



Municipality of West Elgin

Agenda

Council Meeting

Date: **August 27 2020, 9:30 a.m.**
Location: **Recreation Centre**
135 Queen Street
Rodney

Due to COVID-19 and physical distancing requirements this meeting is being held in an alternate location to allow the public to attend. Please contact the Clerk's Department if you require an alternate format or accessible communication support or wish to receive the link to the meeting, at 519-785-0560 or by email at clerk@westelgin.net.

Pages

1. Call to Order

2. Adoption of Agenda

Recommendation:

That West Elgin Council hereby adopts the Agenda as presented.

3. Disclosure of Pecuniary Interest

4. Meeting to Consider Engineers Report Under Drainage Act

4.1 J.M Spriet, PEng - Crabbe Drain

6

Recommendation:

That West Elgin Council receives the Engineers report on the Crabbe Drain as prepared and presented by Mr. J.M. Spriet, P. Eng.; and

That West Elgin Council authorizes staff to initiate the tender process, if required, for the reconstruction of the Municipal Drain known as Crabbe Drain, to be considered by Council following the Court of Revision; and

That West Elgin Council consider the provisional By-Law as presented in the By-Law portion of the agenda for a first and second reading.

Recommendation:

That West Elgin Council receives the Engineers report as prepared for the Yauch Drain and presented by Mr. J.M. Spriet, P. Eng.; and

That West Elgin Council authorizes staff to initiate the tender process, if required, for the reconstruction and extension to the Municipal Drain known as Yauch Drain, to be considered by Council following the Court of Revision; and

That West Elgin Council consider the provisional By-Law as presented in the By-Law portion of the agenda for a first and second reading.

5. Meeting Under Drainage Act - Court of Revision

Recommendation:

That West Elgin Council hereby proceed into the Court of Revision for the McColl Drain West under the *Drainage Act* at _____ a.m.

6. Delegation - T. Carroll, Elgin-St Thomas Community Foundation

7. Adoption of Minutes

35

Recommendation:

That the Minutes of the Council meeting on August 13, 2020 be adopted as circulated and printed.

8. Business Arising from Minutes

9. Staff Reports

9.1 Emergency Management

49

Recommendation:

That West Elgin Council hereby receives the report from Jana Nethercott, Clerk re: Emergency Declaration – Information on termination of declared emergency for information purposes.

9.2 Water 55

Recommendation:

That West Elgin Council receives the report from OCWA re: Operational Plan for the West Elgin Distribution System; and

That West Elgin Council approves the Mayor and CAO/Treasurer sign the Commitment and Endorsement.

9.3 Clerk's 141

Recommendation:

That West Elgin Council hereby receives the report from Jana Nethercott, Clerk re: Apportionment of Drainage Assessment for the Czajkowski Drain due to Severance of Land, Pursuant to Section 65 (2) of the *Drainage Act, R.S.O. 1990*; and

That West Elgin Council hereby approves the Apportionment of the Drainage Assessment Agreement for the Czajkowski Municipal Drain, as part of severance E4/20 as presented.

10. Committee and Board Report

10.1 Elgin County Council

10.1.1 Elgin Council Highlights - August 11, 2020 143

10.1.2 Elgin County Planner - Report on Provincial Policy Statement 149

10.2 Lower Thames Conservation Authority

10.2.1 Board of Directors Minutes - August 20, 2020 222

10.3 Councillor Reports from Committees

11. Accounts

Recommendation:

That the Mayor and Treasurer are hereby authorized to sign Payment Voucher #8A amounting to \$403,200.95 in settlement of General, Road, Water and Arena Accounts (including EFT#2929-2984 Cheque# 25386-25390, online Payments# 495-502 and Payroll PP17).

12. Other Business

12.1 Statements/Inquires by Councillors

12.2	Notice of Motion	
12.3	Matters of Urgency	
13.	Correspondence	
13.1	Huron-Kinloss - Farm Tax Credit Resoulution	226
13.2	Seaside Waterfronts Inc. - Request for Public Meeting	228
13.3	A. Smith - Proposal for Mural in West Elgin Recreation Centre	230
14.	Closed Session	
	Recommendation:	
	That the Council of the Municipality of West Elgin Council hereby proceeds into Closed Session at _____ a.m. under Section 239(2)(b) & (d) of the Municipal Act, consideration will be given to personal matters pertaining to an identifiable individual and labour relations or employee negotiations.	
15.	Report from Closed Session	
16.	By-Laws	
16.1	By-Law 2020-59 - Provisionally Adopt Crabbe Drain Reconstruction	235
	Recommendation:	
	That By-law 2020-59 being a by-law to provide for the Crabbe Drain Reconstruction, be read a first and second time and provisionally adopted.	
16.2	By-Law 2020-60 - Provisionally Adopt Yauch Drain Reconstruction and Extension	264
	Recommendation:	
	That By-law 2020-60 being a by-law to provide for the Yauch Drain Reconstruction and Extension, be read a first and second time and provisionally adopted.	
16.3	By-Law 2020-61 - Adopt Flag Policy	295
	Recommendation:	
	That By-law 2020-61 being a by-law to adopt and maintain a policy with respect to community flag raising and flag protocol, be read a first, second and third and final time.	

16.4 By-Law 2020-15 - McColl Drain West

300

Recommendation:

That By-law 2020-15, being a by-law to provide for the McColl Drain West, with the amended Schedule C, be read a third and final time.

17. Confirming By-Law

316

Recommendation:

That By-law 2020-62, being a by-law to confirm the proceeding of the regular meeting of Council held on August 27, 2020, be read a first, second and third and final time.

18. Adjournment

Recommendation:

That the Council of the Municipality of West Elgin hereby adjourn at _____ to meet again at 9:30 a.m. on September 10, 2020 or at the call of the Chair.

CRABBE DRAIN
Municipality of West Elgin



**SPRIET
ASSOCIATES**
ENGINEERS & ARCHITECTS

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Our Job No. 219070

May 1, 2020

London, Ontario
May 1, 2020

CRABBE DRAIN

Municipality of West Elgin

To the Mayor and Council of
the Municipality of West Elgin

Mayor and Council:

We are pleased to present our report on the reconstruction of parts of the Crabbe Municipal Drain serving parts of Lot 21 & 22, Concessions 12 and 13, in the Municipality of West Elgin.

AUTHORIZATION

This report was prepared pursuant to Section 78 of the Drainage Act. Instructions were received from your Municipality with respect to a motion of Council. The work was initiated by a request signed by an affected landowner.

HISTORY

The Crabbe Drain was originally constructed pursuant to a report submitted by H.H. Todgham, P. Eng., dated July 12, 1960 and consisted of the construction of an open and closed drain, commencing at the Bonn open drain and running east, then northeast through Lots 21 and 22 in Concession 12. The work called for approximately 715 meters of open ditch cleanout and 549 meters of 150mm – 300mm diameter tile.

EXISTING DRAINAGE CONDITIONS

A site meeting held with respect to the project and through later discussions, the owners reported the following:

- that the requesting landowner, Larch Lane Farms Ltd. (Roll No. 50-123), indicated their desire to enclose a portion of the existing open drain through their lands

A field investigation and survey were completed. Upon reviewing our findings, we note the following:

- that the existing drain has not been cleaned out in a very long time and is substantially overgrown with trees along the entire course of the open drain



EXISTING DRAINAGE CONDITIONS (cont'd)

- that the lands would benefit from enclosure due to the increased workability of them
- that the existing drain should be brushed, where possible, to allow the Municipality to maintain the drain

Preliminary design, cost estimates and assessments were prepared, and informal discussions were held to review the findings and preliminary proposals. Further input and requests were provided by the affected owners at that time and at later dates. Based on the proposed design it was decided to proceed with the report.

DESIGN CONSIDERATIONS

The proposed drain was designed, with respect to capacity, using the Drainage Coefficient method contained in the "DRAINAGE GUIDE FOR ONTARIO", Publication 29 by the Ontario Ministry of Agriculture, Food, and Rural Affairs. The Drainage Coefficient defines a depth of water that can be removed in a 24-hour period and is expressed in millimetres per 24 hours. The coefficient used for the Main Drain was 38mm per 24 hrs.

We would like to point out that there have been indications of sandy soil conditions, but no formal soil investigation has been made.

All of the proposed work has been generally designed and shall be constructed in accordance with the DESIGN AND CONSTRUCTION GUIDELINES FOR WORK UNDER THE DRAINAGE ACT.

RECOMMENDATIONS

We are therefore recommending the following:

- that a portion of the existing Main Drain be backfilled through the lands of Larch Lane Farms Ltd. (Roll No. 50-123), commencing at the outlet of the existing Main Drain tile downstream for approximately 369 lineal meters
- that the existing short portion of the open drain, downstream from the current outlet, be replaced with a tile drain approximately 77 meters in length
- that the open drain downstream of the new tile outlet be cleaned out and deepened for a length of approximately 150m.
- that downstream of the tile drain a pool and riffle be constructed in accordance with the requirements of the DFO
- that the existing open ditch be brushed where work is being done to allow access to the drain as needed
- that the existing open ditch be backfilled along the course of the new drain in such a manner as to permit overland flows from the upstream lands



RECOMMENDATIONS (cont'd)

- that the existing open ditch be backfilled along the course of the new drain in such a manner as to permit overland flows from the upstream lands

We have reviewed the existing Schedule of Assessment for the Crabbe Drain and found it them to be out-of-date and unfair due to property splits, changes in land use, the watershed, and drainage conditions. We therefore recommend that a new Maintenance Schedule be included as part of this report for future maintenance purposes.

ENVIRONMENTAL CONSIDERATIONS AND MITIGATION MEASURES

There are no significant wetlands or sensitive areas within the affected watershed area or along the route of the drains. The proposed construction of the Crabbe Drain includes quarry stone outlet protection and surface inlets which greatly help reduce the overland surface flows and any subsequent erosion. A temporary flow check of silt fencing is to be installed in the ditch downstream of the tile outlet for the duration of the construction.

We have reviewed the proposed work with the Department of Fisheries and Oceans (File No. 19-HCAA-0087) and they recommend the following mitigation measure be followed in their letter of advice dated January 15, 2020; the existing open drain is to be isolated prior to any backfilling by installing sediment and erosion controls at the bottom end of the work and that work be conducted in dry conditions after July 15th of the given year, as well as the creation of a pool and riffle downstream of the enclosure.

We are also recommending that the following erosion and sediment control measures be included as part of our reconstruction proposal to help mitigate any potential adverse impacts of the proposed drainage works on water quality and fishery habitat:

- timing of construction is to be only at times of low or no flow
- a temporary flow check of silt fencing is to be installed for the duration of the construction at the bottom end of the ditch reconstruction
- a cleanout of the ditch bottom only has been specified so that the existing bank vegetation is not disturbed. However, where the existing banks are unstable, or may become unstable, they are to be resloped and seeded as noted on the plans

SUMMARY OF PROPOSED WORK

The proposed work consists of approximately 150 lineal meters of open ditch reconstruction including quarry stone rip-rap bank protection, pool and riffle, bank seeding, and approximately 446 lineal meters of 300mm (12") to 400mm (16") diameter concrete field tile including related appurtenances.

SCHEDULES

Four schedules are attached hereto and form part of this report, being Schedule 'A' - Allowances, Schedule 'B' - Cost Estimate, Schedule 'C' - Assessment for Construction, and Schedule 'D' - Assessment for Maintenance.

Schedule 'A' - Allowances. In accordance with Sections 29 and 30 of the Drainage Act, allowances are provided for right-of-way and damages to lands and crops along the route of the drain as defined below.

Schedule 'B' - Cost Estimate. This schedule provides for a detailed cost estimate of the proposed work which is in the amount of \$ 75,500.00. This estimate includes engineering and administrative costs associated with this project.

Schedule 'C' - Assessment for Construction. This schedule outlines the distribution of the total estimated cost of construction over the roads and lands which are involved.

Schedule 'D' - Assessment for Maintenance. In accordance with Section 38 of the Drainage Act, this schedule outlines the distribution of future repair and/or maintenance costs for portions of, or the entire drainage works.

Drawing No. 1, Job No. 219070, and specifications form part of this report. They show and describe in detail the location and extent of the work to be done and the lands which are affected.

ALLOWANCES

DAMAGES: Section 30 of the Drainage Act provides for the compensation to landowners along the drain for damages to lands and crops caused by the construction of the drain. The amount granted is based on \$4,647.00/ha. for open ditch work with excavated material levelled adjacent the drain, and \$3,613.00/ha for closed drain installed with a wheel machine. These base rates are multiplied by the hectares derived from the working widths shown on the plans and the applicable lengths.

RIGHT-OF-WAY Section 29 of the Drainage Act provides for an allowance to the owners whose land must be used for the construction, repair, or future maintenance of a drainage works.

For open ditches, the allowance provides for the loss of land due to the construction provided for in the report. The amounts granted are based on the value of the land, and the rate used was \$33,360.00/ha. When any buffer strip is incorporated and/or created, the allowance granted is for any land beyond a 1.8-meter width deemed to have always been part of the drain. For existing open ditches, the right-of-way to provide for the right to enter and restrictions imposed on those lands, is deemed to have already been granted.

ASSESSMENT DEFINITIONS

In accordance with the Drainage Act, lands that make use of a drainage works are liable for assessment for part of the cost of constructing and maintaining the system. These liabilities are known as benefit, outlet liability and special benefit liability as set out under Sections 22, 23, 24 and 26 of the Act.

ASSESSMENT DEFINITIONS (cont'd)

BENEFIT as defined in the Drainage Act means the advantages to any lands, roads, buildings or other structures from the construction, improvement, repair or maintenance of a drainage works such as will result in a higher market value or increased crop production or improved appearance or better control of surface or sub-surface water, or any other advantages relating to the betterment of lands, roads, buildings or other structures.

OUTLET liability is assessed to lands or roads that may make use of a drainage works as an outlet either directly or indirectly through the medium of any other drainage works or of a swale, ravine, creek or watercourse.

In addition, a Public Utility or Road Authority shall be assessed for and pay all the increased cost to a drainage works due to the construction and operation of the Public Utility or Road Authority. This may be shown as either benefit or special assessment.

ASSESSMENT

A modified "Todgham Method" was used to calculate the assessments shown on Schedule 'C'- Assessment for Construction. This entailed breaking down the costs of the drain into sections along its route. Special Assessments and Special Benefits were then extracted from each section.

The remainder is then separated into Benefit and Outlet costs. The Benefit cost is distributed to those properties receiving benefit as defined under "Assessment Definitions", with such properties usually being located along or close to the route of the drain. The Outlet Costs are distributed to all properties within the watershed area of that section on an adjusted basis. The areas are adjusted for location along that section, and relative run-off rates. Due to their different relative run-off rates, forested lands have been assessed for outlet at lower rates than cleared lands.

The actual cost of the work involving this report, with the exception of Special Assessments, is to be assessed on a pro-rata basis against the lands and roads liable for assessment for benefit and outlet as shown in detail below and on Schedule 'C' - Assessment for Construction.

The majority of the enclosing and backfilling of the drain is assessed to the benefitting landowners, with the exception of the cost of two cleanouts, which are assessed to all lands within this watershed area. A value of \$5,500.00 has been used for this cost and shall be non-proratable, and can be found in the Assessment Schedule 'C'- Main Drain (Closed Portion)

SPECIAL ASSESSMENT

If any additional work is required to the drainage works due to the existence of buried utilities such as gas pipe lines, communications cables, etc. or if any of the utilities require relocation or repair, then, the extra costs incurred shall be borne by the utility involved in accordance with the provisions of Section 26 of the Drainage Act.



GRANTS

In accordance with the provisions of Section 85 of the Drainage Act, a grant **may** be available for assessments against privately owned parcels of land which are used for agricultural purposes and eligible for the Farm Property Class Tax rate. Further to this, regarding the closed portion of this project, the proposed theoretical cleanout costs of the project may be eligible for the normal 1/3 grants for the outlet lands. These lands have been assessed for their portion of the theoretical cost of clean-outs of the open ditch. The remaining portion of the drain will be in-eligible for the 1/3 grant. Section 88 of the Drainage Act directs the Municipality to make application for this grant upon certification of completion of this drain. The Municipality will then deduct the grant from the assessments prior to collecting the final assessments.

MAINTENANCE

Upon completion of construction, all owners are hereby made aware of Sections 80 and 82 of the Drainage Act which forbid the obstruction of or damage or injury to a municipal drain.

After completion, the entire Crabbe Drain, including the existing portions, shall be maintained by the Municipality of West Elgin at the expense of all upstream lands and roads assessed in Schedule 'D' - Assessment for Maintenance and in the same relative proportions until such time as the assessment is changed under the Drainage Act.

The above existing portions of the drain shall be maintained in accordance with the grades and dimensions set out in the plans and specifications contained in the reports submitted by H.H. Todgham, P.Eng., dated July 12, 1960.

Respectfully submitted,

SPRIET ASSOCIATES LONDON LIMITED

JMS:bv




J.M. Spriet, P.Eng.



SCHEDULE 'A' - ALLOWANCES

CRABBE DRAIN

Municipality of West Elgin

In accordance with Sections 29 and 30 of the Drainage Act, we determine the allowances payable to owners entitled thereto as follows:

CONCESSION	LOT	ROLL NUMBER (Owner)	Section 29 Right-of-Way	Section 30 Damages	TOTALS
MAIN DRAIN (OPEN PORTION)					
12	Pt. 21	50-117-03 (L. Connolly)	\$ 70.00	\$ 130.00	\$ 200.00
12	Pt. 21	50-117-04 (F. Connolly)	200.00	350.00	550.00
12	Pt. 21 & 22	50-123 (Larch Lane Farms Ltd)	330.00	570.00	900.00
Total Allowances			\$ 600.00	\$ 1,050.00	\$ 1,650.00
TOTAL ALLOWANCES ON THE MAIN DRAIN (OPEN PORTION)					\$ 1,650.00
MAIN DRAIN (CLOSED PORTION)					
12	Pt. 21 & 22	50-123 (Larch Lane Farms Ltd)	\$	\$ 2,000.00	\$ 2,000.00
Total Allowances			\$	\$ 2,000.00	\$ 2,000.00
TOTAL ALLOWANCES ON THE MAIN DRAIN (CLOSED PORTION)					\$ 2,000.00
TOTAL ALLOWANCES ON THE CRABBE DRAIN					\$ 3,650.00

CRABBE DRAIN**Municipality of West Elgin**

We have made an estimate of the cost of the proposed work which is outlined in detail as follows:

MAIN DRAIN (OPEN PORTION)

Clearing & grubbing of ditch bank (Approx. 150m)	\$ 3,000.00
150 meters of open ditch cleanout	\$ 1,500.00
Construt pool and riffle as per drawings including rip-rap and filter blanket	\$ 2,000.00
Levelling of excavated material	\$ 800.00
Seeding of ditch banks and buffer strips (Approx 500m ²)	\$ 200.00
Contingencies	\$ 500.00
Allowances under Sections 29 and 30 of the Drainage Act	\$ 1,650.00

MAIN DRAIN (CLOSED PORTION)

6 meters of 450mm dia., H.D.P.E. plastic sewer pipe including rodent gate, quarry stone rip-rap protection around pipe and end of ditch (Approximately 6m ³ quarry stone req'd)	
Supply	\$ 600.00
Installation	\$ 1,300.00
Installation of the following concrete field tile installed on crushed stone bedding including supply & installation of geotextile around tile joints (approx. 2200m req'd)	
77 meters of 300mm dia. concrete tile (stub)	\$ 3,000.00
169 meters of 350mm dia. concrete tile	\$ 7,200.00
194 meters of 400mm dia. concrete tile	\$ 8,800.00
Supply of the above listed tile	\$ 9,200.00
Supply & delivery of 19mm crushed stone (Approx. 180 tonnes req'd)	\$ 5,400.00
Backfilling of existing open ditches and grading for overland flow route	\$ 9,000.00
Exposing and locating existing tile drains and utilities	\$ 1,500.00
Tile connection and pre-fabricated fittings	\$ 1,000.00
Tile connections and contingencies	\$ 1,500.00
Allowances under Section 30 of the Drainage Act	\$ 2,000.00

CRABBE DRAIN
Municipality of West Elgin**ADMINISTRATION**

Interest and Net Harmonized Sales Tax	\$ 1,780.00
Survey, Plan and Final Report	\$ 9,900.00
Expenses	\$ 950.00
Supervision and Final Inspection	\$ <u>2,720.00</u>
TOTAL ESTIMATED COST	\$ <u><u>75,500.00</u></u>

SCHEDULE 'C' - ASSESSMENT FOR CONSTRUCTION

CRABBE DRAIN

Municipality of West Elgin

Job No. 219070

May 1, 2020

* = Non-agricultural

CON.	LOT	HECTARES AFFECTED	ROLL No. (OWNER)	BENEFIT	OUTLET	TOTAL
MAIN DRAIN (OPEN PORTION)						
12	W Pt. 21	4.0	50-117-01 (BonneField Farmland Ont	\$	\$	\$
* 12	Pt. 21	1.0	50-117-02 (M. Vandenburg)			
* 12	Pt. 21	0.3	50-117-03 (L. Connolly)	320.00	2.00	322.00
* 12	Pt. 21	0.3	50-117-04 (F. Connolly)	890.00	9.00	899.00
12	NW Pt. 21	0.8	50-118-50 (M. Howard)		38.00	38.00
* 12	Pt. 21	1.5	50-119 (C. Bell)		142.00	142.00
12	Pt. 21 & 22	43.3	50-123 (Larch Lane Farms Ltd)	5,860.00	3,451.00	9,311.00
12	NW Pt. 22	6.1	50-121 (M. & S. Peterne)		501.00	501.00
* 12	Pt. 22	0.6	50-123-10 (Larch Lane Farms Ltd)		55.00	55.00
13	21	8.1	50-164 (J. & R. Colpaert)		255.00	255.00
13	21	2.0	50-166 (S. & L. KirkPatrick)		63.00	63.00
TOTAL ASSESSMENT ON LANDS				\$ 7,070.00	\$ 4,516.00	\$ 11,586.00
Talbot Line 2.5 County of Elgin				\$	\$ 414.00	\$ 414.00
TOTAL ASSESSMENT ON ROADS				\$	\$ 414.00	\$ 414.00
TOTAL ASSESSMENT ON THE MAIN DRAIN (OPEN PORTION)						<u>\$ 12,000.00</u>
MAIN DRAIN (CLOSED PORTION)						
12	NW Pt. 21	0.8	50-118-50 (M. Howard)		98.00	98.00
12	Pt. 21 & 22	31.0	50-123 (Larch Lane Farms Ltd)		4,107.00	4,107.00
*			50-123 (Larch Lane Farms Ltd)	58,000.00		58,000.00
12	NW Pt. 22	6.1	50-121 (M. & S. Peterne)		1,295.00	1,295.00
TOTAL ASSESSMENT ON LANDS				\$ 58,000.00	\$ 5,500.00	\$ 63,500.00
TOTAL ASSESSMENT ON THE MAIN DRAIN (CLOSED PORTION)						<u>\$ 63,500.00</u>
TOTAL ASSESSMENT ON THE CRABBE DRAIN						<u>\$ 75,500.00</u>

SCHEDULE 'D' - ASSESSMENT FOR MAINTENANCE

CRABBE DRAIN

Municipality of West Elgin

Job No. 219070

May 1, 2020

CON.	LOT	HECTARES AFFECTED	ROLL No. (OWNER)	PERCENTAGE OF MAINTENANCE COST
MAIN DRAIN (OPEN PORTION)				
12	W Pt. 21	4.0	50-117-01 (BonneField Farmland Ont)	4.5 %
12	Pt. 21	1.0	50-117-02 (M. Vandenburg)	22.6
12	Pt. 21	0.3	50-117-03 (L. Connolly)	7.2
12	Pt. 21	0.3	50-117-04 (F. Connolly)	6.2
12	NW Pt. 21	0.8	50-118-50 (M. Howard)	0.4
12	Pt. 21	1.5	50-119 (C. Bell)	1.4
12	Pt. 21 & 22	43.3	50-123 (Larch Lane Farms Ltd)	45.0
12	NW Pt. 22	6.1	50-121 (M. & S. Peternel)	4.9
12	Pt. 22	0.6	50-123-10 (Larch Lane Farms Ltd)	0.6
13	21	8.1	50-164 (J. & R. Colpaert)	2.5
13	21	2.0	50-166 (S. & L. KirkPatrick)	0.6
				=====
TOTAL ASSESSMENT ON LANDS				95.9 %
				=====
Talbot Line		2.5	County of Elgin	4.1 %
				=====
TOTAL ASSESSMENT ON ROADS				4.1 %
				=====
TOTAL ASSESSMENT FOR MAINTENANCE OF THE MAIN DRAIN (OPEN PORTION)				<u>100.0 %</u>
MAIN DRAIN (CLOSED PORTION)				
12	NW Pt. 21	0.8	50-118-50 (M. Howard)	1.0 %
12	Pt. 21 & 22	31.0	50-123 (Larch Lane Farms Ltd)	87.0
12	NW Pt. 22	6.1	50-121 (M. & S. Peternel)	12.0
				=====
TOTAL ASSESSMENT ON LANDS				100.0 %
				=====
TOTAL ASSESSMENT FOR MAINTENANCE OF THE MAIN DRAIN (CLOSED PORTION)				<u>100.0 %</u>

