



TECHNICAL MEMORANDUM

DATE 28 October 2025

CA0053084.9335

TO Brenda Guy
Town of Gananoque

CC Jennifer Ailey, Tomlinson
Erin Greenaway, WSP
Emily Elliot, MHBC

FROM Fergus Nicoll, Gwendolyn Weeks

EMAIL Fergus.Nicoll@wsp.com

2025 SUBMISSION OF ONTARIO WETLAND EVALUATION – “ELMWOOD DRIVE WETLAND”, TOWN OF GANANOQUE, ONTARIO

Dear Brenda Guy,

For your records, please find attached an evaluation for a single wetland (Elmwood Drive Wetland), located on lands owned by 1000989284 Ontario Inc, located at Part Lots 13 and 14, Concession 8 in the Town of Gananoque, Ontario. This wetland has been evaluated by provincially certified wetland evaluators (Fergus Nicoll, Gwendolyn Weeks), according to the most recent Ontario Wetland Evaluation System (OWES) for Southern Ontario manual (MNR 2022). The results of this evaluation value the Elmwood Wetland with a total score of 319.5, and a special features score of 51, which means this wetland does not meet the threshold to be considered provincially significant in Ontario. This evaluation package will also be forwarded to the Ministry of Natural Resources.

Should you have any questions, do not hesitate to reach out to the undersigned.

Best regards,

WSP Canada Inc.

Fergus Nicoll, Dip.T.
Senior Ecologist, Wetland Evaluator

Gwendolyn Weeks, H.B.Sc.Env.
Lead Ecologist, Wetland Evaluator

FIN/GAW/EG/ld

Distribution: Jennifer Ailey, R.W Tomlinson Ltd.
Emily Elliot MHBC Planning

Attachments: Wetland Evaluation Scoring Record
Plant Species List
Figure 1 - Sixth Concession Wetland Plant Communities
Figure 2 - Sixth Concession Wetland Catchment Area

[https://wsponlinecan.sharepoint.com/sites/ca-ca0053084.9335/shared documents/06. deliverables/owes/elmwood owes coverletter 2025.docx](https://wsponlinecan.sharepoint.com/sites/ca-ca0053084.9335/shared%20documents/06.%20deliverables/owes/elmwood%20owes%20coverletter%202025.docx)

Wetland Evaluation Scoring Record

WETLAND EVALUATION DATA
AND SCORING RECORD

Wetland Name: Elmwood Drive Wetland

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

205 Elmwood drive, Gananogue, Ontario

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

NAD 83 18T 408311 E 4909245 N

Eco-District: 6E-10

Wetland Size (hectares): 1.74

Vegetation Form	FA
h	
c	
dh	
dc	
ts	
ls	
ds	
gc	
m	
ne	0.63
be	
re	0.37
ff	
f	
su	
u	

1.0 BIOLOGICAL COMPONENT

1.1 PRODUCTIVITY

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

Refer to page 36 of manual for further explanation.

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

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

Soil Type	FA of wetland in soil type	Enter appropriate score-factor from above table		
Clay/Loam	0.63	X	22	= 14
Silt/Marl:	0.	X		=
Limestone:		X		=
Sand:		X		=
Humic/Mesic:	0.37	X	11	= 4
Fibric:		X		=
Granite:		X		=
Total				17

GDD/Soils Score (maximum 30 points)

18

1.1.2 Wetland Type

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

	Fractional Area		Score
Bog		x 3 =	
Fen		x 6 =	
Swamp		x 8 =	
Marsh	1.0	x 15 =	15
Total		=	15

Wetland Type Score (maximum 15 points) 15

1.1.3 Site Type

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

	Fractional Area		Score
Isolated		x 1 =	
Palustrine (permanent or intermittent flow)	1.0	x 2 =	2
Riverine	1.0	x 4 =	4
Riverine (at rivermouth)		x 5 =	
Lacustrine (at rivermouth)		x 5 =	
Lacustrine (with barrier beach)		x 3 =	
Lacustrine (exposed to lake)		x 2 =	
Total		=	

Site Type Score (maximum 5 points) 2

1.2 BIODIVERSITY

1.2.1 Number of Wetland Types

(Check only one)

☒	One	=	9 points
☐	Two	=	13
☐	Three	=	20
☐	Four	=	30

- Marsh

Number of Wetland Types Score
(maximum 30 points) 9

1.2.2. Vegetation Communities

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

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

Total # of communities with 1-3 forms	
1 =	1.5 pts
<u>2</u> =	<u>2.5</u>
3 =	3.5
4 =	4.5
5 =	5
6 =	5.5
7 =	6
8 =	6.5
9 =	7
10 =	7.5
11 =	8
+ 0.5 for each additional community	
=	

Total # of communities with 4-5 forms	
1 =	2 pts
2 =	3.5
3 =	5
4 =	6.5
5 =	7.5
6 =	8.5
7 =	9.5
8 =	10.5
9 =	11.5
10 =	12.5
11 =	13
+ 0.5 for each additional community	
=	

Total # of communities with 6 or more forms	
1 =	3 pts
2 =	5
3 =	7
4 =	9
5 =	10.5
6 =	12
7 =	13.5
8 =	15
9 =	16.5
10 =	18
11 =	19
+ 1.0 for each additional community	
=	

Vegetation Communities Score
(maximum 45 points) 2.5

1.2.3 Diversity of Surrounding Habitat

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

☒	row crop
☐	pasture
☐	abandoned agricultural land
☒	deciduous forest
☒	coniferous forest
☒	mixed forest*
☐	abandoned pits and quarries
☒	open lake or deep river
☐	fence rows with deep cover, or shelterbelts
☐	terrain appreciably undulating, hilly or with ravines
☒	creek flood plain

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

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

Diversity of Surrounding Habitat Score
(maximum 7 points) 6

1.2.4 Proximity to Other Wetlands

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

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

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

~20m to inlet of the St. Lawrence River

Proximity to other Wetlands Score
(maximum 8 points) 8

1.2.5 Interspersion

Number of Intersections = 49

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

Interspersion Score (maximum 30 points) 9

1.2.6 Open Water Types

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

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

Open Water Type Score (maximum 30 points) 8

1.3 SIZE (BIOLOGICAL COMPONENT)

Total Size of Wetland = 1.74 ha

Sum of scores from Biodiversity Subcomponent

1.2.1 9
 + 1.2.2 2.5
 + 1.2.3 6
 + 1.2.4 8
 + 1.2.5 9
 + 1.2.6 8

42.5

Circle the appropriate score from the table below.

