

8

Evaluation Table Size Score (Biological component)

Wetland	Total Score for Biodiversity Subcomponent										
size (ha)	<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	

q

Southern Ontario Wetlan	d Evaluation D	ata and Scoring	g Record	Mar	ch 1993
Wetland Manual					
	<u>2</u> .	0 SOCIAL C	<u>OMPONENT</u>		
A4 EGONOMICALLY		DD OD LIGHTS			
2.1 ECONOMICALLY	VALUABLE	PRODUCTS	_		
2.1.1 WOOD PRODUCTS					
Determine the percentage of	f the wetland a	rea dominated	hv "h" or "c" l	by using aerial photograph	
Area of wetland forested (ha)					
only) h: 1.20	c: 0.00	101111 15 11 01 0.	rote that this is	mot wetand size. (Check one	
			Score		
1) 0	<5 ha		0		
2) 5	-25 ha		3		
3) 26	-50 ha		6		
·	100 ha		9		
	200 ha		12		
6) >2	200 ha		18		
a cra			1		
Source of information:	-	Aerial p	notos		
	Wood	Products Scor	(Score one onl	y, maximum 18 points)	0
	77 OOU 1	Toducts Scor	c (Score one on	y, maximum 10 points)	U
2.1.2 WILD RICE					
(Check one)				Score (Choose one)	
Present (minimum size	0.5 ha)	1)		6 points	
Absent		2)	0	0	
Source of information:		Field su	rveys		
			Walana C.	(0
			Wild Rice Sco	ore (maximum 6 points)	0
2.1.3 COMMERCIAL FISH	(RAIT FISH	AND/OR COA	DSE EISH		
(Check one)	(DAIT TISTI Z	HID/OR COA	RSL 1 IST1	Score (Choose on	e)
Present		1)	12	12 points	
Habitat not suitable for fish		2)	0	0	
Source of infolmation:		Field obse			
If any part of the wetland is	riverine or the	-	-	presence of fish score"present"	
		Commerc	ial Fish Score (maximum 12 points)	12
2.1.4 BULLFROGS				G (C)	`
(Check one) Present		1)		Score (Choose on	le)
Absent		1) 2)	0	1 points 0	
Auscill		4)	U	U	
Source of information:	Field obser	vations and am	phibian calling s	surveys	
			<u> </u>	<u></u>	
			Bullfrog Scor	e (maximum 1 point)	0
		10			

	rn Ontario Wetlan	d Eval	uation Data and So	coring	Record			
Wetlands Manual								
2.1.5 SNAPPING TURTLES	•							
(Check one)					Score (Choose on	e)		
Present	1)				1 point			
Absent	2)		0		0			
Source of information:		Rep	otil surveys					
		Snap	ping Turtle Score	e (max	imum 1 point)		0	
2.1.6 FURBEARERS Fur Ref		•		`	• /			
(Consult Appendix 9)								
Name of furbearer		Source	ce of information					
1) Raccoon	3			0				
2) Virginia Opossum				0				
3) Red Fox				0				
4) Coyote	3			0				
5) Mink/Muskrat			(0				
SubTotal	6							
Scoring: 3 points for each species. n	naximum 12							
			Furbearer Score	(max	imum 12 points)		6	
2.2 RECREATIONAL ACTIVIT	CIES							
	Type of Wet	land-A	Associated Use					
Intensity of Use	Hunting		Nature Enjoym Ecosystem Stu		Fishing			
High	40 points		40 points	la y	40 points			
Moderate	20		20		20			
Low	8		8		8			
Not possible/NotKnown	0	0	0	0	0	0		
Totals		0	Ü	0	Ů	0	0	
(score one level for each of th Sources of information:	e three wetland us		ores are cumulative	e; maxi	mum score 80 poi		·	
	Hunting:		0					
	Nature:	0						
1	Fishing:			0				
	Fishing:		U					
		nol A -			2 80 noints)		0	
		nal Act	tivities Score (max	ximun	1 80 points)		0	
		nal Act		ximun	n 80 points)		0	

Southern Ontario Wetland Evaluation, Data and Scoring:	: Record	May 1994
Wetlands Manual		
2.3 LANDSCAPE AESTHETICS		
core using ortho-aerial photography		
.3.1 DISTINCTNESS		
(Check one)	Score (Choose one)	
Clearly distinct 1) 3	3 points	
Indistinct 2) 0	0	
Landscape Disting	ectness Score (maximum 3 points)	3
3.2 ABSENCE OF HUMAN DISTURBANCE		
(Check one)	Score (Choose one)	
Human disturbances absent or nearly so	1) 7 points	
One or several localized disturbances	2) 4	
Moderate disturbance; localized water pollution	3) 2	
Wetland intact but impairment of ecosystem quality	-,	
intense in some areas	4) 1 1	
Extreme ecological degradation, or water pollution	• • • • • • • • • • • • • • • • • • • •	
severe and widespread	5) 0	
	, <u> </u>	
Source of information: Fiel	ld observations	
Absence of Human Dist	turbance Score (maximum 7 points)	1
ptional: complete as time and scoring dictates. 4.1 EDUCATIONAL USES		
(Check one)	Score (Choose one)	
Frequent 1)	20 points	
Infrequent 2)	12	
No visits 3) 0	0	
Source of information: Priv	rately owned property	
equires contact with Local Boards of Education.	atery owned property	
	I Ugag Saara (maximum 20 naints)	0
Educational	l Uses Score (maximum 20 points)	0
4.2 FACILITIES AND PROGRAMS		
4.2 PACIEITIES AND PROGRAMS		
(check one)	Score (C	choose one)
Staffed interpretation centre	1) 8 points	
No interpretation centre or staff but a system of	o points	
self-guiding trails or brochures available	2) 4	
Facilities such as maintained paths (e.g., woodchips)	2)4	
boardwalks, boat launches or observation towers		
but no brochures or other interpretation	3) 2	
No facilities or programs	4) 0 0	
110 facilities of programs		
Source of information:	0	
	ograms Score (maximum 8 points)	0
12		

Southern Ontario Wetland Evaluation	, Data and Scoring	Reco	rd			N	I ay 1994
Wetlands Manual							
2.4.3 RESEARCH AND STUDIES							
(check appropriate spaces)						Score	
Long term research has been done						12 points	
Research papers published in refere	ed scientific						
journal or as a thesis						10	
One or more (non-research) reports	have been written						
on some aspect of the wetland 's flo	ra fauna						
hydrology etc.						5	
No research or reports				0		0	
	Subto	tal:		0			
Attach list of known reports by above	e categories				_		
Refer to ESPA, EPA and ANSI reports.							
Research and St	udies Score (Scor	e is cu	mulative, n	naxim	um 12	points)	0
2.5 PROXIMITY TO AREAS OF H	UMAN SETTLE	MENT	Γ				
Circle the highest applicable score							
on some aspect of the wetland store fauna hydrology etc. No research or reports 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) 2.5 **PROXIMITY TO AREAS OF HUMAN SETTLEMENT** Circle the highest applicable score Distance of wetland from settlement		ulation					
settlement	population> 10	,000	2,5	00 -10	,000	<2,500	or cottage
						com	munity
1) Within or adjoining	40 points		26			16	
2) 0.5 to 10 km from settlement	26	26	16			10	
,						0	
.,		26			0		0
					<u> </u>		
Name of settlement:	Elfric	la/Har	milton				
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					
Proxi	imity to Human S	ettlen	nent Score (maxin	num 4	0 points)	26
2.6 OWNERSHIP (FA= fraction Are	ea)					Score	
Select a default value of "4" if no other i	information exists.						
FA of wetland in public or private o	wnership						
held under contract or in trust for we	etland protection			X	10	= 0.00	
FA of wetland area in public owners	-			Х	8	= 0.00	
FA of wetland area in private owner	_		1.00	X	4	= 4.00	
1	1 /			_			_
Source of information:	Guelph C	SIS Pa	rcel layer:				
		Own	ership Scor	e (max	ximum	10 points)	4
							•
	13						
	13						

Additional Reports

March 1993

2.7 **SIZE**

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

9.0 hectares 44 Subtotal for Social

Evaluation Table for Size Score (Social Component)

	l'able :	for Size Sco	re (Social C	omponent)							
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	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)

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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.

2.8.2 CULTURAL HERITAGE

Aboriginal Values/Cultural Heritage Score (maximum 30 points)

0.0

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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 in	rivers
		(Go to Step 4)	1)
	X	Wetland is entirely isolated (i.e. not part of a complex) (Go to Ste	p 4)
		All other wetland types (Go through Steps 2,3 and 4B)	
Step 2:		Determination of Upstream Detention Factor (DF)	
(a)		Wetland area (ha)	
(b)		Total area (ha) of upstream detention areas	128.95 estimate
		(include the wetland itself)	
(c)		Ratio of (a):(b)	0.00
(d)		Upstream detention factor: (c) x $2 = 0.0$	0.00
		(maximum allowable factor = 1)	
Step 3:		Determination of Wetland Attenuation Factor (AF)	
(a)		Wetland area (ha)	8.95
(b)		Size of catchment basin (ha) upstream of wetland	
		(include wetland itself in catchment area)	300.00 calculate
(c)		Ratio of (a):(b)	0.03
(d)		Wetland attenuation factor: (c) x $10 = 0.3$ (maximum allowable factor = 1)	0.30
Step 4:		Calculation of final score	
(a)		Wetlands on large lakes or major rivers	0
(b)		Wetland entirely isolated	100
(b)		All other wetlandscalculate as follows:	
	(c	* Complex Formula - Isolated portion 100.00	
		Initial Score	100 *
		Upstream detention factor (DF) (Step 2)	0.00
		Wetland attenuation factor (AF) (Step 3)	0.30
		Final score: $[(DF + AF)/2] \times Initial score =$	14.92
	(c	* Final score:=	
		*Unless wetland is a complex with isolated portions (see above).	
		Flood Attenuation Score (maximum 100	9 points) 79.0
		·	

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3.2 WATER QUALITY IMPROVEMENT

3.2.1 SHORT TERM WATER QUALITY IMPROVEMENT

(FA= area of site type/total area of wetland)

Step 1: Determination of maximum initial score

Wetland on one of the 5 defined large lakes or 5 major rivers (Go to Step 5a)

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.

	Area			
FA of isolated wetland	0.00	X	0.5 =	0.00
FA of riverine wetland	0.39	X	1 =	0.39
FA of palustrine wetland with no inflow		X	0.7 =	0.00
FA of palustrine wetland with inflows	0.61	X	1 =	0.61
FA of lacustrine on lake shoreline	0.00	X	0.2 =	0.00
FA of lacustrine at lake inflow or outflow		X	1 =	0.00
		Sub T	Γotal:	1.00
	Sum (WIE	connet eve	and 1.0)

Fractional

Sum (WIF cannot exceed 1.0)

1.00

Step 3: Determination of catchment land use factor (LUF) (Choose the first category that fits upstream landuse in the catchment.)

1)	1.0	Over 50% agricultural and/or urban	1.0
2)		Between 30 and 50% agricultural and/or urban	0.8
3)		Over 50% forested or other natural vegetation	0.6

LUF (maximum 1.0)

1.00

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 domininant live vegetation. (FA = area of vegetation type/total area of wetland)

FA of wetland with live trees, shrubs,	Fractional Area	l	
herbs or mosses (c,h,ts,ls,gc,m)	0.15 x	0.75 =	0.11
FA of wetland with emergent, submergent			
or floating vegetation (re,be,ne,su,f,ff)	0.85 x	1 =	0.85
FA of wetland with little or no vegetation (u)	0.00 x	0.5 =	0.00
		Subtotal:	0.96

Estimate FA from air photos or use default factor of "0.75"

Sum (PUT cannot exceed 1.0)