SCHEDULE OF NET ASSESSMENT

CRABBE DRAIN

Municipality of West Elgin

(FOR INFORMATION PURPOSES ONLY)

Job No. 219070

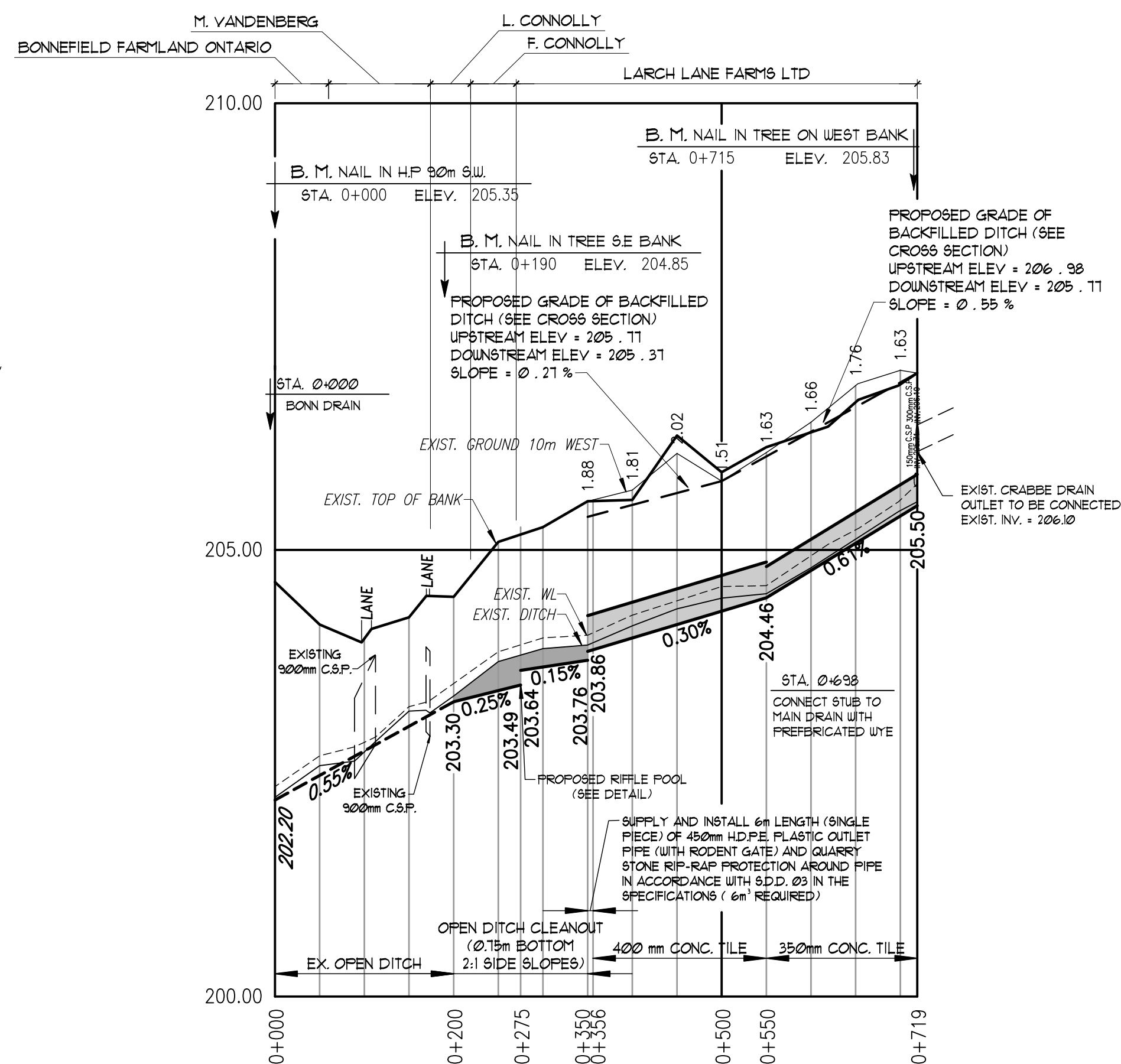
May 1, 2020

* = Non-agricultural

ROLL NUMBER (OWNER)	TOTAL ASSESSMENT	GRANT	ALLOWANCES	APPROX. NET
50-117-01 (BonneField Farmland Ont)	\$	\$	\$	\$
* 50-117-02 (M. Vandenburg)				
* 50-117-03 (L. Connolly)	322.00		200.00	122.00
* 50-117-04 (F. Connolly)	899.00		550.00	349.00
50-118-50 (M. Howard)	136.00	45.00		91.00
* 50-119 (C. Bell)	142.00			142.00
50-123 (Larch Lane Farms Ltd)	13,418.00	4,473.00	2,900.00	6,045.00
* 50-123 (Larch Lane Farms Ltd)	58,000.00			58,000.00
50-121 (M. & S. Peternel)	1,796.00	599.00		1,197.00
* 50-123-10 (Larch Lane Farms Ltd)	55.00			55.00
50-164 (J. & R. Colpaert)	255.00			255.00
50-166 (S. & L. KirkPatrick)	63.00			63.00
* Talbot Line	\$ 414.00	\$	\$	\$ 414.00
TOTALS	\$ 75,500.00	\$ 5,117.00	\$ 3,650.00	\$ 66,733.00

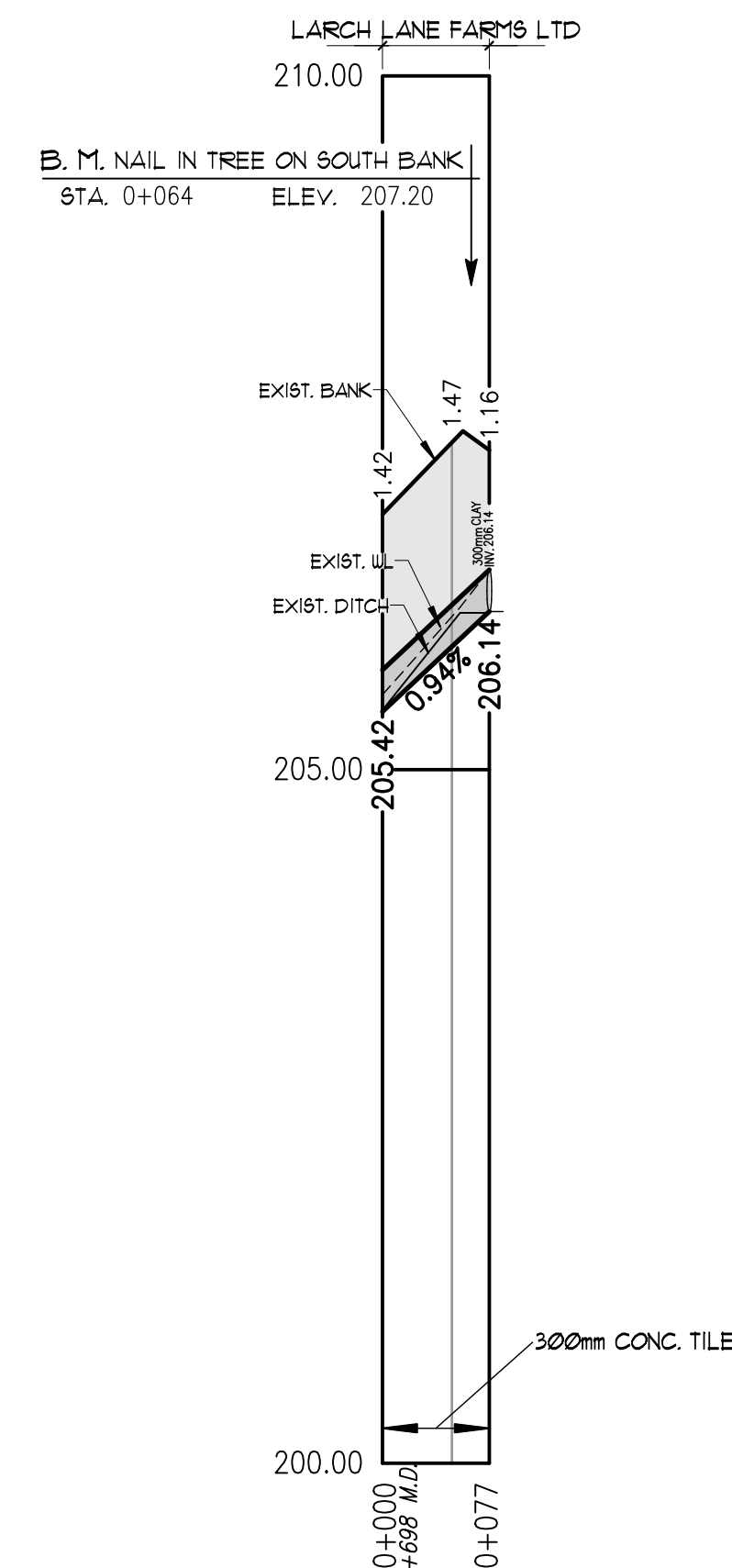
GENERAL NOTES

- 1/ OUR SPECIFICATIONS DATED JANUARY 2020 APPLY TO THIS PROJECT.
- 2/ THE WORKING WIDTH AVAILABLE TO THE CONTRACTOR TO CONSTRUCT THE NEW DRAINS SHALL CONSIST OF THOSE LANDS IMMEDIATELY ADJACENT TO THE DRAIN AND CONNECTIONS AND SHALL NOT EXCEED THE FOLLOWING AVERAGE WIDTHS:
OPEN PORTIONS - 15 meters (INCLUDING 3m BUFFER)
CLOSED PORTIONS - 15 meters
THE WORKING WIDTH FOR PURPOSES OF FUTURE MAINTENANCE SHALL BE 10m.
- 3/ ALL OWNERS ALONG THE COURSE OF THE DRAIN SHALL MAKE AN ACCESS ROUTE FROM THE NEAREST ROAD TO THE DRAIN LOCATION AVAILABLE TO THE CONTRACTOR THE AVERAGE WIDTH OF THIS ROUTE SHALL NOT EXCEED 8 METERS. THE ACCESS ROUTE SHALL ALSO APPLY FOR FUTURE MAINTENANCE PURPOSES.
- 4/ a) ALL UTILITIES TO BE LOCATED AND EXPOSED PRIOR TO CONSTRUCTION SO THAT THE NEW TILE GRADES CAN BE CONFIRMED. IF THERE IS A CONFLICT IN ELEVATION BETWEEN THE PROPOSED DRAIN AND THE UTILITY, THE ENGINEER IS TO BE NOTIFIED IMMEDIATELY.
b) CONTRACTOR TO NOTIFY ALL UTILITIES 12 HOURS PRIOR TO HIS SCHEDULED TIME FOR STARTING THE ABOVE WORK.
c) THE COST FOR THIS WORK SHALL BE INCLUDED IN THE ITEM ON THE EXTENT OF WORK AND NO EXTRA PAYMENT SHALL BE MADE TO THE CONTRACTOR, EXCEPT IF ROAD RESTORATION IS REQUIRED.
- 5/ ALL TREES, SCRUB, BRUSH, ETC. TO BE CLEARED AND GRUBBED IN ACCORDANCE WITH 'SECTION B.3 AND C.4' SPECIFICATIONS.
- 6/ RIP-RAP TO BE SUPPLIED AND INSTALLED IN ACCORDANCE WITH 'SECTION A.12' IN THE SPECIFICATIONS.
- 7/ CONTRACTOR TO ARRANGE A PRE-CONSTRUCTION MEETING WITH THE ENGINEER, DRAINAGE SUPERINTENDENT, AND THE AFFECTED OWNERS. ALL PARTIES SHALL RECEIVE 48 HOURS NOTICE TO THE MEETING.
- 8/ a) ALL CONCRETE AND PLASTIC TILE AND PIPE TO CONFORM TO 'SECTION C.1' IN THE SPECIFICATIONS.
a) SEWER PIPE TO BE CONCRETE, H.D.P.E. PLASTIC 320 KPA (BELL & SPIGOT WITH RUBBER GASKETS, CONFORMING TO C.S.A. 1026-08), PVC ULTRA RIB OR PVC SDR 35
b) CONCRETE TILE SHALL BE HEAVY DUTY
- 9/ EXISTING TILE DRAINS TO BE EXPOSED IN AS MANY LOCATIONS AS ARE NECESSARY TO CONFIRM THEIR EXACT LOCATION AND ELEVATION PRIOR TO CONSTRUCTION. EXACT LOCATION OF NEW TILE DRAINS THEN TO BE CONFIRMED BY DRAINAGE SUPERINTENDENT OR ENGINEER.
- 10/ a) INSTALLATION OF TILE AND TRENCH WIDTHS SHALL BE IN ACCORDANCE WITH 'SECTION C - TILE DRAIN' IN THE SPECIFICATIONS.
b) ALL CONCRETE TILE AND TILE-PIPE JOINTS TO BE WRAPPED WITH GEOTEXTILE IN ACCORDANCE WITH 'SECTION C.8' IN THE SPECIFICATIONS.
c) NO CONSTRUCTION EQUIPMENT OR FARM MACHINERY SHALL CROSS OVER THE MOUNDED BACKFILLED TILE TRENCHES UNTIL SUFFICIENT SETTLEMENT HAS OCCURRED.
d) STRIP AND STOCKPILE TOPSOIL FROM CONSTRUCTION AREA (4 metre width) EXCEPT LANEWAYS & ROADS. EXCESS SPOIL TO BE LEVELLED AND TOPSOIL RELEVELLED OVER SPOIL, MOUNDED TRENCH AND REMAINING CONSTRUCTION AREA.
- 11/ a) THE CONTRACTOR SHALL ENSURE THAT ALL TRIBUTARY DRAINS ARE CONNECTED DURING TIME OF CONSTRUCTION. ANY MISSED TILE CONNECTIONS THAT ARE FOUND DURING THE WARRANTY PERIOD OF THE CONTRACT SHALL BE COMPLETED BY THE CONTRACTOR AND SHALL BE PAID THE AMOUNT SET OUT ON PAGE 2 OF THE 'FORM OF TENDER'. NO ADDITIONAL PAYMENT FOR MOBILIZATION WILL BE ALLOWED. THE CONTRACTOR IS NOT RESPONSIBLE FOR COMPLETING MISSED TILE CONNECTIONS THAT ARE FOUND AFTER THE WARRANTY PERIOD FOR THE CONTRACT HAS EXPIRED.
b) ALL TILE CONNECTIONS TO BE MADE WITH CORING MACHINE AND PLASTIC ADAPTOR OR PREFABRICATED FITTINGS.
c) THE CONTRACTOR SHALL SUPPLY THE ENGINEER WITH A LIST SHOWING STATIONS OF ALL TILE CONNECTIONS UPON COMPLETION OF CONSTRUCTION.
- 12/ SILT FENCE TO BE PLACED ACROSS DITCH BOTTOM AT STA. 0+200 DURING CONSTRUCTION TO PREVENT SILT FROM FLUSHING DOWNSTREAM, AND ARE TO BE MAINTAINED AS NECESSARY DURING CONSTRUCTION. SILT FENCE AND SILT TO BE REMOVED AND DISPOSED OF AFTER CONSTRUCTION.
- 13/ EXISTING DITCH BOTTOM ONLY TO BE CLEANED OUT IN ACCORDANCE WITH SPECIFICATIONS UNLESS OTHERWISE NOTED ON PROFILES AND IN SECTIONS.
- 14/ WORK TO BE COMPLETED FROM AND EXCAVATED MATERIAL TO BE DEPOSITED AND LEVELLED ON THE FOLLOWING SIDES OF THE DITCH IN ACCORDANCE WITH 'SECTION B.5' IN THE SPECIFICATIONS.
STA. 0+200 TO STA. 0+350 - NORTH SIDE AND LEVELLED
- 15/ A 3 METER WIDE BUFFER STRIP OF NEW & EXISTING VEGETATION BETWEEN THE TOP OF THE BANK AND THE CULTIVATED LANDS ON BOTH SIDES OF THE DITCH SHALL BE MAINTAINED AS PART OF THE OPEN PORTION OF THE DRAIN.
- 16/ NEWLY EXPOSED DITCH BANKS ARE TO BE HAND SEEDING UPON COMPLETION OF CONSTRUCTION IN ACCORDANCE WITH 'SECTION B.11' IN THE SPECIFICATIONS



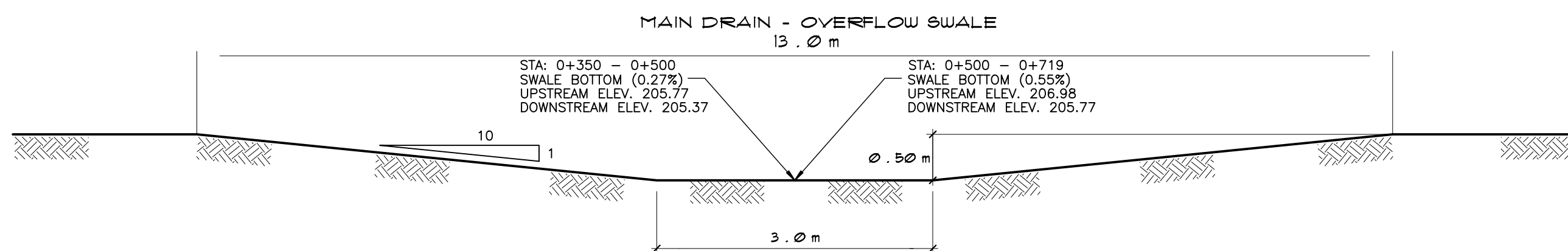
MAIN DRAIN PROFILE

SCALE : HOR 1 : 5,000
VERT. 1 : 50



STUB

SCALE : HOR 1 : 5,000
VERT. 1 : 50



TYPICAL CROSS SECTION OF OVERFLOW SWALE CONSTRUCTED OVER BACKFILLED CHANNEL

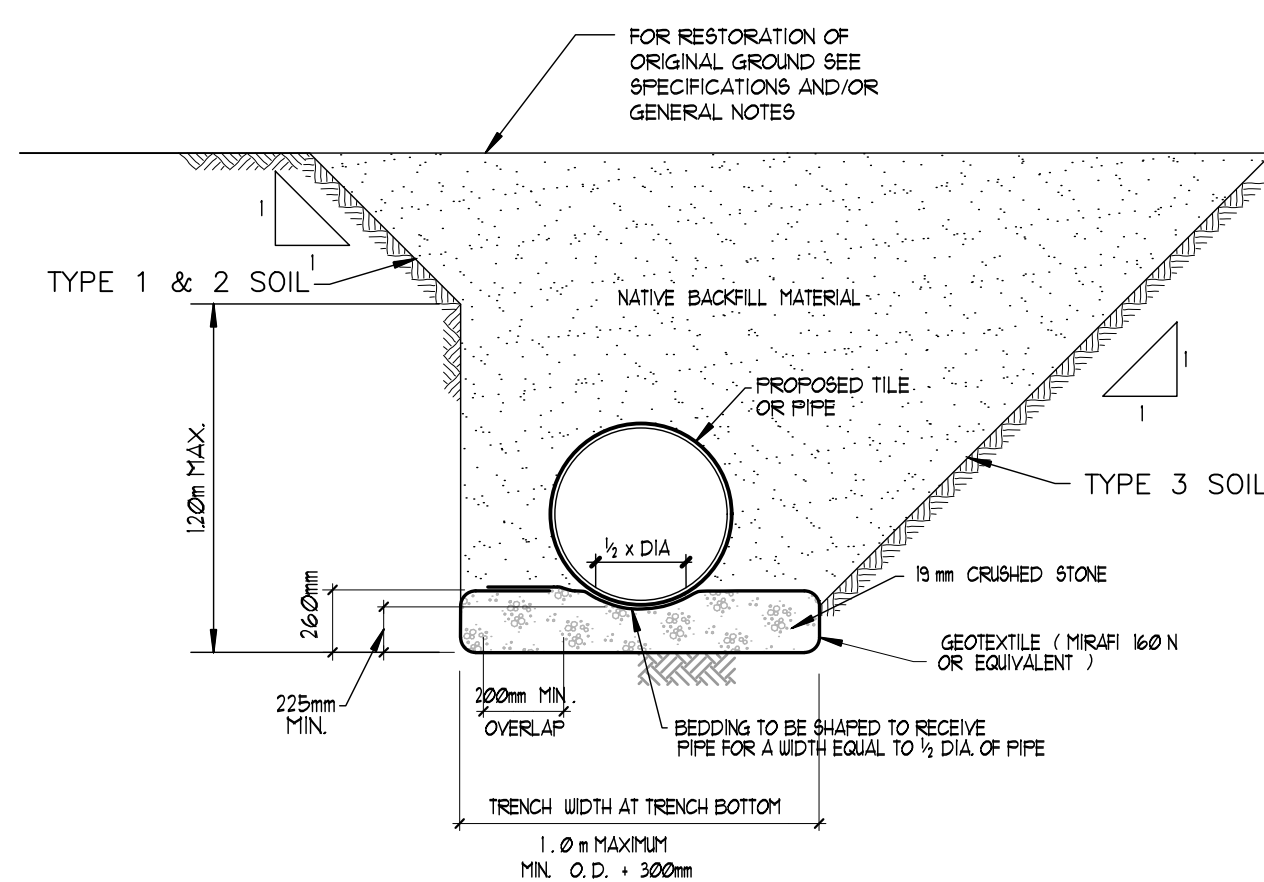
SCALE: N.T.S.