		Total Score for Biodiversity Subcomponent									
		<37	37-47	48-60	61-72	73-84	85-96	97-108	109-120	121-132	>132
Wetland size (ha)	<20 ha	1	<u>5</u>	7	8	9	17	25	34	43	50
	20-40	5	7	8	9	10	19	28	37	46	50
	41-60	6	8	9	10	11	21	31	40	49	50
	61-80	7	9	10	11	13	23	34	43	50	50
	81-100	8	10	11	13	15	25	37	46	50	50
	101-120	9	11	13	15	18	28	40	49	50	50
	121-140	10	13	15	17	21	31	43	50	50	50
	141-160	11	15	17	19	23	34	46	50	50	50
	161-180	13	17	19	21	25	37	49	50	50	50
	181-200	15	19	21	23	28	40	50	50	50	50
	201-400	17	21	23	25	31	43	50	50	50	50
	401-600	19	23	25	28	34	46	50	50	50	50
	601-800	21	25	28	31	37	49	50	50	50	50
	801-1000	23	28	31	34	40	50	50	50	50	50
	1001-1200	25	31	34	37	43	50	50	50	50	50
	1201-1400	28	34	37	40	46	50	50	50	50	50
	1401-1600	31	37	40	43	49	50	50	50	50	50
	1601-1800	34	40	43	46	50	50	50	50	50	50
	1801-2000	37	43	47	49	50	50	50	50	50	50
	>2000	40	46	50	50	50	50	50	50	50	50

Size Score (Biological Component)
 (maximum 50 points) 5

2.0 SOCIAL COMPONENT

2.1 ECONOMICALLY VALUABLE

PRODUCTS

2.1.1 Wood Products

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

Area of wetland used for scoring 2.1.1: 0.4

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

Source of information:

Not present surveys

- No forested wetland

Wood Products Score (maximum 18 points) 0

2.1.2 Wild Rice

Check only one.

☒	Present (min. size 0.5 ha)	= 6 pts
☐	Absent	= 0
☐	Harvest not permitted	= 0

Source of information:

Field survey

Wild Rice Score (maximum 6 points) 6

2.1.3 Commercial Baitfish

Check only one.

☒	Present	=	12 pts
☒	Absent	=	0
☒	Fishing not permitted	=	0

Source of information:

surveys, owner

Commercial Fish Score (maximum 12 points) 0

2.1.4 Furbearers

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

	Name of furbearer	Source of information
1.		
2.		
3.		
4.		
5.		
6.		

Furbearer Score (maximum 12 points) 0

2.2 RECREATIONAL ACTIVITIES

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

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

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

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

Hunting: Not permitted

Nature: - Neighbours observe Nesting Osprey from adjacent.

Fishing: Not permitted

Recreational Activities Score
(maximum 80 points) 8

2.3 LANDSCAPE AESTHETICS

2.3.1 Distinctness

Check only one.

☐	Clearly Distinct	= 3 pts
☒	Indistinct	= 0

Landscape Distinctness Score

(maximum 3 points) 0

2.3.2 Absence of Human Disturbance

Check only one.

☐	Human disturbances absent or nearly so	= 7 pts
☒	One or several localized disturbances	= 4
☐	Moderate disturbance; localized water pollution	= 2
☐	Wetland intact but impairment of ecosystem quality intense in some areas	= 1
☐	Extreme ecological degradation, or water pollution severe and widespread	= 0

Details regarding type, extent and location of disturbance scored:

signs of farming in recent years, invasive garden waste / species

Source of information:

field survey

Absence of Human Disturbance Score

(maximum 7 points) 4

2.4 EDUCATION AND PUBLIC AWARENESS

2.4.1 Educational Uses

Check highest appropriate category.

☐	Frequent	= 20 pts
☒	Infrequent	= 12
☐	No visits	= 0

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

Not public accessible

Source of information:

owner

Educational Uses Score (maximum 20 points) 0

2.4.2 Facilities and Programs

Check all appropriate options, score highest category checked.

☐	Staffed interpretation centre	= 8 pts
☐	No interpretation centre or staff, but a system of self-guiding trails or brochures available	= 4
☐	Facilities such as maintained paths (e.g., woodchips), boardwalks, boat launches or observation towers, but no brochures or other interpretation	= 2
☒	No facilities or programs	= 0

Additional Notes/Comments:

None

Source of information:

Owner

Facilities and Programs Score
(maximum 8 points) 0

2.4.3 Research and Studies

Check all that apply; score highest category checked.

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

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

EIS completed in 2024/2025
see attached for surveys & dates

Research and Studies Score
(maximum 12 points) 5

2.5 PROXIMITY TO AREAS OF HUMAN SETTLEMENT

Name of Settlement: Gananoque

Distance of wetland from settlement: 0 (within)

Population of settlement: 5383 (Source: wikipedia)

Circle only the highest score applicable

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

Proximity to Human Settlement Score
(maximum 40 points) 26

2.6 OWNERSHIP

FA of wetland held by or held under a legal contract by a conservation body (as defined by the <i>Conservation Land Act</i>) for wetland protection	_____ x 10 = _____
FA of wetland occurring in provincially or nationally protected areas (e.g., parks and conservation reserves)	_____ x 10 = _____
FA of wetland area in Crown/public ownership, not as above	_____ x 8 = _____
FA of wetland area in private ownership, not as above	<u>1.0</u> x 4 = <u>4</u>

Source of information:

owner / town

Ownership Score (maximum 10 points)

4

2.7 SIZE (SOCIAL COMPONENT)

Total Size of Wetland = 1.71 ha Sum of scores from Subcomponents 2.1, 2.2, and 2.5 = 34

Circle the appropriate score from the table below.