0.96

(a) Wetland on large lakes or major rivers (b) All other wetlands -calculate as follows Initial score Water quality improvement factor (WQF) Land use factor (LUF) Pollutant uptake factor (PUT) Final score: 60 x WQF x LUF x PUT = Short Term Water Quality Improvement Score (maximum 60 points) 2 LONG TERM NUTRIENT TRAP ermine wetland type from aerial photos and soil type from OMAF soils maps. p 1: Wetland on large lakes or 5 major rivers All other wetlands (proceed to Step 2)		Ontario Wetland Evaluation, Data and Scoring Record	1	1ay 1994
(b) All other wetlands -calculate as follows Initial score Water quality improvement factor (WQF) Land use factor (LUF) Pollutant uptake factor (PUT) Final score: 60 x WQF x LUF x PUT = Short Term Water Quality Improvement Score (maximum 60 points) Short Term Water Quality Improvement Score (maximum 60 points) Wetland on large lakes or 5 major rivers Wetland on large lakes or 5 major rivers All other wetlands (proceed to Step 2) Choose only one of the following settings that best describes the wetland being evaluated Wetland located in a river mouth Wetland is a bog, fen or swamp with more than 50% of the wetland being covered with organic soil Wetland is a bog, fen or swamp with less than 50% of the wetland being covered with organic soil Wetland is a marsh with more than 50% of the wetland covered with organic soil Some of the wetland covered with organic soil None of the wetland covered with organic soil Some of the wetland covered with organic soil None of the above	ep 5:			
(b) All other wetlands -calculate as follows Initial score Water quality improvement factor (WQF) Land use factor (LUF) Pollutant uptake factor (PUT) Final score: 60 x WQF x LUF x PUT = Short Term Water Quality Improvement Score (maximum 60 points) Short Term Water Quality Improvement Score (maximum 60 points) Wetland on large lakes or 5 major rivers Wetland on large lakes or 5 major rivers All other wetlands (proceed to Step 2) Choose only one of the following settings that best describes the wetland being evaluated Wetland located in a river mouth Wetland is a bog, fen or swamp with more than 50% of the wetland being covered with organic soil Wetland is a bog, fen or swamp with less than 50% of the wetland being covered with organic soil Wetland is a marsh with more than 50% of the wetland covered with organic soil Some of the wetland covered with organic soil None of the wetland covered with organic soil Some of the wetland covered with organic soil None of the above	(a)	Wetland on large lakes or major rivers	0	
Initial score Water quality improvement factor (WQF) Land use factor (LUF) Pollutant uptake factor (PUT) Final score: 60 x WQF x LUF x PUT = 57.74 Short Term Water Quality Improvement Score (maximum 60 points) Short Term Water Quality Improvement Score (maximum 60 points) Wetland on large lakes or 5 major rivers 0 points All other wetlands (proceed to Step 2) P2: Choose only one of the following settings that best describes the wetland being evaluated Wetland located in a river mouth 10 points Wetland is a bog, fen or swamp with more than 50% of the wetland being covered with organic soil 10 Wetland is a bog, fen or swamp with less than 50% of the wetland being covered with organic soil 3 Wetland is a marsh with more than 50% of the wetland covered with organic soil 3 Wetland is a marsh with more than 50% of the wetland covered with organic soil 3 None of the wetland covered with organic soil 3 None of the wetland covered with organic soil 3 None of the above 0		· · · · · · · · · · · · · · · · · · ·	v	
Water quality improvement factor (WQF) Land use factor (LUF) Pollutant uptake factor (PUT) Final score: 60 x WQF x LUF x PUT = Short Term Water Quality Improvement Score (maximum 60 points) LONG TERM NUTRIENT TRAP ermine wetland type from aerial photos and soil type from OMAF soils maps. p1: Wetland on large lakes or 5 major rivers All other wetlands (proceed to Step 2) Choose only one of the following settings that best describes the wetland being evaluated Wetland is a bog, fen or swamp with more than 50% of the wetland being covered with organic soil Wetland is a bog, fen or swamp with less than 50% of the wetland being covered with organic soil Wetland is a marsh with more than 50% of the wetland being covered with organic soil Wetland is a marsh with more than 50% of the wetland covered with organic soil None of the above	(0)		60	
Land use factor (LUF) Pollutant uptake factor (PUT) Final score: 60 x WQF x LUF x PUT = Short Term Water Quality Improvement Score (maximum 60 points) LONG TERM NUTRIENT TRAP Exermine wetland type from aerial photos and soil type from OMAF soils maps. p1: Wetland on large lakes or 5 major rivers All other wetlands (proceed to Step 2) Choose only one of the following settings that best describes the wetland being evaluated Wetland is a bog, fen or swamp with more than 50% of the wetland being covered with organic soil Wetland is a bog, fen or swamp with less than 50% of the wetland being covered with organic soil Wetland is a marsh with more than 50% of the wetland covered with organic soil Wetland is a marsh with more than 50% of the wetland covered with organic soil None of the above				
Pollutant uptake factor (PUT) Final score: 60 x WQF x LUF x PUT = Short Term Water Quality Improvement Score (maximum 60 points) LONG TERM NUTRIENT TRAP ermine wetland type from aerial photos and soil type from OMAF soils maps. p1: Wetland on large lakes or 5 major rivers All other wetlands (proceed to Step 2) Choose only one of the following settings that best describes the wetland being evaluated Wetland located in a river mouth Wetland is a bog, fen or swamp with more than 50% of the wetland being covered with organic soil Wetland is a bog, fen or swamp with less than 50% of the wetland being covered with organic soil Wetland is a marsh with more than 50% of the wetland covered with organic soil Wetland is a marsh with more than 50% of the wetland covered with organic soil None of the above				
Short Term Water Quality Improvement Score (maximum 60 points) 2 LONG TERM NUTRIENT TRAP ermine wetland type from aerial photos and soil type from OMAF soils maps. p 1: Wetland on large lakes or 5 major rivers X All other wetlands (proceed to Step 2) p 2: Choose only one of the following settings that best describes the wetland being evaluated 1) Wetland located in a river mouth 2) Wetland is a bog, fen or swamp with more than 50% of the wetland being covered with organic soil 3) Wetland is a bog, fen or swamp with less than 50% of the wetland being covered with organic soil 4) Wetland is a marsh with more than 50% of the wetland 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				
2 LONG TERM NUTRIENT TRAP ermine wetland type from aerial photos and soil type from OMAF soils maps. p1: Wetland on large lakes or 5 major rivers All other wetlands (proceed to 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 Wetland is a bog, fen or swamp with more than 50% of the wetland being covered with organic soil 10 Wetland is a bog, fen or swamp with less than 50% of the wetland being covered with organic soil 3 Wetland is a marsh with more than 50% of the wetland covered with organic soil 3 Wetland is a marsh with more than 50% of the wetland covered with organic soil 3 None of the above		Final score: 60 x WQF x LUF x PUT =	57.74	
wetland type from aerial photos and soil type from OMAF soils maps. Wetland on large lakes or 5 major rivers All other wetlands (proceed to Step 2) Choose only one of the following settings that best describes the wetland being evaluated Wetland located in a river mouth Wetland is a bog, fen or swamp with more than 50% of the wetland being covered with organic soil Wetland is a bog, fen or swamp with less than 50% of the wetland being covered with organic soil Wetland is a marsh with more than 50% of the wetland covered with organic soil None of the above None of the above		Short Term Water Quality Improvement Score (ma	ximum 60 points)	58
wetland type from aerial photos and soil type from OMAF soils maps. Wetland on large lakes or 5 major rivers All other wetlands (proceed to Step 2) Choose only one of the following settings that best describes the wetland being evaluated Wetland located in a river mouth Wetland is a bog, fen or swamp with more than 50% of the wetland being covered with organic soil Wetland is a bog, fen or swamp with less than 50% of the wetland being covered with organic soil Wetland is a marsh with more than 50% of the wetland covered with organic soil None of the above None of the above				
Wetland on large lakes or 5 major rivers All other wetlands (proceed to Step 2) Choose only one of the following settings that best describes the wetland being evaluated Wetland located in a river mouth Wetland is a bog, fen or swamp with more than 50% of the wetland being covered with organic soil Wetland is a bog, fen or swamp with less than 50% of the wetland being covered with organic soil Wetland is a marsh with more than 50% of the wetland covered with organic soil None of the above O points 10 points 11 points 12 Wetland is a bog, fen or swamp with less than 50% of the wetland being covered with organic soil 3 Wetland is a marsh with more than 50% of the above 0			aps.	
X All other wetlands (proceed to Step 2) Choose only one of the following settings that best describes the wetland being evaluated Wetland located in a river mouth Wetland is a bog, fen or swamp with more than 50% of the wetland being covered with organic soil Wetland is a bog, fen or swamp with less than 50% of the wetland being covered with organic soil Wetland is a marsh with more than 50% of the wetland covered with organic soil None of the above	ep 1:			
Choose only one of the following settings that best describes the wetland being evaluated Wetland located in a river mouth Wetland is a bog, fen or swamp with more than 50% of the wetland being covered with organic soil Wetland is a bog, fen or swamp with less than 50% of the wetland being covered with organic soil Wetland is a marsh with more than 50% of the wetland covered with organic soil None of the above	_		0 points	
1) Wetland located in a river mouth 2) Wetland is a bog, fen or swamp with more than 50% of the wetland being covered with organic soil 3) Wetland is a bog, fen or swamp with less than 50% of the wetland being covered with organic soil 4) Wetland is a marsh with more than 50% of the wetland 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	_	All other wetlands (proceed to Step 2)		
Wetland is a bog, fen or swamp with more than 50% of the wetland being covered with organic soil Wetland is a bog, fen or swamp with less than 50% of the wetland being covered with organic soil Wetland is a marsh with more than 50% of the wetland covered with organic soil None of the above	p 2:	Choose only one of the following settings that best describes	the wetland being evaluated	
50% of the wetland being covered with organic soil Wetland is a bog, fen or swamp with less than 50% of the wetland being covered with organic soil Wetland is a marsh with more than 50% of the wetland covered with organic soil None of the above	1)	Wetland located in a river mouth	10 points	
organic soil Wetland is a bog, fen or swamp with less than 50% of the wetland being covered with organic soil Wetland is a marsh with more than 50% of the wetland covered with organic soil None of the above	2)	Wetland is a bog, fen or swamp with more than		
Wetland is a bog, fen or swamp with less than 50% of the wetland being covered with organic soil Wetland is a marsh with more than 50% of the wetland covered with organic soil None of the above Wetland is a bog, fen or swamp with less than 3 None of the wetland sovered with organic soil None of the above				
50% of the wetland being covered with organic soil 4) Wetland is a marsh with more than 50% of the wetland covered with organic soil 5) None of the above 0		organic soil	10	
organic soil Wetland is a marsh with more than 50% of the wetland covered with organic soil None of the above 3 3 5)	3)	Wetland is a bog, fen or swamp with less than		
4) Wetland is a marsh with more than 50% of the wetland covered with organic soil 3 5) None of the above 0		50% of the wetland being covered with		
50% of the wetland covered with organic soil 3 5) None of the above 0		organic soil	3	
5) 0 None of the above 0	4)	Wetland is a marsh with more than		
		50% of the wetland covered with organic soil	3	
Long Term Nutrient Trap Score (maximum 10 points)	5)	0 None of the above	0	
		Long Term Nutrient Trap Score (1	maximum 10 points)	0
	3) _	<u> </u>		

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

(Scores are cumulative maximum score 30 points)

Percentage of Catchment: 0.03

Groundwater Discharge Score (maximum 30 points)

Carbon Sink Score (maximum 5 points)

9

3.3 CARBON SINK

Choose only one of the following

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

5 points

_____2

3 0

0

Southern Ontario Wetland Evaluation Wetlands Manual 3.4 SHORELINE EROSION CONTROL Determine from ortho-aerial photography Step 1: Score Wetland entirely isolated or palustrine 0 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 Trees and shrubs 15 1) 2) 8 Emergent vegetation 8 3) Submergent vegetation 6 3 4) Other shoreline vegetation No vegetation 0 **Shoreline Erosion Control Score (maximum 15 points)** 8 **GROUND WATER RECHARGE** WETLAND SITE TYPE Score Wetland > 50% lacustrine (by area) or located on one of the (a) 0 0.00 five major rivers (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 0.61 50 30.4 0.39 7.8 FA of riverine wetland 20 FA of lacustrine wetland (wetland <50% lacustrine) 0.00 0 = 0.0 38.3 Subtotal: **Ground Water Recharge Wetland Site Type Component Score (maximum 50 points)** 20

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3.5.2 WETLAND SOIL RECHARGE POTENTIAL

Determine from OMAF soils maps.

(Circle only <u>one</u> 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	0		0	
	river				
2)	Isolated	10		5	
3)	Palustrine	7		4	4
4)	Riverine (not a major river)	5		2	
Tota	Totals				4

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

4

4.0 SPECIAL FEATURES COMPONENT

4.1 RARITY

4.1.1 WETLANDS Ref Map

Site District 7E-5

Presence of wetland type (check one or more)

| Bog | Fen | X | 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.

	Score for Rarity within	Score for Rarity of Wetland Type					
	the Landscape	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)
Rarity of Wetland Type Score (maximum 80 points)

60
20

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

ord December 2002
ERED OR THREATENED SPECIES
Source of information
0
ened Species Score (no maximum)
ABITAT FOR AN ENDANGERED
Source of information
0
<u>- </u>
ecies Score (no maximum)

Southern Ontario Wetland Evaluation, Data and Scoring Record March 1993 Wetlands Manual 4.1.2.3 PROVINCIALLY SIGNIFICANT ANIMAL SPECIES Prov Ref Name of species Source of information Eastern Wood-pewee reeding Bird Surveys, incidental observatio 1) 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

4.1.2.4 PROVINCIALLY SIGNIFICANT PLANT SPECIES

Scientific Name	Source of information
#N/A	
	<u> </u>
	<u> </u>
#N/A	<u> </u>
#N/A	
	#N/A #N/A #N/A #N/A #N/A #N/A #N/A #N/A

#N/A

Attach separate list if necessary; Attach documentation

Scoring:

15)

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)

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4.1.2.5 REGIONALLY SIGNIFICANT SPECIES (SITE REGION) Spp Ref

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)			
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)

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 Schuett's Oak	Quercus shuetteii	Field obs.
2		_
3		
4		
5		_
6		_
7		_
8		
9		
10		
11		
12		
13		_
14	_	_
15	_	_
16		_
17	<u> </u>	_
18		_

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)

10

Status		Name of species	Source of	Information	Sc	ore
Currently nestin	g				50	
Known to have within past 5 ye	I b				25	
Active feeding (Do not include by great blue he	feeding				15	
	ĺ					
ch documentation	(nest locations	database at Bird Studies Co etc., if known) ly; maximum score 50 points for Nesting Colonial Wate	S.	Subtotal:	0	0
Consult the On ach documentation re highest applicable. 2. WINTER COVER 'locally signification of the content	(nest locations ple category on Score ER FOR WILL cant" if trees of	etc., if known) ly; maximum score 50 points for Nesting Colonial Wate DLIFE a shrubs are present, also co	s. rbirds (maximi	um 50 points) deer yard data.		
Consult the One cach documentation ore highest applicable. 2. WINTER COVERED (Check only highest) 1) 2)	(nest locations ple category on Score ER FOR WILL cant'' if trees of thest level of significations	ly; maximum score 50 points for Nesting Colonial Wate CLIFE A shrubs are present, also confictance) (one only) cially significant icant in Site Region	s. rbirds (maximi	um 50 points) leer yard data. Score 100 50		
Consult the Ontach documentation ore highest applicable. 2. WINTER COVER ''locally signific (Check only highest)	(nest locations ple category on Score ER FOR WILL cant'' if trees of thest level of significations Significations	ly; maximum score 50 points for Nesting Colonial Wate OLIFE Sc shrubs are present, also conditions (one only) cially significant	s. rbirds (maximu onsult District d	um 50 points) leer yard data. Score 100		
Consult the On ach documentation ore highest applicable. 2. WINTER COVere ''locally signific (Check only highest) 1) 2) 3) 3) 10	cant" if trees de hest level of significations Significations of the category on Score (ER FOR WILL) cant" if trees de hest level of significations of the category of the cat	ly; maximum score 50 points for Nesting Colonial Water OLIFE Se shrubs are present, also congulificance) (one only) acially significant ideant in Site Region ideant in Site District by significant	s. rbirds (maximu onsult District d	leer yard data. Score 100 50 25 10		

Southern Ontario Wetland Evaluation, Data and Scoring Record March 1993 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 Moulting Score (one only) (one only) Nationally significant 150 150 1) Provincially significant 100 100 2) Regionally significant 50 3) 50 4) Known to occur 10 10 0 0 0 5) Not possible 0 Unknown 0 6) 0 0 Total: Subtotal: 0 Source of information: 0 Waterfowl Moulting and Staging Score (maximum 150 points) 0 4.2.4 WATERFOWL BREEDING (Check only highest level of significance) Score Provincially significant 100 1) 2) Regionally significant 50 3) 10 Habitat suitable 10 4) Habitat not suitable 0 Source of information: Field obs. Waterfowl Breeding Score (maximum IOO points) 10 4.2.5 MIGRATOR PASSERINE, SHOREBIRD OR RAPTOR STOPOVER AREA (check highest applicable category) 1) Provincially significant 100 2) Significant in Site Region 50 Significant in Site District 3) 10 4) 0 Not significant 0 Source of information: Passerine, Shorebird or Raptor Stopover Score (maximum 100 points) 0 29

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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)

x Fish habitat is present within the wetland (Go to 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

30

Step 2:

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Step 4: Proceed to Steps 4 to 7 <u>only</u> if Step 3 was <u>not</u> 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	Vegetation	Present	Total	Area	Score	Final
Group Number	Group Name	as a	Area	Factor		Score
		Dominant	(ha)			(area
		Form		(see		factor
		(check)		Table 5)		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		1.4	0.2	2	0.4
6	Smartweed-Waterwillow				6	0.0
7	Waterlily-Lotus				11	0.0
8	Waterweed-Watercress				9	0.0
9	Ribbongrass				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)					
	Total Score (max	imum 75 point	s)			0.4

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.)