DITCH BACKFILLING NOTES

STA. 0+350 TO STA. 0+719

EXISTING DITCH TO BE BACKFILLED AND GRADED TO PROVIDE A SURFACE WATERWAY AS FOLLOWS:

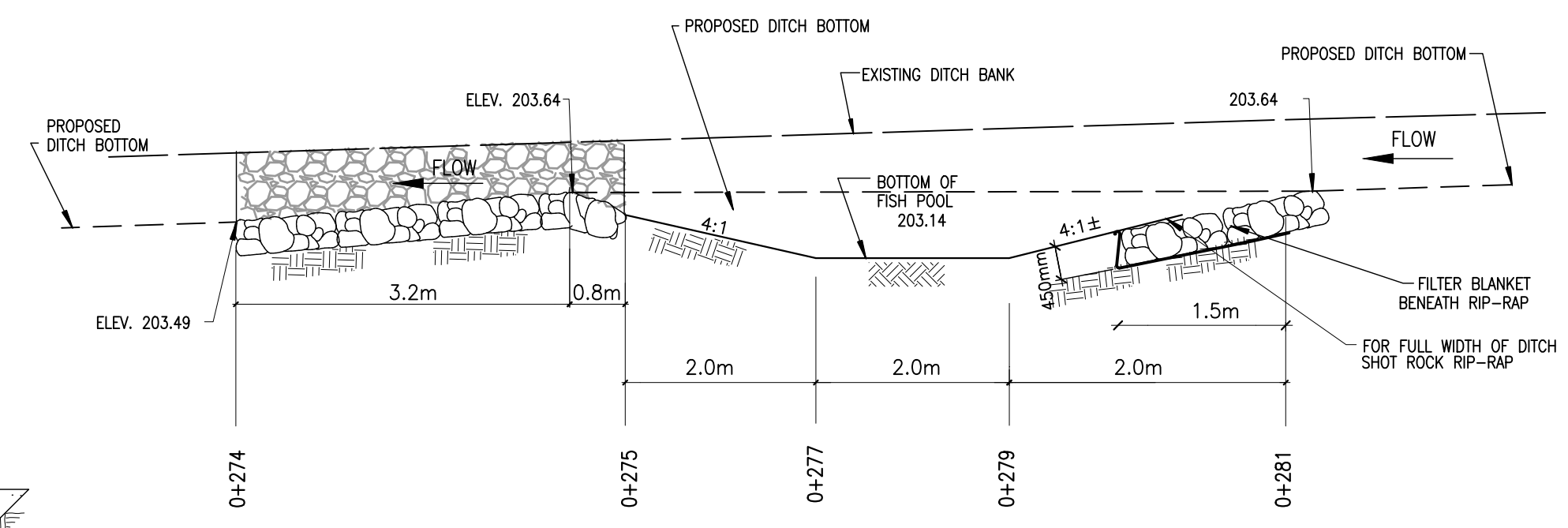
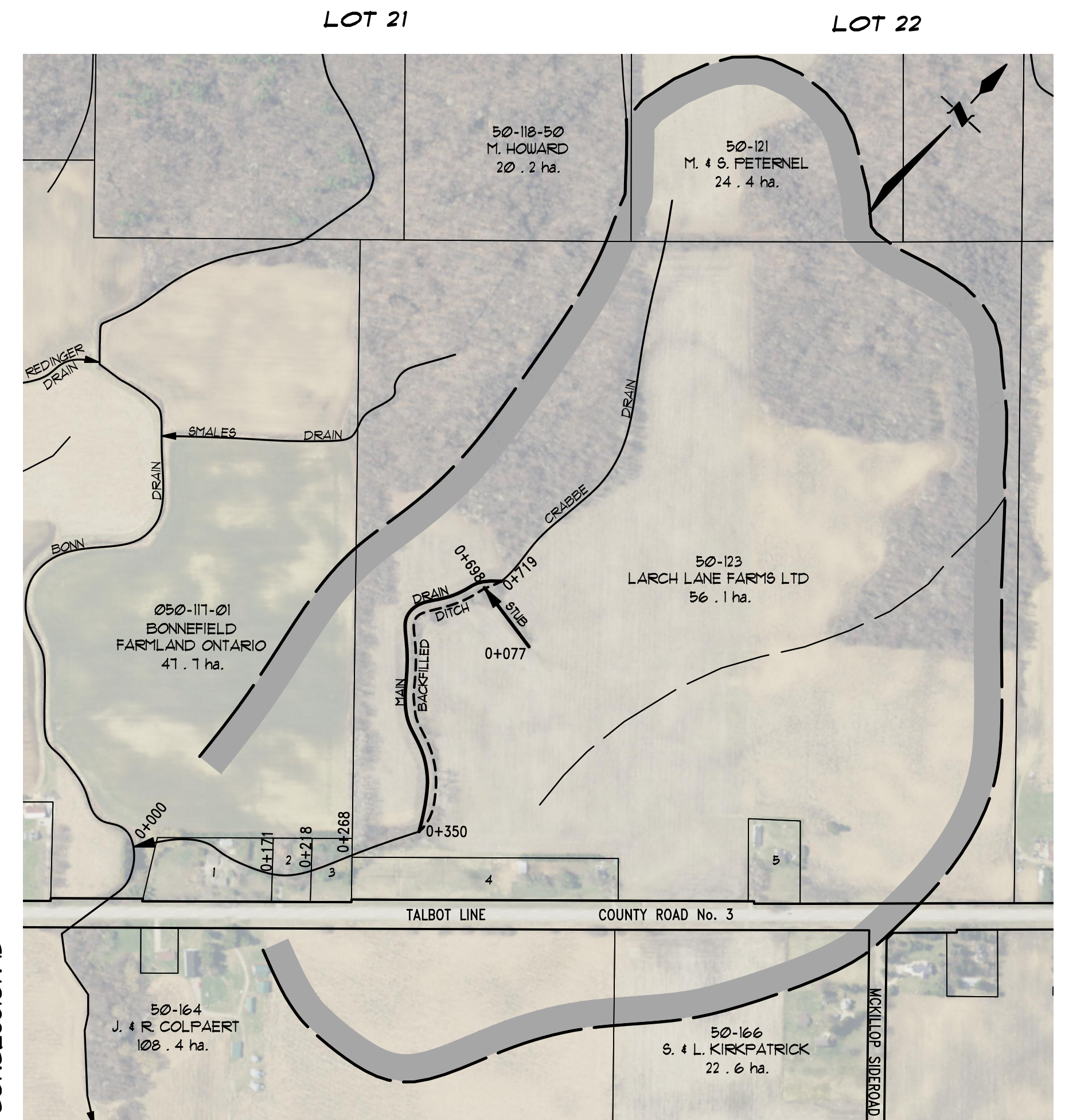
- 1) TOPSOIL FROM CONSTRUCTION AREA SHOULD BE STRIPPED AND REDISTRIBUTED AFTER CONSTRUCTION.
- 11) DITCH TO BE BACKFILLED USING EXISTING MATERIAL BLADED IN AND EXCESS TILE TRENCH MATERIAL.
- 111) SURFACE WATERWAY TO BE LOCATED AND SHAPED IN ACCORDANCE WITH SECTION ON THIS DRAWING
- 1111) NEW TILE DRAIN TO BE LOCATED OUTSIDE LIMITS OF WATERWAY AS SHOWN ON PLAN. NO MACHINERY SHALL CROSS OVER THE MOUNDED BACKFILLED TILE TRENCHES UNTIL SUFFICIENT SETTLEMENT HAS OCCURRED.



CRUSHED STONE BEDDING DETAIL

N.T.S.

LOT LEGEND		
ROLL NO.	OWNERSHIP	HECTARES OWNED
1) 50-117-02	M. VANDENBERG	1.03
2) 50-117-03	L. CONNOLLY	0.33
3) 50-117-04	F. CONNOLLY	0.34
4) 50-119	C. BELL	1.50
5) 50-123-10	LARCH LANE FARMS LTD	0.58



STA 0+275 POOL & RIFFLE

SCALE: N.T.S.

CRABBE DRAIN

Municipality of
West Elgin

Drainage Superintendent:
TOM MOHAN
519-185-0560

No.	REVISIONS	DATE

Drawn By: TS
Date: MAY, 1, 2020

Field Book
D-265

JOB No.
219070

Drawing No.
1 of 1

PLAN, PROFILE, & DETAIL

SPRIET ASSOCIATES
LONDON
CONSULTING
155 YORK STREET—LONDON
(519) 672-4100—NEA 1A8

ENGINEERS
LIMITED

YAUCH DRAIN
Municipality of West Elgin



**SPRIET
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ENGINEERS & ARCHITECTS
155 York Street
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E-mail MAIL@SPRIET.ON.CA

London, Ontario
February 14, 2020

YAUCH DRAIN

Municipality of West Elgin

To the Mayor and Council of
the Municipality of West Elgin

Mayor and Council:

We are pleased to present our report on the reconstruction and extension of parts of the Yauch Municipal Drain serving parts of Lots 9 to 11, Concessions 9 to 11, in the Municipality of West Elgin.

AUTHORIZATION

This report was prepared pursuant to Section 4 and 78 of the Drainage Act. Instructions were received from your Municipality with respect to a motion of Council. The Section 78 work was initiated by a request signed by an affected landowner.

The Section 4 work was petitioned by two affected landowners whose lands contain over 60 percent of the area requiring drainage.

DRAINAGE AREA

The total watershed area as described above contains approximately 121 hectares. The area requiring drainage for the new branch drain is described as the lands located within Lots 9 and 10, Concession 10, located west of the Main Drain and bounded by Marsh Line to the north. These lands contain agricultural land and a residential property.

HISTORY

The Yauch Drain was last reconstructed pursuant to a report submitted by H.H. Todgham, P. Eng. dated October 17, 1979, and consisted of the twinning of the existing Yauch Drain from its outlet at the open drain to its head located on the north side of Marsh Line, at the easterly limits of Lot 10. The work involved tile installation ranging in size from 250mm diameter to 450mm diameter at the outlet and a total length of 1,854 meters. The twinned drain (1962 and 1979) had a capacity to accommodate a rainfall event of approximately 12mm in a 24-hour period.



EXISTING DRAINAGE CONDITIONS

A site meeting held with respect to the project and through later discussions, the owners reported the following:

- that the requesting landowners, E. Krumm & H. Taylor (Roll No. 30-159), inquired about the replacement of the Main Drain as it is no longer functioning effectively. They indicated that their lands were subject to frequent and prolonged ponding
- that the upstream landowner, 1058492 Ontario Inc. (Roll No. 30-121 & 30-160), indicated that the drain was functioning adequately for their needs
- that landowners D. Ciparis (Roll No. 30-155), and D. & B. Bechard & A. & P. Turner (Roll No. 30-156) inquired as to a branch drain to provide an outlet for their lands to alleviate water problems

A field investigation and survey were completed. Upon reviewing our findings, we note the following:

- that the Drainage Superintendent dug up the existing tile drain in several locations and observed that the drain was full of sediment
- that the existing drain is undersized by current drainage standards
- that the most logical route to replace the existing drain would be in approximately the same location as the existing drains
- given the location of the existing well to the drain in the lands of R. & L. Jones (Roll No. 30-158) it was decided to seek the opinion of a Hydrogeologist, JFM Environmental Limited to investigate the effects of deepening the existing drain near the location of the well. Their analysis indicated the possibility of decreased water production in the well due to the lowering of the invert of the Yauch Drain seems minimal as the existing drains are currently lower than the well water level now

Preliminary design, cost estimates and assessments were prepared, and an informal public meeting was held to review the findings and preliminary proposals. Further input and requests were provided by the affected owners at that time and at later dates. Based on the proposed design it was decided to proceed with the report.

DESIGN CONSIDERATIONS

The proposed drain was designed, with respect to capacity, using the Drainage Coefficient method contained in the "DRAINAGE GUIDE FOR ONTARIO", Publication 29 by the Ontario Ministry of Agriculture, Food, and Rural Affairs. The Drainage Coefficient defines a depth of water that can be removed in a 24-hour period and is expressed in millimetres per 24 hours. The coefficient used for the Main Drain and Branch "A" was 38mm.



DESIGN CONSIDERATIONS (cont'd)

We would like to point out that there have been indications of sandy soil conditions, but no formal soil investigation has been made.

All of the proposed work has been generally designed and shall be constructed in accordance with the DESIGN AND CONSTRUCTION GUIDELINES FOR WORK UNDER THE DRAINAGE ACT.

RECOMMENDATIONS

We are therefore recommending the following:

- that the existing Yauch Drain – Main Drain be reconstructed commencing at the open drain on the south side of Thomson Line, running north and north-easterly through the lands of C. & I. Kovacs (Roll No. 30-158-01), R. & L. Jones (Roll No. 30-158), C. & I. Kovacs (Roll No. 30-161), and E. Krumm & H. Taylor (Roll No. 30-159), to its head at the lot line between E. Krumm & H. Taylor and 1058492 Ontario Inc., for a total length of 1505 meters
- that a closed branch drain, to be referred to as Branch 'A', be constructed commencing at the Main Drain in the lands of E. Krumm & H. Taylor (Roll No. 30-159) and travel west through these land and those of D. Ciparis (Roll No. 30-155) to its head just within the lands of D. & B. Bechard & A. & P. Turner (Roll No. 30-156) for a total length of 455 meters
- that catchbasins be installed along the course of the drain to alleviate surface ponding and surface flows
- that the road crossing under Thomson Line be done by open cut and that the exiting surface culvert be replaced
- that all lawn areas disturbed by construction be levelled, top soiled with imported topsoil, and seeded, as part of the restoration
- that clay collars be installed on the lower end of the drain to prevent the stone bedding from acting as a French drain
- that contingency be made to provide any wells adversely affected by the drain construction with supplement water / replacement. It should be noted that the firm of JFM Environmental has been engaged to monitor the wells in the area of the drain before, during, and after construction. It should be noted that a prolonged period of drought could also adversely affect the well
- that the existing 1962 and 1979 Yauch Drains, from the outlet at Sta. 0+000 to Sta. 1+505 be officially abandoned from municipal status pursuant to Section 19 of the Drainage Act

Due to the indications of poor soil conditions our design includes the wrapping of tile joints with geotextile and a crushed stone bedding wrapped with geotextile.



ENVIRONMENTAL CONSIDERATIONS AND MITIGATION MEASURES

There are no significant wetlands or sensitive areas within the affected watershed area or along the route of the drains. The proposed construction of the Yauch Drain includes quarry stone outlet protection and surface inlets which greatly help reduce the overland surface flows and any subsequent erosion. A temporary flow check of silt fencing is to be installed in the ditch downstream of the tile outlet for the duration of the construction.

SUMMARY OF PROPOSED WORK

The proposed work consists of approximately 1,978 lineal meters of 200mm (8") to 750mm (30") concrete field tile and HDPE sewer pipe including related appurtenances.

SCHEDULES

Four schedules are attached hereto and form part of this report, being Schedule 'A' - Allowances, Schedule 'B' - Cost Estimate, Schedule 'C' - Assessment for Construction, and Schedule 'D' - Assessment for Maintenance.

Schedule 'A' - Allowances. In accordance with Sections 29 and 30 of the Drainage Act, allowances are provided for right-of-way and damages to lands and crops along the route of the drain as defined below.

Schedule 'B' - Cost Estimate. This schedule provides for a detailed cost estimate of the proposed work which is in the amount of \$ 316,500.00. This estimate includes engineering and administrative costs associated with this project.

Schedule 'C' - Assessment for Construction. This schedule outlines the distribution of the total estimated cost of construction over the roads and lands which are involved.

Schedule 'D' - Assessment for Maintenance. In accordance with Section 38 of the Drainage Act, this schedule outlines the distribution of future repair and/or maintenance costs for portions of, or the entire drainage works.

Drawing No. 1, Job No. 218131, and specifications form part of this report. They show and describe in detail the location and extent of the work to be done and the lands which are affected.

ALLOWANCES

DAMAGES: Section 30 of the Drainage Act provides for the compensation to landowners along the drain for damages to lands and crops caused by the construction of the drain. The amount granted is based on \$3,613.00/ha. for closed drain. This base rate is multiplied by the hectares derived from the working widths shown on the plans and the applicable lengths.



ALLOWANCES (cont'd)

RIGHT-OF-WAY Section 29 of the Drainage Act provides for an allowance to the owners whose land must be used for the construction, repair, or future maintenance of a drainage works.

For tile drains where the owners will be able to continue to use the land, the allowance provides for the right to enter upon such lands, and at various times for the purpose of inspecting such drain, removing obstructions, and making repairs. Also, the allowance provides for the restrictions imposed on those lands to protect the right-of-way from obstruction or derogation. The amounts granted for right-of-way on tile drains is based on a percentage of the value of the land designated for future maintenance. Therefore, the amounts granted are based on \$6,750.00/ha. through cropped lands. This value is multiplied by the hectares derived from the width granted for future maintenance and the applicable lengths. It should be noted that the 1979 report provided for damages only, and not for right-of-way.

ASSESSMENT DEFINITIONS

In accordance with the Drainage Act, lands that make use of a drainage works are liable for assessment for part of the cost of constructing and maintaining the system. These liabilities are known as benefit, outlet liability and special benefit liability as set out under Sections 22, 23, 24 and 26 of the Act.

BENEFIT as defined in the Drainage Act means the advantages to any lands, roads, buildings or other structures from the construction, improvement, repair or maintenance of a drainage works such as will result in a higher market value or increased crop production or improved appearance or better control of surface or sub-surface water, or any other advantages relating to the betterment of lands, roads, buildings or other structures.

OUTLET liability is assessed to lands or roads that may make use of a drainage works as an outlet either directly or indirectly through the medium of any other drainage works or of a swale, ravine, creek or watercourse.

In addition, a Public Utility or Road Authority shall be assessed for and pay all the increased cost to a drainage works due to the construction and operation of the Public Utility or Road Authority. This may be shown as either benefit or special assessment.

In the event that a well is adversely affected by the drain the cost of remedial work shall be borne by the drain in the same relative proportion as set out in Schedule 'C' – Assessment for Construction.

ASSESSMENT

A modified "Todgham Method" was used to calculate the assessments shown on Schedule 'C'- Assessment for Construction. This entailed breaking down the costs of the drain into sections along its route. Special Assessments and Special Benefits were then extracted from each section.

ASSESSMENT (cont'd)

The remainder is then separated into Benefit and Outlet costs. The Benefit cost is distributed to those properties receiving benefit as defined under "Assessment Definitions", with such properties usually being located along or close to the route of the drain. The Outlet Costs are distributed to all properties within the watershed area of that section on an adjusted basis. The areas are adjusted for location along that section, and relative run-off rates. Due to their different relative run-off rates, forested lands have been assessed for outlet at lower rates than cleared lands. Also, roads and residential properties have been assessed for outlet at higher rates than cleared farmlands.

The actual cost of the work involving this report, with the exception of Special Assessments, is to be assessed on a pro-rata basis against the lands and roads liable for assessment for benefit, outlet and for special assessments as shown in detail below and on Schedule 'C' - Assessment for Construction. The Special Assessments shall be levied as noted in the Section "Special Assessment".

SPECIAL ASSESSMENT

In accordance with Section 26 of the Drainage Act, a Special Assessment has been made against the Municipality of West Elgin being the increased cost to the drainage work for installing a C.S.P. Surface culvert and a H.D.P.E. pipe (subsurface) across their road allowance on the Main Drain due to the construction and operation of Thomson Line. The Special Assessment shall be made up of the actual cost of this work and both the final and estimated values of the Special Assessment are to be calculated as follows:

Drain	Cost of Work	Less Equivalent Drain Cost (Fixed)	Plus Administration Cost	Plus Interest & Net H.S.T.	Special Assessment
900mm C.S.P. (surface) and 750mm H.D.P.E (sub-surface)	\$14,200.00	\$2,010.00	\$2,800.00	\$370.00	\$15,360.00

The above special assessments shall not apply for future maintenance purposes.

If any additional work is required to the drainage works due to the existence of buried utilities such as gas pipe lines, communications cables, etc. or if any of the utilities require relocation or repair, then, the extra costs incurred shall be borne by the utility involved in accordance with the provisions of Section 26 of the Drainage Act.

GRANTS

In accordance with the provisions of Section 85 of the Drainage Act, a grant **may** be available for assessments against privately owned parcels of land which are used for agricultural purposes and eligible for the Farm Property Class Tax rate. Section 88 of the Drainage Act directs the Municipality to make application for this grant upon certification of completion of this drain. The Municipality will then deduct the grant from the assessments prior to collecting the final assessments.



MAINTENANCE

Upon completion of construction, all owners are hereby made aware of Sections 80 and 82 of the Drainage Act which forbid the obstruction of or damage or injury to a municipal drain.

After completion, the entire Yauch Drain shall be maintained by the Municipality of West Elgin at the expense of all upstream lands and roads assessed in Schedule 'D' - Assessment for Maintenance and in the same relative proportions until such time as the assessment is changed under the Drainage Act.

Special Assessments shall **not** be pro-rated for future maintenance purposes.

Repairs or improvements to any road culvert or bridge or sub-surface road crossing required by the performance of this work and for future repair and/or replacement, shall be the responsibility of the applicable Road Authority, entirely at their cost.

Respectfully submitted,

SPRIET ASSOCIATES LONDON LIMITED

JMS:bv



J.M. Spriet, P.Eng.



SCHEDULE 'A' - ALLOWANCES

YAUCH DRAIN

Municipality of West Elgin

In accordance with Sections 29 and 30 of the Drainage Act, we determine the allowances payable to owners entitled thereto as follows:

CONCESSION	LOT	ROLL NUMBER (Owner)	Section 29 Right-of-Way	Section 30 Damages	TOTALS
MAIN DRAIN					
10	NW¼ 10	30-159 (E. Krumm & H. Taylor)	\$ 4,500.00	\$ 3,610.00	\$ 8,110.00
10	SW¼ 10	30-161 (C. & I. Kovacs)	2,870.00	2,300.00	5,170.00
10	SE ¼ 9	30-158-01 (C. & I. Kovacs)	1,560.00	1,250.00	2,810.00
10	Pt. 9	30-158 (R. & L. Jones)	1,070.00	860.00	1,930.00
Total Allowances			\$ 10,000.00	\$ 8,020.00	\$ 18,020.00
TOTAL ALLOWANCES ON THE MAIN DRAIN					\$ 18,020.00
BRANCH 'A'					
10	Pt. 9	30-156 (D. & B. Bechard & A. & P. Turner)	\$ 40.00	\$ 30.00	\$ 70.00
10	N½ 9	30-155 (D. Ciparis)	1,080.00	870.00	1,950.00
10	NW¼ 10	30-159 (E. Krumm & H. Taylor)	1,950.00	1,570.00	3,520.00
Total Allowances			\$ 3,070.00	\$ 2,470.00	\$ 5,540.00
TOTAL ALLOWANCES ON BRANCH 'A'					\$ 5,540.00
TOTAL ALLOWANCES ON THE YAUCH DRAIN					\$ 23,560.00

YAUCH DRAIN**Municipality of West Elgin**

We have made an estimate of the cost of the proposed work which is outlined in detail as follows:

MAIN DRAIN

Supply and Installation of rodent gate in end of 750mm dia., H.D.P.E. plastic sewer pipe including quarry stone rip-rap protection around pipe and end of ditch
(Approximately 8m³ quarry stone req'd)

Supply \$ 200.00

Installation \$ 1,200.00

Installation of the following concrete field tile, including supply and installation of geotextile around tile joints (approx. 2750m req'd)

10 meters of 250mm dia. H.D.P.E. pipe \$ 600.00

405 meters of 525mm dia. concrete tile \$ 19,000.00

920 meters of 600mm dia. concrete tile \$ 44,600.00

150 meters of 600mm dia. concrete tile (2000-D) \$ 7,400.00

Supply of the above listed tile and pipe \$ 64,000.00

Supply & delivery of 19mm crushed stone (Approx. 600 tonnes req'd) \$ 18,000.00

Strip, stockpile and releve topsoil from tile trench and adjacent working area (4m wide) specified on drawings (approx. 1505m) \$ 7,500.00

Supply and install five 900mm x 1200mm ditch inlet catchbasins, and one including berms, leads, ditching, removal and disposal of existing catchbasins \$ 12,000.00

18 meters of 750 mm dia., H.D.P.E. pipe (subsurface)

16 meters of 900 mm dia., H.D.P.E. pipe (surface)

Supply \$ 7,400.00

Installation under Thompson Line by Open Cut \$ 6,800.00

12 meters of 600 mm dia., H.D.P.E. pipe

Supply \$ 1,300.00

Installation under Laneway by Open Cut \$ 3,000.00

Installation of Clay Collars as noted on Drawings \$ 2,000.00

Restoration of Lawn to original conditions including imported topsoil and seed \$ 2,500.00

Exposing and locating existing tile drains and utilities \$ 2,000.00

Tile connections and contingencies \$ 12,000.00

Allowances under Sections 29 & 30 of the Drainage Act \$ 18,020.00

YAUCH DRAIN**Municipality of West Elgin****BRANCH 'A'**

Installation of the following farm tile by drainage plow	
455 meters of 300mm dia. plastic farm tile with sock	\$ 6,800.00
Supply of the above listed tile	\$ 10,500.00
Strip, stockpile and relevel topsoil from tile trench and adjacent working area (4m wide) specified on drawings (approx. 455m)	\$ 2,300.00
Supply and install one 600mm x 600mm ditch inlet catchbasins, and one 600mm x 600mm standard catchbasin including grates, berms, and ditching	\$ 3,600.00
Exposing and locating existing tile drains and utilities	\$ 600.00
Tile connections and contingencies	\$ 1,200.00
Allowances under Sections 29 & 30 of the Drainage Act	\$ 5,540.00

ADMINISTRATION

Interest and Net Harmonized Sales Tax	\$ 7,010.00
Survey, Plan and Final Report	\$ 38,900.00
Hydrogeological Assessment	\$ 2,500.00
Expenses	\$ 1,990.00
Supervision and Final Inspection	\$ <u>6,040.00</u>
TOTAL ESTIMATED COST	\$ <u>316,500.00</u>

SCHEDULE 'C' - ASSESSMENT FOR CONSTRUCTION

YAUCH DRAIN

Municipality of West Elgin

Job No. 218131

February 14, 2020

* = Non-agricultural

CON.	LOT	HECTARES AFFECTED	ROLL No. (OWNER)	BENEFIT	OUTLET	TOTAL
MAIN DRAIN						
9	S Pt. 10	17.7	30-119 (Bonfield Farmland Ontario)	\$	\$ 31,647.00	\$ 31,647.00
9	W Pt. 11	5.7	30-121 (1058492 Ontario Ltd)		10,192.00	10,192.00
9	E Pt. 11	9.3	30-122 (F. Kadlex & H. White)		8,314.00	8,314.00
10	Pt. 8 & 9	6.1	30-154 (571419 Ontario Ltd)	1,000.00	141.00	1,141.00
10	Pt. 9	2.4	30-158 (R. & L. Jones)	10,150.00	480.00	10,630.00
10	SE ¼ 9	17.8	30-158-01 (C. & I. Kovacs)	21,060.00	7,023.00	28,083.00
10	N½ 9	10.7	30-155 (D. Ciparis)		8,603.00	8,603.00
10	Pt. 9	0.6	30-156 (D. & B. Bechard & A. & P. Turner)		1,530.00	1,530.00
10	SW¼ 10	14.2	30-161 (C. & I. Kovacs)	38,740.00	7,536.00	46,276.00
10	NW¼ 10	20.2	30-159 (E. Krumm & H. Taylor)	54,260.00	25,702.00	79,962.00
10	NE¼ 10	12.2	30-160 (1058492 Ontario Ltd)	1,000.00	17,335.00	18,335.00
10	N½ 11	1.3	30-163 (M. Miller)		2,324.00	2,324.00
TOTAL ASSESSMENT ON LANDS				\$ 126,210.00	\$ 120,827.00	\$ 247,037.00
Marsh Line				\$	\$ 12,911.00	\$ 12,911.00
Thomson Line				4,960.00	32.00	4,992.00
TOTAL ASSESSMENT ON ROADS				\$ 4,960.00	\$ 12,943.00	\$ 17,903.00
SPECIAL ASSESSMENT against Municipality of West Elgin for the increased cost of installing a 750mm H.D.P.E. pipe (Subsurface) and a 900mm H.D.P.E. pipe (Surface) under Thompson Line by open cut.						\$ 15,360.00
TOTAL ASSESSMENT ON THE MAIN DRAIN						\$ 280,300.00
BRANCH 'A'						
10	N½ 9	2.0	30-155 (D. Ciparis)	\$ 5,880.00	4,798.00	10,678.00
10	Pt. 9	0.6	30-156 (D. & B. Bechard & A. & P. Turner)	3,280.00	1,888.00	5,168.00
10	NW¼ 10	4.3	30-159 (E. Krumm & H. Taylor)	11,840.00	5,696.00	17,536.00
TOTAL ASSESSMENT ON LANDS				\$ 21,000.00	\$ 12,382.00	\$ 33,382.00
Marsh Line				\$	\$ 2,818.00	\$ 2,818.00
TOTAL ASSESSMENT ON ROADS				\$	\$ 2,818.00	\$ 2,818.00
TOTAL ASSESSMENT ON THE BRANCH 'A'						\$ 36,200.00
TOTAL ASSESSMENT ON THE YAUCH DRAIN						\$ 316,500.00