0 8 26

Total for Size Dependent Social Features

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

Total Size Score (Social Component)

2

2.8 ABORIGINAL VALUES AND CULTURAL HERITAGE

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

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

2.8.1 Aboriginal Values

Significant	=	30 pts
Not Significant	=	0
Unknown	✓	= 0

Additional Comments/Notes:

not found but possible

2.8.2 Cultural Heritage

✓ Significant	=	30 pts
Not Significant	=	0
Unknown	=	0

Additional Comments/Notes:

Archeology Report From client

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

3.0 HYDROLOGICAL COMPONENT

3.1 FLOOD ATTENUATION

Check one of the following options.

☒
☐
☐

If wetland is a coastal wetland, $\Rightarrow$ score 0 points for this section.

If wetland is entirely isolated in site type, $\Rightarrow$ score 100 points automatically.

Wetland not as above – proceed through 'steps' A through F below.

(A) Total wetland area = 1.5 ha

(B) Size of wetland's catchment = 3 ha

(C) Size of other detention areas in catchment = ha

(D) Total area of upstream detention areas = $\{A + C\}$ = ha

(E) Upstream Detention Factor = $\{(A/D) \times 2\}$ = (maximum 1.0)

(F) Attenuation Factor = $\{(A/B) \times 10\}$ = (maximum 1.0)

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

Flood Attenuation Score (maximum 100 points) 0

3.2 WATER QUALITY

IMPROVEMENT

3.2.1 Short Term Water Quality Improvement

Step 1: Determination of maximum initial score



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

All other wetlands (Go through Steps 2, 3, 4, and 5B)

Step 2: Determination of Watershed Improvement Factor (WIF)

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

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

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

Sum (WIF cannot exceed 1.0) 1.0

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

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

✓ Over 50% agricultural and/or urban	=	1.0
Between 30 and 50% agricultural and/or urban	=	0.8
Over 50% forested or other natural vegetation	=	0.6

LUF (maximum 1.0) 1.0

Step 4: Determination of Pollutant Uptake Factor (PUF)

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

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

FA of wetland with live trees, shrubs, herbs or mosses (c, h, ts, ls, gc, m)	= x 0.75 =	
FA of wetland with emergent, submergent or floating vegetation (re, be, ne, su, f, ff)	= x 1.0 =	1.0
FA of wetland with little or no vegetation (u)	= x 0.5 =	

Sum (PUF cannot exceed 1.0) 1.0

Step 5: Calculation of final score



Wetland on defined 5 major lakes or 5 major rivers

0

All other wetlands – calculate as follows

Initial score

60

Watershed Improvement Factor (WIF)

1.0

Land Use Factor (LUF)

1.0

Pollutant Uptake Factor (PUF)

1.0

Final score: $60 \times \text{WIF} \times \text{LUF} \times \text{PUF} =$

60

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

3.2.2 Long Term Nutrient Trap

Step 1:



Wetland on defined 5 major lakes or 5 major rivers = 0 points

All other wetlands (Proceed to Step 2)

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

☐	Wetland located in a river mouth	= 10 pts
☐	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
☐	None of the above	= 0

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

3.2.3 Groundwater Discharge

Circle the characteristics that best describe the wetland being evaluated and then sum the scores. If the sum exceeds 30 points, assign the maximum score of 30). Note: for wetland type, wetland type scored does not have to be the dominant type in the wetland.

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

Additional Comments/Notes:

Groundwater Discharge Score
(maximum 30 points) 9

3.3 CARBON SINK

Check only one of the following:

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

Source of information:

Field surveys - EIS etc

Carbon Sink Score

(maximum 5 points)

3

3.4 SHORELINE EROSION

CONTROL

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

Step 1:

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

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

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

Shoreline Erosion Control Score

(maximum 15 points)

8

3.5 GROUNDWATER RECHARGE

3.5.1 Site Type

Wetland > 50% lacustrine (by area) or located on one of the five major rivers		0 pts
Wetland not as above. Calculate final score as follows:		
■ FA of isolated or palustrine wetland	= 1.0	x 50 = ✓
■ FA of riverine wetland	=	x 20 =
■ FA of lacustrine wetland (not dominant site type)	=	x 0 =

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

3.5.2 Soil Recharge Potential

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

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

Groundwater Recharge/Wetland Soil Recharge Potential Score (maximum 10 points) 4

4.0 SPECIAL FEATURES

COMPONENT

4.1 RARITY

4.1.1 Wetland Types

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

4.1.1.1 Rarity within the Landscape

Choose appropriate score from 2nd column above.

Score (maximum 80 points) 20

4.1.1.2 Rarity of Wetland Type

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

Score (maximum 80 points) 0

4.1.2 Species

4.1.2.1 Provincially Significant Animal Species

Common Name	Scientific Name	Activity	Dates Observed	Info Source
	None			

Additional Notes/Comments:

None during Surveys.

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

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

Provincially Significant Animal Species
(no maximum) 0

4.1.2.2 Provincially Significant Plant Species

Common Name	Scientific Name	Activity	Dates Observed	Info Source
None				

Additional Notes/Comments:

None during surveys

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

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

Provincially Significant Plant Species
(no maximum) 0

4.1.2.3 Regionally Significant Species

Common Name	Scientific Name	Activity	Dates Observed	Info Source

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

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

Regionally Significant Species Score
(no maximum score) 2

4.1.2.4 Locally Significant Species

Common Name	Scientific Name	Activity	Dates Observed	Info Source

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

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

Locally Significant Species Score
(no maximum score) 2

4.2 SIGNIFICANT FEATURES AND HABITATS

4.2.1 Colonial Waterbirds

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

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

Additional Notes/Comments:

Surveys complete / L10

Colonial Waterbird Nesting Score
(maximum 50 points) 0

4.2.2 Winter Cover for Wildlife

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

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

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

the marsh not good winter cover.