<u>X</u> H:	igh marsh not present (Continue to Step 6)
H	igh 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 High 1Marsh 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	Vegetation	Present	Total	Area	Score	Final
Group Number	Group Name	as a	Area	Factor		Score
		Dominant	(ha)	(see		(area
		Form		Table 5)		factor
		(check)				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
Sub Total Score (maximum 25 points)					0.0	
	Total Score (ma	ximum 25 p	oints)			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	Present	Total	Area Factor	Score	TOTAL SCORE
Habitat	(check)	area (ha)	(see Table 5)		(factor x score)
Seasonally flooded				10	0.0
Permanently flooded 10				0.0	
Sub SC	0.0				
SCO	0.0				

Step 7: Calculation of final score

Score for Spawning and Nursery Habitat (Low Marsh) (maximum 75) = 0.4

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

Score for Swamp Containing Fish Habitat (maximum 20) = 0.0
Subtotal: 0.4

Sum (maximum score 100 points) =

0.4

Southern Ontario Wetland Evaluation		March 1993			
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4.2.6.2 Migration and Staging Habitat	Score only if information on fish migration and				
<u>Step 1:</u>	e.g. migration of northern pike through a wetlan spawning areas.	nd to access			
Staging or Migration Habitat is not prese	ent 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)					
• '	n the wetland significance of the habitat is not know	vn			
NOTE: Only <u>one</u> of Step 2 <u>or</u> Step 3 is to be scored	1.				
Select the highest appropriate category be	elow, attach documentation:				
1) Significant in Site Region	Score 25 poin	nts			
2) Significant in Site District	15				
3) Locally Significant	10				
4) Fish staging and/or migration habitat present,but not as above	5				
Score for Fish Migration and Staging Habitat (maximum score 25 points)					
Step 3: Select the highest appropriate category b (does not have to be dominant). See Section 1.1.3. No	below based on presence of the designated site type of the name of river for 2) and 3).				
Wetland is riverine at rivermouth or lacus	Score 25 points at rivermouth 25 points	nts			
2) Wetland is riverine, within 0.75 km of rive	ermouth 15				
3) Wetland is lacustrine, within 0.75 km of ri	ivermouth 10				
4) Fish staging and/or migration habitat present, but not as above	5				
Score for Staging and Migr	ration Habitat (maximum score 25 points)	0			
	•				
	33				

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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	0.00	X	20 =	0.0
Fen, on limestone rock	0.00	X	5 =	0.0
Swamp	0.13	X	3 =	0.4
Marsh	0.87	X	0 =	0.0
		Sub Total:		0.4

Ecosystem Age Score (maximum 25 points)

0.4

4.4 GREAT LAKES COASTAL WETLANDS

Score for <u>coastal</u> (see text for definition) wetlands only

Choose one only



Great Lakes Coastal Wetlands Score (maximum 75 points)

0

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.

Southern Ontario Wetland Evaluation, Data and Sco	oring Reco	ord	March 1993
Wetlands Manual			
5.0 EXTRA INFORMATION			
5.1 PURPLE LOOSESTRIFE			
Absent/Not seen			
x Present	(a)	One location in wetland	X
		Two to many locations	
		,	
		Abundance code	
	(b)	(1 < 20 stems	
	(-)	(2 20-99 stems	X
		(3 100-999 stems	X
		(4 > 1000 stems)	
		(1 > 1000 Stellis	
5.2 SEASONALLY FLOODED AREAS			
3.2 SELISOTTEET TEOODED THELE			
Check one or more			
check one of more			
Ephemeral		(less than 2 weeks)	x
Temporal		(2 weeks to 1 month)	Y
Seasonal		(1 to 3 months)	X X X
Semi-permanent		(>3 months)	v v
No seasonal flooding		(>3 monuis)	
No seasonal mooding			
5.3 SPECIES OF SPECIAL SIGNIFICANCE			
5.3.1 Osprey			
<u> </u>			
Present and nesting			
Known to have nested in last 5 yr			
Feeding area for osprey			
Not as above		X	
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		X	
Tot us usove			
	35		

Southern Ontario Wetland Evaluation Wetlands Manual	March 1993
	TION SCORING RECORD
ETLAND NAME AND/OR NUMBER	Elfrida Wetland A: Stoney Creek
1.0 BIOLOGI	CAL COMPONENT
.1 <u>PRODUCTIVITY</u>	
1.1.1 Growing Degree-Days/Soils1.1.2 Wetland Type1.1.3 Site Type	26.0 14.1 2.8
	Total for Productivity 43
.2 <u>BIODIVERSITY</u>	
 1.2.1 Number of Wetland Types 1.2.2 Vegetation Communities (maxixmum 45) 1.2.3 Diversity of Surrounding Habitat (maximum 1.2.4 Proximinty to Other Wetlands 1.2.5 Interspersion 1.2.6 Open Water Type 	7) \(\begin{align*}
Sub Total for Biodiversity 3 SIZE (Biological Component)	Total for Biodiversity 70
TOTAL FOR BIOLOGICAL COMPONENT (not	Sub Total: 121 to exceed 250) 121

Southern Ontario Welland Evaluation	March 1993
Wetlands Manual	
2.0 SOCIAL COMPONENT	
2.1 ECONOMICALLY VALUABLE PRODUCTS	
 2.1.1 Wood Products 2.1.2 Wild Rice 2.1.3 Commercial Fish 2.1.4 Bullfrogs 2.1.5 Snapping Turtles 2.1.6 Furbearers 	0 0 12 0 0 0
Total for Economically Value	uable Products 18
2.2 RECREATIONAL ACTIVITIES (maximum 80)	0
2.3 LANDSCAPE AESTHETICS	
2.3.1 Distinctness2.3.2 Absence of Human Disturbance	3
Total for Landscape Aesthet	tics 4
2.4 EDUCATION AND PUBLIC AWARENESS	
2.4.1 Educational Uses2.4.2 Facilities and Programs2.4.3 Research and Studies	0 0 0
Total for Education and Pub	olic Awareness 0
2.5 PROXIMITY TO AREAS OF HUMAN SETTLEMENT	26
2.6 OWNERSH1P Subtotal for Social Component 2.7 SIZE (Social Component)	44.0
2.8 ABORIGINAL AND CULTURAL VALUES	0
TOTAL FOR SOCIAL COMPONENT (not to exceed	Sub Total: 52 ed 250) 52

Southem Ontario Wetland Evaluation, Score Summ	mary	March 1993
Wetlands Manual 3.0 HYDRO	LOGICAL COMPONENT	
	EGGICIE COMI OILEMI	
3.1 FLOOD ATTENUATION		79
3.2 WATER QUALITY IMPROVEMENT		
3.2.1 Short Term Improvement		57.7
3.2.2 Long Term Improvement		0.0
3.2.3 Groundwater Discharge (maximum	130)	9.0
	Total for Water Quality Improvement	67
3.3 <u>CARBON SINK</u>		0
3.4 SHORELINE EROSION CONTROL		8
3.5 <u>GROUNDWATER RECHARGE</u>		
3.5.1 Site Type		38.27
3.5.2 Soils		4.0
	Total for Groundwater Recharge	42
		Sub Total: 196
TOTAL FOR HYDROLOGIC	CAL COMPONENT (not to exceed 250) 196

Southern Ontario Wetland Evaluation, Score Summary		December 2002
Wetlands Manual		December 2002
TO CHAIRES THATAGE		
4.0 SPECIA	<u>L FEATURES</u>	
4.1 <u>RARITY</u>		
4.1.1 Wedenda		
4.1.1 Wetlands 4.1.1.1 Rarity within the Landscape		60.0
4.1.1.2 Rarity of Wetland Type (maximum 80)		20.0
miniz rainty of wedana Type (maximum oo)		20.0
	Total for Wetland Rarity	80
4.1.2 Species	1.	0.0
4.1.2.1 Endangered or Threatened Species Breed4.1.2.2 Traditional Use by Endangered or Threat		0.0
4.1.2.3 Provincially Significant Animals	elled Species	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		10.0
	Total for Species Rarity	60
4.2 <u>SIGNIFICANT FEATURES OR HABITAT</u>		
DIGITAL PER		
4.2.1 Colonial Waterbirds		0.0
4.2.2 Winter Cover for Wildlife		10.0
4.2.3 Waterfowl Staging and Moulting		0.0
4.2.4 Waterfowl Breeding	g.	10.0
4.2.5 Migratory Passerine, Shorebird or Rapto4.2.6 Fish Habitat	r Stopover	0.0
4.2.0 FISH Habitat		0.4
	Total for Significant Features and H	abitat 20
4.3 <u>ECOSYSTEM AGE</u>		0
4.4 GREAT LAKES COASTAL WETLANDS		0
GREAT BANKED CONSTILL WEIGHT OF	Sı	ıb Total: 161
TOTAL FOR SE	PECIAL FEATURES (maximum 250)	161

	Ontario Wetland Evaluation, Score Summary S Manual SUMMARY OF EVALUATION RESULT	March 1993
Wetland	Elfrida Wetland A: Stoney Creek	
TOTAL FO	R 1.0 BIOLOGICAL COMPONENT	121
TOTAL FO	R 2.0 SOCIAL COMPONENT	52
TOTAL FO	R 3.0 HYDROLOGICAL COMPONENT	196
TOTAL FO	R 4.0 SPECIAL FEATURES COMPONENT	161
	WETLAND TOTAL	530
INVESTIG	ATORS Ash Baron	
	Rebecca Vito	
	0	
	0	
A EELI I ATE	0	
AFFILIAT:	Aquafor Beech Limited	
	" "	
	0	
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	0	
DATE	Sept 16 2016	
	<u> </u>	

		Elfrida Wet	tland B: Sinkho	le Creek	Headwaters	3		
		Wetlan	d Evaluation Ed	lition		3rd		
							-	
			Aug 30 2	016				
			Comme	nts				
			4 1 1 1 1 T C	4.0				
X 1 1 1			Additional Info			F G .:	.1 . 1	. 7
Include relevant inform	iation that o	can not be e	ntered in the we	etland do	ita record(1	Ex. Sections	that have no	ot been
completed.)								
			Septen	1				
			Берісп	1				
O.CC. : 1.N.			F1C : 1 XX .1	1 D G' 1	1 1 0 1	TT 1 .		
Official Name:		0 1	Elfrida Wetlan	d B: Sinl			}	
Evaluation Edition:		3rd	Class:	1	Wetlan	nd ID.:	0.2016	
Wetland Significance			th Last Evaluate			Aug 3	0 2016	
G : I DI : G :	1	Year/Mont	th Last Updated				C C	
Special Planning Consi	derations:		2 22				Scores	107
Wetland Area:			3.33				Biological:	107
Dentention Area:			120			**	Social:	63
Catchment Area:			300.00				/drological:	189
OMNR Source						Speci	al Features:	131
Information Source			1 1 D				Overall:	489
Submitted by:			Ash Baron					
Date:								

Southern Ontario Wetland Evaluation, Data and Scoring Record Wetlands Manual	March 1993
	JATION
Ash Baron	Aquafor Beech Limited
DATES WETLAND VISITED	
DATE THIS EVALUATION COMPLETED:	Aug 30 2016
ESTIMATED TIME DEVOTED TO COMPLETING THE FIELD SU	URVEY IN "PERSON HOURS"
WEATHER CONDITIONS	
	unny
(Continue in the space below if necessary)	
ii) summer conditions in general DROUGHT	
ii) summer conditions in general DROUGHT	
OTHER POTENTIALLY USEFUL INFORMATION:	
OTHER FOTENTIALLY USEFUL INFORMATION:	
Pond-ish area of wetland appears to be of ant	hropogenic origin
CHECKLIST OF PLANT AND ANIMAL SPECIES RECORDED IN TH	E WETLAND:
Attach a list of all flora and fauna observed in the wetland.	
*Indicate if voucher specimens or photos have been obtained, where locate	ed, etc.
36	

	WETLAND D.	ATA AND SCORI	NG RECORD	
	WETLAND NAME:	Elfrida Wetland	B: Sinkhole Creek I	Headwaters
	MNR ADMINISTRATIVE REGION	: Guelph	DISTRICT:	Guelph
	AREA OFFICE (if different from Dis	trict):	Niagara (Vineland)
	CONSERVATION AUTHORITY JU	RISDICTION:	Ha	milton CA
	(If not within a designated CA, check he	ere:		
	COUNTY OR REGIONAL MUNICIPAL	PALITY:	Ham	ilton
	TOWNSHIP:			
	LOTS & CONCESSIONS: (attach separate sheet if necessary)			
	•			
)	MAP AND AIR PHOTO REFERENCE			
	a) Latitude: Longitude	e:		
	b) UTM grid reference:	Zone: 17T Grid:E 597310		Block: n/a Grid:N 4780582
	c) National Topographic Series:			
	map name(s)			
	map number(s)		edition	<u></u>
	scale			
	d) Aerial photographs: Date photo taken:		Scale:	
	Flight & plate numbers:			
	(attach separate sheet if necessary)			
	e) Ontario Base Map numbers & scale			
	(attach separate sheets if necessary)			

Code: Wetland Name:

												FISH
WETLAND	DOMINATE		COMMUNITY	COMMUNITY					# OF	% OPEN	ha OPEN	HABITAT
UNIT #	FORM	WETLAND TYPE	CODE	SUB_CODE	AREA (ha)	SITE TYPE	SOIL	FORMS	FORMS	WATER	WATER	(LM / HM)
1	re	Marsh	MAM	MAM2	1.20	Palustrine	clay/loam	h, ts, ls, gc, ne, be, re	7	80	0.96	LM
2	ts	Swamp	SWT	SWT2	0.59	Palustrine	clay/loam	h, ts, ls, gc, ne, re, m	7	0	-	
		•					•					
3	ne	Marsh	MAM	MAM2	1.44	Riverine	clay/loam	gc, ne,be	3	0		
							•					
4	gc	Marsh	MAM	MAM2	0.10	Palustrine	clay/loam	gc, ne, re	3	0		
	Ŭ						•					
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			3.33				0.96	

Dominate Species	Additional Species	COMMENTS
ALIPLAN	TYPANGU	
SALALBA, CORRACE	ACTUANG DOADALU	
PHAARUN	ASTLANC, POAPALU, TYPANGU	
THARUN	PHAARUN, POAPRAT,	
ASTLANC	SOLCANA, TYPANGU	
13012311		
	+	
	+	
	+	
	+	

*** ******* * * ***	CIZE AND DOUNDADIEC			
ii) <u>WETLAND</u>	SIZE AND BOUNDARIES			
a) Single cor	ntiguous wetland area:	7.75	hectares	
,			_	
b) Wetland o	complex comprised of	2	individual wetland	ls:
	Western Little 's Ni and an		G' C 1.	
	Wetland Unit Number (for reference)		Size of each wetland unit	
	(for reference)		wettand unit	
			На	
	Wetland Unit No.	1	1.20	
	Wetland Unit No.	2	0.59	
	Wetland Unit No.	3	1.44	
	Wetland Unit No.	4	0.10	
	Wetland Unit No.	5	0.00	
	Wetland Unit No.	6	0.00	
	Wetland Unit No.	7	0.00	
	Wetland Unit No.	8	0.00	
	Wetland Unit No.	9	0.00	
	Wetland Unit No.	10	0.00	
	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. Wetland Unit No.	15	0.00	
	Wetland Unit No. Wetland Unit No.	16 17	0.00	
	Wetland Unit No. Wetland Unit No.	18	0.00	
	Wetland Unit No.	19	0.00	
	Wetland Unit Totals:	1)	3.33	
	(Attach additional sheets i	if necess:		
	(7 titaen adaltional sheets 1	п песевы		
TOT	TAL WETLAND SIZE		3.33	
c) Brief docu	umentation of reasons for includin	ig any are	eas less than 0.5 ha in size:	
	Differing community type that pro	vides ec	ologic function and or hydrol	logic function
	Differing community type that pre	vides ee	orogic runction and or nyuro	logic function
-				

Wetland Manual

1.0 BIOLOGICAL COMPONENT

1.1 PRODUCTIVITY

.1.1 GROWING DEGREE-DAYS/SOILS

GROWING DEC	GREE DAYS	MAP	SOILS	S	
(check one)			Estima	ated F	ractional Area
1)	<2800		1.0	00	clay/loam
2)	2800 -32	00	0.0	00	silt/marl
3)	3200 -36	00	0.0	00	limestone
4) x	3600 -40	00	0.0	00	sand
5)	>4000		0.0	00	humic/mesic
·	_		0.0	00	fibric
			0.0	00	granite

Determine the soil type from the appropriate OMAF soils maps

SCORING:

Growing	Clay-	Silt-	Lime-	Sand	Humic-	Fibric	Granite
Degree-	Loam	Marl	stone		Mesic		
Days							
<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		
26	clay/loam	26.00
	silt/marl	0.00
	limestone	0.00
	sand	0.00
	humic/mesic	0.00
	fibric	0.00
	granite	0.00

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

	D. 10 ' D. 1	M 1004
Southern Ontario Wetland Evaluation Wetland Manual	, Data and Scoring Record	May 1994
	Area = area of wetland type/total wetland area)	
Estimate the Wetland Type from air photo		
Fractional Area	Score	
5		
Bog 0.00	x 3 0.0	
Fen 0.00	x 6 0.0	
Swamp 0.18	x 8 1.4	
Marsh 0.82	x 15 12.3	
	Subtotal: 13.8	45 4 1 3
	Wetland type score (maximum	m 15 points) 14
1.1.3 SITE TYPE (Fractional Area :	= area of site type/total wetland area)	
Estimate from air photos		
	Fractional Area	Score
Isolated	0.00 x 1 =	0.00
Palustrine (permanent or		
intermittent flow)	0.57	1.14
Riverine	0.43	1.73
Riverine (at rivermouth)	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	0.00
Lacustrine (at rivermouth Lacustrine (on enclosed	0.00	0.00
bay, with barrier beach)	0.00	0.00
Lacustrine (exposed to lake)	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	0.00
Lacustinic (exposed to take)	Sub Total:	2.86
	Site Type Score (maxim	
	- J. P. 2002 (
1.2 BIODIVERSITY		
1.2.1 NUMBER OF WETLAND TYPES		
(Check only one)	Score	
	2000	
1) one	9 points	
2) 13 two	13	
3) three	20	
4) four	30	
	N 1 ANY 11 III G (1 A	0 1 1)
	Number of Wetland Types Score (maximum 3	0 points) 13
	4	
Ī	4	

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March 1993

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

Code	Forn	ns	Don	ninant Species	_		
M6	re,	ff	re,	Typha latifolia;	ff,	Lemna minor,	Wolffia
S 1	ts,	gc	ts,	Salix discolor;	gc,	lmpatiens capens	sis, Thelypteris palustris

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	Total # of communities	Total # of communities
with 1-3 forms	with 4 -5 forms	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	+.5 each additional	+ 1 each additional
community = 2.5	community = 3.5	community = 0.0

e.g., a wetland with 3 one form communities

4 two form communities

12 four form communities and

8 six form communities would score:

$$6 + 13.5 + 15 = 34.5 = 35$$
 points

SubTotal:

6

Vegetation Communities Score (maximum 45 points)

		March 1993
Wetland Name:	Elfrida Wetland B: Sinkhole Creek Headwaters	
Wetland Size (ha):	3.33	
Vegetation Form	% area in which form is dominant	
h	0.00	
c	0.00	
dh	0.00	
dc	0.00	
ts	17.72	
ls	0.00	
ds	0.00	
gc	3.00	
m	0.00	
ne	43.24	
be	0.00	
re	36.04	
ff	0.00	
f	0.00	
su	0.00	
u (unvegetat	d)0.00	
$Total = 100^{\circ}$	100.00	

	Wetland Evaluation Data and Scoring Record	March 1993
Wetland Manual		
2.3 DIVERSITY O	F SURROUNDING HABITAT	
heck all appropriate		
etermine from air p	` ''	
1	row crop	
	pasture	
1	abandoned agricultural land	
	deciduous forest	
	coniferous forest	
	mixed forest (at least 25% conifer and 75% deciduous or vice versa)	
	abandoned pits and quarries	
	open lake or deep river	
	fence rows with cover, or shelterbelts	
	terrain appreciably undulating, hilly, or with ravines	
1	creek flood plain	
3	Subtotal	3
Div	versity of Surrounding Habitat Score (1 for each, maximum 7 points)	3
2.4 PROXIMITY T	O OTHER WETLANDS	
	propriate category only)	Scoring
	hotos and other wetlands evaluations in the vicinity	Scoring
1) 0	Hydrologically connected by surface water to other wetlands	
-/	(different dominant wetlaI1d type) or to open lake or deep river	
	within 1.5 km	8 points
		•
2) 0	Hydrologically connected by surface water to other wetlands	
	(same dominant wetland type) within 0.5 km	8
3)5	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) 0	Hydrologically commented by comform water to other wetlands	
4)0	Hydrologically connected by surface water to other wetlands (same dominant wetland type) from 0.5 to 1.5 km away	5
	(same dominant wetland type) from 0.5 to 1.5 km away	3
5) 0	Within 0.75 km of other wetlands (different dominant wetland type)	
·/	or open water body, but not hydrologically connected by	
	surface water	5
		-
6) 0	Within 1 km of other wetlands, but not hydrologically	
	connected by surface water	2
7) 0	No wetland within 1 km	0
Pro	eximity to other Wetlands Score (Choose one only, maximum 8 points)	5
110		
Ну	drologically connected to	

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1.2.5 INTERSPERSION		
Optional: Complete as time pe		
Number of In		
(Check one)	Score	
1) 26 or l		
2) 27 to 4		
3) 41 to 6		
4) 61 to 8		
5) 81 to l		
6) 101 to		
7) 126 to		
8) 151 to		
9) 176 to		
10) >200	30	
	Interspersion Score (Choose one only maximu	nm 30 points)
1.2.6 OPEN WATER TYPES	Ref	
Determine from aerial photos.		
Permanently flooded:		
(Check one)	Score	
1)	ype 1 8	
2)	ype 2 8	
3)	ype 3 14	
4) 20	ype 4 20	
5)	ype 5 30	
6)	ype 6 8	
7)	ype 7 14	
8)	ype 8 3	
9)	no open water 0	
	Open Water Type Score (Choose one only maximum	m 30 points) 20
	8	

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1.3 SIZE

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

3.3 hectares 56 Subtotal for Biodiversity

Size Score (Biological Component) (maximum 50 points)

Evaluation Table Size Score (Biological component)

Wetland		(<u>B</u>		re for Biodi	versity Subc	omponent			
size (ha)	<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

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	<u>2</u>	2.0 SOCIAL C	<u>OMPONENT</u>		
2.1 ECONOMICALLY	VALUABLE	PRODUCTS	_		
2.1.1 WOOD PRODUCTS					
Determine the percentage of	of the wetland a	area dominatea	d by ''h'' or ''c'' h	by using aerial photograph.	
-	-			not wetland size. (Check one	
only) h: 0.00	c: 0.00		•	<u> </u>	
			Score		
1) 0	<5 ha		0		
	5 -25 ha		3		
3) 26	5 -50 ha		6		
·	- 100 ha		9		
· _	-200 ha		12		
6)	>200 ha		18		
Source of information:		Aerial p	photos		
	Wood	Products Scor	e (Score one onl	y, maximum 18 points)	0
2.1.2 WILD RICE					
(Check one)				Score (Choose one)	
Present (minimum size	e 0.5 ha)	1)		6 points	
Absent		2)	0	0	
Source of information:		Field su	irveys		
			Wild Rice Sco	ore (maximum 6 points)	0
2.1.3 COMMERCIAL FISH	H (BAIT FISH	AND/OR COA	ARSE FISH		
(Check one)		4.5	0	Score (Choose or	ne)
Present Habitat not suitable for fish		1) 2)	0	12 points	
Traditat not suitable for fish		2)	0	Ü	
Source of infolmation:	,1	Field obse			
ij any pari oj ine weiiana is	riverine or ine	-	-	presence of fish score"present" maximum 12 points)	0
2.1.4 BULLFROGS					
(Check one)				Score (Choose or	ne)
Present		1)		1 points	•
Absent		2)	0	0	
Source of information:	Field obse	rvations and an	nphibian calling s	surveys	
			Rullfrog Score	e (maximum 1 point)	0
			Duming Scor	c (maximum 1 point)	
		10)		

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2.1.5 SNAPPING TURTLES	_				g (G)		
(Check one)	4.5				Score (Choose on	e)	
Present	1)				1 point		
Absent	2)		0		0		
Source of information:		Rept	tile surveys				
		Snap	ping Turtle Scor	e (max	ximum 1 point)		0
2.1.6 FURBEARERS Fur Ref (Consult Appendix 9)							
Name of furbearer		Sourc	e of information		-		
1) Raccoon	3		Field Ob	servatio	ns	•	
2) Virginia Opossum				0			
3) Red Fox				0		-	
4) Coyote	3			"		_	
5) Deer	3			"		•	
SubTotal	9					•	
2.2 RECREATIONAL ACTIVI	TIES]
	Type of We	tland-A	ssociated Use				
Intensity of Use	Hunting	Nature Enjoyment/ Ecosystem Study			Fishing		
			Leosystem St				
High	40 points				40 points		
High Moderate	40 points 20		40 points 20		40 points 20		
			40 points				
Moderate	20	0	40 points 20	0	20	0	
Moderate Low	20 8	0	40 points 20 8		20 8	0	0
Moderate Low Not possible/NotKnown	20 8 0	0	40 points 20 8 0	0	20 8 0	0	0
Moderate Low Not possible/NotKnown Totals (score one level for each of t	20 8 0	0	40 points 20 8 0	0	20 8 0	0	0
Moderate Low Not possible/NotKnown Totals (score one level for each of t	20 8 0	0	40 points 20 8 0 cres are cumulative	0	20 8 0	0	0
Moderate Low Not possible/NotKnown Totals (score one level for each of t	20 8 0 The three wetland to Hunting:	0	40 points 20 8 0 cres are cumulative	0	20 8 0	0	0
Moderate Low Not possible/NotKnown Totals (score one level for each of t	20 8 0 The three wetland use the three wetlands used	o ses; sco	40 points 20 8 0 cres are cumulative	0 0 0 e; max	20 8 0	0	0

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2.3 LANDSCAPE AESTHETICS	
core using ortho-aerial photography	
.3.1 DISTINCTNESS	
(Check one)	Score (Choose one)
Clearly distinct 1) 3	3 points
Indistinct 2) 0	0
Landscape Distin	actness Score (maximum 3 points)
3.2 ABSENCE OF HUMAN DISTURBANCE	
(Check one)	Score (Choose one)
Human disturbances absent or nearly so	1) 7 points
One or several localized disturbances	2) 4
Moderate disturbance; localized water pollution	3) 2
Wetland intact but impairment of ecosystem quality	-/-
intense in some areas	4) 1 1
Extreme ecological degradation, or water pollution	, <u> </u>
severe and widespread	5) 0
Source of information: Fiel	ld observations
ptional: complete as time and scoring dictates. 4.1 EDUCATIONAL USES (Check one)	Score (Choose one)
Frequent 1)	20 points
Infrequent 2)	12
No visits 3) 0	0
140 VISIUS 3)	U
Source of information: Priv	vately owned property
equires contact with Local Boards of Education.	
Educationa	l Uses Score (maximum 20 points)
4.2 FACILITIES AND PROGRAMS	
(check one)	Score (Choose one
Staffed interpretation centre	1) 8 points
No interpretation centre or staff but a system of	o points
self-guiding trails or brochures available	2) 4
Facilities such as maintained paths (e.g., woodchips)	2)
boardwalks, boat launches or observation towers	
but no brochures or other interpretation	3) 2
No facilities or programs	4) 0 0
Source of information:	0
	ograms Score (maximum 8 points)
12	

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2.4.3 RESEARCH AND STUDIES						
(check appropriate spaces)	•				Score	
Long term research has been done					12 points	
Research papers published in refere	ed scientific				•	
journal or as a thesis					10	
One or more (non-research) reports	have been written					
on some aspect of the wetland 's flo						
hydrology etc.					5	
No research or reports			0		0	
The research of reports	Subto	otal:	0			
Attach list of known reports by above		Juli.				
Refer to ESPA, EPA and ANSI reports.	ve euregories					
_	udies Score (Scor	o ic cu	mulativa mas	zimum 12	noints)	0
Research and St	udies Score (Scor	e is cu	muiauve, max	Millulli 12	points)	U
2.5 PROXIMITY TO AREAS OF H	UMAN SETTLE	MENT	Γ			
Circle the highest applicable score						
Distance of wetland from	1)		2) popu	ılation	3) por	oulation
settlement	population> 10	000		-10,000	, ,	or cottage
settiement	population> re	,,000	2,300	-10,000		nmunity
1) Within or adjoining	40 points		26		16	
settlement	ro points	40	20		10	
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	1	2		0	
4) >60 km from settlement	3	40	Δ		U	
		40		0		0
Name of settlement:	Elfri	da/Haı	milton			
Name of settlement.	131111	ua/11a1	IIIItOII			
Prox	imity to Human S	Settlen	nent Score (ma	aximum 4	0 points)	40
CA CANADA CA					G	
2.6 OWNERSHIP (FA= fraction Are	, , , , , , , , , , , , , , , , , , ,				Score	
Select a default value of ''4'' if no other i		· .				
FA of wetland in public or private o						
held under contract or in trust for we			1.00	x 10	= 10.00	
FA of wetland area in public owners	-			x 8	= 0.00	
FA of wetland area in private owner	ship,not as above			x 4	= 0.00	
Source of information:	Guelph (GIS Pa	rcel layer:			
		Own	ership Score (1	maximun	10 points)	10
		022			r ro points)	10
	12					
	13					

Additional Reports						

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2.7 **SIZE**

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

3.3 hectares 49 Subtotal for Social

Evaluation Table for Size Score (Social Component)

Evaluation	1 abie	for Size Sco	re (Social C	omponent)							
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 >										
<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	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)

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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.

2.8.2 CULTURAL HERITAGE

Aboriginal Values/Cultural Heritage Score (maximum 30 points)

0.0

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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.

ер 1:	Detennination of Maximum Score	
	Wetland is located on one of the defined 5 large lakes or 5 major 1 (Go to Step 4)	rivers
X	Wetland is entirely isolated (i.e. not part of a complex) (Go to Step	p 4)
	All other wetland types (Go through Steps 2,3 and 4B)	
sep 2:	Determination of Upstream Detention Factor (DF)	
(a)	Wetland area (ha)	
(b)	Total area (ha) of upstream detention areas (include the wetland itself)	123.33 estimate
(c)	Ratio of (a):(b)	0.00
(d)	Upstream detention factor: (c) x $2 = 0.0$ (maximum allowable factor = 1)	0.00
ep 3:	Determination of Wetland Attenuation Factor (AF)	
(a)	Wetland area (ha)	3.33
(b)	Size of catchment basin (ha) upstream of wetland	
	(include wetland itself in catchment area)	300.00 calculate
(c)	Ratio of (a):(b)	0.01
(d)	Wetland attenuation factor: (c) x $10 = 0.1$ (maximum allowable factor = 1)	0.11
ер 4:	Calculation of final score	
(a)	Wetlands on large lakes or major rivers	0
(b)	Wetland entirely isolated	100
(b)	Initial Score	100 *
	Upstream detention factor (DF) (Step 2)	0.00
	Wetland attenuation factor (AF) (Step 3)	0.11
((3.33
(1	*Unless wetland is a complex with isolated portions (see above).	
	Flood Attenuation Score (maximum 100	9 points) 79.0
((Final score: [(DF + AF)/2] x Initial score = * Final score:= 6	5.55

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WATER QUALITY IMPROVEMENT

SHORT TERM WATER QUALITY IMPROVEMENT

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

(FA= area of site type/total area of wetland)

Wetland on one of the 5 defined large lakes or 5 major rivers (Go to Step 5a) 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.