SCHEDULE 'D' - ASSESSMENT FOR MAINTENANCE

YAUCH DRAIN

Municipality of West Elgin

Job No. 218131

February 14, 2020

CON.	LOT	HECTARES AFFECTED	ROLL No. (OWNER)	PERCENTAGE OF MAINTENANCE COST
MAIN DRAIN				
9	S Pt. 10	17.7	30-119 (Bonfield Farmland Ontario)	15.9 %
9	W Pt. 11	5.7	30-121 (1058492 Ontario Ltd)	5.1
9	E Pt. 11	9.3	30-122 (F. Kadlex & H. White)	4.2
10	Pt. 8 &	9	30-154 (571419 Ontario Ltd)	0.3
10	Pt. 9	2.4	30-158 (R. & L. Jones)	2.8
10	SE ¼	9	30-158-01 (C. & I. Kovacs)	8.8
10	N½	9	30-155 (D. Ciparis)	4.3
10	Pt. 9	0.6	30-156 (D. & B. Bechard & A. & P. Turner)	0.8
10	SW¼	10	30-161 (C. & I. Kovacs)	13.5
10	NW¼	10	30-159 (E. Krumm & H. Taylor)	26.5
10	NE¼	10	30-160 (1058492 Ontario Ltd)	8.9
10	N½	11	30-163 (M. Miller)	1.2
TOTAL ASSESSMENT ON LANDS				92.3 %
Marsh Line				2.1 Municipality of West Elgin 6.4 %
Thomson Line				0.4 Municipality of West Elgin 1.3
TOTAL ASSESSMENT ON ROADS				7.7 %
TOTAL ASSESSMENT FOR MAINTENANCE OF THE MAIN DRAIN				<u>100.0 %</u>
BRANCH 'A'				
10	N½	9	30-155 (D. Ciparis)	30.1 %
10	Pt. 9	0.6	30-156 (D. & B. Bechard & A. & P. Turner)	13.7
10	NW¼	10	30-159 (E. Krumm & H. Taylor)	45.2
TOTAL ASSESSMENT ON LANDS				89.0 %
Marsh Line				0.4 Municipality of West Elgin 11.0 %
TOTAL ASSESSMENT ON ROADS				11.0 %
TOTAL ASSESSMENT FOR MAINTENANCE OF BRANCH 'A'				<u>100.0 %</u>

SCHEDULE OF NET ASSESSMENT

YAUCH DRAIN

Municipality of West Elgin

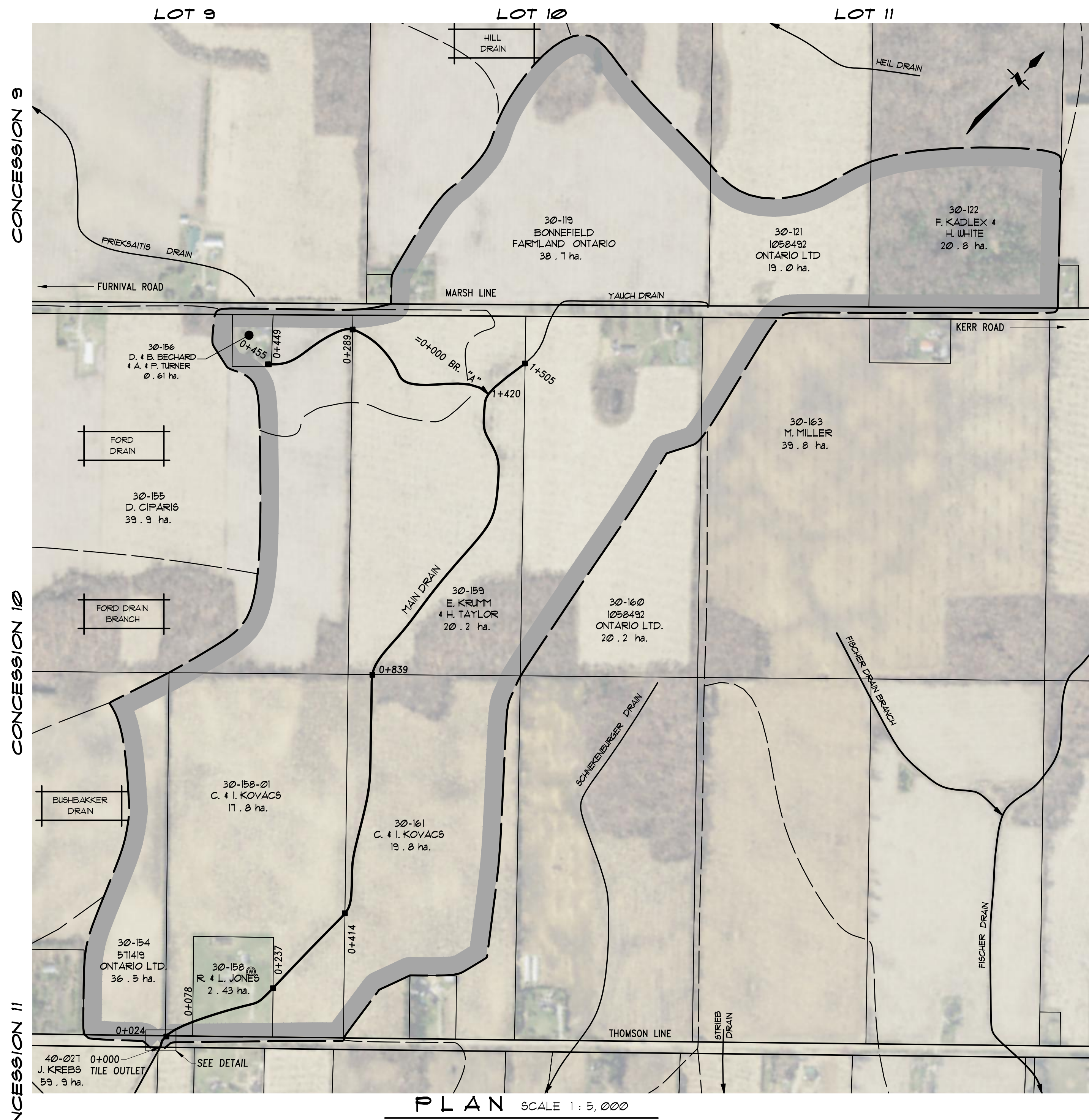
(FOR INFORMATION PURPOSES ONLY)

Job No. 218131

February 14, 2020

* = Non-agricultural

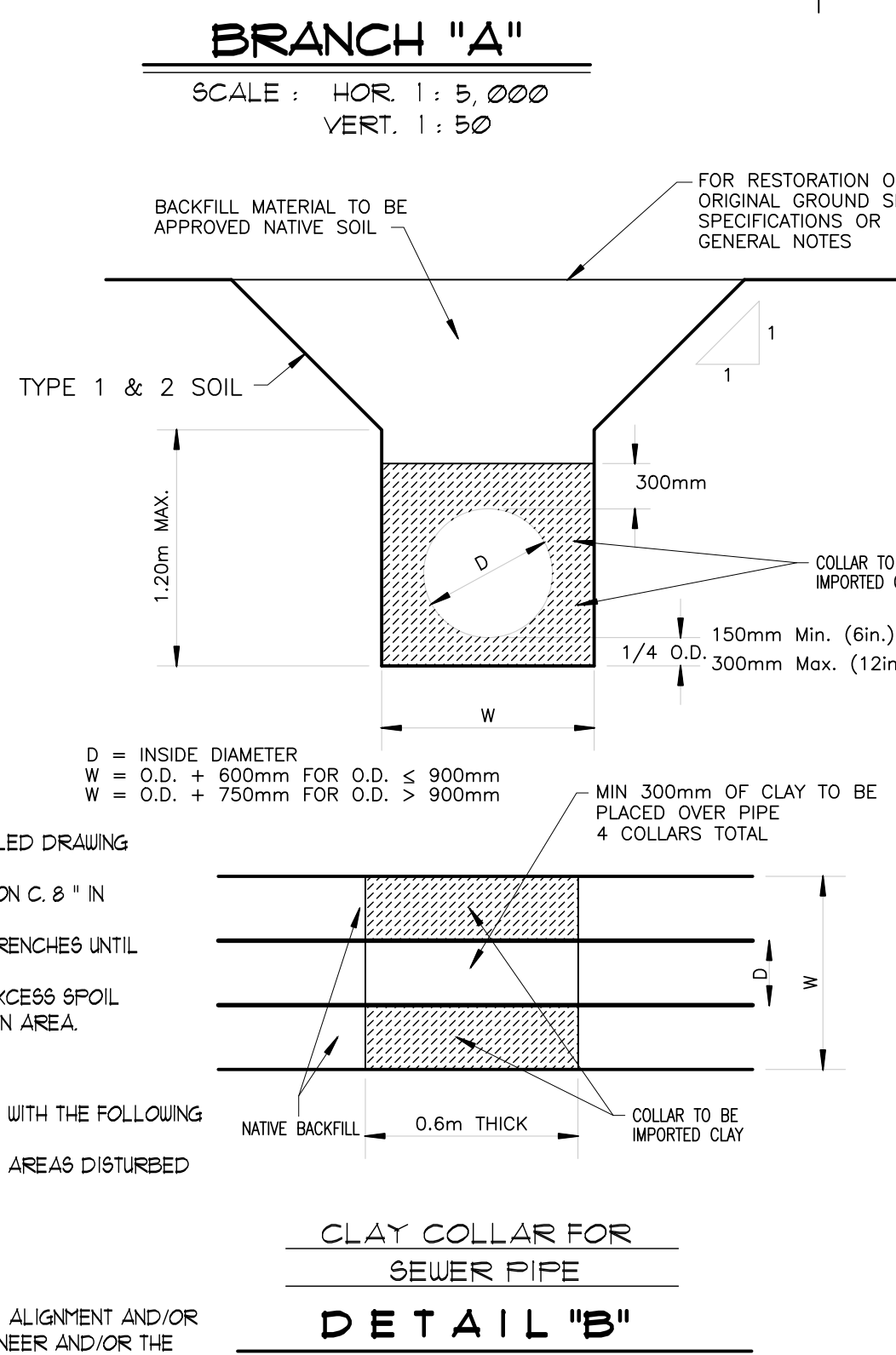
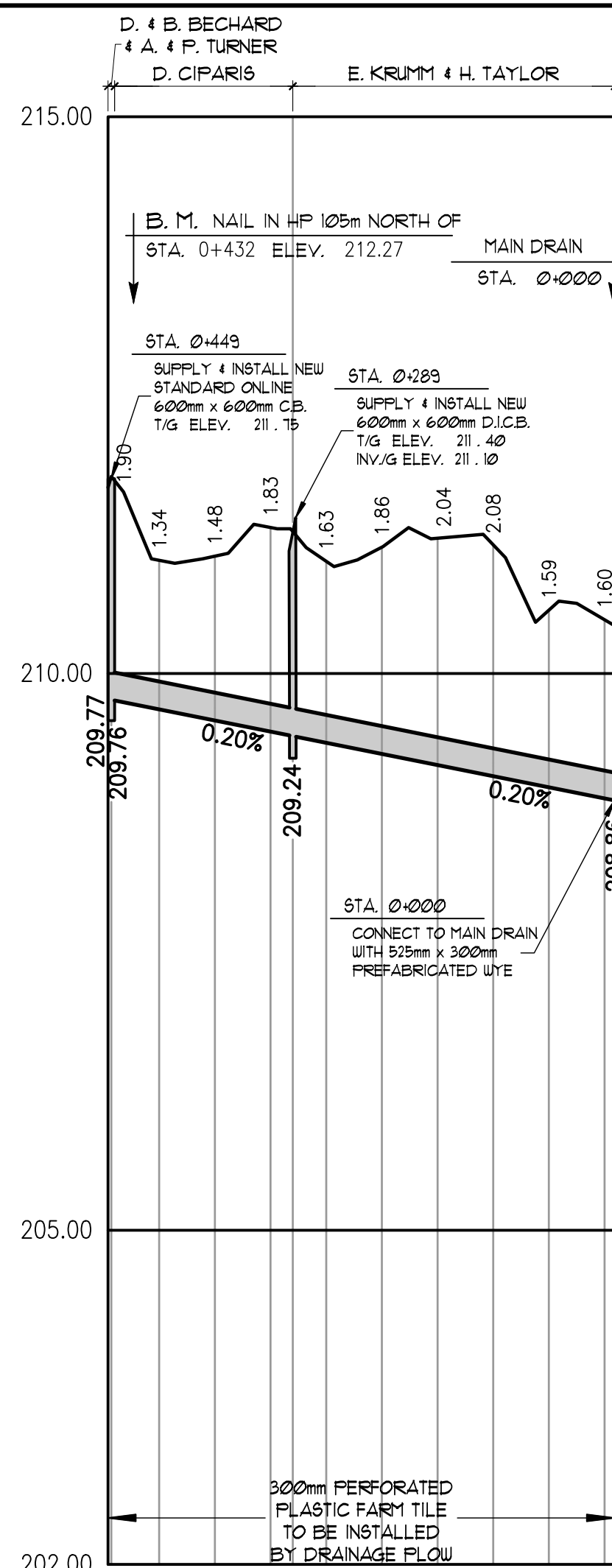
ROLL NUMBER (OWNER)	TOTAL ASSESSMENT	GRANT	ALLOWANCES	APPROX. NET
30-119 (Bonfield Farmland Ontario)	31,647.00	10,549.00		21,098.00
30-121 (1058492 Ontario Ltd)	10,192.00	3,397.00		6,795.00
* 30-122 (F. Kadlex & H. White)	8,314.00			8,314.00
30-154 (571419 Ontario Ltd)	1,141.00	380.00		761.00
* 30-158 (R. & L. Jones)	10,630.00		1,930.00	8,700.00
30-158-01 (C. & I. Kovacs)	28,083.00	9,361.00	2,810.00	15,912.00
30-155 (D. Ciparis)	19,281.00	6,427.00	1,950.00	10,904.00
* 30-156 (D. & B. Bechard & A. & P. Turner)	6,698.00		70.00	6,628.00
30-161 (C. & I. Kovacs)	46,276.00	15,425.00	5,170.00	25,681.00
30-159 (E. Krumm & H. Taylor)	97,498.00	32,499.00	11,630.00	53,369.00
30-160 (1058492 Ontario Ltd)	18,335.00	6,112.00		12,223.00
30-163 (M. Miller)	2,324.00	775.00		1,549.00
Marsh Line	15,729.00			15,729.00
Thomson Line	4,992.00			4,992.00
Special Assessment	15,360.00			15,360.00
TOTALS	\$ 316,500.00	\$ 84,925.00	\$ 23,560.00	\$ 208,015.00



GENERAL NOTES

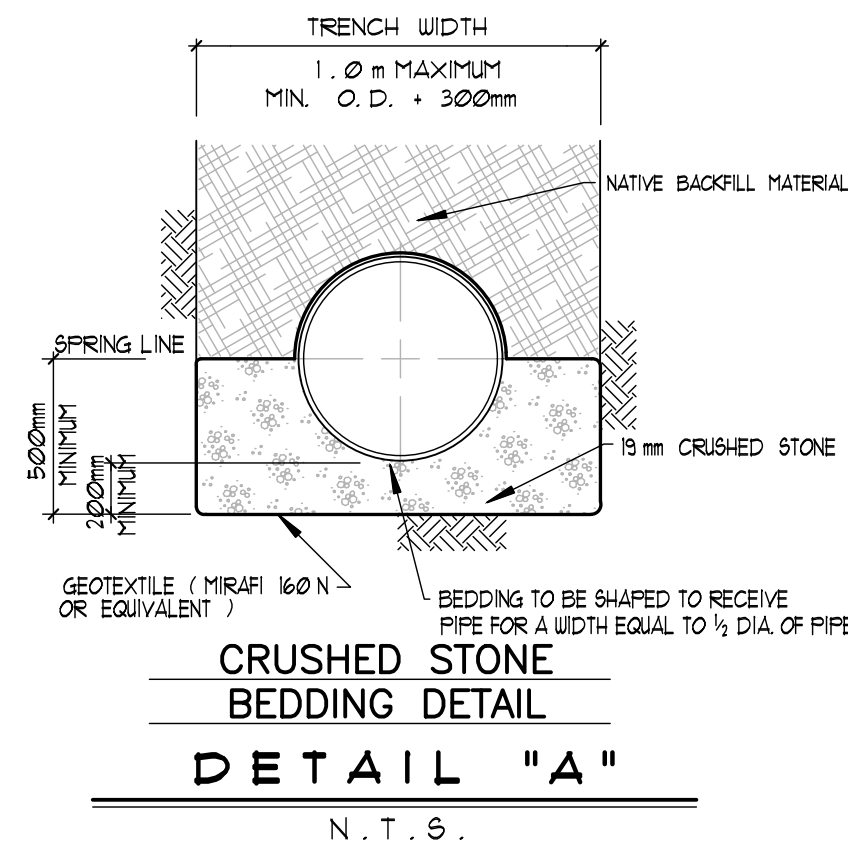
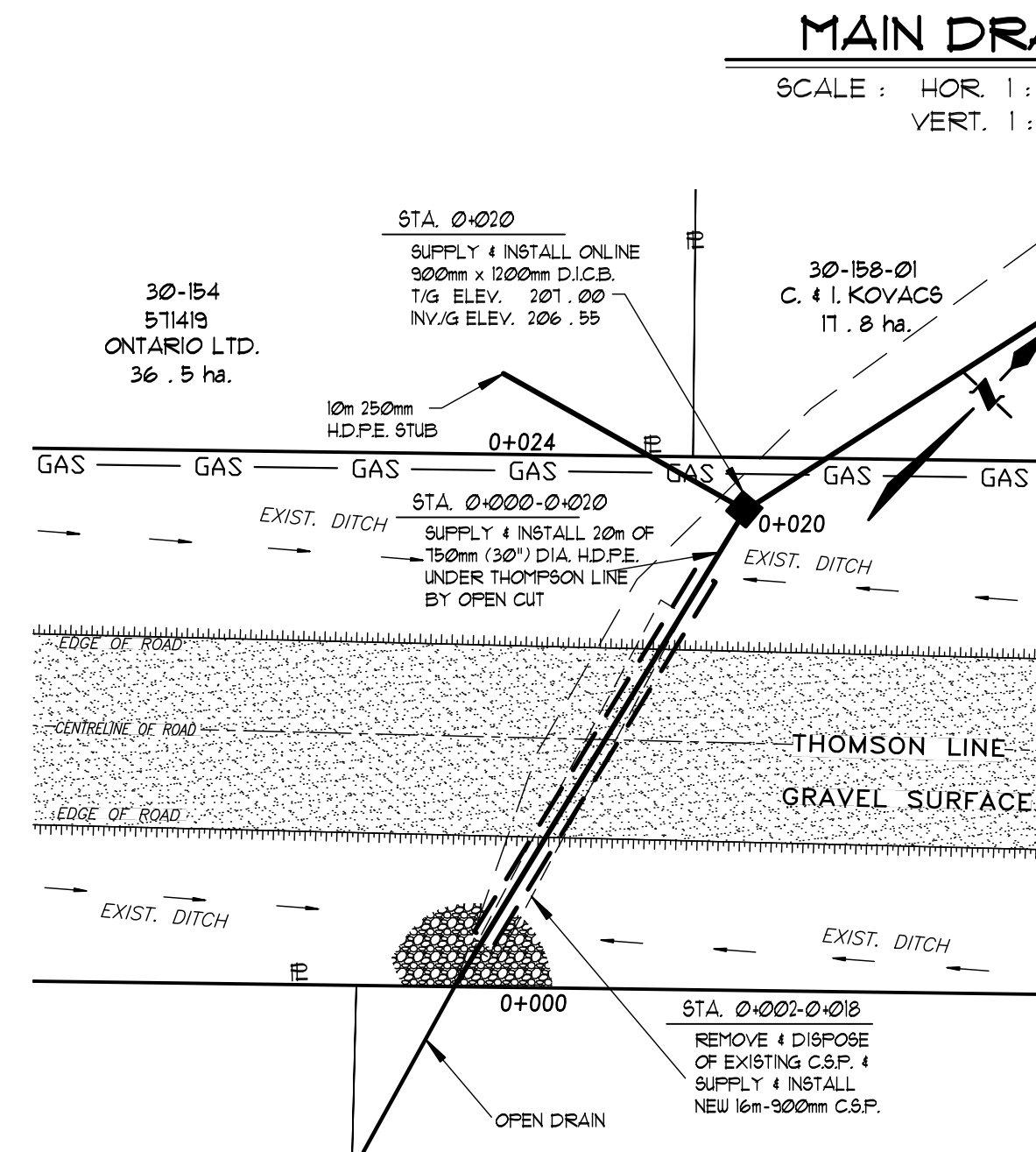
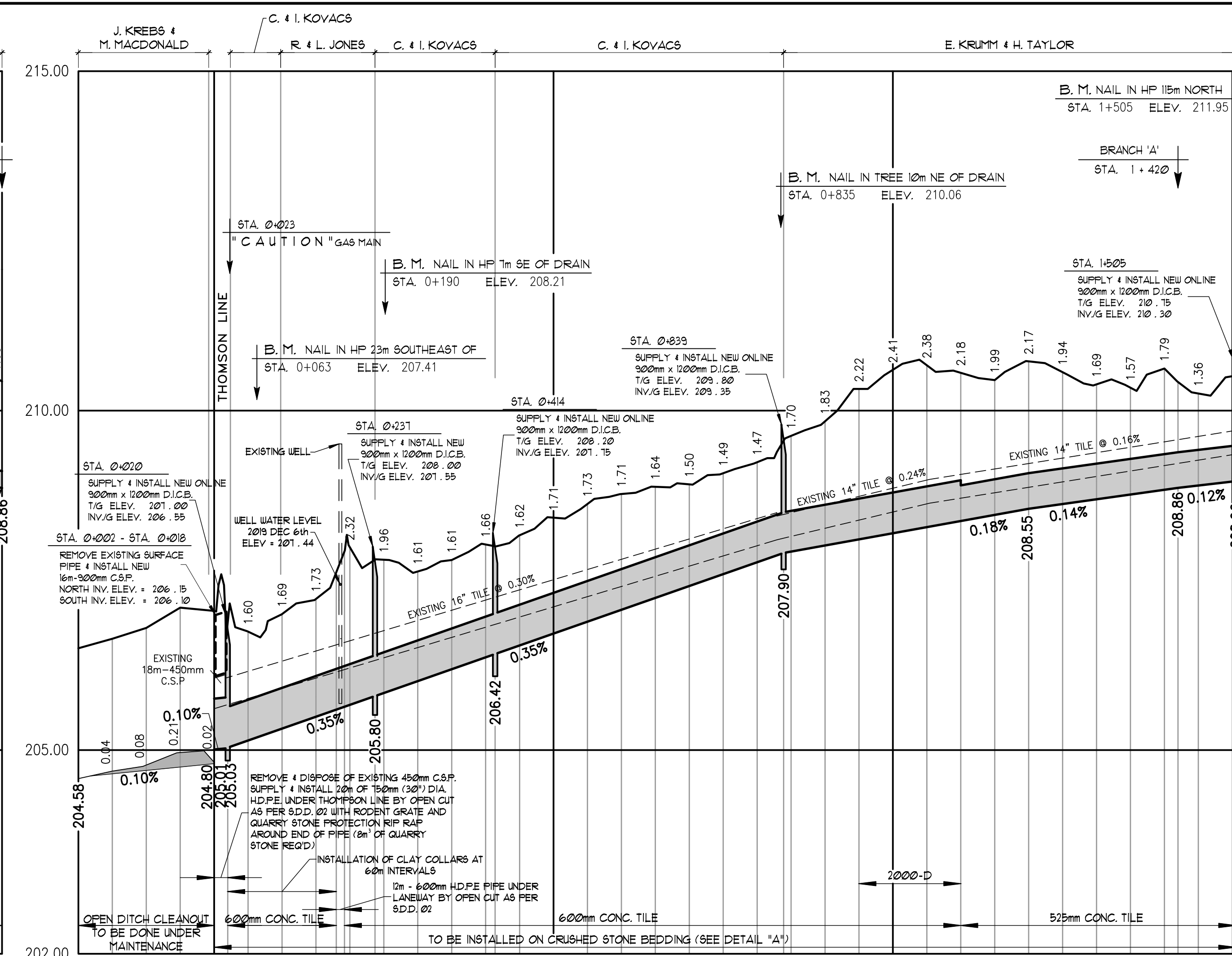
- 1/ OUR SPECIFICATIONS DATED JANUARY 2020 APPLY TO THIS PROJECT.
 - 2/ THE WORKING WIDTH AVAILABLE TO THE CONTRACTOR TO CONSTRUCT THE NEW DRAINS SHALL CONSIST OF THOSE LANDS IMMEDIATELY ADJACENT TO THE DRAIN AND CONNECTIONS AND SHALL NOT EXCEED THE FOLLOWING AVERAGE WIDTHS:
CLOSED PORTIONS - 15 METERS
THE WORKING WIDTH FOR PURPOSES OF FUTURE MAINTENANCE SHALL BE 10M.
 - 3/ ALL OWNERS ALONG THE COURSE OF THE DRAIN SHALL MAKE AN ACCESS ROUTE FROM THE NEAREST ROAD TO THE DRAIN LOCATION AVAILABLE TO THE CONTRACTOR THE AVERAGE WIDTH OF THIS ROUTE SHALL NOT EXCEED 8 METERS. THE ACCESS ROUTE SHALL ALSO APPLY FOR FUTURE MAINTENANCE PURPOSES.
 - 4/ a) ALL UTILITIES TO BE LOCATED AND EXPOSED PRIOR TO CONSTRUCTION SO THAT THE NEW TILE GRADES CAN BE CONFIRMED. IF THERE IS A CONFLICT IN ELEVATION BETWEEN THE PROPOSED DRAIN AND THE UTILITY, THE ENGINEER IS TO BE NOTIFIED IMMEDIATELY.
b) CONTRACTOR TO NOTIFY ALL UTILITIES 72 HOURS PRIOR TO HIS SCHEDULED WORK FOR STARTING THE ABOVE WORK.
c) THE COST FOR THIS WORK SHALL BE INCLUDED IN THE ITEM ON THE EXTENT OF WORK AND NO EXTRA PAYMENT SHALL BE MADE TO THE CONTRACTOR, EXCEPT IF ROAD RESTORATION IS REQUIRED.
 - 5/ ALL TREES, SCRUB, BRUSH, ETC. TO BE CLEARED AND GRUBBED IN ACCORDANCE WITH "SECTION B.3 AND C.4" SPECIFICATIONS.
 - 6/ RIP-RAP TO BE SUPPLIED AND INSTALLED IN ACCORDANCE WITH "SECTION A.12" IN THE SPECIFICATIONS.
 - 7/ CONTRACTOR TO ARRANGE A PRE-CONSTRUCTION MEETING WITH THE ENGINEER, DRAINAGE SUPERINTENDENT, AND THE AFFECTED OWNERS. ALL PARTIES SHALL RECEIVE 48 HOURS NOTICE TO THE MEETING.
- CLOSED PORTIONS**
- 8/ ALL CONCRETE AND PLASTIC TILE AND PIPE TO CONFORM TO "SECTION C.1" IN THE SPECIFICATIONS.
a) SEWER PIPE TO BE CONCRETE, H.D.P.E. PLASTIC 320 KPA (BELL & SPIGOT WITH RUBBER GASKETS, CONFORMING TO C.S.A. 1026-08), PVC ULTRA RIB OR PVC 50R 35.
b) CONCRETE TILE SHALL BE HEAVY DUTY UNLESS SPECIFIED AS 2000 D OR 3400 D ON PROFILE.
c) PLASTIC TILE SHALL BE PERFORATED AGRICULTURAL TUBING WITH FILTER SOCK CONFORMING TO TERRAFIX 200R, TEXEL F-100 ID OR APPROVED EQUAL.
 - 9/ ALL CATCHBASINS SHALL BE SUPPLIED AND INSTALLED IN ACCORDANCE WITH "SECTION C.16" IN THE SPECIFICATIONS, EXCEPT AS FOLLOWS:
a) ALL NON ROAD DITCH INLET CATCHBASINS TO HAVE BERM'S (CONSTRUCTED WITH SUBSOIL) WITH OVERFLOW CHUTE PROTECTED WITH N.A.G. C350 TURF REINFORCEMENT MAT
 - 10/ a) EXACT LOCATION TO BE DETERMINED AT TIME OF CONSTRUCTION BY DRAINAGE SUPERINTENDENT OR ENGINEER. EXISTING TILE DRAINS TO BE EXPOSED IN AS MANY LOCATIONS AS ARE NECESSARY TO CONFIRM THEIR EXACT LOCATION AND ELEVATION PRIOR TO CONSTRUCTION.