Source of information:

surveys / L10

Winter Cover for Wildlife Score
(maximum 100 points) 0

4.2.3 Waterfowl Staging and/or Moulting Areas

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

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

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

Source of information:

Surveys/LIO

Waterfowl Staging/Moulting Score
(maximum 150 points) 0

4.2.4 Waterfowl Breeding

Check highest level of significance.

	Nationally/internationally significant	= 150 pts
	Provincially significant	= 100
	Significant in the Ecoregion	= 50
	Significant in Ecodistrict	= 25
✓	Habitat Suitable	<u>10</u>
	Habitat not suitable	= 0

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

All suitable

Source of information:

Surveys

Waterfowl Breeding Score
(maximum 150 points) 10

4.2.5 Migratory Passerine, Shorebird or Raptor Stopover Area

Check highest level of significance.

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

Species/habitat/vegetation community scored:

Surveys/desktop - All possible

Source of information:

Passerine, Shorebird or Raptor Stopover Score
(maximum 100 points) 10

4.2.6 Fish Habitat

4.2.6.1 Spawning and Nursery Habitat

Area Factors for Low Marsh, High Marsh and Swamp Communities.

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

Step 1:

☐
☒

Fish habitat is not present within the wetland

Go to Step 7, Score 0 points

Fish habitat is present within the wetland *-potential*

Go to Step 2

Step 2: Choose only one option

☐

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

Go to Step 3

☒

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

Go through Steps 4, 5 and 6

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

Significant in Ecoregion

Go to Step 7, Score 100 points

Significant in Ecodistrict

Go to Step 7, Score 50 points

Locally Significant Habitat (5.0+ ha)

Go to Step 7, Score 25 points

Locally Significant Habitat (<5.0 ha)

Go to Step 7, Score 15 points

Source of information:

Surveys/desktop / wsl fisheries experts.

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

☒
☐

Low marsh not present

Go to Step 5

Low marsh present

Continue through Step 4, scoring as noted below

Scoring of Low Marsh:

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

Scoring for Presence of Key Vegetation Groups – Low Marsh

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

Continue to Step 5

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

☐
☒

High marsh not present

Go to Step 6

High marsh present

Continue through Step 5, scoring as noted below

Scoring of High Marsh:

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

Scoring for Presence of Key Vegetation Groups – High Marsh

Vegetation Group Number	Vegetation Group Name	Present as a Dominant Form (check)	Total Area (ha)	Area Factor (from Table 7)	Multiplication Factor	Score
1	Tallgrass	✓	0.63	0.1	6	0.6
2	Shortgrass-Sedge				11	
3	Cattail-Bulrush-Burreed	✓	0.37	0.1	5	0.5
4	Arrowhead-Pickerelweed				5	
Total Score for High Marsh (maximum 25 points)						1

Continue to Step 6

Step 6:

☒	Swamp containing fish habitat not present
☐	Swamp containing fish habitat present

Go to Step 7

Continue through Step 6, scoring as follows

Scoring of Swamp:

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

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

Step 7: CALCULATION OF FINAL SCORE

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

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

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

Score for Spawning and Nursery Habitat (maximum 100 points) <u> </u>

4.2.6.2 Migration and Staging Habitat

Step 1:

☒	Staging or Migration Habitat is not present in the wetland	Go to Step 4, Score 0 points
☐	Staging or Migration Habitat is present in the wetland, significance of the habitat is known	Go to Step 2
☐	Staging or Migration Habitat is present in the wetland, significance of the habitat is not known	Go to Step 3

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

☐	Significant in Ecoregion	Score 25 points in Step 4
☐	Significant in Ecodistrict	Score 15 points in Step 4
☒	Locally Significant	Score 10 points in Step 4
☐	Fish staging and/or migration habitat present, but not as above	Score 5 points in Step 4

Source of information:

Surveys - wetland does not lead anywhere

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

☐	Wetland is riverine at rivermouth or lacustrine at rivermouth	Score 25 points in Step 4
☐	Wetland is riverine, within 0.75 km of rivermouth	Score 15 points in Step 4
☐	Wetland is lacustrine, within 0.75 km of rivermouth	Score 10 points in Step 4
☐	Fish staging and/or migration habitat present, but not as above	Score 5 points in Step 4

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

Score for Staging and Migration Habitat
(maximum 25 points) 0

4.3 ECOSYSTEM AGE

		Fractional Area		Score
Bog	=		x 25 =	
Fen, on deeper soils; floating mats or marl	=		x 20 =	
Fen, on limestone rock	=		x 5 =	
Swamp	=		x 3 =	
Marsh	=	1.0	x 0 =	0
Total			=	0

Ecosystem Age Score (maximum 25 points) 0

4.4 GREAT LAKES COASTAL

WETLANDS

Choose one only.

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

1.74 ha

Great Lakes Coastal Wetland Score
(maximum 75 points) 10

GENERAL INFORMATION

Wetland Evaluator(s)

Name: Fergus Nicoll Affiliation: WSP Inc - certified on

Signature: [Signature]

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

Name: Gwendolyn Weeks Affiliation: WSP Inc - certified on

Signature: _____

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

Name: _____ Affiliation: _____

Signature: _____

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

Name: _____ Affiliation: _____

Signature: _____

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

Name: _____ Affiliation: _____

Signature: _____

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

Date(s) wetland visited (in field): See attached

Date evaluation completed: July 2025

Estimated time devoted to completing the field survey in person hours: ~25

Weather Conditions

- i) at time of field work: various but suitable for survey types.
- ii) summer conditions in general: variable - 2024 very wet late summer.