Area FA of isolated wetland 0.00 0.00 0.5 0.43 0.43 FA of riverine wetland 1 = FA of palustrine wetland with no inflow 0.00 0.7 = 0.57 0.57 FA of palustrine wetland with inflows 0.00 0.00 FA of lacustrine on lake shoreline 0.2 FA of lacustrine at lake inflow or outflow 0.00 = 1 Х Sub Total: 1.00

Fractional

Sum (WIF cannot exceed 1.0)

LUF (maximum 1.0)

1.00

Step 3: Determination of catchment land use factor (LUF) (Choose the first category that fits upstream landuse in the catchment.)

1)	1.0 Over 50% agricultural and/or urban	1.0
2)	Between 30 and 50% agricultural and/or urban	0.8
3)	Over 50% forested or other natural vegetation	0.6

0.6

1.00

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 domininant live vegetation. (FA = area of vegetation type/total area of wetland)

FA of wetland with live trees, shrubs, Fractional Area herbs or mosses (c,h,ts,ls,gc,m) 0.21 0.75 =0.16 FA of wetland with emergent, submergent 0.79 or floating vegetation (re,be,ne,su,f,ff) 0.79 1 = FA of wetland with little or no vegetation (u) 0.5 =0.00 0.00Subtotal: 0.95

Estimate FA from air photos or use default factor of "0.75"

Sum (PUT cannot exceed 1.0)

0.95

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tep 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)	1.00	
	Land use factor (LUF)	1.00	
	Pollutant uptake factor (PUT)	0.95	
	Final score: 60 x WQF x LUF x PUT =	56.89	
	Short Term Water Quality Improvement Score (max	imum 60 points)	57
2.2 I	ONG TERM NUTRIENT TRAP		
	etland type from aerial photos and soil type from OMAF soils ma	ps.	
ep 1:			
_	Wetland on large lakes or 5 major rivers	0 points	
_	All other wetlands (proceed to Step 2)		
ep 2:	Choose only one of the following settings that best describes the	he wetland being evalua	ted
1)	Wetland located in a river mouth	10 points	
2)	Wetland is a bog, fen or swamp with more than	1	
_	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)	0 None of the above	0	
	Long Term Nutrient Trap Score (m	aximum 10 points)	0
	Long Term Nutrient Trap Score (m	aximum 10 points)	

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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	Potential for Discharge						
Characteristics							
	None to Little		Some		High		
Wetland type	1) Bog = 0		2) Swamp/Marsh = 2	2	3) Fen $= 5$		
Topography	1) Flat/rolling = 0	0	2) Hilly = 2		3) Steep = 5		
Wetland	Large (>50%) = 0		Moderate (5-50%)		Small $<$ (5%) = 5		
Area: Upslope			= 2	2			
Catchment Area							
Lagg Development	1) None found = 0	0	2) Minor = 2		3) Extensive = 5		
Seeps	1) None = 0	0	2) = or < 3 seeps = 2		3) > 3 seeps = 5		
Surface marl deposits	1) None = 0	0	2) = or < 3 sites = 2		3) > 3 sites = 5		
Iron precipitates	1) None = 0	0	2) = or < 3 sites = 2		3) > 3 sites = 5		
Located within 1 km	N/A = 0		N/A = 0		Yes = 10		
of a major aquifer		0					
Totals				4		0	

(Scores are cumulative maximum score 30 points)

Percentage of Catchment: 0.01

Groundwater Discharge Score (maximum 30 points)

4

3.3 CARBON SINK

Choose only one of the following

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

5 points

_____2

0 3

Carbon Sink Score (maximum 5 points)

0

Southern Ontario Wetland Evaluation Wetlands Manual 3.4 SHORELINE EROSION CONTROL Determine from ortho-aerial photography Step 1: Score Wetland entirely isolated or palustrine 0 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 Trees and shrubs 15 1) 2) 8 Emergent vegetation 8 3) Submergent vegetation 6 3 4) Other shoreline vegetation No vegetation 0 **Shoreline Erosion Control Score (maximum 15 points)** 8 **GROUND WATER RECHARGE** WETLAND SITE TYPE Score Wetland > 50% lacustrine (by area) or located on one of the (a) 0 0.00 five major rivers (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 0.57 50 28.4 0.43 FA of riverine wetland 20 8.6 FA of lacustrine wetland (wetland <50% lacustrine) 0.00 0 = 0.0 37.0 Subtotal: **Ground Water Recharge Wetland Site Type Component Score (maximum 50 points)** 20

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3.5.2 WETLAND SOIL RECHARGE POTENTIAL

Determine from OMAF soils maps.

(Circle only <u>one</u> 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	0		0	
	river				
2)	Isolated	10		5	
3)	Palustrine	7		4	4
4)	Riverine (not a major river)	5		2	
Tota	ıls		0		4

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

4

4.0 SPECIAL FEATURES COMPONENT

4.1 RARITY

4.1.1 WETLANDS Ref Map

Site District 7E-5

Presence of wetland type (check one or more)

| Bog | Fen | X | 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.

	Score for Rarity within		Score for Rarity	of Wetland Type	
	the Landscape	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)
Rarity of Wetland Type Score (maximum 80 points)

60
20

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

ord December 2002
ERED OR THREATENED SPECIES
Source of information
0
ened Species Score (no maximum)
ABITAT FOR AN ENDANGERED
Source of information
0
<u>- </u>
ecies Score (no maximum)

		o Wetlar	nd Evaluation, I	Data and Scoring R	ecord		March 1993
	etlands Manual						
	4.1.2.3 Pl	ROVINO	CIALLY SIGN	IFICANT ANIMAI	L SPECI	ES <u>Prov Ref</u>	
	Name of	species				Source of informatio	n
						-	
	9) 10)						
	11)						
	12)						
	13)						
	14)						
	15)						
		enarate 1	ist if necessary	Attach documenta	tion		
		- F		,			
	er of provincia	lly signi =	ficant animal sp	pecies in the wetlan	d: 	 154	
	species	=	80	15 species	=	156	
3	species	=	95	16 species	=	158	
	species	=	105	17 species	=	160	
	species	=	115	18 species	=	162	
	species	=	125	19 species	=	164	
	species	=	130	20 species	=	166	
	species	=	135	21 species	=	168	
	species	=	140	22 species	=	170	
	species	=	143	23 species	=	172	
	species	=	146	24 species	=	174	
	species	=	149	25 species	=	176	
13	species	=	152				
Add c	one point for ev	ery spec	ies past 25 (for	example, 26 specie	es = 177	points, 27 species = 17	18
points	etc.)						
(no m	aximum score)						
			Provin	cially Significant A	Animal S	species Score (no max	50
				2.4			

4.1.2.4 PROVINCIALLY SIGNIFICANT PLANT SPECIES

Scientific Name	Source of information
#N/A	
	<u> </u>
	<u> </u>
#N/A	<u> </u>
#N/A	
	#N/A #N/A #N/A #N/A #N/A #N/A #N/A #N/A

#N/A

Attach separate list if necessary; Attach documentation

Scoring:

15)

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)

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4.1.2.5 REGIONALLY SIGNIFICANT SPECIES (SITE REGION) Spp Ref

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)			
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)

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	<u> </u>	
2	<u> </u>	
3	<u> </u>	
4		
5		
6		
7		
8		
9		
10		
11	<u> </u>	
12	<u> </u>	
13	<u> </u>	
14		
15		
16	<u> </u>	
17		
18		

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)

0

Status	Name of species	Source of Information	So	core
Currently nesting			50	
Known to have new vithin past 5 years	oted		25	
Active feeding area Do not include fee y great blue heron	ding		15	
one known			0	0
Consult the Ontary documentation (ne	io Heronry database at Bird Studies est locations etc., if known) category only; maximum score 50 po Score for Nesting Colonial Wa			0
Consult the Ontare documentation (not highest applicable of WINTER COVER	est locations etc., if known) category only; maximum score 50 po Score for Nesting Colonial Wa	ints. hterbirds (maximum 50 points)		0
Consult the Ontare h documentation (new highest applicable winter Cover winter Cove	st locations etc., if known) category only; maximum score 50 po Score for Nesting Colonial Wa FOR WILDLIFE t'' if trees & shrubs are present, also	ints. hterbirds (maximum 50 points)		0
Consult the Ontares of the documentation (not be highest applicable of the winter Cover of the winter Cover of the cover o	est locations etc., if known) category only; maximum score 50 po Score for Nesting Colonial Wa	ints. aterbirds (maximum 50 points) a consult District deer yard data. Score 100 50 25 10		0
Consult the Ontary I documentation (not thighest applicable of WINTER COVER "locally significant (Check only highes 1) 2) 3) 3)	st locations etc., if known) category only; maximum score 50 po Score for Nesting Colonial Wa FOR WILDLIFE t'' if trees & shrubs are present, also t level of significance) (one only) Provincially significant Significant in Site Region Significant in Site District Locally significant	ints. aterbirds (maximum 50 points) a consult District deer yard data. Score 100 50 25 10		0

Southern Ontario Wetland Evaluation, Data and Scoring Record March 1993 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 Moulting Score (one only) (one only) Nationally significant 150 150 1) Provincially significant 100 100 2) Regionally significant 50 3) 50 4) Known to occur 10 10 0 0 0 5) Not possible 0 Unknown 0 6) 0 0 Total: Subtotal: 0 Source of information: 0 Waterfowl Moulting and Staging Score (maximum 150 points) 0 4.2.4 WATERFOWL BREEDING (Check only highest level of significance) Score Provincially significant 100 1) 2) Regionally significant 50 3) Habitat suitable 10 4) 0 Habitat not suitable 0 Source of information: Field obs. Waterfowl Breeding Score (maximum IOO points) 0 4.2.5 MIGRATOR PASSERINE, SHOREBIRD OR RAPTOR STOPOVER AREA (check highest applicable category) 1) Provincially significant 100 2) Significant in Site Region 50 Significant in Site District 3) 10 4) 0 Not significant 0 Source of information: Passerine, Shorebird or Raptor Stopover Score (maximum 100 points) 0 29

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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: Procee	d to Steps 4 to 7 <u>only</u> if Step 3 was <u>not</u> 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)

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	Vegetation	Present	Total	Area	Score	Final
Group Number	Group Name	as a	Area	Factor		Score
		Dominant	(ha)			(area
		Form		(see		factor
		(check)		Table 5)		x score)
1	Tallgrass			<u> </u>	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				11	0.0
8	Waterweed-Watercress				9	0.0
9	Ribbongrass				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 (m	aximum 75 poi	ints)			0.0
	Total Score (max	imum 75 point	s)			0.0

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)

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 1Marsh 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	Vegetation	Present	Total	Area	Score	Final
Group Number	Group Name	as a	Area	Factor		Score
		Dominant	(ha)	(see		(area
		Form		Table 5)		factor
		(check)				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
Sub Total Score (maximum 25 points)						0.0
	Total Score (ma	ximum 25 p	oints)			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	Total Area Factor area (ha) (see Table 5)		TOTAL SCORE (factor x score)
	(check)	urea (na)			(ructor A score)
Seasonally flooded				10	0.0
Permanently flooded				10	0.0
Sub SC	0.0				
SCOI	0.0				

Step 7: Calculation of final score

Score for Spawning and Nursery Habitat (Low Marsh) (maximum 75) = 0.0

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

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

Sum (maximum score 100 points) =

0.0

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4.2.6.2 Migration and Staging Habitat	Score only if information on fish migration and	
<u>Step 1:</u>	e.g. migration of northern pike through a wetlan spawning areas.	nd to access
Staging or Migration Habitat is not prese	ent in the wetland (Score = 0)	
2) Staging or Migration Habitat is present in to Step 2)	n the wetland significance of the habitat is known (Go
• '	n the wetland significance of the habitat is not know	vn
NOTE: Only <u>one</u> of Step 2 <u>or</u> Step 3 is to be scored	1.	
Select the highest appropriate category be	elow, attach documentation:	
1) Significant in Site Region	Score 25 poin	nts
2) Significant in Site District	15	
3) Locally Significant	10	
4) Fish staging and/or migration habitat present,but not as above	5	
Score for Fish Migration and Sta	iging Habitat (maximum score 25 points)	0
Step 3: Select the highest appropriate category b (does not have to be dominant). See Section 1.1.3. No	below based on presence of the designated site type of the name of river for 2) and 3).	
Wetland is riverine at rivermouth or lacus	Score 25 points at rivermouth 25 points	nts
2) Wetland is riverine, within 0.75 km of rive	ermouth 15	
3) Wetland is lacustrine, within 0.75 km of ri	ivermouth 10	
4) Fish staging and/or migration habitat present, but not as above	5	
Score for Staging and Migr	ration Habitat (maximum score 25 points)	0
	•	
	33	

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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	0.00	X	20 =	0.0
Fen, on limestone rock	0.00	X	5 =	0.0
Swamp	0.18	X	3 =	0.5
Marsh	0.82	X	0 =	0.0
		Sub Total:		0.5

Ecosystem Age Score (maximum 25 points)

0.5

4.4 GREAT LAKES COASTAL WETLANDS

Score for **coastal** (see text for definition) wetlands only

Choose one only



Great Lakes Coastal Wetlands Score (maximum 75 points)

0

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			
x Present	(a)	One location in wetland	v
<u>x</u> Present	(a)		<u>X</u>
		Two to many locations	
		Abundance code	
	(b)	(1 < 20 stems)	
		(2 20-99 stems	<u>X</u>
		(3 100-999 stems	
		(4 >1000 stems	
5.2 SEASONALLY FLOODED AREAS			
Check one or more			
check one of more			
Ephemeral		(less than 2 weeks)	v
			<u>X</u> <u>X</u>
Temporal		(2 weeks to 1 month)	<u> </u>
Seasonal		(1 to 3 months)	
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		X	
Two as above			
522 Common Loon			
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		X	
	35		
	~ ^		

Souther Wetlands M	ern Ontario Wetland Evaluation Manual		March 1993
11.00		EVALUATION SCORING RECORD	
WETLAND 1	NAME AND/OR NUMBER	Elfrida Wetland B: Sinkhole Creek	: Headwaters
	<u>1.0 B</u>	SIOLOGICAL COMPONENT	
1.1 <u>F</u>	<u>PRODUCTIVITY</u>		
1.1.2 V	Growing Degree-Days/Soils Wetland Type Site Type		26.0 13.8 2.9
ľ		Total for Productivity	43
1.2 <u>F</u>	BIODIVERSITY		
1.2.2 V 1.2.3 I 1.2.4 F 1.2.5 I	Number of Wetland Types Vegetation Communities (maxixmun Diversity of Surrounding Habitat (maxixmun Proximinty to Other Wetlands Interspersion Open Water Type		13.0 6.0 3.0 5.0 9.0 20.0
	Sub Total for Biodiversity SIZE (Biological Component)	Total for Biodiversity 56	56 8
TOTAL	L FOR BIOLOGICAL COMPONE		Sub Total: 107 107

Southern Ontario Welland Evaluation	March	h 1993
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2.0 SOCIAL COMPONENT		
2.1 ECONOMICALLY VALUABLE PRODUCTS		
 2.1.1 Wood Products 2.1.2 Wild Rice 2.1.3 Commercial Fish 2.1.4 Bullfrogs 2.1.5 Snapping Turtles 2.1.6 Furbearers 	0 0 0 0 0 0	
Total for Economically Valuable Products		9
2.2 RECREATIONAl ACTIVITIES (maximum 80)		0
2.3 LANDSCAPE AESTHETICS		
2.3.1 Distinctness2.3.2 Absence of Human Disturbance	3	
Total for Landscape Aesthetics		4
2.4 EDUCATION AND PUBLIC AWARENESS		
2.4.1 Educational Uses2.4.2 Facilities and Programs2.4.3 Research and Studies	0 0 0	
Total for Education and Public Awareness		0
2.5 PROXIMITY TO AREAS OF HUMAN SETTLEMENT		40
2.6 OWNERSH1P Subtotal for Social Component 2.7 SIZE (Social Component) 49.0		10
2.8 ABORIGINAL AND CULTURAL VALUES		0
Su TOTAL FOR SOCIAL COMPONENT (not to exceed 250)	ıb Total:	63 63