- 11/ a) INSTALLATION OF TILE AND TRENCH WIDTHS SHALL BE IN ACCORDANCE WITH "SECTION C - TILE DRAIN" IN THE SPECIFICATIONS & DETAIL SHOWN ON THIS DRAWING.
b) SEWER PIPE UNDER TRAVEL PORTION OF ROADS TO BE INSTALLED IN ACCORDANCE WITH STANDARD DETAILED DRAWING No. 02 IN THE SPECIFICATIONS.
c) ALL CONCRETE TILE AND TILE-PIPE JOINTS TO BE WRAPPED WITH GEOTEXTILE IN ACCORDANCE WITH "SECTION C.8" IN THE SPECIFICATIONS.
d) NO CONSTRUCTION EQUIPMENT OR FARM MACHINERY SHALL CROSS OVER THE MOUNDED BACKFILLED TILE TRENCHES UNTIL SUFFICIENT SETTLEMENT HAS OCCURRED.
e) STRIP AND STOCKPILE TOPSOIL FROM CONSTRUCTION AREA (4 metre width) EXCEPT LANEWAYS & ROADS. EXCESS SPOIL TO BE LEVELLED AND TOPSOIL RELEVELLED OVER SPOIL, MOUNDED TRENCH AND REMAINING CONSTRUCTION AREA.
- 12/ RESTORATION OF LAWN AREAS SHALL BE IN ACCORDANCE WITH "SECTIONS A.14 AND B.11" IN THE SPECIFICATION WITH THE FOLLOWING EXCEPTIONS:
a) 100mm DEPTH OF IMPORTED FIRST QUALITY TOPSOIL IS TO BE LEVELLED OVER THE TRENCH AND ADJACENT AREAS DISTURBED BY CONSTRUCTION.
b) TOPSOILED AREAS TO BE SEEDED IN ACCORDANCE WITH "SECTION A.14" IN THE SPECIFICATIONS.
c) LANEWAY TO BE RESTORED TO ORIGINAL CONDITION IN ACCORDANCE WITH SPECIFICATIONS.
- 13/ a) IF IT BECOMES IMPRACTICAL TO INSTALL THE NEW TILE IN THE EXISTING TILE LOCATION DUE TO EXISTING TILE ALIGNMENT AND/OR TOO MUCH WATER FLOWING THROUGH THE TILE, THEN THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND/OR THE DRAINAGE SUPERINTENDENT.
b) IF SO ORDERED BY THE ENGINEER AND/OR DRAINAGE SUPERINTENDENT THEN THE CONTRACTOR SHALL INSTALL THE NEW TILE IMMEDIATELY ADJACENT TO THE EXISTING TILE. AFTER CONSTRUCTION IS COMPLETED THE EXISTING TILE SHALL BE DESTROYED WITH A RUBBER TIRE BACKHOE. TILE CONNECTIONS INTO THE EXISTING TILE SHALL BE CONNECTED TO THE NEW TILE.
- 14/ a) THE CONTRACTOR SHALL ENSURE THAT ALL TRIBUTARY DRAINS ARE CONNECTED DURING TIME OF CONSTRUCTION. ANY MISSED TILE CONNECTIONS THAT ARE FOUND DURING THE WARRANTY PERIOD OF THE CONTRACT SHALL BE COMPLETED BY THE CONTRACTOR AND SHALL BE PAID THE AMOUNT SET OUT ON PAGE 2 OF THE "FORM OF TENDER". NO ADDITIONAL PAYMENT FOR MOBILIZATION WILL BE ALLOWED. THE CONTRACTOR IS NOT RESPONSIBLE FOR COMPLETING MISSED TILE CONNECTIONS THAT ARE FOUND AFTER THE WARRANTY PERIOD FOR THE CONTRACT HAS EXPIRED.
b) ALL TILE CONNECTIONS TO BE MADE WITH CORING MACHINE AND PLASTIC ADAPTOR OR PREFABRICATED FITTINGS.
c) THE CONTRACTOR SHALL SUPPLY THE ENGINEER WITH A LIST SHOWING STATIONS OF ALL TILE CONNECTIONS UPON COMPLETION OF CONSTRUCTION.
- 15/ SILT FENCE TO BE PLACED ACROSS DITCH BOTTOM AT STA. 0+000 DURING CONSTRUCTION TO PREVENT SILT FROM FLUSHING DOWNSTREAM, AND ARE TO BE MAINTAINED AS NECESSARY DURING CONSTRUCTION. SILT FENCE AND SILT TO BE REMOVED AND DISPOSED OF AFTER CONSTRUCTION.



ROAD OPEN CUT CROSSINGS NOTES

- 1/ ROAD BASE SHALL CONSIST OF MINIMUM OF 150mm GRANULAR 'A' AND MINIMUM OF 450mm OF GRANULAR 'B'.
- 2/ CONTRACTOR TO GIVE ROAD SUPERINTENDENT 48 HOUR NOTICE BEFORE OPEN CUT BEGINS.
- 3/ CONTRACTOR PERMITTED TO CLOSE ROAD, NO OVERNIGHT CLOSURES PERMITTED.



PLAN LEGEND

- 1/ LIMIT OF WATERSHED AREA
- 2/ PROPOSED DRAINAGE WORKS
- 3/ EXISTING OR INTERIOR WATERSHED
- 4/ EXIST. MUNICIPAL DRAIN
- 5/ PRIVATE TILE OR SURFACE WATER RUN
- 6/ EXIST. WATERCOURSE OR PRIVATE DITCH
- 7/ 0+075 ASSESSMENT ROLL NUMBER
- 8/ 0+075 OWNERS NAME
- 9/ 40.5 HECTARES OWNED

YAUCH DRAIN

Municipality of West Elgin

Drainage Superintendent: TOM MOHAN 519-785-0560	No.	REVISIONS	DATE
Drawn By: NW Date: FEB. 14, 2020	Field Book G.P.S./B-1174	JOB No. 218131	Drawing No. 1 of 1

SPRIET ASSOCIATES
LONDON CONSULTING ENGINEERS

155 YORK STREET - LONDON (519) 672-4100 - NEA 1A8



Municipality of West Elgin

Minutes

Council Meeting

August 13, 2020, 9:00 a.m.
Recreation Centre
135 Queen Street
Rodney

Present: Mayor D. McPhail
Deputy Mayor R. Leatham
Councillor T. Tellier
Councillor B. Rowe

Regrets: Councillor A. Cammaert

Staff Present: M. Badura, CAO/ Treasurer
J. Nethercott, Clerk
L. Gosnell, Manager of Operations & Community Services
H. James, Planner
Jeff McArthur, Fire Chief
Sam Smith, OCWA

Due to the COVID-19 Pandemic and physical distancing requirements this meeting was held in an alternate location.

1. Call to Order

Mayor Duncan McPhail called the meeting to order at 9:02 a.m.

2. Closed Session

Resolution Number: 2020-233

Moved: Councillor Tellier

Seconded: Deputy Mayor Leatham

That the Council of the Municipality of West Elgin Council hereby proceeds into Closed Session at 9:02 a.m. under Section 239(2) (b),(c) & (f) of the Municipal

Act, consideration will be given to personal matters pertaining to an identifiable individual, a proposed or pending acquisition or disposition of land, and advice that is subject to Solicitor Client privilege.

Carried

3. Report from Closed Session

Mayor McPhail reported out at 11:24 a.m., that consideration was given to personal matters pertaining to an identifiable individual, a proposed or pending acquisition or disposition of land, and advice that is subject to Solicitor Client privilege.

4. Adoption of Agenda

Resolution Number: 2020-234

Moved: Deputy Mayor Leatham

Seconded: Councillor Tellier

That West Elgin Council hereby adopts the Agenda as presented.

Carried

5. Disclosure of Pecuniary Interest

No disclosures

6. Public Meeting - Not Before 11 am

Resolution Number: 2020-235

Moved: Councillor Rowe

Seconded: Councillor Tellier

That Council proceed into a Public Meeting pursuant to Section 34 of the *Planning Act* at 11:25 a.m.

Carried

6.1 Purpose of Public Meeting

The purpose of the meeting was read aloud by the Clerk.

6.2 Planning Report

6.2.1 H. James, Planner - Zoning Report 20662 Marsh Line

Resolution Number: 2020-236

Moved: Councillor Tellier

Seconded: Deputy Mayor Leatham

That West Elgin Council hereby receives the report from Heather James regarding the application to amend the Zoning By-law for 20662 Marsh Line, File No. D14 03-2020;and

That West Elgin Council consider the by-law to amend the Zoning By-law, subject to the conditions on the By-law, as presented in the By-law portion of the agenda.

Carried

6.3 Public Comments

Lower Thames Conservation Authority wrote in to state they supported this application. No other comments received and no public present.

6.4 Council Comments

No comments.

6.5 Close of Public Meeting

Resolution Number: 2020-237

Moved: Councillor Tellier

Seconded: Deputy Mayor Leatham

That West Elgin Council hereby close the Public Meeting at 11:28 a.m. and reconvene the Regular Meeting of Council.

Carried

7. Delegation K. Vecchio, MP Elgin, Middlesex, London

Elgin, Middlesex, London Member of Parliament Karen Vecchio addressed Council to inquire how the Municipality is fairing during the COVID-19 Pandemic. MP Vecchio addressed that she is concerned for the working poor and the housing shortages that are going to be faced. MP Vecchio stated that her and her office is continually looking for grants and funding opportunities to address the safety concerns at the Port Glasgow Marina. Council stated they are proud to see the bi-partisan work being done by the government to protect the citizens during this pandemic.

Council recessed at 12:22 p.m. and reconvened at 1:02 p.m.

10. Staff Reports

10.4 Planning

10.4.1 H. James, Planner - Second Update on Acquisition of Laneway in West Lorne

Planner reported that there was a typographical error in her report, West Elgin Community Health Centre provided up to \$3,000 for legal costs associated with this transfer.

Resolution Number: 2020-238

Moved: Councillor Tellier

Seconded: Councillor Rowe

That West Elgin Council hereby receives the report from Heather James regarding a second update on the acquisition of a laneway between Main and Munroe Streets; and,

That West Elgin Council provides direction to staff to proceed with the survey and legal works and to contact the owner of PharmaChoice in West Lorne regarding cost sharing in the transfer of the laneway.

Carried

8. Adoption of Minutes

Resolution Number: 2020-239

Moved: Deputy Mayor Leatham

Seconded: Councillor Rowe

That the Minutes of the Council meeting on July 16, 2020 be adopted as circulated and printed.

Carried

9. Business Arising from Minutes

None.

10. Staff Reports

10.1 Water

**10.1.1 S. Smith, OCWA - West Elgin Water Distribution System
Second Quarter Operations Report**

Resolution Number: 2020-240

Moved: Councillor Tellier

Seconded: Councillor Rowe

That West Elgin Council hereby receives the report from Sam Smith, OCWA re: West Elgin Distribution System second quarter report for information purposes.

Carried

10.2 Wastewater

**10.2.1 S. Smith, OCWA - West Lorne Wastewater Treatment Plant
Second Quarter Operations Report**

Resolution Number: 2020-241

Moved: Councillor Rowe

Seconded: Councillor Tellier

That West Elgin Council hereby receives the report from Sam Smith, OCWA re: West Lorne Wastewater Treatment Plant second quarter operations report for information purposes.

Carried

**10.2.2 S. Smith, OCWA - Rodney Wastewater Treatment Plant Second
Quarter Operations Report**

Resolution Number: 2020-242

Moved: Deputy Mayor Leatham

Seconded: Councillor Tellier

That West Elgin Council receives the Report from Sam Smith, OCWA re: Rodney Wastewater Treatment Plant Second Quarter Operations Report for information purposes.

Carried

10.3 Fire

10.3.1 J. McArthur, Fire Chief - Monthly Report – July

Resolution Number: 2020-243
Moved: Deputy Mayor Leatham
Seconded: Councillor Rowe

That West Elgin Council hereby receives the report from Jeff McArthur, Fire Chief re: July Monthly Report for information purposes.

Carried

10.5 Operations & Community Services

10.5.1 L. Gosnell, Manager of Operations & Community Services - Memorial Park - Cairn and Gate Repair

Resolution Number: 2020-244
Moved: Deputy Mayor Leatham
Seconded: Councillor Rowe

That West Elgin Council hereby receives the report from Lee Gosnell, Manager of Operations & Community Services regarding repairs at Memorial Park and;

That West Elgin Council approves the quote from Robertson Restoration in the amount of \$18,900.00 for Cairn/wall repair and;

That West Elgin Council authorize an additional \$6,000.00 for new gates and park sign; and

Provide staff direction to report back to Council with a cost of new plaques for the cairn.

Carried

10.5.2 L. Gosnell, Manager of Operations & Community Services - July 2020 – Monthly Report

West Elgin Council received the report from Lee Gosnell, Manager of Operations & Community Services regarding the July Monthly operations. Mr. Gosnell reported that just this morning he received approval from the Lower Thames Conservation Authority for the additional work for erosion control at the Port Glasgow Trailer Park Pier.

**10.5.3 L. Gosnell, Manager of Operations & Community Services -
Update on Municipal Building Renovations**

Resolution Number: 2020-245

Moved: Councillor Tellier

Seconded: Deputy Mayor Leatham

That West Elgin Council hereby receives the report from Lee Gosnell, Manager of Operations & Community Services regarding building renovation updates and;

That West Elgin Council approve the draft design concept for building expansion/renovations, as presented by Brian Lima, County Engineer and;

That West Elgin Council approves the completion of engineered drawings for the proposed municipal office expansion, to assist in the preparation of West Elgin's 2021 draft budget.

Carried

10.6 Clerk

10.6.1 J. Nethercott, Clerk - Changes to the Municipal Act from Bill 197

West Elgin Council received the report from Jana Nethercott, Clerk Re: Changes to the *Municipal Act* as part of Bill 197 for information purposes.

10.6.2 J. Nethercott, Clerk - Community Flag Raising and Flag Protocol Draft Policy

Resolution Number: 2020-246

Moved: Deputy Mayor Leatham

Seconded: Councillor Rowe

That West Elgin Council hereby receives the report from J. Nethercott, Clerk re: Community Flag Raising and Flag Protocol Policy; and

That West Elgin Council hereby direct staff to bring forward a by-law to adopt the Community Flag Raising and Flag Protocol Policy at the next Council meeting.

Carried

Council Recessed at 2:06 p.m. and reconvened at 2:26 p.m.

10.7 Finance/Administration

10.7.1 M. Badura, CAO/Treasurer - Asset Management Software Purchase

Resolution Number: 2020-247

Moved: Councillor Rowe

Seconded: Deputy Mayor Leatham

That West Elgin Council hereby receives the report from M. Badura, CAO/Treasurer re: Asset Management Software Purchase; and

That West Elgin Council hereby authorize the purchase and implementation of City Wide Asset Management software from Public Sector Digest, to be funded as outlined in the report.

Carried

10.7.2 M. Badura, CAO/Treasurer - Elgin County Mandatory Face Covering By-law No. 20-38

Resolution Number: 2020-248

Moved: Councillor Rowe

Seconded: Councillor Tellier

That West Elgin Council hereby receives the report from Magda Badura, CAO/Treasurer re: Elgin County Mandatory Face Covering By-law No. 20-38; and

That West Elgin Council hereby supports Elgin County By-law 20-38, as amended, being a by-law to temporarily require the use of face coverings and related health protection measures within enclosed public spaces during the COVID-19 Pandemic, in support of the Letter of Instruction issued on July 30th, 2020 by the Medical Officer of Health.

Carried

10.7.3 M. Badura, CAO/Treasurer - 2020 YTD Financials as of June 30 2020

West Elgin Council received the report from M. Badura, CAO/Treasurer entitled 2020 YTD Financials as of June 30, 2020 for information purposes.

10.7.4 M. Badura, CAO/Treasurer - Engineering Services for the PGTP On-Site Sewage Disposal System Upgrades

Resolution Number: 2020-249

Moved: Deputy Mayor Leatham

Seconded: Councillor Tellier

That West Elgin Council hereby receives the report from M. Badura, CAO/Treasurer re: Engineering Services for the PGTP On-Site Sewage Disposal System Upgrades report and approves the proposal from RV Anderson for additional Engineering Services for the PGTP On-Site sewage disposal system upgrades in the amount of \$39,500.00 plus HST.

Carried

11. Committee and Board Report

11.1 Elgin County Council Highlights

Mayor McPhail reported that Elgin County has struck a Connectivity Committee to look into rural broadband.

11.4 Councillor Reports From Committees

Lee Gosnell, Manager of Operations & Community Services reported on the West Elgin Community Centre Board of Management meeting on August 12. Mr. Gosnell stated that a decision was made to have the Arena operational by September 21, 2020 and that the schedule would include some new programming.

Councillor Tellier stated that a Recreation Committee meeting was held on August 12, however no quorum was present.

12. Accounts

Resolution Number: 2020-250

Moved: Councillor Rowe

Seconded: Councillor Tellier

That the Mayor and Treasurer are hereby authorized to sign Payment Voucher #8 amounting to \$570,710.42 in settlement of General, Road, Water and Arena Accounts (including EFT#2813-2928 Cheque# 25375-25385, online Payments# 472-794 and Payroll PP15/16).

Carried

13. Other Business

13.1 Statements/Inquires by Councillors

None.

13.2 Notice of Motion

None

13.3 Matters of Urgency

None.

14. Correspondence

14.3 Chatham-Kent - Emancipation Day Resolution

Resolution Number: 2020-252

Moved: Councillor Rowe

Seconded: Councillor Tellier

That West Elgin Council acknowledges and supports the following Private Members Bill put forward by Majid Jowhari: M-36, Emancipation Day, 43rd Parliament, 1st Session that reads as follows:

"That the House recognizes that:

- a. The British Parliament abolished slavery in the British Empire as of August 1, 1834;
- b. Slavery existed in British North America prior to the abolition in 1834;
- c. Abolitionists and others who struggled against slavery, including those who arrived in Upper and Lower Canada by the Underground Railroad, have historically celebrated August 1st as Emancipation Day;
- d. The Government of Canada announced on January 30, 2018 that it would officially recognize the United Nations International Decade for people of African Descent to highlight the important contributions that

people of African descent have made to Canadian society, and to provide a platform for confronting anti-Black racism;

- e. The heritage of Canada's peoples of African descent and the contributions they have made and continue to make to Canada and in the opinion of the House, the Government should designate August 1 of every year as "Emancipation Day" in Canada; and

That West Elgin Council support that this motion be forward to Karen Vecchio, Member of Parliament for Elgin, Middlesex, London.

Carried

14.5 CUPE Ontario - Child Care Worker & Early Childhood Educator Appreciation Day

Resolution Number: 2020-253

Moved: Councillor Rowe

Seconded: Councillor Tellier

That West Elgin Council hereby supports the following:

Whereas years of research confirms the benefits of high quality child care for young children's intellectual, emotional, social and physical development and later life outcomes; and

Whereas child care promotes the well-being of children and responds to the needs of parents and the broader community by supporting quality of life so that citizens can fully participate in and contribute to the economic and social life of their community; and

Whereas trained and knowledgeable Early Childhood Educators and child care staff are the key to quality in early learning and child care programs and champions for children;

Therefore Be It Resolved that October 22, 2020 be designated the 20th Annual Child Care Worker & Early Childhood Educator Appreciation Day in recognition of the education, dedication and commitment of child care workers to children, their families and quality of life of the community.