WETLAND EVALUATION SCORING
RECORD

WETLAND NAME: Elmwood Drive Wetland

1.0 BIOLOGICAL COMPONENT

1.1 PRODUCTIVITY

18
15
2
(35)

1.1.1 Growing Degree-Days/Soils

1.1.2 Wetland Type

1.1.3 Site Type

1.2 BIODIVERSITY

9
2.5
6
8
9
8
42.5
5

1.2.1 Number of Wetland Types

1.2.2 Vegetation Communities

1.2.3 Diversity of Surrounding Habitat

1.2.4 Proximity to Other Wetlands

1.2.5 Interspersion

1.2.6 Open Water Type

1.3 SIZE (Biological Component)

82.5

TOTAL (Biological Component)

2.0 SOCIAL COMPONENT

2.1 ECONOMICALLY VALUABLE PRODUCTS

- 2.1.1 Wood Products
- 2.1.2 Wild Rice
- 2.1.3 Commerical Baitfish
- 2.1.4 Furbearers

Total for Economically Valuable Products

2.2 RECREATIONAL ACTIVITIES

2.3 LANDSCAPE AESTHETICS

- 2.3.1 Distinctness
- 2.3.2 Absence of Human Disturbance

Total for Landscape Aesthetics

2.4 EDUCATION AND PUBLIC AWARENESS

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

Total for Education and Public Awareness

2.5 PROXIMITY TO AREAS OF HUMAN SETTLEMENT

2.6 OWNERSHIP

2.7 SIZE (Social Component)

2.8 ABORIGINAL VALUES AND CULTURAL HERITAGE

- 2.8.1 Aboriginal Values
- 2.8.2 Cultural Heritage

TOTAL (Social Component)

3.0 HYDROLOGICAL COMPONENT

0

3.1 FLOOD ATTENUATION

60

3.2 WATER QUALITY IMPROVEMENT

3.2.1 Short Term Water Quality Improvement

3.2.2 Long Term Nutrient Trap

3.2.3 Groundwater Discharge

72

Total for Water Quality Improvement

(3)

3.3 CARBON SINK

8

3.4 SHORELINE EROSION CONTROL

50

3.5 GROUNDWATER RECHARGE

3.5.1 Site Type

3.5.2 Soil Recharge Potential

54

Total for Groundwater Recharge

137

TOTAL (Hydrological Component)

4.0 SPECIAL FEATURES COMPONENT

4.1 RARITY

4.1.1 Wetlands

4.1.1.1 Rarity within the Landscape

4.1.1.2 Rarity of Wetland Type

20

2

20

Total for Wetland Rarity

4.1.2 Species

4.1.2.1 Provincially Significant Animals

4.1.2.2 Provincially Significant Plants

4.1.2.3 Regionally Significant Species

4.1.2.4 Locally Significant Species

0

0

0

0

0

2

Total for Species Rarity

4.2 SIGNIFICANT FEATURES AND HABITATS

4.2.1 Colonial Waterbirds

4.2.2 Winter Cover for Wildlife

4.2.3 Waterfowl Staging and/or Moulting Areas

4.2.4 Waterfowl Breeding

4.2.5 Migratory Passerine, Shorebird or Raptor Stopover Area

4.2.6 Fish Habitat

4.2.6.1 Spawning and Nursery Habitat

4.2.6.2 Migration and Staging Habitat

0

0

0

10

10

1

2

21

Total for Significant Features and Habitats

2

4.3 ECOSYSTEM AGE

10

4.4 GREAT LAKES COASTAL WETLANDS

51

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

SUMMARY OF EVALUATION RESULT

Wetland

Elmwood drive wetland.

82.5

1.0 TOTAL FOR BIOLOGICAL COMPONENT

49

2.0 TOTAL FOR SOCIAL COMPONENT

137

3.0 TOTAL FOR HYDROLOGICAL COMPONENT

51

4.0 TOTAL FOR SPECIAL FEATURES COMPONENT

319.5

TOTAL WETLAND SCORE

Complete versions of the data form in this appendix should be attached to the wetland data record and included within the wetland evaluation file.

Wetland Name Elmwood Wetland Page 1 of 1

[illegible]

Elmwood Wetland OWES – Additional Information on Size

The total size of the Elmwood Wetland is 1.78 hectares (ha). This is under the 2.0 ha generally recommended minimal size for a wetland to be evaluated, as presented on the 2022 OWES manual (page 9). However, the manual does allow for smaller wetlands to be evaluated, if the evaluator provides a rationale for doing so. The Elmwood Wetland is a coastal wetland as defined by the Provincial Planning Statement 2024. In addition, there is potential for future development or other land uses on the property that contains the wetland. Therefore, in discussion with the property land managers and owner, it was decided that evaluating the wetland using OWES would be a valuable exercise to inform future land use planning at the Site. The evaluation will help to inform a characterization of the main features and functions of the wetland, which will assist in determining potential impacts from changes in land use in or adjacent to the wetland on those features or functions. The impact assessment will be integral to identifying land use options, mitigation measures, and possible wetland enhancement measures, as well as for obtaining planning approvals.

Fergus Nicoll, Dip.T., Certified Wetland Evaluator

Elmwood Wetland Summary

FA of Units			FA of Type		FA of Forms		Dominant Soils		Furbearers	Evidence
Unit	Area (ha)	FA	FA Marsh	1	ne	0.63	neM1	Loamy Clay		
neM1	1.10				re	0.37	reM2	Organic	No trapping allowed NA	
reM2	0.64	0.37								
							FA of Soils			
							Loamy Clay	0.63		
	1.74	0.37					Organic	0.37		

Codes	Dominant Forms	Dominant Species
neM1	ts, gc, ne	<i>Phalaris arundinacea</i> , <i>Carex</i> spp., <i>Lythrum salicaria</i> , <i>Poa palustris</i> , <i>Impatiens capensis</i> , <i>Eutrochium maculatum</i> , <i>Impatiens capensis</i>
reM2	re, ne	<i>Typha angustifolia</i> , <i>Phalaris arundinacea</i> , <i>Lythrum salicaria</i> , <i>Carex lacustris</i> , <i>Lycopus uniflorus</i> , <i>Galium palustre</i> , <i>Cicuta bulbifera</i>

Summary of Field Surveys Completed 2020, 2024, at Elmwood Drive Wetland

Date	Survey(s)
2024	
9 April	Reconnaissance, Aquatic Survey, Turtle Survey, Bat Habitat Survey, Nocturnal Amphibian Survey
2 May	Turtle Survey, General Wildlife Visual Encounter Survey (VES)
17 May	Turtle Survey, VES, Plant Community Survey
12 June	Breeding Bird Survey, Turtle Survey, VES, Set up Bat Detectors
15 June	Turtle Survey, VES, Nocturnal Amphibian Survey
2 July	Breeding Bird Survey, Plant Community Survey, VES
28 August	Plant Community Survey, VES
2025	
7 May	Plant Community, VES
9 June	Aquatic Survey, Fish Community Sampling

* Note Additional Data was collected in 2022 by others and was reviewed for this assessment.