Southem Ontario Wetland Evaluation, Score Sum	<u>mary</u>	March 1993
Wetlands Manual	DLOGICAL COMPONENT	
	EGGICIE GOINI OTHERT	
3.1 <u>FLOOD ATTENUATION</u>		79
3.2 WATER QUALITY IMPROVEMENT		
3.2.1 Short Term Improvement		56.9
3.2.2 Long Term Improvement	. 20)	0.0
3.2.3 Groundwater Discharge (maximun	1 30)	4.0
	Total for Water Quality Improvement	61
3.3 <u>CARBON SINK</u>		0
3.4 SHORELINE EROSION CONTROL		8
3.5 <u>GROUNDWATER RECHARGE</u>		
3.5.1 Site Type		37.03
3.5.2 Soils		4.0
	Total for Groundwater Recharge	41
TOTAL FOR HYDROLOGI	CAL COMPONENT (not to exceed 250	Sub Total: 189 189
Termer or middle of	CHE COM CIVELYT (NOT to CACCCU 200	, 109

C. d. Q. d. W. d. al F. d. d'an C. and C.		D 1 2002
Southern Ontario Wetland Evaluation, Score Summary Wetlands Manual		December 2002
wetianus ivianuai		
4.0 SPECIA	L FEATURES	
4.1 <u>RARITY</u>		
4.1.1 Wetlands		60.0
4.1.1.1 Rarity within the Landscape		60.0 20.0
4.1.1.2 Rarirty of Wetland Type (maximum 80)		20.0
	Total for Wetland Rarity	80
412 Seeding		
4.1.2 Species	ling	0.0
4.1.2.1 Endangered or Threatened Species Breed4.1.2.2 Traditional Use by Endangered or Threat	_	0.0
4.1.2.3 Provincially Significant Animals	elied Species	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		0.0
, a g	-	
	Total for Species Rarity	50
4.2 <u>SIGNIFICANT FEATURES OR HABITAT</u>		
421 G1 :1W - 1:1		0.0
4.2.1 Colonial Waterbirds4.2.2 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 Rapto	r Stopover	0.0
4.2.6 Fish Habitat		0.0
	-	
	Total for Significant Features and Ha	abitat 0
4.3 ECOSYSTEM AGE		1
4.4. CDEAT LAVES COASTAL WETLANDS		0
4.4 GREAT LAKES COASTAL WETLANDS	Su	0 b Total: 131
TOTAL FOR SE	ECIAL FEATURES (maximum 250)	131 131
	Berrier British (maximum 200)	101

Southern Ontario Wetland Evaluation, Score Summary	March 1993
Wetlands Manual SUMMARY OF EVALUATION RESULT	
Seminari of Evidentici (EBCE)	
Wetland Elfrida Wetland B: Sinkhole Creek Headwaters	
TOTAL FOR 1.0 BIOLOGICAL COMPONENT	107
TOTAL FOR 2.0 SOCIAL COMPONENT	63
TOTAL FOR 3.0 HYDROLOGICAL COMPONENT	189
TOTAL FOR 4.0 SPECIAL FEATURES COMPONENT	131
WETLAND TOTAL	489
<u>INVESTIGATORS</u>	
Ash Baron 0	
0	
0	
0	
AFFILIATION	
Aquafor Beech Limited	
0	
0	
0	
0	
DATE: A . 20 2016	
<u>DATE</u> Aug 30 2016	

		Elfrida We	tland B: Sink	khole Creek	Headwaters	3		
							1	
	<u> </u>	Wetlan	d Evaluation	Edition		3rd		
			Sept 2	1 2016				
			Com	ments				
			Com					
			Additional 1	T. Co				
In alarda nalangut inform	ation that					En Castions	that have a	ot hoom
Include relevant inforn completed.)	ianon inai e	can noi be e	enierea in ine	e wenana aa	ia recora(1	ex. sections	inai nave no	n been
completed.)								
Official Name:			Elfrida Wet	land B: Sink	chole Creek	Headwaters	S	
Evaluation Edition:		3rd	Class:		Wetla	nd ID.:		
Wetland Significance		Year/Mont	th Last Evalu	ıated		Sept 2	1 2016	
		Year/Mont	th Last Upda	ted				
Special Planning Consi	derations:						Scores	
Wetland Area:			8.55				Biological:	101
Dentention Area:			120				Social:	66
Catchment Area:			300.00				ydrological:	184
OMNR Source						Speci	al Features:	143
Information Source							Overall:	494
Submitted by:			Ash Baron					
Date:								

d March 1993
AFFILIATION
Aquafor Beech Limited
Sept 21 2016
LD SURVEY IN "PERSON HOURS"
Sunny
IN THE WETLAND:
e located, etc.
clocated, etc.
e located, etc.

		Southern Ontario Wetland Evaluation, I	Data and Scoring R	Record	March 1993
Wetl	and	<u>Manual</u>			
		WETLAND DA	TA AND SCORIN	G RECORD	
i)		WETLAND NAME:	Elfrido Watland R	: Sinkhole Creek He	adwators
1)		WEILAND NAME.	Elifida Wetialid B	. Silikilole Creek He	adwaters
ii)		MNR ADMINISTRATIVE REGION:	Guelph	DISTRICT:	Guelph
		AREA OFFICE (if different from Distr	rict):	Niagara (Vi	neland)
iii)		CONSERVATION AUTHORITY JUR	AISDICTION:	Ham	ilton CA
		(If not within a designated CA, check here	e:		
iv)		COUNTY OR REGIONAL MUNICIPA	ALITY:	Hamilt	on
v)		TOWNSHIP:			
vi)		LOTS & CONCESSIONS:			
		(attach separate sheet if necessary)			
vii)		MAP AND AIR PHOTO REFERENCE	ES		
	a)	Latitude: Longitude:			
	b)	UTM grid reference:	Zone: 17T Grid:E 599268		ock: n/a rid:N 4780439
	c)	National Topographic Series:			
		map name(s)			
		map number(s)		_edition	-
		scale			
	d)	Aerial photographs: Date photo taken:		Scale:	
		Flight & plate numbers:			
		(attach separate sheet if necessary)			
	e)	Ontario Base Map numbers & scale			
		(attach separate sheets if necessary)			

Code: Wetland Name:

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)
1	re	Marsh	MAM	MAM2	4.15	Riverine	silt/marl	gc, ne, re, ff	4	0		LM
2	gc	Marsh	MAM	MAM2-10	0.29	Palustrine	silt/marl	ls, gc, ne	3	0		
3	ne	Marsh	MAM	MAM2	2.48	Riverine	clay/loam	gc, ne, re	3	10	0.25	
4	h	Swamp	SWD	SWD2-2		Palustrine	clay/loam	h, ts, ls, gc, ne	5	0		
5	ne	Marsh	MAM	MAM2-2		Palustrine	clay/loam	h, ts, gc, ne	4	5	0.07	
3	ne	iviaisii	IVIAIVI	IVIAIVIZ-Z	1.36	1 alustriic	Clay/Ioalii	n, ts, gc, ne	4	3		
											-	
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					-	1
					-	1
					-	1
					-	1
					-	1
					-	1
					-	1
					-	1
					-	1
					-	1
					-	
	·				-	
	·				-	
					-	
					-	1
	·				-	
						1
		8.55			0.32	l

Dominate Species	Additional Species	COMMENTS
	ASTLANC,PHRAUST,	
PHAARUN, TYPANGU	ALIPLAN	
GOV GANYA AGEN ANG	ASTNOVA, PHAARUN,	
SOLCANA, ASTLANC	POAPALU, ASTPUPU POAPRAT, TYPANGU,	
PHAARUN	LYCUNIF, EPIPARV	
TIMIMOT	ULMAMER, AGRSTOL,	
FRAPENN	RHACATH	
	FRAPENN, RUMCRIS,	
PHAARUN	ASTLANC, SOLCANA	
	+	

a) Single co		.75 hectares	
b) Wetland	Wetland Unit Number	2 individual wetlands: Size of each	
	(for reference)	wetland unit	
	Wetland Unit No. 2 Wetland Unit No. 3 Wetland Unit No. 4 Wetland Unit No. 4 Wetland Unit No. 5 Wetland Unit No. 6 Wetland Unit No. 7 Wetland Unit No. 8 Wetland Unit No. 9 Wetland Unit No. 10 Wetland Unit No. 11 Wetland Unit No. 12 Wetland Unit No. 12 Wetland Unit No. 13 Wetland Unit No. 14 Wetland Unit No. 15 Wetland Unit No. 16 Wetland Unit No. 16 Wetland Unit No. 17 Wetland Unit No. 17 Wetland Unit No. 18 Wetland Unit No. 19 Wetland Unit No. 19 Wetland Unit No. 19 Wetland Unit No. 19	2.48 0.25 1.38 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	
ТО	TAL WETLAND SIZE	8.55	
c) Brief doc	umentation of reasons for including a	ny areas less than 0.5 ha in size:	

Wetland Manual

1.0 BIOLOGICAL COMPONENT

1.1 PRODUCTIVITY

.1.1 GROWING DEGREE-DAYS/SOILS

GROW	ING DEC	GREE DAYS MAP	SOILS	
(check	one)		Estimated 1	Fractional Area
1) _		<2800	0.48	clay/loam
2)		2800 -3200	0.52	silt/marl
3)		3200 -3600	0.00	limestone
4)	X	3600 -4000	0.00	sand
5)		>4000	0.00	humic/mesic
		_	0.00	fibric
			0.00	granite

Determine the soil type from the appropriate OMAF soils maps

SCORING:

Growing	Clay-	Silt-	Lime-	Sand	Humic-	Fibric	Granite
Degree-	Loam	Marl	stone		Mesic		
Days							
<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		
26	clay/loam	12.50
21	silt/marl	10.91
	limestone	0.00
	sand	0.00
	humic/mesic	0.00
	fibric	0.00
	granite	0.00

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

Southern Ontario Wetland Evaluation, D Wetland Manual	Nata and Scoring Record	May 1994
77 000000000000000000000000000000000000	rata and scoring record	way 1777
	rea = area of wetland type/total wetland area)	
Stimate the Wetland Type from air photos		
Fractional Area	Score	
Bog 0.00	x 3 0.0	
Fen 0.00	x 6 0.0	
Swamp 0.03	x 8 0.2	
Marsh <u>0.97</u>	x 15 14.6 Subtotal: 14.8	
	Wetland type score (maximu	um 15 points) 15
	area of site type/total wetland area)	
stimate from air photos	Fractional Area	Score
	1 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -	_
Isolated	0.00 x 1 =	0.00
Palustrine (permanent or	0.22	0.45
intermittent flow) Riverine	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	0.45 3.10
Riverine (at rivermouth)	0.00 $x = 5$	0.00
Lacustrine (at rivermouth	0.00	0.00
Lacustrine (on enclosed	0.00	2.00
bay, with barrier beach) Lacustrine (exposed to lake)	$\begin{array}{c ccccc} & 0.00 & & x & 3 & = \\ \hline & 0.00 & & x & 2 & = \\ \end{array}$	0.00
Lacustinie (exposed to take)	$\begin{array}{c} X & Z = \\ \text{Sub Total:} \end{array}$	3.55
	Site Type Score (maxir	
1.2 BIODIVERSITY		
2.1 NUMBER OF WETLAND TYPES		
	Score	
(Check only one)	Seole	
1) one	9 points	
1) one 2) 13 two	9 points 13	
1) one 2) 13 two 3) three 4) four	9 points 13 20 30	
1) one 2) 13 two 3) three 4) four	9 points 13 20	00 points) 13
1) one 2) 13 two 3) three 4) four	9 points 13 20 30	0 points) 13
1) one 2) 13 two 3) three 4) four	9 points 13 20 30	0 points) 13
1) one 2) 13 two 3) three 4) four	9 points 13 20 30	0 points) 13
1) one 2) 13 two 3) three 4) four	9 points 13 20 30	50 points) 13
1) one 2) 13 two 3) three 4) four	9 points 13 20 30	0 points) 13
1) one 2) 13 two 3) three 4) four	9 points 13 20 30	50 points) 13
1) one 2) 13 two 3) three 4) four	9 points 13 20 30	0 points) 13
1) one 2) 13 two 3) three 4) four	9 points 13 20 30	00 points) 13

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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

Code	Forn	ns	Dom	Dominant Species			
M6	re,	ff	re,	Typha latifolia;	ff,	Lemna minor,	Wolffia
S1	ts,	gc	ts,	Salix discolor;	gc,	lmpatiens capens	sis, Thelypteris palustris

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	Total # of communities	Total # of communities
with 1-3 forms	with 4 -5 forms	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	+.5 each additional	+ 1 each additional
community = 2.5	community = 5.0	community = 0.0

e.g., a wetland with 3 one form communities

4 two form communities

12 four form communities and

8 six form communities would score:

$$6 + 13.5 + 15 = 34.5 = 35$$
 points

SubTotal:

8

Vegetation Communities Score (maximum 45 points)

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Wetland Name:	Elfrida Wetland B: Sinkhole Creek Headwat	ers
Wetland Size (ha):	8.55	
Vegetation Form	% area in which form is dominant	
h	2.92	
c	0.00	
dh	0.00	
dc	0.00	
ts	0.00	
ls	0.00	
ds	0.00	
gc	3.39	
m	0.00	
ne	45.15	
be	0.00	
re	48.54	
ff	0.00	
f	0.00	
su	0.00	
u (unvegetated)	0.00	
Total = 100%	100.00	
	6	

	rio Wetland Evaluation Data and Scoring Record	March 1993
Wetland Manu	<u>al</u>	
	OF SURROUNDING HABITAT	
Check all appropi		
etermine from a	ir photos	
1	row crop	
	pasture	
1	abandoned agricultural land	
	deciduous forest	
	coniferous forest	
	mixed forest (at least 25% conifer and 75% deciduous or vice versa)	
	abandoned pits and quarries	
	open lake or deep river	
	fence rows with cover, or shelterbelts	
	terrain appreciably undulating, hilly, or with ravines	
1	creek flood plain	
3	Subtotal	
	Diversity of Surrounding Habitat Score (1 for each, maximum 7 points)	3
	. , , , , , , , , , , , , , , , , , , ,	
2.4 PROXIMIT	Y TO OTHER WETLANDS	
	appropriate category only)	Scoring
	ir photos and other wetlands evaluations in the vicinity	8
1) 8	Hydrologically connected by surface water to other wetlands	
1)	(different dominant wetlaI1d type) or to open lake or deep river	
	within 1.5 km	8 points
	within 1.5 km	o ponits
2)	Hydrologically connected by surface water to other wetlands	
_/	(same dominant wetland type) within 0.5 km	8
	(sum comman wearne type) warm ole ini	· ·
3) 0	Hydrologica11y connected by surface water to other wetlands	
3)	(different dominant wetland type), or to open lake or deep river from	
	1.5 to 4 km away	5
	1.5 to 4 kin away	3
4) 0	Hydrologically connected by surface water to other wetlands	
r)	(same dominant wetland type) from 0.5 to 1.5 km away	5
	(sume dominant wettand type) from 0.5 to 1.5 km away	J
5) 0	Within 0.75 km of other wetlands (different dominant wetland type)	
J)	or open water body, but not hydrologically connected by	
	surface water	5
	surface water	3
6) 0	Within 1 km of other wetlands, but not hydrologically	
0	connected by surface water	2
	connected by surface water	2
7) 0	No wetland within 1 km	0
7) 0	110 WELIAHU WILIHH I KIH	U
•	Proximity to other Wetlands Score (Choose one only, maximum 8 points)	8
	Hydrologically connected to	