Carried

14.9 County of Elgin - Cancellation of Wardens Golf Tournament

Resolution Number: 2020-254

Moved: Councillor Rowe

Seconded: Councillor Tellier

That West Elgin Council hereby approves the donation of \$500 to United Way Elgin Middlesex.

Carried

14.10 Province of Ontario - First Round of Municipal Emergency Funding

Resolution Number: 2020-255

Moved: Councillor Tellier

Seconded: Councillor Rowe

That West Elgin Council direct the phase 1 Municipal Emergency Funding towards the Municipal Office renovations to assist with cost associated to COVID-19.

Carried

15. By-Laws

15.1 By-Law 2020-53 - Agreement with Ministry of Transportation for Four Counties Bus Replacement Funding

Resolution Number: 2020-256

Moved: Councillor Rowe

Seconded: Councillor Tellier

That By-Law 2020-53, being a By-law to authorize the execution of the transfer payment agreement for the Investing in Canada Infrastructure Program (ICIP): Public Transit Stream between Her Majesty the Queen Right in Ontario represented by the Minister of Transportation and the Corporation of the Municipality of West Elgin, be read a first, second and third and final time.

Carried

15.2 By-Law 2020-54 - Regulate the Use of Municipally Owned Fire Hydrants

Resolution Number: 2020-257

Moved: Deputy Mayor Leatham

Seconded: Councillor Tellier

That By-law 2020-54, being a by-law to regulate the use of municipally owned fire hydrants, be read a first, second and third and final time.

Carried

15.3 By-Law 2020-55 - Agreement for Shared Planning Services

Resolution Number: 2020-258

Moved: Councillor Tellier

Seconded: Councillor Rowe

That By-law 2020-55, being a by-law to authorize the execution of an agreement between the Corporation of the Township of Southwold and the Corporation of the Municipality of West Elgin for planning services, be read a first, second and third and final time.

Carried

15.4 By-Law 2020-56 - Debentures for 2019 Drainage Assessments

Resolution Number: 2020-259

Moved: Deputy Mayor Leatham

Seconded: Councillor Rowe

That by-law 2020-56, being a by-law to authorize the issue of debentures in the principal amount of \$76,336.23 for the 2019 drainage assessments, be read a first, second and third and final time.

Carried

15.5 By-Law 2020-57 - Rezone 20662 Marsh Line

Resolution Number: 2020-260

Moved: Councillor Tellier

Seconded: Councillor Rowe

That by-law 2020-57, being a by-law to amend Municipality of West Elgin Comprehensive Zoning By-law 2015-36, for the property known as 20662 Marsh Line, be read a first, second and third and final time.

Carried

16. Confirming By-Law

Resolution Number: 2020-261

Moved: Councillor Tellier

Seconded: Deputy Mayor Leatham

That By-law 2020-58 being a by-law to confirm the proceedings of the Regular meeting of Council held on August 13, 2020, be read a first, second and third and final time.

Carried

17. Adjournment

Resolution Number: 2020-262

Moved: Councillor Rowe

Seconded: Deputy Mayor Leatham

That the Council of the Municipality of West Elgin hereby adjourn a 3:33 p.m. to meet again at 9:30 a.m. on August 27, 2020 or at the call of the Chair.

Carried

Duncan McPhail, Mayor

Jana Nethercott, Clerk



Staff Report

Report To: Council Meeting
From: Jana Nethercott, Clerk
Date: 2020-08-27
Subject: Emergency Declaration – Information on termination of declared emergency

Recommendation:

That West Elgin Council hereby receives the report from Jana Nethercott, Clerk re: Emergency Declaration – Information on termination of declared emergency for information purposes.

Purpose:

Bettina Weber, CEMC for West Elgin provided the below information regarding terminating of a declared emergency as points for Council to think about:

“There have been some questions regarding the right time and process to terminate an Emergency Declaration. I know you are all familiar with the attached document from OFMEM, the *Checklist in Consideration of a Declaration of Emergency*. This checklist has long been a helpful tool to help municipalities determine when to declare, but it just as helpful in considering the termination of an emergency. If your Emergency Control Group (ECG) checked off a number of points to declare an emergency, simply reverse the procedure— are those same issues no longer of concern? If all the problems have been addressed or no longer exist, then termination seems a logical next step; but if the concerns are still active and significant risks remain, then termination of the emergency would not be prudent.

Perhaps some are worried about the length of time that the Emergency Declaration has been in place. Across Ontario, in many emergencies declared over the past several years which are water quality or health related, the declaration has remained in place for months, even years; this is particularly true for some declarations in First Nations communities, where the health and/or water quality issues have not been addressed or eliminated. Similarly, COVID-19 is still an active world-wide pandemic, and the highly anticipated “Second Wave” is coming this fall, as school, cooler weather and a return to a more indoor lifestyle begin. Local and national COVID numbers have increased and are expected to spike in September after school opens—this is certainly not the time to terminate the emergency.

The recent adoption of local bylaws that require face coverings/masks to be worn in all indoor public spaces is unique to this emergency and has proven to be controversial. To encourage citizens to wear masks, an Emergency Declaration provides proof that the municipality recognizes this situation is serious, dangerous, and widespread; terminating the emergency but still requiring masks to be worn would be very confusing

indeed. As long as community spread of the virus is a risk and wearing a mask can reduce that risk, an Emergency Declaration would be an important source of support to encourage the use of face coverings. It can also be argued that terminating the emergency will be seen by many people as a confirmation that “everything is back to normal and the danger is over”—and as a result, new COVID protocols like physical distancing, installation of plastic barriers and frequent use of hand sanitizer can just stop... and we know that’s not safe.

Some might believe that the municipality cannot resume business or open its office under an Emergency Declaration, but this is not the case. As a result of recommended COVID safety guidelines, municipal offices are opened and staff are working in ways we would never have considered just a few months ago—but they are still working. Virtual meetings are the norm now, and seem to offer many advantages that were not considered before they became necessary. Councils have been live streaming their meetings online, and some municipalities report greater public interest and participation than they have ever experienced; maintaining an Emergency Declaration helps to ensure these new and different practices are accepted and encouraged, providing greater safety for staff, elected officials and the public.

In short, all the reasons we declared COVID-19 to be a County and municipal emergency are still relevant:

- To provide protection from personal liability to staff and elected officials working and making decisions in difficult circumstances,
- To raise public awareness regarding the gravity of the current pandemic situation,
- To protect any registered volunteers that are called to assist,
- To maintain the possibility for future compensation should it become available; and
- To ensure our organization can quickly respond to other unforeseen events should they arise.

Please, do not rush to terminate the current Emergency Declaration. We are experiencing the biggest emergency of our lifetime, which affects public health, the economy, domestic and international travel, trade and even our national security. To be realistic, there will be long months, perhaps years, of living with the “New Normal”, but maintaining our Emergency Declaration provides many current and possible future benefits with no real drawbacks.”

Checklist in Consideration of a Declaration of Emergency

(Note: All references in this document refer to the *Emergency Management and Civil Protection Act*, R.S.O. 1990, Chapter E.9, as amended 2006)



** This checklist is for use by municipal heads of council considering the declaration of an emergency within their municipality. This checklist is not intended to provide any sort of legal advice – it is merely a reference tool.*

An emergency is defined under the *Emergency Management and Civil Protection Act* as “a situation, or an impending situation that constitutes a danger of major proportions that could result in serious harm to persons or substantial damage to property and that is caused by the forces of nature, a disease or other health risk, an accident or an act whether intentional or otherwise” [Section 1, definition of an emergency].

Under the *Emergency Management and Civil Protection Act*, only the head of council of a municipality (or his or her designate) and the Lieutenant Governor in Council or the Premier have the authority to declare an emergency. The Premier, the head of council, as well as a municipal council, have the authority to terminate an emergency declaration [Sections 4 (1), (2), (4)].

An emergency declaration may extend to all, or any part of the geographical area under the jurisdiction of the municipality [Section 4 (1)].

If the decision is made to declare an emergency, the municipality must notify Emergency Management Ontario (on behalf of the Minister of Community Safety and Correctional Services) as soon as possible [Section 4 (3)]. Although a verbal declaration of emergency is permitted, all declarations should ultimately be made in writing to ensure proper documentation is maintained. Written declarations should be made on municipal letterhead, using the template provided by Emergency Management Ontario, and should be faxed to (416) 314-0474. When declaring an emergency, please notify the Provincial Emergency Operations Centre at 1-866-314-0472.

When considering whether to declare an emergency, a positive response to one or more of the following criteria **may** indicate that a situation, whether actual or anticipated, warrants the declaration of an emergency:

General and Government:

- ☐ **Is the situation an extraordinary event requiring extraordinary measures?**
[Section 4 (1) permits a head of council to “take such action and make such orders as he or she considers necessary and are not contrary to law” during an emergency.]
- ☐ **Does the situation pose a danger of major proportions to life or property?**
[Section 1, definition of an emergency]

Checklist in Consideration of a Declaration of Emergency

- ❑ **Does the situation pose a threat to the provision of essential services (e.g., energy, potable water, sewage treatment/containment, supply of goods or medical care)?** [Some situations may require extraordinary measures be taken or expenditures be made to maintain or restore essential services. A declaration of emergency may allow a head of council to expend funds outside of his or her spending resolutions and/or the regular approval process of the municipality.]
- ❑ **Does the situation threaten social order and the ability to govern?** [Whether due to a loss of infrastructure or social unrest (e.g., a riot), a crisis situation has the potential to threaten a council's ability to govern. In such cases, extraordinary measures may need to be taken. Section 4 (1) provides for extraordinary measures, not contrary to law. Section 55 (1) of the *Police Services Act* provides for the creation of special policing arrangements during an emergency.]
- ❑ **Is the event attracting significant media and/or public interest?** [Experience demonstrates that the media and public often view the declaration of an emergency as a decisive action toward addressing a crisis. It must be made clear that an "emergency" is a legal declaration and does not indicate that the municipality has lost control. An emergency declaration provides an opportunity to highlight action being taken under your municipal emergency response plan.]
- ❑ **Has there been a declaration of emergency by another level of government?** [A declaration of emergency on the part of another level of government (e.g., lower-tier, upper-tier, provincial, federal) may indicate that you should declare an emergency within your municipality. For example, in the event of a widespread disaster affecting numerous lower-tier municipalities within a county, the county will likely need to enact its emergency response plan and should strongly consider the declaration of an emergency. In some cases, however, a declaration of emergency by a higher level of government may provide sufficient authorities to the lower-tier communities involved (e.g., municipalities operating under the authority of a provincial or federal declaration).]

Legal:

- ❑ **Might legal action be taken against municipal employees or councilors related to their actions during the current crisis?** [Section 11 (1) states that "no action or other proceeding lies or shall be instituted against a member of council, an employee of a municipality, an employee of a local services board, an employee of a district social services administration board, a minister of the Crown, a Crown employee or any other individual acting pursuant to this Act or an order made under this Act for any act done in good faith in the exercise or performance or the intended exercise or performance of any power or duty under this Act or an order under this Act or for neglect or default in the good faith exercise or performance of such a power or duty." Section 11 (3), however, states "subsection (1) does not relieve a municipality of liability for the acts or omissions of a member of council or an employee of the municipality...."]
- ❑ **Are volunteers assisting?** [The *Workplace Safety and Insurance Act* provides that persons who assist in connection with a declared emergency are considered "workers" under the Act and are eligible for benefits if they become injured or ill as a result of the assistance they are providing. This is in addition to workers already covered by the Act.]

Operational:

- ❑ **Does the situation require a response that exceeds, or threatens to exceed the capabilities of the municipality for either resources or deployment of personnel?** [Section 4 (1) permits the head of council to “take such action and make such orders as he or she considers necessary and are not contrary to law to implement the emergency plan.” Section 13 (3) empowers a municipal council to “make an agreement with the council of any other municipality or with any person for the provision of any personnel, service, equipment or material during an emergency.”]
- ❑ **Does the situation create sufficient strain on the municipal response capability that areas within the municipality may be impacted by a lack of services, thereby further endangering life and property outside areas directly affected by the current crisis?** [Some situations may require the creation of special response agreements between the municipality and other jurisdictions, private industry, non-government organizations, etc. Section 13 (3) states that the “council of a municipality may make an agreement with the council of any other municipality or with any person for the provision of personnel, service, equipment or material during an emergency.”]
- ❑ **Is it a consideration that the municipal response may be of such duration that additional personnel and resources may be required to maintain the continuity of operations?** [In the event of a large-scale crisis, such as an epidemic or prolonged natural disaster, municipal resources may not be able to sustain an increased operational tempo for more than a few days. This is particularly true if emergency workers are injured or become ill as a result of the crisis. In such a case, the municipality may need to utilize outside emergency response personnel. Section 13 (3) provides for mutual assistance agreements between municipalities.]
- ❑ **Does, or might, the situation require provincial support or resources?** [Provincial response (e.g., air quality monitoring, scientific advice, airlift capabilities, material resources, etc.) may involve numerous ministries and personnel. Activation of the municipal emergency response plan, including the opening of the Emergency Operations Centre and meeting of the Community Control Group, can greatly facilitate multi-agency and multi-government response.]
- ❑ **Does, or might, the situation require assistance from the federal government (e.g., military equipment)?** [Section 13 (2) authorizes the Solicitor General, with the approval of the Lieutenant Governor in Council, to make agreements with the federal government. In Canada, federal emergency assistance is accessed through, and coordinated by, the province. The declaration of an emergency may assist a municipality in obtaining federal assistance.]
- ❑ **Does the situation involve a structural collapse?** [Structural collapses involving the entrapment of persons *may* require the deployment of one or more Heavy Urban Search and Rescue (HUSAR) teams. Ontario has a HUSAR team. This team is specially equipped and trained to rescue persons trapped as a result of a structural collapse. Any municipality in the province can request a HUSAR deployment to a declared emergency. Requests for HUSAR resources should be made through your local mutual aid fire coordinator. Approval for the dispatch of the HUSAR team comes from the Commissioner of Emergency Management.]

Checklist in Consideration of a Declaration of Emergency

- ❑ **Is the situation a large-scale or complex chemical, biological, radiological, or nuclear (CBRN) incident?** [Response to CBRN incidents requires specialized resources and training. Ontario is developing three CBRN teams to respond to incidents throughout the province. CBRN teams are only dispatched to declared emergencies. Requests for a CBRN deployment should be made through your local mutual aid fire coordinator. Approval for the dispatch of CBRN teams comes from the Commissioner of Emergency Management.]
- ❑ **Does the situation require, or have the potential to require the evacuation and/or shelter of people or animals [livestock] from your municipality?** [Evacuee and reception centres often use volunteers as staff. As noted above, the declaration of an emergency enacts certain parts of the *Workplace Insurance and Safety Act* related to volunteer workers. Secondly, an evacuation or sheltering of citizens has the potential to generate issues pertaining to liability. Section 11 of the *Emergency Management and Civil Protection Act* may provide municipal councilors and employees with certain protections against personal liability.]
- ❑ **Will your municipality be receiving evacuees from another community?** [The issues discussed in the previous bullet may apply equally to municipalities accepting evacuees.]

Economic and Financial:

- ❑ **Does the situation pose a large-scale disruption to routine patterns of transportation, or re-routing of large numbers of people and vehicles?** [The rerouting of people and vehicles poses a potential liability risk. Keeping persons from their homes and delaying commercial traffic are both sensitive issues. Section 11 of the Act may provide certain protection from liability. Section 4 (1) allows for extraordinary measures to be taken, providing they are not contrary to law.]
- ❑ **Is an event likely to have a long term negative impact on a community's economic viability/sustainability, including resulting unemployment, lack of available banking services and restorative measures necessary to re-establish commercial activity?** [The declaration of an emergency may facilitate the ability of the municipality to respond to economic losses.]
- ❑ **Is it possible that a specific person, corporation, or other party has caused the situation?** [Section 12 states that “where money is expended or cost is incurred by a municipality or the Crown in the implementation of an emergency plan or in connection with an emergency, the municipality or the Crown, as the case may be, has a right of action against any person who caused the emergency for the recovery of such money or cost....”]

OPERATIONAL PLAN

For the West Elgin Distribution System



This Operational Plan is designed for the exclusive use of the system(s) specified in this Operational Plan.

This Operational Plan has been developed with OCWA's operating practices in mind and utilizing OCWA personnel to implement it.

Any use which a third party makes of this Operational Plan, or any part thereof, or any reliance on or decisions made based on information within it, is the responsibility of such third parties. OCWA accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions taken based on this Operational Plan or any part thereof.

Any documents developed and owned by OCWA which are referred to in this Operational Plan (including, but not limited to, OCWA's QEMS documents, Standard Operating Procedures, policies and Facility Emergency Plans) remain the property of OCWA. Accordingly, these documents shall not be considered to form part of the Operational Plan belonging to the owner of a drinking-water system under Section 17 of the *Safe Drinking Water Act, 2002*.



OPERATIONAL PLAN

West Elgin Distribution System


QEMS Doc: OP-ToC
Issue Date: 2018-08-07
Pages: 1 of 1

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Reviewed by: QEMS Representative

Approved by: Operations Management

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 Ontario Clean Water Agency	OPERATIONAL PLAN West Elgin Distribution System	QEMS Proc.: OP-01 Rev Date: 2018-08-07 Rev No: 1 Pages: 1 of 2
QUALITY & ENVIRONMENTAL MANAGEMENT SYSTEM (QEMS)		
Reviewed by: QEMS Representative	Approved by: Operations Management	

1. Purpose

To document OCWA's Quality & Environmental Management System (QEMS). This Operational Plan defines and documents the QEMS for the West Elgin Distribution System operated by the Ontario Clean Water Agency (OCWA). It sets out the OCWA's policies and procedures with respect to quality and environmental management in accordance with the requirements of the Province of Ontario's Drinking Water Quality Management Standard (DWQMS).

2. Definitions

Drinking Water Quality Management Standard (DWQMS) – means the quality management standard approved by the Minister in accordance with section 21 of the SDWA.

Operational Plan – means the operational plan required by the Director's Direction.

Quality & Environmental Management System (QEMS) – a system to:

- a) Establish policy and objectives, and to achieve those objectives; and
- b) Direct and control an organization with regard to quality.

3. Procedure

3.1 The West Elgin Distribution System is owned by the Corporation of the Municipality of West Elgin. OCWA is the contracted Operating Authority for the West Elgin Distribution System.

3.2 OCWA's Quality & Environmental Management System (QEMS) is structured and documented with the purpose of:

1. Establishing policy and objectives with respect to the effective management and operation of water/wastewater facilities;
2. Understanding and controlling the risks associated with the facility's activities and processes;
3. Achieving continual improvement of the QEMS and the facility's performance.


3.3 The Operational Plan for the facility listed above fulfils the requirements of the MECP's DWQMS. The 21 QEMS Procedures within this Operational Plan align with the 21 elements of the DWQMS.

4. Related Documents


MECP's Drinking Water Quality Management Standard
 All QEMS Procedures and Documents referenced in this Operational Plan

5. Revision History

Date	Revision #	Reason for Revision
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 Ontario Clean Water Agency	OPERATIONAL PLAN West Elgin Distribution System	QEMS Proc.: OP-01 Rev Date: 2018-08-07 Rev No: 1 Pages: 2 of 2
QUALITY & ENVIRONMENTAL MANAGEMENT SYSTEM (QEMS)		
Reviewed by: QEMS Representative		Approved by: Operations Management

2018-05-11	0	Procedure issued – Information within OP-01 was originally set out in the Main body of OCWA's Operational Plan (last revision 4 dated 2017-06-20). New Purpose, Definitions, Procedure, Related Documents and separate Revision History sections. Addition of new wording (s. 3.3) to clarify that the OCWA's Operational Plan now aligns with the 21 elements of the DWQMS.
2018-08-07	1	Revised "Reviewed by" QMS Representative to QEMS Representative, changed MOECC to MECP as per IA July 20, 2018

 Ontario Clean Water Agency	OPERATIONAL PLAN West Elgin Distribution System	QEMS Proc.: OP-02 Rev Date: 2018-08-07 Rev No: 1 Pages: 1 of 2
QUALITY & ENVIRONMENTAL MANAGEMENT SYSTEM (QEMS) POLICY		
Reviewed by: QEMS Representative	Approved by: Operations Management	

1. Purpose

To document a QEMS Policy that provides the foundation for OCWA's Quality & Environmental Management System.

2. Definitions

Quality Management System Policy – means the policy described in Element 2 developed for the Subject System or Subject Systems

3. Procedure

- 3.1 The Ontario Clean Water Agency, its Board of Directors, Officers and entire staff are committed to the principles and objectives set out in our QEMS Policy.

OCWA's Policy is to:

- Deliver safe, reliable and cost-effective clean water services that protect public health and the environment.
- Comply with applicable legislation and regulations.
- Promote client, consumer and stakeholder confidence through service excellence, effective communications and reporting.
- Train staff on their QEMS responsibilities.
- Maintain and continually improve the QEMS.


Originally issued as Environmental Policy on June 8, 1995

Last revised, approved by OCWA's Board of Directors on April 6, 2016

(This policy is annually reviewed)

- 3.2 Our Board of Directors, Officers and entire staff will act to ensure the implementation of this Policy and will monitor progress of the Quality & Environmental Management System (QEMS).
- 3.3 OCWA's QEMS Policy is readily communicated and available to all OCWA personnel, the Owner and the public through OCWA's intranet and public websites. A hardcopy of the QEMS Policy is posted as specified in the OP-05 Document and Records Control procedure.
- 3.4 Essential suppliers and service providers are advised of OCWA's QEMS Policy as per the OP-13 Essential Supplies and Services procedure.

PRINTED COPIES OF THIS DOCUMENT ARE CONSIDERED TO BE UNCONTROLLED

 Ontario Clean Water Agency	OPERATIONAL PLAN West Elgin Distribution System	QEMS Proc.: OP-02 Rev Date: 2018-08-07 Rev No: 1 Pages: 2 of 2
QUALITY & ENVIRONMENTAL MANAGEMENT SYSTEM (QEMS) POLICY		
Reviewed by: QEMS Representative	Approved by: Operations Management	

3.5 Corporate Compliance coordinates the annual review and approval of the QEMS Policy by the Board of Directors and communicates the approval to all OCWA employees via an electronic communication.


3.6 The current version of the policy indicates the date of the last revision and that the policy is annually reviewed. Electronic and hard-copy documents that include the QEMS Policy will only be required to be updated in years when the Policy has been revised. A complete review/revision history of the QEMS Policy (documenting the annual policy review and/or revision approval date) is maintained on OCWA's intranet.

4. Related Documents

Current QEMS Policy (Posted on OCWA's intranet and internet)
 QEMS Policy Revision History (Posted on OCWA's intranet)
 OP-05 Document and Records Control
 OP-13 Essential Supplies and Services

5. Revision History

Date	Revision #	Reason for Revision
2018-05-11	0	Procedure issued – Information within OP-02 (s. 3) was originally set out in main body of OCWA's Operational Plan template (Revision 4 dated 2017-06-20). New sections: Purpose, Definitions, Procedure, Related Documents and a separate Revision History. Minor revisions to wording in s. 3.3 to reference location of posted copy of the policy. Added sections on how annual policy review is conducted (s. 3.5 and s. 3.6) and reference to OP-13 ESS (s. 3.4). The full revision history for the QEMS policy is available on OCWA's intranet..
2018-08-07	1	Revised "Reviewed by" QMS Representative to QEMS Representative as per IA July 20, 2018

 Ontario Clean Water Agency	OPERATIONAL PLAN West Elgin Distribution System	QEMS Proc.: OP-03 Rev Date: 2019-08-06 Rev No: 2 Pages: 1 of 2
COMMITMENT AND ENDORSEMENT		
Reviewed by: QEMS Representative	Approved by: Operations Management	

1. Purpose

To document the endorsement of the Operational Plan for the West Elgin Distribution System by OCWA Top Management and the Corporation of the Municipality of West Elgin (Owner) and to set out when re-endorsement would be required.

2. Definitions

Top Management – a person, persons or a group of people at the highest management level within an Operating Authority that makes decisions respecting the QMS and recommendations to the Owner respecting the Subject System or Subject Systems

3. Procedure

3.1 The Operational Plan is provided to OCWA Top Management and to the Owner for endorsement. The signed written endorsement is presented in Appendix OP-03A. At a minimum, two members of Top Management must endorse the Operational Plan; however, the Operational Plan is made available to all members of Top Management in the specified document control location (refer to OP-05 Document and Records Control). Endorsement by OCWA's Top Management is represented by Senior Operations Manager and Safety, Process and Compliance Manager.

3.2 Any major revision of the operational plan will be re-endorsed by OCWA Top Management and the Owner. Major revisions include:


1. A revision to OCWA's QEMS Policy;
2. A change to both representatives of the facility's Top Management and/or both of the Owner's representatives that endorsed the Operational Plan;
3. A modification to the drinking water system processes/components that would require a significant change to the description in OP-06 Drinking Water System;
4. The addition of a drinking water subsystem owned by the same Owner to this operational plan.