Plant Species List

Scientific Name	Common Name	Origin ^a	Global Rarity Status ^b	Ontario Rarity Status ^b	SARA ^c	ESA ^d
<i>Acer rubrum</i>	Red maple	N	G5	S5	–	–
<i>Acorus americanus</i>	American sweetflag	N	G5	S4	–	–
<i>Asclepias incarnata</i>	Swamp milkweed	N	G5	S5	–	–
<i>Asclepias syriaca</i>	Common milkweed	N	G5	S5	–	–
<i>Bromus inermis</i>	Smooth brome	I	GNR	SNA	–	–
<i>Calamagrostis canadensis</i>	Canada blue-joint	N	G5	S5	–	–
<i>Carex bebbii</i>	Bebb's sedge	N	G5	S5	–	–
<i>Carex intumescens</i>	Bladder sedge	N	G5	S5	–	–
<i>Carex lupulina</i>	Hop sedge	N	G5	S5	–	–
<i>Carex lacustris</i>	Lake sedge	N	G5	S5	–	–
<i>Carex pseudocyperus</i>	Cyperus-like sedge	N	G5	S5	–	–
<i>Carex vulpinoidea</i>	Fox sedge	N	G5	S5	–	–
<i>Cichorium intybus</i>	Wild chicory	I	GNR	SNA	–	–
<i>Cicuta bulbifera</i>	Bulbous water-hemlock	N	G5	S5	–	–
<i>Cirsium arvense</i>	Canada thistle	I	G5	SNA	–	–
<i>Convallaria majalis</i>	European lily-of-the-valley	I	G5	SNA	–	–
<i>Cornus stolonifera</i>	Red osier dogwood	N	G5	S5	–	–
<i>Daucus carota</i>	Wild carrot	I	GNR	SNA	–	–
<i>Doellingeria umbellata</i>	Flat-top white aster	N	G5	S5	–	–
<i>Eleocharis sp.</i>	Spikerush	N	G5	?	–	–
<i>Elymus repens</i>	Quackgrass	I	GNR	SNA	–	–
<i>Eutrochium maculatum</i> var. <i>maculatum</i>	Spotted joe pye weed	N	G5T5	S5	–	–
<i>Fallopia convolvulus</i>	Eurasian black bindweed	I	GNR	SNA	–	–
<i>Fraxinus pennsylvanica</i>	Green ash	N	G4	S4	–	–
<i>Galium palustre</i>	Common marsh bedstraw	N	G5	S5	–	–
<i>Impatiens capensis</i>	Spotted jewelweed	N	G5	S5	–	–
<i>Juglans nigra</i>	Black walnut	N	G5	S4?	–	–
<i>Lonicera tatarica</i>	Tatarian honeysuckle	I	GNR	SNA	–	–
<i>Lycopus uniflorus</i>	Northern water-horehound	N	G5	S5	–	–
<i>Lythrum salicaria</i>	Purple loosestrife	I	G5	SNA	–	–
<i>Parthenocissus inserta</i>	Virginia creeper	N	g5	s5	–	–
<i>Phalaris arundinacea</i> var. <i>arundinacea</i>	Reed canarygrass	N	G5TNR	S5	–	–
<i>Phleum pratense</i>	Common timothy	I	SNA	GNR	–	–
<i>Phragmites australis</i> ssp. <i>australis</i>	European reed	I	G5T5	SNA	–	–

Scientific Name	Common Name	Origin ^a	Global Rarity Status ^b	Ontario Rarity Status ^b	SARA ^c	ESA ^d
<i>Rhamnus cathartica</i>	European buckthorn	I	GNR	SNA	–	–
<i>Rubus idaeus</i>	Red raspberry	N	G5	S5	–	–
<i>Salix discolor</i>	Pussy willow	N	G5	S5	–	–
<i>Salix petiolaris</i>	Meadow willow	N	G5	S5	–	–
<i>Sium suave</i>	Common water-parsnip	N	G5	S5	–	–
<i>Solanum dulcamara</i>	Bittersweet nightshade	I	GNR	SNA	–	–
<i>Solidago canadensis</i> var. <i>canadensis</i>	Canada goldenrod	N	G5T5	S5	–	–
<i>Solidago rugosa</i>	Rough-stemmed goldenrod	N	G5	S5	–	–
<i>Sparganium eurycarpum</i>	Broad-fruited burreed	N	G5	S5	–	–
<i>Symphyotrichum lateriflorum</i>	Calico aster	N	G5	S5	–	–
<i>Symphyotrichum novae-angliae</i>	New england aster	N	G5	S5	–	–
<i>Thelypteris palustris</i>	Marsh fern	N	G5	S5	–	–
<i>Trifolium pratense</i>	Red clover	I	GNR	SNA	–	–
<i>Tussilago farfara</i>	Coltsfoot	I	GNR	SNA	–	–
<i>Typha angustifolia</i>	Narrow-leaved cattail	I	G5	SNA	–	–
<i>Typha latifolia</i>	Broad-leaved cattail	N	G5	S5	–	–
<i>Urtica dioica</i>	Slender stinging nettle	N	G5T5	S5	–	–
<i>Vicia cracca</i>	Cow vetch	I	GNR	SNA	–	–
<i>Vinca minor</i>	Lesser periwinkle	I	GNR	SNA	–	–
<i>Vitis riparia</i>	Riverbank grape	N	G5	S5	–	–

Notes:

^a Origin: N = Native; (N) = Native but not in study area region; I = Introduced.