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1.2.5 INTERSPERSION		
Optional: Complete as time permits or as scoring dict	tates.	
Number of Intersections		
(Check one)	Score	
1) 26 or less	3	
2) 27 to 40	6	
3) 41 to 60	9	
4) 61 to 80 12	12	
5) 81 to 100	15	
6) 101 to 125	18	
7) 126 to 150	21	
8) 151 to 175	24	
9) 176 to 200	27	
10) >200	30	
·		
Interspersion Sco	ore (Choose one only maximum 30 points)	12
1.2.6 OPEN WATER TYPES Ref		
Determine from aerial photos.		
Permanently flooded:		
(Check one)	Score	
1) 8 type 1	8	
2) type 2	8	
3) type 3	14	
4) type 4	20	
5) type 5	30	
6) type 6	8	
7) type 7	14	
8) type 8	3	
9) no open water	0	
Open Water Type Scor	re (Choose one only maximum 30 points)	8
	8	

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1.3 SIZE

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

8.6 hectares 52 Subtotal for Biodiversity

Size Score (Biological Component) (maximum 50 points)

Evaluation Table Size Score (Biological component)

Wetland	land Total Score for Biodiversity Subcomponent									
size (ha)	<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

Southern Ontario Wetlan	d Evaluation D	ata and Scoring	g Record	Mar	ch 1993
Wetland Manual					
	<u>2</u> .	.0 SOCIAL C	<u>OMPONENT</u>		
A 4 EGONOMICALLY		DD OD LIGHT			
2.1 ECONOMICALLY	VALUABLE	PRODUCTS	_		
2.1.1 WOOD PRODUCTS	•				
Determine the percentage of	f the wetland a	rea dominated	bv ''b'' or ''c''	hy using gorial photograph	
Area of wetland forested (ha)					
only) h: 0.25	c: 0.00	ioim is ii oi c.	rvote that this is	not wettaile size. (Check one	
omy) <u>m. 1 0.22</u>	0.00				
			Score		
1) 0	<5 ha		0		
	-25 ha		3		
3) 26	-50 ha		6		
4) 51-	100 ha		9		
<i>'</i>	200 ha		12		
6) >2	200 ha		18		
			_		
Source of information:		Aerial p	hotos		
		Due des etc Coon	. (C		0
	wood 1	Froducts Scor	e (Score one on	ly, maximum 18 points)	0
2.1.2 WILD RICE					
(Check one)				Score (Choose one)	
Present (minimum size	0.5 ha)	1)		6 points	
Absent	,	2)	0	0	
Source of information:		Field su	rveys		
					0
			Wild Rice Sco	ore (maximum 6 points)	0
2.1.2 COMMEDICIAL FIGUR	(DAIT EIGH	AND/OD COA	DCE EIGH		
2.1.3 COMMERCIAL FISH (Check one)	I (BAII FISH A	AND/UK CUA	KSE FISH	Score (Choose or	20)
Present		1)	12	12 points	ic)
Habitat not suitable for fish		2)	0	0	
		_,		Ü	
Source of infolmation:		Field obse	rvations		
If any part of the wetland is	riverine or the	District fisher	ies files indicate	presence of fish score"present"	
		-	-	maximum 12 points)	12
2.1.4 BULLFROGS					
(Check one)				Score (Choose or	ie)
Present		1)	_	1 points	
Absent		2)	0	0	
Course of information	TX -1.1 - 1	votions as 1	mhihian 11'	20040-00-00	
Source of information:	rieid obser	vations and am	phibian calling s	surveys	
	-		Rullfrog Scor	re (maximum 1 point)	0
			24111 05 5001	· (maximum i point)	
		10			

	rn Ontario Wetlan	d Eval	uation Data and S	coring	Record		
Wetlands Manual							
2.1.5 SNAPPING TURTLES	_						
(Check one)					Score (Choose on	e)	
Present	1)				1 point		
Absent	2)		0		0		
Source of information:		Rep	tile surveys				
		Snap	ping Turtle Score	e (max	imum 1 point)		0
2.1.6 FURBEARERS Fur Ref (Consult Appendix 9)							
Name of furbearer		Sourc	ee of information		-		
1) Raccoon	3		Field Ob	servatio	ns	•	
2) Virginia Opossum				0		•	
3) Red Fox				0			
4) Coyote				"			
5) Deer	3			"		•	
SubTotal	6					•	
Scoring: 3 points for each species. r	naximum 12		-				
			Furbearer Score	e (max	imum 12 points)		6
2.2 RECREATIONAL ACTIVIT	TIES						
	Type of Wet	land-A	ssociated Use				
Intensity of Use	Hunting	Nature Enjoyment/ Ecosystem Study		Fishing			
High	40 points		40 points	1	40 points		
Moderate	20		20		20		
Low	8		8		8		
Not possible/NotKnown	0	0	0	0	0	0	
Totals	<u> </u>	0		0	v	0	0
(score one level for each of th Sources of information:	e three wetland us		res are cumulative		imum score 80 poi		<u> </u>
	Hunting:		0				
	Nature:		0			•	
	Fishing:		0				
	Recreation	nal Act	tivities Score (ma	ximun	n 80 points)		0

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2.3 LANDSCAPE AESTHETICS		
core using ortho-aerial photography		
.3.1 DISTINCTNESS		
(Check one)	Score (Choose one)	
Clearly distinct 1) 3	3 points	
Indistinct 2) 0	0	
Landscape Disting	ectness Score (maximum 3 points)	3
3.2 ABSENCE OF HUMAN DISTURBANCE		
(Check one)	Score (Choose one)	
Human disturbances absent or nearly so	1) 7 points	
One or several localized disturbances	2) 4	
Moderate disturbance; localized water pollution	3) 2	
Wetland intact but impairment of ecosystem quality	-,	
intense in some areas	4) 1 1	
Extreme ecological degradation, or water pollution	• • • • • • • • • • • • • • • • • • • •	
severe and widespread	5) 0	
	, <u> </u>	
Source of information: Fiel	ld observations	
Absence of Human Dist	turbance Score (maximum 7 points)	1
ptional: complete as time and scoring dictates. 4.1 EDUCATIONAL USES		
(Check one)	Score (Choose one)	
Frequent 1)	20 points	
Infrequent 2)	12	
No visits 3) 0	0	
Source of information: Priv	rately owned property	
equires contact with Local Boards of Education.	atery owned property	
	I Ugag Saara (maximum 20 naints)	0
Educational	l Uses Score (maximum 20 points)	0
4.2 FACILITIES AND PROGRAMS		
4.2 PACIEITIES AND PROGRAMS		
(check one)	Score (C	choose one)
Staffed interpretation centre	1) 8 points	
No interpretation centre or staff but a system of	o points	
self-guiding trails or brochures available	2) 4	
Facilities such as maintained paths (e.g., woodchips)	2)4	
boardwalks, boat launches or observation towers		
but no brochures or other interpretation	3) 2	
No facilities or programs	4) 0 0	
110 facilities of programs		
Source of information:	0	
	ograms Score (maximum 8 points)	0
12		

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2.4.3 RESEARCH AND STUDIES						
(check appropriate spaces)	•				Score	
Long term research has been done					12 points	
Research papers published in refere	ed scientific				1	
journal or as a thesis	ca scientific				10	
One or more (non-research) reports	hava baan syrittan				10	
on some aspect of the wetland 's flo	ra fauna				~	
hydrology etc.					5	
No research or reports			0		0	
	Subto	otal:	0			
Attach list of known reports by above	ve categories					
Refer to ESPA, EPA and ANSI reports.						
Research and St	udies Score (Scor	e is cu	mulative, ma	aximum 12	2 points)	0
2.5 PROXIMITY TO AREAS OF H	IIMAN SETTI EI	MENT	p e			
Circle the highest applicable score	OMAN SETTLE	. • 1411.				
Cheic the highest applicable score						
Distance of wetland from	1)		2) por	oulation	3) por	oulation
settlement	population> 10	000		0 -10,000		or cottage
settlement	population> 10	,000	2,500	0 -10,000		-
		li .				nmunity
1) Within or adjoining	40 points		26		16	
settlement		40				
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	
	1	40		0		0
					! !	
Name of settlement:	Elfri	da/Har	nilton			
Prox	imity to Human S	Settlen	nent Score (n	naximum 4	10 points)	40
2.6 OWNEDCHID (EA frestion An)				C	
2.6 OWNERSHIP (FA= fraction Are	,				Score	
Select a default value of ''4'' if no other i		•				
FA of wetland in public or private of						
held under contract or in trust for we	-			x 10	= 0.00	
FA of wetland area in public owners	ship,not as above			x 8	= 0.00	
FA of wetland area in private owner	ship,not as above		1.00	x 4	= 4.00	
						_
Source of information:	Guelph (GIS Pa	rcel layer:			
		Own	ership Score	(maximur	n 10 points)	4
	13					

Additional Reports

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2.7 **SIZE**

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

8.6 hectares 58 Subtotal for Social

Evaluation Table for Size Score (Social Component)

	i autc.	ioi size seo	re (Social C	omponent)						
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	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)

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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.

2.8.2 CULTURAL HERITAGE

Aboriginal Values/Cultural Heritage Score (maximum 30 points)

0.0

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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.

Detennination of Maximum Score	
Wetland is located on one of the defined 5 large lakes or 5 majo (Go to Step 4)	or rivers
Wetland is entirely isolated (i.e. not part of a complex) (Go to S	Step 4)
All other wetland types (Go through Steps 2,3 and 4B)	
Determination of Upstream Detention Factor (DF)	
Wetland area (ha)	8.10
Total area (ha) of upstream detention areas (include the wetland itself)	128.55 estimate
Ratio of (a):(b)	0.06
Upstream detention factor: (c) $\times 2 = 0.1$ (maximum allowable factor = 1)	0.13
Determination of Wetland Attenuation Factor (AF)	
Wetland area (ha)	8.55
Size of catchment basin (ha) upstream of wetland	
(include wetland itself in catchment area)	300.00 calculate
Ratio of (a):(b)	0.03
Wetland attenuation factor: (c) x $10 = 0.3$ (maximum allowable factor = 1)	0.29
Calculation of final score	
Wetlands on large lakes or major rivers	0
Wetland entirely isolated	100
All other wetlandscalculate as follows: (c * Complex Formula - Isolated portion Initial Score Upstream detention factor (DF) (Step 2) Wetland attenuation factor (AF) (Step 3)	100 * 0.13 0.29
Final score: [(DF + AF)/2] x Initial score = (c * Final score:= 21 *Unless wetland is a complex with isolated portions (see above	20.55
Flood Attenuation Score (maximum	100 points) 79.0
	Wetland is located on one of the defined 5 large lakes or 5 major (Go to Step 4) Wetland is entirely isolated (i.e. not part of a complex) (Go to Step 4) Wetland is entirely isolated (i.e. not part of a complex) (Go to Step 4) All other wetland types (Go through Steps 2,3 and 4B) Determination of Upstream Detention Factor (DF) Wetland area (ha) Total area (ha) of upstream detention areas (include the wetland itself) Ratio of (a):(b) Upstream detention factor: (c) x 2 =

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3.2 WATER QUALITY IMPROVEMENT

3.2.1 SHORT TERM WATER QUALITY IMPROVEMENT

(FA= area of site type/total area of wetland)

Step 1: Determination of maximum initial score

Wetland on one of the 5 defined large lakes or 5 major rivers (Go to Step 5a)

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.

Area FA of isolated wetland 0.00 0.00 0.5 0.78 0.78 FA of riverine wetland 1 = FA of palustrine wetland with no inflow 0.7 0.00 = 0.22 0.22 FA of palustrine wetland with inflows 0.00 0.00 FA of lacustrine on lake shoreline 0.2 0.00 FA of lacustrine at lake inflow or outflow = Х 1 Sub Total: 1.00 Sum (WIF cannot exceed 1.0)

Fractional

Step 3: Determination of catchment land use factor (LUF)
(Choose the first category that fits upstream landuse in the catchment.)

- 1) 1.0 Over 50% agricultural and/or urban 1.0
 2) Between 30 and 50% agricultural and/or urban 0.8
- 3) Over 50% forested or other natural vegetation 0.6

LUF (maximum 1.0)

1.00

1.00

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 domininant live vegetation. (FA = area of vegetation type/total area of wetland)

FA of wetland with live trees, shrubs, Fractional Area herbs or mosses (c,h,ts,ls,gc,m) 0.06 0.75 =0.05 FA of wetland with emergent, submergent 0.94 or floating vegetation (re,be,ne,su,f,ff) 0.94 1 = 0.5 =0.00 FA of wetland with little or no vegetation (u) 0.00Subtotal: 0.98

Estimate FA from air photos or use default factor of "0.75"

Sum (PUT cannot exceed 1.0)

0.98

	Ontario Wetland Evaluation, Data and Scoring Record		May 1994
Wetlands 1			
<u>tep 5:</u>	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)	1.00	
	Land use factor (LUF)	1.00	
	Pollutant uptake factor (PUT)	0.98	
	Final score: 60 x WQF x LUF x PUT =	59.05	
	Short Term Water Quality Improvement Score (max	ximum 60 points)	59
2.2	LONG TERM NUTRIENT TRAP		
	etland type from aerial photos and soil type from OMAF soils ma	ins.	
<i>ер</i> 1:		T	
-r -·	Wetland on large lakes or 5 major rivers	0 points	
_	X All other wetlands (proceed to Step 2)	o pomio	
_	· in outer notation (process to step 2)		
ep 2:	Choose only one of the following settings that best describes t	the wetland being evaluate	ed
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		
<u> </u>	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)	O None of the above	0	
_	<u> </u>		
	Long Term Nutrient Trap Score (n	naximum 10 points)	0
	18		

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

(Scores are cumulative maximum score 30 points)

Percentage of Catchment: 0.03

Groundwater Discharge Score (maximum 30 points)

7

3.3 CARBON SINK

Choose only one of the following

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

5 points

_____2

3 0

Carbon Sink Score (maximum 5 points)

0

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	s Manual	
3.4	SHORELINE EROSION CONTROL	
tep 1:	Determine from ortho-aerial photography	Score
	Wetland entirely isolated or palustrine	0
	Any part of the Wetland riverine or lacustring	ne
	(proceed to Step 2)	
	1 /	
ep 2:		
_	se the <u>one</u> characteristic that best describes the shoreline	e vegetation (see text for a
	ition of shoreline)	
GCIIII	nion of shoremey	Score
1)	Trees and shrubs	15
2)	8 Emergent vegetation	8
3)	Submergent vegetation	6
	Other shoreline vegetation	
4)		3
5)	No vegetation	0
	Shoreline Erosion Cont	rol Score (maximum 15 points)
	Shorema Erosion Come	Tor secre (maximum re points)
3.5	GROUND WATER RECHARGE	
5.1 WE	TLAND SITE TYPE	
		Score
(a)	Wetland > 50% lacustrine (by area) or located on	one of the
` '	five major rivers	0.00
(b)	Wetland not as above. Calculate final score as fol	lows:
` /	(FA= area of site type/total area of wetland)	
	(
		Fractional
		Area
FA o	f isolated or palustrine wetland	0.22 $x \cdot 50 = 11.2$
	f riverine wetland	0.78 \times 20 = 15.5
	f lacustrine wetland (wetland <50% lacustrine)	0.00 $x = 0.0$
17.0	racustine wetiand (wetiand \50% facustine)	Subtotal: 26.7
		Subtotal. 20.7
Crox	and Water Decharge Wetland Site Type Component S	Saara (maximum 50 naints)
Grot	and Water Recharge Wetland Site Type Component S	Score (maximum 50 points) 27

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3.5.2 WETLAND SOIL RECHARGE POTENTIAL

Determine from OMAF soils maps.