Any other changes would be considered a minor change and would not require the Operational Plan to be re-endorsed.


4. Related Documents

OP-03A Signed Commitment and Endorsement
 OP-05 Document and Records Control
 OP-06 Drinking Water System

5. Revision History

 Ontario Clean Water Agency	OPERATIONAL PLAN West Elgin Distribution System	QEMS Proc.: OP-03 Rev Date: 2019-08-06 Rev No: 2 Pages: 2 of 2
COMMITMENT AND ENDORSEMENT		
Reviewed by: QEMS Representative	Approved by: Operations Management	

Date	Revision #	Reason for Revision
2018-05-11	0	Procedure issued – Information within OP-03 was originally set out in the main body of OCWA's Operational Plan (revision 4 dated 2017-06-20). Procedure provides information on who from Top Management endorses the Operational Plan (s. 3.1); when owner re-endorsement is sought and 'criteria' as to what is considered a major revision to the Plan (s. 3.2). Element 3 of main body of OCWA's Operational Plan (Revision 8 on 2016-11-13) was incorporated into Appendix OP-03A which also includes the Owner and Top Management sign-off section
2018-08-07	1	Revised "Reviewed by" QMS Representative to QEMS Representative, revised 3.1 from RHM to SPC manager as per IA July 20, 2018
2019-08-06	2	Revised wording in 3.2 (3)

 Ontario Clean Water Agency	OPERATIONAL PLAN West Elgin Distribution System	QEMS Doc: OP-03A Rev Date: 2020-07-10 Rev No: 1 Pages: 1 of 1
SIGNED COMMITMENT AND ENDORSEMENT		

This Operational Plan sets out the framework for OCWA' Quality & Environmental Management System (QEMS) that is specific and relevant to your drinking water system(s) and supports the overall goal of OCWA and the Corporation of the Municipality of West Elgin (Owner) to provide safe, cost-effective drinking water through sustained cooperation. OCWA will be responsible for developing, implementing, maintaining and continually improving its QEMS with respect to the operation and maintenance of the West Elgin Distribution System and will do so in a manner that ensures compliance with applicable legislative and regulatory requirements.

Through the endorsement of this Operational Plan, the Owner commits to work with OCWA to facilitate this goal.

OCWA Top Management Endorsement

Owner Endorsement

Sam Smith
 Senior Operations Manager

 Date

Duncan McPhail
 Mayor

 Date


Cindy Sigurdson
 Safety, Process and Compliance
 Manager, Southwest Region

 Date

Magda Badura
 CAO/Treasurer

 Date

The endorsement above is based on the Operational Plan that was current as of the revision date of this document (OP-03A).

 Ontario Clean Water Agency	OPERATIONAL PLAN West Elgin Distribution System	QEMS Proc.: OP-04 Rev Date: 2018-05-11 Rev No: 0 Pages: 1 of 1
QUALITY & ENVIRONMENTAL MANAGEMENT SYSTEM (QEMS) REPRESENTATIVE		
Reviewed by: QEMS Representative		Approved by: Operations Management

1. Purpose

To identify and describe the specific roles and responsibilities of the QEMS Representative(s) for the West Elgin Distribution System.

2. Definitions

None

3. Procedure

3.1 The role of QEMS Representative for the West Elgin Distribution System is the Process and Compliance Technician (PCT). The Safety, Process and Compliance Manager will act as an alternate QEMS Representative when required.

3.2 The QEMS Representative is responsible for:


- Administering the QEMS for the West Elgin Distribution System by ensuring that processes and procedures needed for the facility's QEMS are established and maintained;
- Reporting to Top Management on the facility's QEMS performance and identifying opportunities for improvement;
- Ensuring that current versions of documents related to the QEMS are in use;
- Promoting awareness of the QEMS to all operations personnel; and
- In conjunction with Top Management, ensuring that operations personnel are aware of all applicable legislative and regulatory requirements that pertain to their duties for the operation of the system.

4. Related Documents

None

5. Revision History

Date	Revision #	Reason for Revision
2018-05-11	0	Procedure issued – Information within OP-04 (s. 3) was originally set out in the main body of OCWA's Operational Plan (revision 4 dated 2017-06-20). New Purpose, Definitions, Procedure, Related Documents and separate Revision History sections. Change to responsibilities: Operations Manager no longer considered QEMS Representative and SPC Manager to act as alternate as required (s. 3.1); added wording to clarify shared responsibilities for Top Management and QEMS Representative to ensure operations personnel are aware of applicable legislative and regulatory requirements (s. 3.2).

 Ontario Clean Water Agency	OPERATIONAL PLAN West Elgin Distribution System	QEMS Proc.: OP-05 Rev Date: 2019-08-06 Rev No: 7 Pages: 1 of 4
DOCUMENT AND RECORDS CONTROL		
Reviewed by: QEMS Representative	Approved by: Operations Management	

1. Purpose

To describe how OCWA's QEMS documents are kept current and how QEMS documents and records are kept legible, readily identifiable, retrievable, stored, protected, retained and disposed of. Applies to QEMS Documents and QEMS records pertaining to the West Elgin Distribution System, as identified in this procedure.

2. Definitions

Document – includes a sound recording, video tape, film, photograph, chart, graph, map, plan, survey, book of account, and information recorded or stored by means of any device

Record – a document stating results achieved or providing proof of activities performed

QEMS Document – any document required by OCWA's QEMS as identified in this procedure

QEMS Record – any record required by OCWA's QEMS as identified in this procedure

Controlled – managed as per the conditions of this procedure

Retention Period – length of time that a document or record must be kept; starts from the date of issue for QEMS records or from the point of time when a QEMS document is replaced by a new or amended document


3. Procedure

- 3.1 Documents and records required by OCWA's QEMS and their locations are listed in Appendix OP-05A Document and Records Control Locations.
- 3.2 Internally developed QEMS documents and QEMS records (whenever possible) are generated electronically to ensure legibility and are identified through a header/title and issue date. Handwritten records must be legible and permanently rendered in ink or non-erasable marker.
- 3.3 Controls for the Operational Plan include the use of authorized approval, alpha-numeric procedure code, issue date, page numbers on every page, revision number and revision history.

Authorized personnel for review and approval of this Operational Plan are:

Review	QEMS Representative
Approval	Operations Management

- 3.4 The QEMS Representative is responsible for ensuring that current versions of QEMS documents are being used at all times. Current QEMS documents and records are

 Ontario Clean Water Agency	<p style="text-align: center;">OPERATIONAL PLAN West Elgin Distribution System</p>	QEMS Proc.: OP-05 Rev Date: 2019-08-06 Rev No: 7 Pages: 2 of 4
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Reviewed by: QEMS Representative	Approved by: Operations Management	

readily accessible to operations personnel and to internal and external auditors/inspectors at established document control locations. The currency of internal documents is ensured by comparing the date on the document to that of the master hardcopy and/or electronic copy residing in the designated document control location(s) specified in Appendix OP-05A.

Document control locations are established in areas that provide adequate protection to prevent unauthorized use/access, damage, deterioration or loss of QEMS documents and records. Copies of QEMS documents and records located outside of designated control locations are considered uncontrolled.

- 3.5 Access to OCWA's computer network infrastructure is restricted through use of individually-assigned usernames and passwords and local area servers. Network security is maintained by OCWA's Information Technology department through a number of established mechanisms and practices such as daily back-up of files stored on servers, password expiry, limitations on login attempts and policies outlining specific conditions of use.

Access to facility QEMS records contained within internal electronic databases and applications (e.g., OPEX, PDM, WMS) is administered by designated application managers/trustees, requires the permission of Operations Management and is restricted through use of usernames and passwords. Records are protected by means of regular network back-ups of electronic files stored on servers and/or within databases.

SCADA records are maintained as per Appendix OP-05A and are accessible to all staff when required.

- 3.6 Any employee of the drinking water system may request, (in writing) to the QEMS Representative, a revision be made to improve an existing internal QEMS document or the preparation of a new document. Written requests should indicate the reason for the requested change. The need for new or updated documents may also be identified through the Management Review or system audits.

The QEMS Representative communicates any changes made to QEMS documents to relevant operations personnel and coordinates related training (as required). Changes to corporately controlled QEMS documents are communicated and distributed to facility QEMS Representatives by OCWA's Corporate Compliance Group through e-mails, memos and/or provincial, regional hub/cluster or facility-level training sessions.

- 3.7 When a QEMS document is superseded, the hardcopy of the document is promptly removed from its location and forwarded to the QEMS Representative for disposal or retention (as appropriate).
- 3.8 The authorized method for disposal of hardcopy documents and records after the specified retention requirements have been met is shredding. Electronic copies may be deleted by the QEMS representative once the retention requirements are met.


DOCUMENT AND RECORDS CONTROL

Reviewed by: QEMS Representative

Approved by: Operations Management

- 3.9 QEMS documents and records are retained in accordance with applicable regulations and legal instruments. Relevant regulatory and corporate minimum retention periods are as follows:

Type of Document/Record	Minimum Retention Time	Requirement Reference
DWQMS Operational Plan	10 years	Director's Direction under SDWA
Internal QEMS Audit Results	10 years	OCWA Requirement
External QEMS Audit Results	10 years	OCWA Requirement
Management Review Documentation	10 years	OCWA Requirement
Documents/records required to demonstrate conformance with the DWQMS (specifically all the documents/records listed in Table 1)	3 years*if no specified legislative requirement below*	OCWA Requirement
Log Books or other record-keeping mechanisms	5 years	O. Reg. 128/04
Training Records for water operators and water quality analysts	5 years	O. Reg. 128/04
Operational checks, sampling and testing (e.g., chlorine residuals, turbidity, fluoride, sampling records), microbiological sampling and testing and chain of custodies	2 years	O. Reg. 170/03
Schedule 23 & 24 (LMR) and THM, HAA, nitrates, nitrites and lead program sampling and testing, Section 11 Annual Reports and Schedule 22 Summary Reports	6 years	O. Reg. 170/03
Sodium test results and related corrective action records/reports, 60 month fluoride test results (if the system doesn't fluoridate), Engineering Reports	15 years	O. Reg. 170/03
Lead samples, correction action records/reports for E. Coli, Total Coliforms and bacterial species	2 years	O. Reg. 170/03
Corrective action records/reports for chemical and radiological parameters under SDWA O. Reg. 169/03, pesticides not listed under O. Reg. 169/03 and health-related parameters in an order or approval	6 years (LMR)	O. Reg. 170/03
Flow Meter Calibration Records, Analyzer Calibration Reports Maintenance Records/Work Orders	2 years	O. Reg. 170/03

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DOCUMENT AND RECORDS CONTROL		
Reviewed by: QEMS Representative	Approved by: Operations Management	

3.10 The Operational Plan is reviewed for currency by the QEMS Representative during internal/external audit and Management Review processes. Other QEMS-related documents are reviewed as per the frequencies set out in this Operational Plan or as significant changes (e.g., changes in regulatory requirements, corporate policy or operational processes and/or equipment, etc.) occur. QEMS documents and records are reviewed for evidence of control during each internal system audit as per OP-19 Internal QEMS Audits.

4. Related Documents

OP-05A Document and Records Control Locations
 OP-19 Internal QEMS Audits
 OP-20 Management Review Minutes

5. Revision History

Date	Revision #	Reason for Revision
2013-07-19	0	Procedure issued
2014-07-18	1	Add Critical Control Point Limit Reached Tracking Form to Table 1 as per OFI IA 2014-04-01; Revise wording in Section 5.6 to identify who receives requests as per OFI IA 2014-04-01; Revised Section 5.9 to include electronic copies as per OFI IA 2014-04-01; Section 5.10 added to include documents with no legislated retention period as per OFI IA 2014-04-01, change name of the Water Treatment Plant to Tri-County
2015-07-28	2	Update Table 1 as per OFI IA 2015-04-01; revise table 2 retention times to include more detail as per OFI EA 2015-08-01
2016-07-18	3	Change Senior Ops Manager to RHM and PCT to OCTL where appropriate; add equipment O&M Manuals to External QEMS Documents in Table 1 as per OFI IA 2016-03-24
2017-06-20	4	Added SOM and PCT, Changed OCTL to SPC Manager. Added electronic copy of vacation/training calendar, fixed spelling, added ops manual to internal documents, add electronic copy of MERP, fix name of ORO schedule as per OFI's identified in the IA 2017-03-27.
2018-05-11	5	QP-01 procedure renamed OP-05. Removed Scope and Responsibilities sections. Moved the former Table 1 (Designated location for documents and records required by OCWA's QEMS) to its own appendix (OP-05A). Assigned responsibility for ensuring current versions of QEMS documents are being used to the QEMS Representative (s. 3.4). Clarified that requests for revisions/new QEMS documents are made to the QEMS Representative (s. 3.6). Moved the former Table 2 (Relevant regulatory and corporate minimum retention periods) to be part of s. 3.9 and expanded on the minimum retention times for documents and records required to demonstrate compliance with legislation
2018-08-07	6	Revised "Reviewed by" QMS Representative to QEMS Representative as per IA July 20, 2018
2019-08-06	7	Revised as per IA- July 22, 2019 – how electronic copies are disposed of.

DOCUMENT AND RECORDS CONTROL LOCATIONS

Designated locations for documents and records required by OCWA's QEMS

DRCC = Document and Records Control Centre which is located at the Tri County Water Plant Office.

Type of Document/Record	Designated Document Control Location (HC = Hardcopy, E = Electronic)
Internal QEMS Documents	
CCP Limit Reached Tracking Form	E- \\TORWAN\Elgin Middlesex Shared\Southwest Region Files\Hub Files\Forms\Operations
Chain of Custody Forms	E- \\TORWAN\Elgin Middlesex Shared\Southwest Region Files\Hub Files\Chain of Custody
Chamber Inspection Forms	E- \\TORWAN\Elgin Middlesex Shared\Southwest Region Files\Hub Files\Forms\Operations
Community Complaint Form	E- \\TORWAN\Elgin Middlesex Shared\Southwest Region Files\Hub Files\Forms\Operations
Summary of Action Items Spreadsheet	E- \\TORWAN\Elgin Middlesex Shared\Southwest Region Files\Hub Files\Forms\Operations
Emergency/Essential Service and Supply Contact List	HC-FEP Binder E- \\TORWAN\Elgin Middlesex Shared\Southwest Region Files\Hub Files\Contact List
Emergency Response Plan (corporate)	E - OCWA's intranet
Facility Emergency Plans	HC-DRCC E- \\TORWAN\Elgin Middlesex Shared\Southwest Region Files\Area 3 (Tri-County Cluster)\1266\9 FEP
Internal Audit Protocol and Report	E- \\TORWAN\Elgin Middlesex Shared\Southwest Region Files\Hub Files\Forms\Operations
On-call Schedule	E- \\TORWAN\Elgin Middlesex Shared\Southwest Region Files\Hub Files\Schedules--On call, rotations
Operational Plan	E – \\TORWAN\Elgin Middlesex Shared\Southwest Region Files\Area 3 (Tri-County Cluster)\1266\7 Operational Plan
Operations Manual (OCWA)	HC- DRCC E- \\TORWAN\Elgin Middlesex Shared\Southwest Region Files\Area 3 (Tri-County Cluster)\1266\8 Operations Manual
QEMS Policy	E - OCWA's intranet and public website; OP-02 HC - DRCC
Round Sheets	E- \\TORWAN\Elgin Middlesex Shared\Southwest Region Files\Hub Files\Rounds Sheets
Sampling Schedule Calendar	E- \\TORWAN\Elgin Middlesex Shared\Southwest Region Files\Hub Files\Sample Schedules
Standard Operating Procedures (referenced in Operational Plan and QEMS Procedures)	HC-DRCC E- \\TORWAN\Elgin Middlesex Shared\Southwest Region Files\Area 3 (Tri-County Cluster)\1266\8 Operations Manual
Training Record	E- \\TORWAN\Elgin Middlesex Shared\Southwest Region Files\Hub Files\Forms\Operations

DOCUMENT AND RECORDS CONTROL LOCATIONS

Type of Document/Record	Designated Document Control Location (HC = Hardcopy, E = Electronic)
Vacation Request Form	E-\\TORWAN\Elgin Middlesex Shared\Southwest Region Files\Hub Files\Forms\Administrative
WMS Work Orders	E-WMS Database
External QEMS Documents	
ANSI/NSF product registration documentation for Chemicals/Materials Used	E-\\TORWAN\Elgin Middlesex Shared\Southwest Region Files\Hub Files\Contractor Safety Program
Applicable federal and provincial legislation and municipal by-laws	Online at www.e-laws.gov.on.ca
AWWA Standards	E - \\Torwan\PCT\AWWA Standards
Drinking Water Works Permit	E-\\TORWAN\Elgin Middlesex Shared\Southwest Region Files\Area 3 (Tri-County Cluster)\1266\2 ECA-MDWL-DWWP-Classification
DWQMS	E - https://www.ontario.ca
Engineering schematics/plans/drawings	HC-DRCC E-\\TORWAN\Elgin Middlesex Shared\Southwest Region Files\Area 3 (Tri-County Cluster)\1266\10 Watermain Drawings
Maintenance/equipment manuals	HC-DRCC E - \\TORWAN\Elgin Middlesex Shared\Southwest Region Files\Area 3 (Tri-County Cluster)\1266\8 Operations Manual
Municipal Drinking Water Licence	E-\\TORWAN\Elgin Middlesex Shared\Southwest Region Files\Area 3 (Tri-County Cluster)\1266\2 ECA-MDWL-DWWP-Classification
Operator certificates	E-\\TORWAN\Elgin Middlesex Shared\Southwest Region Files\Hub Files\Operator Certificates and Licences
QEMS Records	
Annual Reports	E -\\TORWAN\Elgin Middlesex Shared\Southwest Region Files\3 (Tri-County Cluster)\1266\5 Report\Annual Reports
AWQI Reports	E -\\TORWAN\Elgin Middlesex Shared\Southwest Region Files\Area 3 (Tri-County Cluster)\1266\5 Reports\AWQI-Non-Compliance
Call back Reports	E-WMS Database
CCP Limit Reached Tracking Form	E-\\TORWAN\Elgin Middlesex Shared\Southwest Region Files\Area 3 (Tri-County Cluster)\1266\6 Yellow Folder
Chain of Custodies	E - \\TORWAN\Elgin Middlesex Shared\Southwest Region Files\Area 3 (Tri-County Cluster)\1266\6 Yellow Folder
Chamber Inspection Records	E-\\TORWAN\Elgin Middlesex Shared\Southwest Region Files\Area 3 (Tri-County Cluster)\1266\5 Reports\Infrastructure Review\Infrastructure Reports\Chambers
Community complaint records	E – OPEX database
Summary of Action Items Spreadsheet	E -\\TORWAN\Elgin Middlesex Shared\Southwest Region Files\Area 3 (Tri-County Cluster)\1266\5 Reports\Management Review

DOCUMENT AND RECORDS CONTROL LOCATIONS


Type of Document/Record	Designated Document Control Location (HC = Hardcopy, E = Electronic)
External audit reports	E – \\TORWAN\Elgin Middlesex Shared\Southwest Region Files\Area 3 (Tri-County Cluster)\1266\5 Reports\DWQMS Audits
External Calibration records	E – \\TORWAN\Elgin Middlesex Shared\Southwest Region Files\Area 3 (Tri-County Cluster)\1266\5 Reports\Calibrations
Facility Operations Logbook(s)	HC – DRCC or facility
Health & Safety Inspections	E-TOWAN\SouthwestShared\Health and Safety Inspection Reports
Hydrant Inspection Records	E-\\TORWAN\Elgin Middlesex Shared\Southwest Region Files\Area 3 (Tri-County Cluster)\1266\5 Reports\Infrastructure Review \Infrastructure Reports\Hydrants
Infrastructure review (capital/maintenance works recommendations)	E – \\TORWAN\Elgin Middlesex Shared\Southwest Region Files\Area 3 (Tri-County Cluster)\1266\5 Reports\Infrastructure Review \Infrastructure Reviews and Capital
Internal and External QEMS Communications	E – \\TORWAN\Elgin Middlesex Shared\Southwest Region Files\Area 3 (Tri-County Cluster)\1266\4 Correspondence\DWQMS E- email
Internal Calibration records	E - maintained through WMS
Internal QEMS audit reports	E – \\TORWAN\Elgin Middlesex Shared\Southwest Region Files\Area 3 (Tri-County Cluster)\1266\5 Reports\DWQMS Audits
Operator training records	E - maintained in OCWA's Training Summary dB
Maintenance records	E - maintained in WMS
Management Review documentation	E – \\TORWAN\Elgin Middlesex Shared\Southwest Region Files\Area 3 (Tri-County Cluster)\1266\5 Reports\Management Review
MECP Inspection Reports	E-\\TORWAN\Elgin Middlesex Shared\Southwest Region Files\Area 3 (Tri-County Cluster)\1266\5 Reports\MOE Inspections
Operations Reports	E – \\TORWAN\Elgin Middlesex Shared\Southwest Region Files\Area 3 (Tri-County Cluster)\1266\4 Correspondence\Client
Rounds sheets, in house lab results	HC - DRCC E-\\TORWAN\Elgin Middlesex Shared\Southwest Region Files\Area 3 (Tri-County Cluster)\1266\6 Yellow Folder Process data maintained electronically through PDM
Sampling and Testing Records; Certificate of Analysis (Lab)	E - maintained through PDM E-\\TORWAN\Elgin Middlesex Shared\Southwest Region Files\Area 3 (Tri-County Cluster)\1266\6 Yellow Folder
SCADA Records	E – SCADA System
Tower Inspection Records	E-\\TORWAN\Elgin Middlesex Shared\Southwest Region

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DOCUMENT AND RECORDS CONTROL LOCATIONS		

Type of Document/Record	Designated Document Control Location (HC = Hardcopy, E = Electronic)
	Files\Area 3 (Tri-County Cluster)\1266\5 Reports \Infrastructure Review \Infrastructure Reports\Tower Inspections
Training Records	HC- Admin Office E-e-reports and OCWA's Training Summary dB
Vacation Requests	HC-Administrative Office
Vacation Schedule	HC- Administrative Office E-Outlook
Valve Inspection Records	E-\TORWAN\Elgin Middlesex Shared\Southwest Region Files\Area 3 (Tri-County Cluster)\1266\5 Reports \Infrastructure Review \Infrastructure Reports\Valves
Watermain Repair Forms	E-\TORWAN\Elgin Middlesex Shared\Southwest Region Files\Area 3 (Tri-County Cluster)\1266\5 Reports \Infrastructure Review \Infrastructure Reports\Watermain Repair Forms

Revision History

Date	Revision #	Reason for Revision
2018-05-11	5	Appendix issued; Table was originally included within the Document and Records Control Procedure (QP-01) (last revision #4 dated 2017-06-20).
2018-08-07	6	Added Internal audit report documents, changed MOECC to MECP as per IA July 20, 2018
2019-08-06	7	Revised as per IA – July 22, 2019
2020-06-04	8	Added Health & Safety Inspection Reports Hydrant, Tower Inspection, Valve records and Watermain Repair forms as per IA

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DRINKING WATER SYSTEM		
Reviewed by: QEMS Representative	Approved by: Operations Management	

1. Purpose

To document the following for the West Elgin Distribution System:

- The name of the Owner and Operating Authority; and
- Provide a description of the system, including all applicable water sources, treatment system processes and distribution system components.

2. Definitions

Distribution System - means the part of a drinking water system that is used in the distribution, storage or supply of water and that is not part of a treatment system.

Primary Disinfection - means a process or series of processes intended to remove or inactivate human pathogens such as viruses, bacteria and protozoa in water.

Secondary Disinfection - means a process or series of processes intended to provide and maintain a disinfectant residual in a drinking water system's distribution system, and in plumbing connected to the distribution system, for the purposes of:

- (a) protecting water from microbiological re-contamination;
- (b) reducing bacterial regrowth;
- (c) controlling biofilm formation;
- (d) serving as an indicator of distribution system integrity; and

includes the use of disinfectant residuals from primary disinfection to provide and maintain a disinfectant residual in a drinking water system's distribution system for the purposes described in clauses (a) to (d).