^b Ranks based upon determinations made by the Ontario Natural Heritage Information Centre.

G = Global; S = Provincial; Ranks 1-3 are considered imperiled or rare; Ranks 4 and 5 are considered secure.

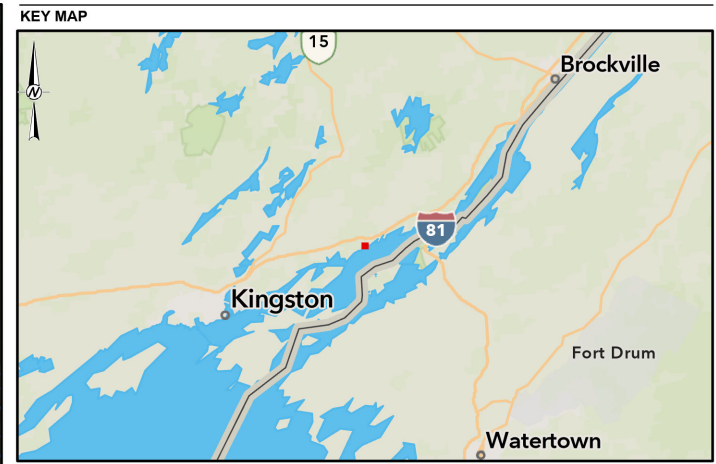
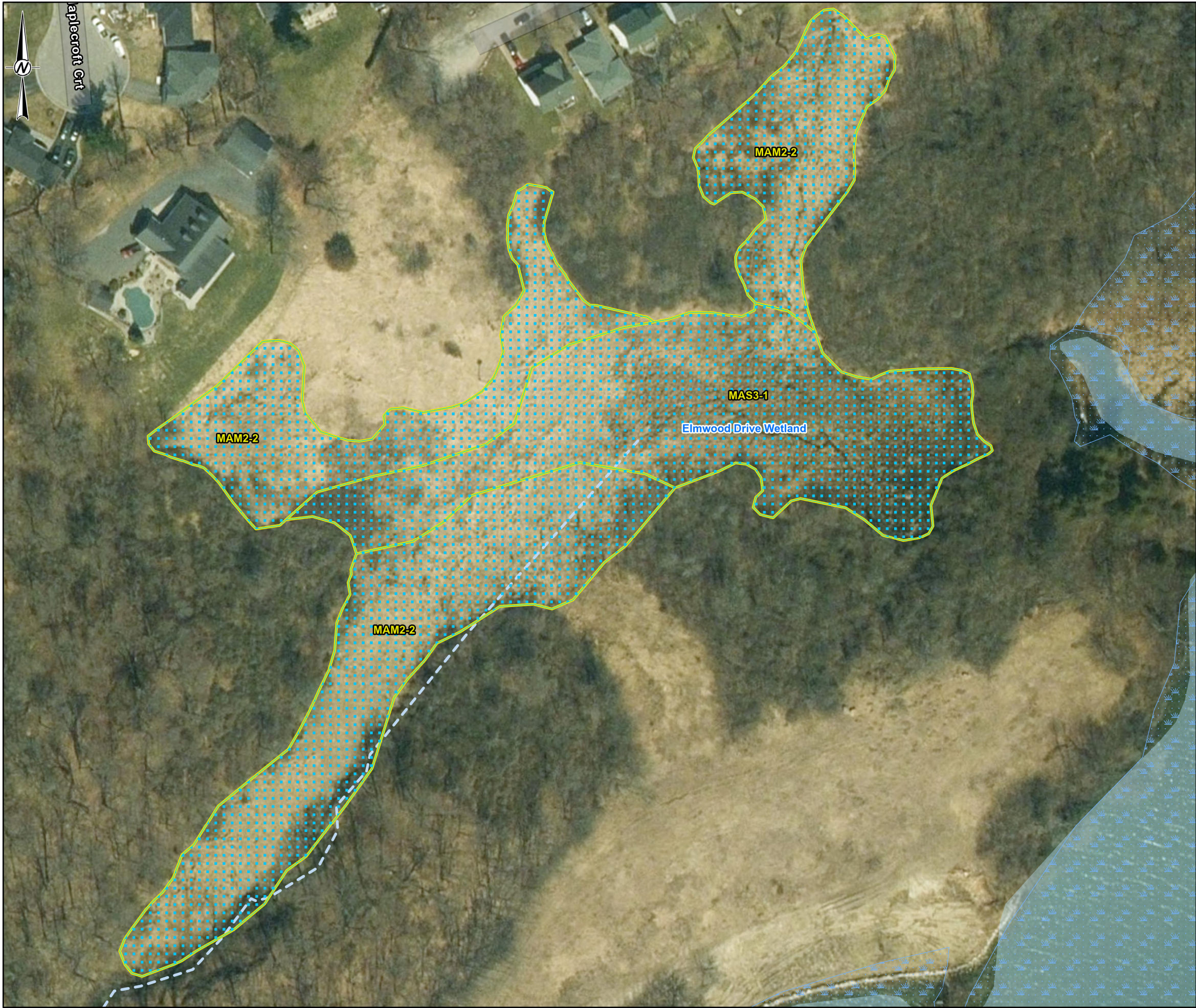
SNA = Not applicable for Ontario Ranking (e.g. Exotic species)

^c Canada Species at Risk Act (Schedule 1)

^d Ontario Endangered Species Act (O.Reg.230/08)

FIGURE 1

Sixth Concession Wetland Plant Communities



SCALE: 1:1,400,000

- LEGEND**
- INTERMITTENT WATERCOURSE
 - WETLAND EVALUATED NOT PROVINCIALLY SIGNIFICANT
 - UNEVALUATED WETLAND
 - WATERBODY
 - ECOLOGICAL LAND CLASSIFICATION (ELC)
 - MAM2-2 Reed Canary Grass Mineral Meadow Marsh
 - MAS3-1 Cattail Organic Shallow Marsh