(Circle only <u>one</u> 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	0		0	
	river				
2)	Isolated	10		5	
3)	Palustrine	7		4	4
4)	Riverine (not a major river)	5		2	
Tota	ıls	0		4	

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

4

4.0 SPECIAL FEATURES COMPONENT

4.1 RARITY

4.1.1 WETLANDS Ref Map

Site District 7E-5

Presence of wetland type (check one or more)

| Bog | Fen | Swamp | X | 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.

	Score for Rarity within		Score for Rarity	of Wetland Type	
Slte District	the Landscape	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)
Rarity of Wetland Type Score (maximum 80 points)

60
20

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

ord December 2002
ERED OR THREATENED SPECIES
Source of information
0
ened Species Score (no maximum)
ABITAT FOR AN ENDANGERED
Source of information
0
<u>- </u>
ecies Score (no maximum)

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W	etlands M	anual					
	4.1.2.3	PROVIN	CIALLY SIGN	IFICANT ANIMAI	L SPECI	ES <u>Prov Ref</u>	
	Na	me of species	3			Source of information	
	1)						
	2)						
	3)						
	4)						
	5)						
	6)						
	7)						
	8)						
	9)						
	10)						
	11)						
	12)						
	13)						
	14)						
	15)						
		tach separate	list if necessary	; Attach documenta	tion		
2 3 4 5	species species species species species species	= = = = =	50 points 80 95 105 115 125	14 species 15 species 16 species 17 species 18 species 19 species	= = = = =	154 156 158 160 162 164	
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				
		for every spec	cies past 25 (for	example, 26 specie	es = 177	points, 27 species = 178	3
oints	s etc.)						
(no m	aximum s	score)					
			Provin	cially Significant A	Animal S	pecies Score (no maxi	mum) 50
				24			

4.1.2.4 PROVINCIALLY SIGNIFICANT PLANT SPECIES

Scientific Name	Source of information
#N/A	
	<u> </u>
	<u> </u>
#N/A	<u> </u>
#N/A	
	#N/A #N/A #N/A #N/A #N/A #N/A #N/A #N/A

#N/A

Attach separate list if necessary; Attach documentation

Scoring:

15)

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)

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4.1.2.5 REGIONALLY SIGNIFICANT SPECIES (SITE REGION) Spp Ref

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)			
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)

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	<u> </u>	
2	<u> </u>	
3	<u> </u>	
4		
5		
6		
7		
8		
9		
10		
11	<u> </u>	
12	<u> </u>	
13	<u> </u>	
14		
15		
16		
17		
18		

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)

0

Status		Name of species	Source of	of Information	Sc	core
Currently nesting					50	
Known to have ne within past 5 years					25	
Active feeding are (Do not include fee by great blue heror	eding				15	
ch documentation (ne	est locations category onl	database at Bird Studies C etc., if known) y; maximum score 50 poin for Nesting Colonial Wate	s.	Subtotal: num 50 points)	0	0
Consult the Ontarch documentation (note that the highest applicable 2. WINTER COVERTE "locally significant the content of the	est locations category onl Score R FOR WILL at" if trees &	etc., if known) y; maximum score 50 poin for Nesting Colonial Wate DLIFE a shrubs are present, also of	s. erbirds (maxin	num 50 points) deer yard data.		
Consult the Ontar ach documentation (not be highest applicable of the content of	scategory onl Score R FOR WILI nt'' if trees & st level of sig Provin Signifi	y; maximum score 50 points for Nesting Colonial Water CLIFE a shrubs are present, also of gnificance) (one only) cially significant cant in Site Region	s. erbirds (maxin	num 50 points) deer yard data. Score 100 50		
Consult the Ontare tach documentation (not be been decided as a policiable of the content of the	Score: R FOR WILL at" if trees & St level of signific Signific Locally	y; maximum score 50 points for Nesting Colonial Water CLIFE a shrubs are present, also conficance) (one only) cially significant	s. erbirds (maxin onsult District	num 50 points) deer yard data. Score 100		
Consult the Ontar ach documentation (not be highest applicable of the Coverage	Score: R FOR WILL at" if trees & St level of signific Signific Locally	y; maximum score 50 points for Nesting Colonial Water Colonial Water Strubs are present, also of gnificance) (one only) cially significant cant in Site Region cant in Site District y significant	s. erbirds (maxin onsult District	num 50 points) deer yard data. Score 100 50 25 10		

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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)

x Fish habitat is present within the wetland (Go to 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

30

Step 2:

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Step 4: Proceed to Steps 4 to 7 <u>only</u> if Step 3 was <u>not</u> 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	Vegetation	Present	Total	Area	Score	Final
Group Number	Group Name	as a	Area	Factor		Score
		Dominant	(ha)			(area
		Form		(see		factor
		(check)		Table 5)		x score)
1	Tallgrass	X	1.77	0.4	6 pts	2.4
2	Shortgrass-Sedge				11	0.0
3	Cattail-Bulrush-Burreed	X	4.15	0.04	5	0.2
4	Arrowhead-Pickerelweed				5	0.0
5	Duckweed				2	0.0
6	Smartweed-Waterwillow				6	0.0
7	Waterlily-Lotus				11	0.0
8	Waterweed-Watercress				9	0.0
9	Ribbongrass				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 (m	aximum 75 poi	ints)			2.6
	Total Score (max	imum 75 point	s)			2.6

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)

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 1Marsh 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	Vegetation	Present	Total	Area	Score	Final
Group Number	Group Name	as a	Area	Factor		Score
		Dominant	(ha)	(see		(area
		Form		Table 5)		factor
		(check)				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
Sub Total Score (maximum 25 points)						0.0
	Total Score (ma	ximum 25 p	oints)			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	Present	Total	Area Factor	Score	TOTAL SCORE
Habitat	(check)	area (ha)	(see Table 5)		(factor x score)
Seasonally flooded				10	0.0
Permanently flooded				10	0.0
Sub SC	0.0				
SCOI	0.0				

Step 7: Calculation of final score

Score for Spawning and Nursery Habitat (Low Marsh) (maximum 75) = 2.6

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

Score for Swamp Containing Fish Habitat (maximum 20) = 0.0
Subtotal: 2.6

Subtotal: 2.6

Sum (maximum score 100 points) =

2.6

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4.2.6.2 Migration and Staging Habitat	Score only if information on fish migration and	
<u>Step 1:</u>	e.g. migration of northern pike through a wetlan spawning areas.	nd to access
Staging or Migration Habitat is not prese	ent in the wetland (Score = 0)	
2) Staging or Migration Habitat is present in to Step 2)	n the wetland significance of the habitat is known (Go
• '	n the wetland significance of the habitat is not know	vn
NOTE: Only <u>one</u> of Step 2 <u>or</u> Step 3 is to be scored	1.	
Select the highest appropriate category be	elow, attach documentation:	
1) Significant in Site Region	Score 25 poin	nts
2) Significant in Site District	15	
3) Locally Significant	10	
4) Fish staging and/or migration habitat present,but not as above	5	
Score for Fish Migration and Sta	iging Habitat (maximum score 25 points)	0
Step 3: Select the highest appropriate category b (does not have to be dominant). See Section 1.1.3. No	below based on presence of the designated site type of the name of river for 2) and 3).	
Wetland is riverine at rivermouth or lacus	Score 25 points at rivermouth 25 points	nts
2) Wetland is riverine, within 0.75 km of rive	ermouth 15	
3) Wetland is lacustrine, within 0.75 km of ri	ivermouth 10	
4) Fish staging and/or migration habitat present, but not as above	5	
Score for Staging and Migr	ration Habitat (maximum score 25 points)	0
	•	
	33	

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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	0.00	X	20 =	0.0
Fen, on limestone rock	0.00	X	5 =	0.0
Swamp	0.03	X	3 =	0.1
Marsh	0.97	X	0 =	0.0
		Sub Total:		0.1

Ecosystem Age Score (maximum 25 points)

0.1

4.4 GREAT LAKES COASTAL WETLANDS

Score for **coastal** (see text for definition) wetlands only

Choose one only



Great Lakes Coastal Wetlands Score (maximum 75 points)

0

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			
x Present	(a)	One location in wetland	
		Two to many locations	X
		,	
		Abundance code	
	(b)	(1 < 20 stems	
	(-)	(2 20-99 stems	x
		(3 100-999 stems	<u>X</u>
		(4 > 1000 stems)	
		(1 > 1000 Stems	
5.2 SEASONALLY FLOODED AREAS			
5.2 SLASOWALLT LOODED AREAS			
Check one or more			
Check one of more			
Ephemeral		(less than 2 weeks)	v
Temporal		(2 weeks to 1 month)	X X
Seasonal			<u> </u>
		(1 to 3 months)	
Semi-permanent		(>3 months)	
No seasonal flooding			
5.3 SPECIES OF SPECIAL SIGNIFICANCE			
5.3.1 Osprey			
1 7			
Present and nesting			
Known to have nested in last 5 yr			
Feeding area for osprey			
Not as above		X	
Tot us usove			
5.3.2 Common Loon			
5.5.2 Common Econ			
Nesting in wetland			
Feeding at edge of wetland			
Observed or heard on lake or			
river adjoining the wetland			
Not as above		X	
110t as above			
	35		

Southern Ontario Wetland Evaluatio Wetlands Manual	n	March 1993
	ND EVALUATION SCORING RECORD	
WETLAND NAME AND/OR NUMBER	Elfrida Wetland B: Sinkhole Creek	c Headwaters
<u>1</u>	1.0 BIOLOGICAL COMPONENT	
1.1 <u>PRODUCTIVITY</u>		
1.1 <u>FRODUCTIVITT</u>		
1.1.1 Growing Degree-Days/Soils1.1.2 Wetland Type		23.4 14.8
1.1.3 Site Type		3.6
	Total for Productivity	42
1.2 <u>BIODIVERSITY</u>		
1.2.1 Number of Wetland Types		13.0
1.2.2 Vegetation Communities (max1.2.3 Diversity of Surrounding Habi		7.5
1.2.4 Proximinty to Other Wetlands	(,	8.0
1.2.5 Interspersion1.2.6 Open Water Type		12.0 8.0
1.2.0 Open water Type		6.0
Sub Total for Biodiversity	Total for Biodiversity 52	52
1.3 SIZE (Biological Component)	32	8
		Sub Total: 101
TOTAL FOR BIOLOGICAL COMP	ONENT (not to exceed 250)	101

Southern Ontario Welland Evaluation		March 1993
Wetlands Manual		
2	2.0 SOCIAL COMPONENT	
2.1 ECONOMICALLY VALUABLE PROI	DUCTS	
 2.1.1 Wood Products 2.1.2 Wild Rice 2.1.3 Commercial Fish 2.1.4 Bullfrogs 2.1.5 Snapping Turtles 2.1.6 Furbearers 		0 0 12 0 0
	Total for Economically Valuable Products	18
2.2 RECREATIONAL ACTIVITIES ((maximum 80)	0
2.3 LANDSCAPE AESTHETICS		
2.3.1 Distinctness2.3.2 Absence of Human Disturbation	ance	3
	Total for Landscape Aesthetics	4
2.4 EDUCATION AND PUBLIC AW	VARENESS	
2.4.1 Educational Uses2.4.2 Facilities and Programs2.4.3 Research and Studies		0 0 0
	Total for Education and Public Awareness	0
2.5 PROXIMITY TO AREAS OF HU	JMAN SETTLEMENT	40
2.6 OWNERSH1P Sub- 2.7 SIZE (Social Component)	total for Social Component58.0	0
2.8 <u>ABORIGINAL AND CULTURA</u>	<u>L VALUES</u>	0
TOTAL FOR SO	OCIAL COMPONENT (not to exceed 250)	b Total: 66 66

Southem Ontario Wetland Evaluation, Score Summary		March 1993
Wetlands Manual 3.0 HYDROLOG	GICAL COMPONENT	
	SCHE COM OTHER	
3.1 FLOOD ATTENUATION		79
3.2 WATER QUALITY IMPROVEMENT		
3.2.1 Short Term Improvement		59.1
3.2.2 Long Term Improvement		0.0
3.2.3 Groundwater Discharge (maximum 30)		7.0
Total	al for Water Quality Improvement	66
3.3 <u>CARBON SINK</u>		0
3.4 SHORELINE EROSION CONTROL		8
3.5 <u>GROUNDWATER RECHARGE</u>		
3.5.1 Site Type		26.74
3.5.2 Soils		4.0
Tot	al for Groundwater Recharge	31
TOTAL FOR HYDROLOGICAL	COMPONENT (not to exceed 250)	Sub Total: 184 184
TOTAL FOR IT DROLOGICAL	COMPONENT (not to exceed 250)	104

Southern Ontario Wetland Evaluation, Score Summary	y <u>December 2002</u>	
Wetlands Manual		
4.0 SPECIA	L FEATURES	
4.1 <u>RARITY</u>		
4.1.1 Wetlands		
4.1.1.1 Rarity within the Landscape		60.0
4.1.1.2 Rarirty of Wetland Type (maximum 80)		20.0
	Total for Wetland Rarity	80
4.1.2 Species		
4.1.2 Species 4.1.2.1 Endangered or Threatened Species Bree	ding	0.0
4.1.2.2 Traditional Use by Endangered or Threat	_	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		0.0
	Total for Species Rarity	50
4.2. GIGNIEIGANTE EFATTIDES OF HADITAT		
4.2 <u>SIGNIFICANT FEATURES OR HABITAT</u>		
4.2.1 Colonial Waterbirds		0.0
4.2.2 Winter Cover for Wildlife		10.0
4.2.3 Waterfowl Staging and Moulting		0.0
4.2.4 Waterfowl Breeding		0.0
4.2.5 Migratory Passerine, Shorebird or Rapto	or Stopover	0.0
4.2.6 Fish Habitat		2.6
	Total for Significant Features and Ha	abitat 13
4.3 ECOSYSTEM AGE		0
4.4 GREAT LAKES COASTAL WETLANDS		0
Similarina establica (Caracita Caracita Cara	Su	b Total: 143
TOTAL FOR SE	PECIAL FEATURES (maximum 250)	143

	Ontario Wetland Evaluation, Score Summary	<u>March 1993</u>
Wetland	SUMMARY OF EVALUATION RESULT	
XXX .1 1		
Wetland	Elfrida Wetland B: Sinkhole Creek Headwaters	
TOTAL FO	R 1.0 BIOLOGICAL COMPONENT	101
TOTAL FO	R 2.0 SOCIAL COMPONENT	66
TOTAL FO	R 3.0 HYDROLOGICAL COMPONENT	184
TOTAL FO	R 4.0 SPECIAL FEATURES COMPONENT	143
	WETLAND TOTAL	494
INVESTIG	ATORS	
1111120110.	Ash Baron	
	0	
	0	
	0	
AFFILIATI		
THITILITYII	Aquafor Beech Limited	
	0	
	0	
	0	
	0	
DATE	Sept 21 2016	