NOTE(S)
1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)
1. CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE - ONTARIO
2. BASE MAP: MAXAR, MICROSOFT, SOURCES: ESRI, TOMTOM, GARMIN, FAO, NOAA, USGS, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY
3. COORDINATE SYSTEM: NAD 1983 CSRS UTM ZONE 17N

CLIENT
1000989284 ONTARIO INC

PROJECT
ONTARIO WETLAND EVALUATION
ELMWOOD DRIVE GANANOQUE, ON

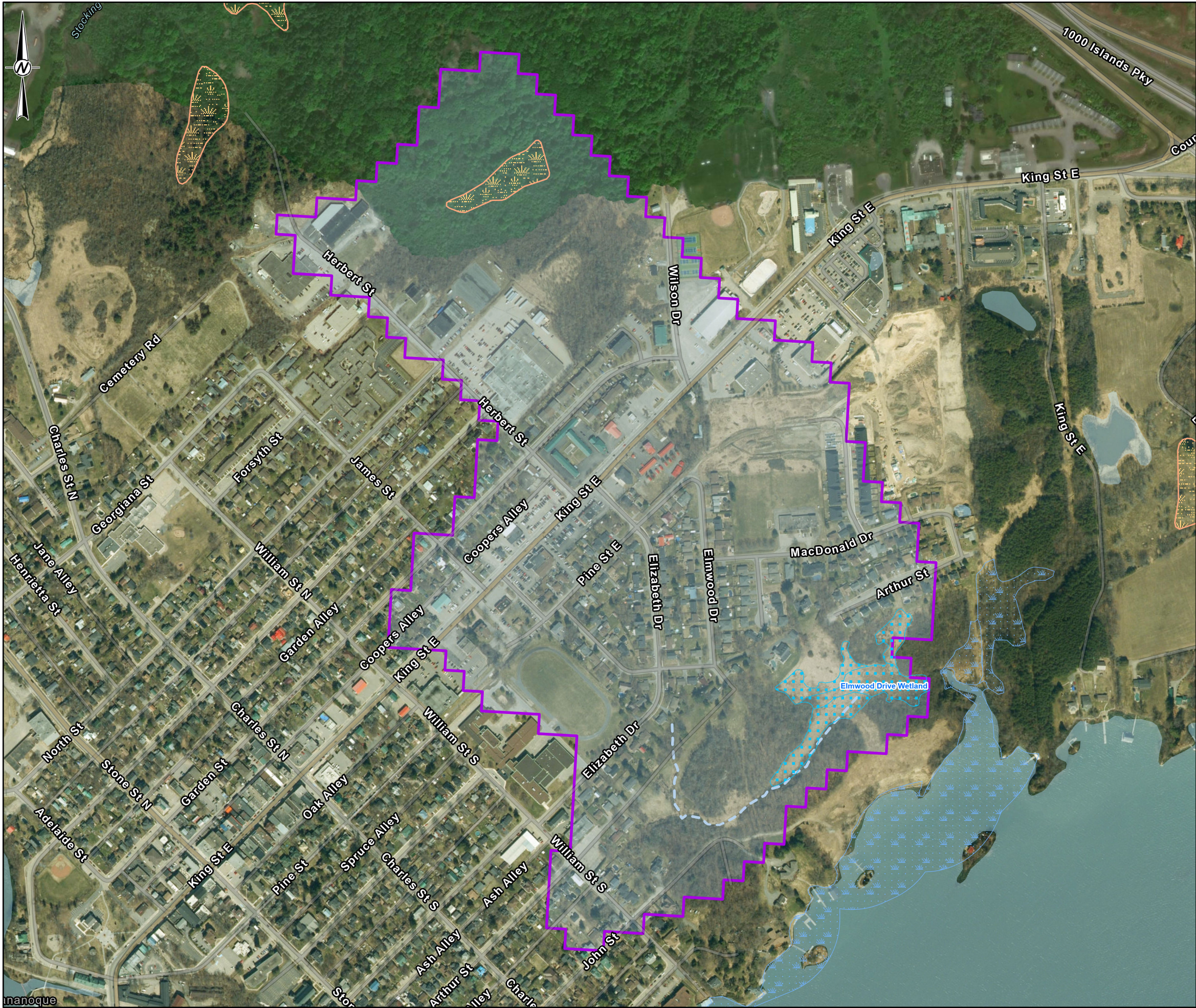
TITLE
WETLAND COMMUNITY MAPPING

	CONSULTANT	YYYY-MM-DD	2025-08-28
	DESIGNED	FN	
	PREPARED	MC	
	REVIEWED	FN	
	APPROVED	GW	

PROJECT NO.	CONTROL	REV.	FIGURE
CA0053084.9335	0002	1	1

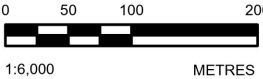
FIGURE 2

**Sixth Concession Wetland
Catchment Area**



SCALE: 1:1,400,000

- LEGEND**
- INTERMITTENT WATERCOURSE
 - WATERSHED - 705506.29M²
 - WETLAND EVALUATED NOT PROVINCIALY SIGNIFICANT
 - UNEVALUATED WETLAND
 - UNEVALUATED WETLAND LIO
 - WATERBODY



NOTE(S)
1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)
1. CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE - ONTARIO
2. BASE MAP: SOURCES: ESRI, TOMTOM, GARMIN, FAO, NOAA, USGS, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY, MAXAR
3. COORDINATE SYSTEM: NAD 1983 CSRS UTM ZONE 17N

CLIENT
1000989284 ONTARIO INC

PROJECT
ONTARIO WETLAND EVALUATION
ELMWOD DRIVE GANANOQUE, ON

TITLE
ELMWOD DRIVE WETLAND CATCHMENT

	CONSULTANT	YYYY-MM-DD	2025-08-28
	DESIGNED	FN	
	PREPARED	MC	
	REVIEWED	FN	
	APPROVED	GW	

PROJECT NO.	CONTROL	REV.	FIGURE
CA0053084.9335	0002	1	2