Treatment System - means any part of a drinking water system that is used in relation to the treatment of water and includes,

- (a) anything that conveys or stores water and is part of a treatment process, including any treatment equipment installed in plumbing,
- (b) anything related to the management of residue from the treatment process or the management of the discharge of a substance into the natural environment from the system, and
- (c) a well or intake that serves as the source or entry point of raw water supply for the system;

3. Procedure

3.1 Drinking Water System Overview

The West Elgin Distribution System is owned by the Corporation of the Municipality of West Elgin and is operated by the Ontario Clean Water Agency—Southwest Region (Tri-County Cluster). The West Elgin Distribution System services West Lorne, Rodney and rural areas of West Elgin. The West Elgin Distribution System (DWS# 260094627) is connected to following systems:

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DRINKING WATER SYSTEM		
Reviewed by: QEMS Representative	Approved by: Operations Management	

System Name	DWS #	Owner	Operating Authority
Tri-County Drinking Water System	260091117	Tri-County Water Board	OCWA—Southwest Region, Tri-County Cluster
Southwest Middlesex Distribution System	260005502	The Corporation of the Municipality of Southwest Middlesex	OCWA—Southwest Region, Alvinston/SWM Cluster
Dutton Dunwich Distribution System	220002967	The Corporation of the Municipality of Dutton Dunwich	Dutton Dunwich Water Department


The West Elgin Distribution System relies on the Tri-county Drinking Water System to supply the system with potable water that has met primary and secondary disinfection requirements. Previously, both systems were operated under the same drinking water system number. In 2014, the West Elgin Distribution System was separated from the Tri-County Drinking Water System.

A portion of the West Elgin Distribution System on Beattie Line is supplied by the Southwest Middlesex Distribution System through a connection on Beattie Line and Graham Road. This area relies on Southwest Middlesex Distribution System to supply water that has met primary and secondary disinfection requirements.

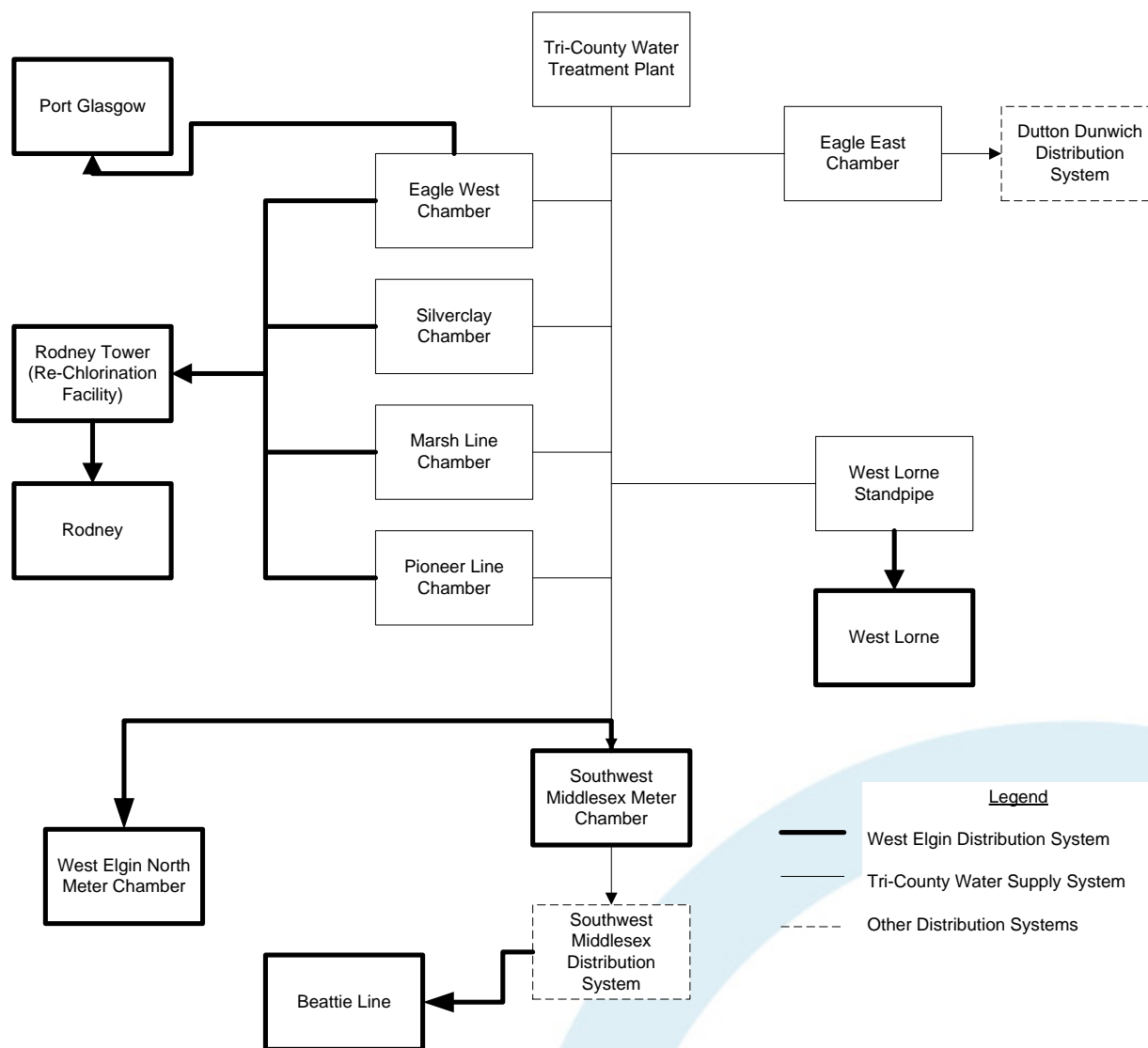
The West Elgin Distribution System contains 180 Kms, (50mm-400 mm) of watermains along with a water tower located in Rodney. The Rodney Tower contains re-chlorination facility using sodium hypochlorite in order to maintain secondary disinfection in the distribution system. There are sample stations, hydrants, blow offs and auto flushers located throughout the municipality for monitoring the system. The system serves 1760 active customers.


The West Elgin Distribution System is connected to the Southwest Middlesex Distribution System at the Southwest Middlesex Reservoir. There is also another connection to the Southwest Middlesex Distribution System through an interconnection located near the 401 on Graham Road in West Lorne. This was created when there was an emergency watermain break on the Southwest Middlesex Distribution System and is only used for maintenance and emergency situations.

The West Elgin Distribution System is connected to the Dutton-Dunwich Distribution System at Pioneer line near the 401 service centre.

	<p align="center">OPERATIONAL PLAN West Elgin Distribution System</p>	<p>QEMS Proc.: OP-06 Rev Date: 2020-07-08 Rev No: 2 Pages: 3 of 5</p>
DRINKING WATER SYSTEM		
Reviewed by: QEMS Representative	Approved by: Operations Management	

3.2 Distribution System Flow Chart



	<p align="center">OPERATIONAL PLAN West Elgin Distribution System</p>	<p>QEMS Proc.: OP-06 Rev Date: 2020-07-08 Rev No: 2 Pages: 4 of 5</p>
DRINKING WATER SYSTEM		
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3.3 Operational Challenges

The West Elgin Distribution System's main challenge is maintaining the free chlorine residual through the large network of water mains, especially during the summer months. Automatic flushers and ample sample points have been installed to monitor and maintain adequate disinfection residuals.

The Rodney Tower poses a challenge during the summer months in maintaining adequate free chlorine residuals beyond the normal range of the drawdown cycle in the tower. In Spring of 2018 a re-chlorination facility was installed at the Rodney Tower to help alleviate this issue.

Algae blooms can pose operational challenges at the Tri-County Drinking Water System which in turn pose a threat to the distribution systems it serves. If an algae bloom is suspected, sampling for microcystin is done on the raw and treated water during these possible contamination periods. Communication is provided to West Elgin Distribution System of any issues.

In 2012, manganese was identified in the raw water in the soluble form, therefore, able to pass through the membrane filtration system at the Tri-County Water Treatment Plant. The oxidation of manganese results in precipitation causing elevated turbidity levels and colour which can be observed by downstream users. The WTP has experienced short term episodes where the coloured water is released to the distribution system causing aesthetic issues.


3.4 Upstream and Downstream Critical Processes

Conditions upstream of the distribution system, at the Tri-county Drinking Water System and Southwest Middlesex Distribution System are monitored through SCADA, sampling, and operator observations. This information is relayed to the West Elgin Distribution System through the operating authority of the Tri-County Drinking Water System and Southwest Middlesex Distribution System in order to effectively operate the distribution system.

The West Elgin Distribution System relays information to the Municipality's it provides water to (downstream users) should there be any issues with the supply or quality of the drinking water. As well, these downstream users provide information to the West Elgin Distribution System in regards to the supply and quality of the water.

The West Elgin Distribution System relies on the proper installation and working order of backflow preventers on service connections in order to protect the quality of the water in the source water mains.

Autoflushers are routinely monitored to ensure proper working order and adequate flushing time in order to maintain free chlorine residuals in the distribution system.


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DRINKING WATER SYSTEM		
Reviewed by: QEMS Representative	Approved by: Operations Management	

4. Related Documents

SOP WEDS-05 Low Chlorine
 SOP WEDS-13 Provisions of an Alternate Water Source
 SOP WEDS-07 Community Complaints
 Operations Manual

5. Revision History

Date	Revision #	Reason for Revision
2018-05-11	0	Procedure issued – Information within OP-06 was originally set out in the Main body of OCWA's Operational Plan (last revision #4 dated 2017-06-20). New Purpose, Definitions, Procedure, Related Documents and separate Revision History sections; add Rodney Tower Re-chlorination; update distribution system flow chart
2019-08-06	1	Updated as per EA – August 16, 2018 and IA – July 22, 2019
2020-07-08	2	Updated as per IA

 Ontario Clean Water Agency	OPERATIONAL PLAN West Elgin Distribution System	QEMS Proc.: OP-07 Rev Date: 2020-07-08 Rev No: 2 Pages: 1 of 4
RISK ASSESSMENT		
Reviewed by: QEMS Representative	Approved by: Operations Management	

1. Purpose

To document the process for conducting a risk assessment to identify and assess potential hazardous events and associated hazards that could affect drinking water safety.

2. Definitions

Consequence – the potential impact to public health and/or operation of the drinking water system if a hazard/hazardous event is not controlled

Control Measure – includes any processes, physical steps or other practices that have been put in place at a drinking water system to prevent or reduce a hazard before it occurs

Critical Control Point (CCP) – An essential step or point in the subject system at which control can be applied by the Operating Authority to prevent or eliminate a drinking water health hazard or reduce it to an acceptable level

Drinking Water Health Hazard – means, in respect of a drinking water system,

- a) a condition of the system or a condition associated with the system's waters, including any thing found in the waters,
 - i. that adversely affects, or is likely to adversely affect, the health of the users of the system,
 - ii. that deters or hinders, or is likely to deter or hinder, the prevention or suppression of disease, or
 - iii. that endangers or is likely to endanger public health,
- b) a prescribed condition of the drinking water system, or
- c) a prescribed condition associated with the system's waters or the presence of a prescribed thing in the waters


Hazardous Event – an incident or situation that can lead to the presence of a hazard

Hazard – a biological, chemical, physical or radiological agent that has the potential to cause harm

Likelihood – the probability of a hazard or hazardous event occurring

3. Procedure

- 3.1 Operations Management ensures that operations personnel are assigned to conduct a risk assessment at least once every thirty-six months. At a minimum, the Risk Assessment Team must include the QEMS Representative and at least one member of Top Management.
- 3.2 The QEMS Representative is responsible for coordinating the risk assessment and ensuring that documents and records related to the risk assessment activities are maintained.

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RISK ASSESSMENT		
Reviewed by: QEMS Representative	Approved by: Operations Management	

3.3 The Risk Assessment Team performs the risk assessment as follows:

- 3.3.1 OP-07 Risk Assessment and OP-08 Risk Assessment Outcomes are reviewed.
- 3.3.2 For each of the system's activities/process steps, potential hazardous events and associated hazards (possible outcomes) that could impact the system's ability to deliver safe drinking water are identified. At a minimum, potential hazardous events and associated hazard as identified in the most current version of the Ministry of the Environment, Conservation and Parks (MECP) document titled "Potential Hazardous Events for Municipal Residential Drinking Water Systems" (as applicable to the system type) must be considered.
- 3.3.3 For each of the hazardous events, control measures currently in place at the system to eliminate the hazard or prevent it from becoming a threat to public health are specified. Control measures may include alarms, monitoring procedures, SOPs/contingency plans, preventive maintenance activities, backup equipment, engineering controls, etc.
- 3.3.4 To ensure that potential drinking water health hazards are addressed and minimum treatment requirements as regulated by SDWA O. Reg. 170/03 and the MECP's "Procedure for Disinfection of Drinking Water in Ontario" are met, OCWA has established mandatory Critical Control Points (CCPs).

As a minimum, the following must be included as CCPs (as applicable):

- Equipment or processes required to achieve primary disinfection (e.g., chemical and/or UV disinfection system, coagulant dosing system, filters, etc.)
 - Equipment or processes necessary for maintaining secondary disinfection in the distribution system
 - Fluoridation system
- 3.3.5 Additional CCPs for the system are determined by evaluating and ranking the hazardous events for the remaining activities/process steps (i.e., those not included as OCWA's minimum CCPs).
- 3.3.6 Taking into consideration existing control measures (including the reliability and redundancy of equipment), each hazardous event is assigned a value for the likelihood and a value for the consequence of that event occurring based on the following criteria:

RISK ASSESSMENT

Reviewed by: QEMS Representative

Approved by: Operations Management

Value	Likelihood of Hazardous Event Occurring
1	Rare – Estimated to occur every 50 years or more (usually no documented occurrence at site)
2	Unlikely – Estimated to occur in the range of 10 – 49 years
3	Possible – Estimated to occur in the range of 1 – 9 years
4	Likely – Occurs monthly to annually
5	Certain – Occurs monthly or more frequently

Value	Consequence of Hazardous Event Occurring
1	Insignificant – Little or no disruption to normal operations, no impact on public health
2	Minor – Significant modification to normal operations but manageable, no impact on public health
3	Moderate – Potentially reportable, corrective action required, potential public health impact, disruption to operations is manageable
4	Major – Reportable, system significantly compromised and abnormal operations if at all, high level of monitoring and corrective action required, threat to public health
5	Catastrophic – Complete failure of system, water unsuitable for consumption


The likelihood and consequence values are multiplied to determine the risk value (ranking) of each hazardous event. Hazardous events with a ranking of 12 or greater are considered high risk.

3.3.7 Hazardous events and rankings are reviewed and any activity/process step is identified as an additional CCP if all of the following criteria are met:

- 1) The associated hazardous event has a ranking of 12 or greater;
- 2) The associated hazardous event can be controlled through control measure(s);
- 3) Operation of the control measures can be monitored and corrective actions can be applied in a timely fashion;
- 4) Specific control limits can be established for the control measure(s); and
- 5) Failure of the control measures would lead to immediate notification of Medical Officer of Health (MOH) or MECP or both.

3.4 The outcomes of the risk assessment are documented as per OP-08 Risk Assessment Outcomes.

3.5 At least once every calendar year, the QEMS Representative facilitates the verification of the currency of the information and the validity of the assumptions used in the risk

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assessment in preparation for the Management Review (OP-20). When performing this review, the following may be considered:

- Process/equipment changes
- Reliability and redundancy of equipment
- Emergency situations/service interruptions
- CCP deviations
- Audit/inspection results

4. Related Documents

OP-08 Risk Assessment Outcomes


OP-20 Management Review

MECP's "Potential Hazardous Events for Municipal Residential Drinking Water Systems"

MECP's "Procedure for Disinfection of Drinking Water in Ontario"

5. Revision History

Date	Revision #	Reason for Revision
2018-05-11	0	Procedure issued – Information within OP-07 was originally set out in the QEMS Procedure QP-02 Risk Assessment and Risk Assessment Outcomes (last revision #4 2017-06-20). Revised Purpose to reflect element 7 requirements only. Included minimum requirements for the Risk Assessment Team. Clarified role of QEMS Representative in coordinating the risk assessment and maintaining documents and records. Re-worded procedure for performing the risk assessment. Included reference to MOECC's "Potential Hazardous Events for Municipal Residential Drinking Water Systems". Removed requirements for documenting the outcomes of the risk assessment (now covered in OP-08). Changed annual review to at least once every calendar year and included potential considerations when performing the review.
2018-08-07	1	Removed operator from 3.1 and changed MOECC to MECP as per AI July 20, 2018
2020-07-08	2	Changed 3.1 to read one member of Top Management not Operations Management

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1. Purpose

To document the outcomes of the risk assessment conducted as per OP-07 Risk Assessment.

2. Definitions

Critical Control Point (CCP) – An essential step or point in the subject system at which control can be applied by the Operating Authority to prevent or eliminate a drinking water health hazard or reduce it to an acceptable level

Critical Control Limit (CCL) – The point at which a Critical Control Point response procedure is initiated

3. Procedure

3.1 The QEMS Representative is responsible for updating the information in OP-08A Summary of Risk Assessment Outcomes as required.


3.2 The results of the risk assessment conducted as per OP-07 are documented in Table 1 of OP-08A. This includes:

- Identified potential hazardous events and associated hazards (possible outcomes) for each of the system's activities/process steps;
Note: Hazards listed in the MECP's "Potential Hazardous Events for Municipal Residential Drinking Water Systems" are indicated in the appropriate column using the reference numbers in Table 4 of OP-08A.
- Identified control measures to address the potential hazards and hazardous events; and
- Assigned rankings for the for the outcome of the hazardous events (likelihood x consequence = risk value) and whether the hazardous event is a Critical Control Point (CCP) (mandatory or additional).
Note: If the hazardous event is ranked as 12 or higher and it is not being identified as a CCP, provide rationale as to why it does not meet the criteria set out in section 3.3.7 of OP-07).

3.3 Operations Management is responsible for ensuring that for each CCP:

- Critical Control Limits (CCLs) are set;
- Procedures and processes to monitor the CCLs are established; and
- Procedures to respond to, report and record deviations from the CCLs are implemented.

The identified CCPs, their respective CCLs and associated procedures are documented in Table 2 of OP-08A.

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3.4 A summary of the results of the once every calendar review/36-month risk assessment is recorded in Table 3 of OP-08A.

3.5 Operations Management considers the risk assessment outcomes during the review of the adequacy of the infrastructure (Refer to OP-14 Review and Provision of Infrastructure).

4. Related Documents

OP-07 Risk Assessment
 OP-08A Summary of Risk Assessment Outcomes
 OP-14 Review and Provision of Infrastructure
 CCP Limit Reached Tracking Form
 MECP's "Potential Hazardous Events for Municipal Residential Drinking Water Systems"

5. Revision History

Date	Revision #	Reason for Revision
2018-05-11	0	Procedure issued – Information within OP-08 was originally set out in the QEMS Procedure QP-02 Risk Assessment and Risk Assessment Outcomes (last revision #4 2017-06-20) Clarified role of QEMS Representative in updating the information in OP-08A Summary of Risk Assessment Outcomes. Included requirements for how to document the risk assessment outcomes using the tables in OP-08A. Clarified responsibility of Operations Management to ensure Critical Control Limits are set and related procedures are developed. Included reference to OP-14 Review and Provision of Infrastructure to emphasize the need for Operations Management to review the risk assessment outcomes during the infrastructure review.
2018-08-07	1	Revised 3.2 to state outcomes of the hazardous events, revised 3.4 to state once every calendar year, changed MOECC to MECP as per AI July 20, 2018

SUMMARY OF RISK ASSESSMENT OUTCOMES

Reviewed by: QEMS Representative

Approved by: Operations Management

Table 1: Risk Assessment Table

Note: Processes referred to in section 3.3.4 of OP-07 Risk Assessment must be identified as mandatory Critical Control Points (CCPs) as applicable. Mandatory CCPs are not required to be ranked.

Activity/ Process Step	Description of Hazardous Event	Possible Outcome (Hazards/Risks)	Existing Control Measures	MECP Potential Hazardous Event/Hazard Reference # (see Table 4)	Likelihood	Consequence	Risk Value	CCP?
Water Supply	Water Quality Issue from Tri- County WTP	-Adverse Water Quality Incident (AWQI) -Boil Water Advisory -Aesthetic Issue	-Flushing -Community Complaints -SOP#: WEDS-01, WEDS-02, WEDS-07	1, 4, 7,8,11	3	3	9	<input type="checkbox"/> Yes – Mandatory CCP <input type="checkbox"/> Yes – Additional CCP identified for facility <input checked="" type="checkbox"/> No – doesn't meet 3.3.7.1), 5)
				3, 5, 6, 8	2	3	6	
	Water Supply issue from Tri- County WTP	-Unable to supply water -Adverse Water Quality Incident (AWQI)	-Short term supply from the West Lorne Standpipe, Rodney Tower -Back up supply from Iona Interconnection -SOP#: WEDS-01, WEDS-06	1,2,4,6	1	3	3	<input type="checkbox"/> Yes – Mandatory CCP <input type="checkbox"/> Yes – Additional CCP identified for facility <input checked="" type="checkbox"/> No – doesn't meet 3.3.7.1)
				3,5,8	2	3	6	
				7	3	3	9	
Dialer	Failure of Alarm Dialer	-no monitoring of system -AWQI	-Regular maintenance by Tri- County DWS operators -Visual monitoring, site checks -SOP #: WEDS-01	3,4	3	3	9	<input type="checkbox"/> Yes – Mandatory CCP <input type="checkbox"/> Yes – Additional CCP identified for facility <input checked="" type="checkbox"/> No- doesn't meet 3.3.7.1),4), 5)
				6	1	3	3	

SUMMARY OF RISK ASSESSMENT OUTCOMES

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Activity/ Process Step	Description of Hazardous Event	Possible Outcome (Hazards/Risks)	Existing Control Measures	MECP Potential Hazardous Event/Hazard Reference # (see Table 4)	Likelihood	Consequence	Risk Value	CCP?
SCADA System	Failure of Historian	-Loss of continuous monitoring information	-Retrieval of data from Eramosa at Tri-County DWS -Back up of data -Visual monitoring, site checks -Process analyzers -SOP #: WTP-21, WTP-25, ALRM-01	3,4	3	2	6	<input type="checkbox"/> Yes – Mandatory CCP <input type="checkbox"/> Yes – Additional CCP identified for facility <input checked="" type="checkbox"/> No- doesn't meet 5.7.1, 5.7.2, 5.7.3, 3.3.7.4,5)
				6	1	2	2	
	Loss of Communication	-Loss of continuous monitoring system	-Retrieval of data from Eramosa -Onsite PLC to store data temporarily -Visual monitoring, site checks -Process Analyzers -SOP #: WEDS-03, WTP-08, WTP-21, WTP-25, WTP-34, ALRM-64	,3,4	3	2	6	<input type="checkbox"/> Yes – Mandatory CCP <input type="checkbox"/> Yes – Additional CCP identified for facility <input checked="" type="checkbox"/> No- doesn't meet 3.3.7.1), 2), 3), 4), 5)
				6	1	2	2	
Rodney Tower	Low Level	-Low pressure in system -Low chlorine	-Storage of treated water at WTP and West Lorne Standpipe -Distribution chamber bypasses to supply water quicker to Rodney -SOP #: WEDS-05, WEDS-06, ALRM-63, ALRM-65	2,6	1	3	3	<input type="checkbox"/> Yes – Mandatory CCP <input type="checkbox"/> Yes – Additional CCP identified for facility <input checked="" type="checkbox"/> No – doesn't meet 3.3.7.1)
				3,7	3	3	9	
	Low Chlorine	-AWQI: <0.05ppm for 15min on analyzer	-Regular monitoring from analyzer and grab samples -Flushing -SOP #: WEDS-01, WEDS-02, WEDS-05, ALRM-65	3,6	1	4	4	<input checked="" type="checkbox"/> Yes – Mandatory CCP <input type="checkbox"/> Yes – Additional CCP identified for facility <input type="checkbox"/> No
				4,11	3	4	12	

SUMMARY OF RISK ASSESSMENT OUTCOMES

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Activity/ Process Step	Description of Hazardous Event	Possible Outcome (Hazards/Risks)	Existing Control Measures	MECP Potential Hazardous Event/Hazard Reference # (see Table 4)	Likelihood	Consequence	Risk Value	CCP?
	Power Failure	-loss of level control and communications	-Operate high lift pumps based on pressure at the plant -Manual readings from pressure gauge -Grab samples for free chlorine -Portable generator on site -SOP #: ALRM-63	1,6	1	2	2	<input type="checkbox"/> Yes – Mandatory CCP <input type="checkbox"/> Yes – Additional CCP identified for facility <input checked="" type="checkbox"/> No – doesn't meet 3.3.7.1), 5)
				3,4	4	2	8	
Distribution	Chamber Failure -Air Release	-AWQI	-Regular Maintenance and annual inspection -SOP #: WEDS-01, WEDS-02	,3,4,6	2	3	6	<input type="checkbox"/> Yes – Mandatory CCP <input type="checkbox"/> Yes – Additional CCP identified for facility <input checked="" type="checkbox"/> No - doesn't meet 3.3.7.1), 3), 4), 5)
	Chamber Failure -Flow Control	-Low pressure	-Manual controls -Bypass lines in chambers -SOP#: WEDS-06, ALRM-63	3,4,6	2	3	6	<input type="checkbox"/> Yes – Mandatory CCP <input type="checkbox"/> Yes – Additional CCP identified for facility <input checked="" type="checkbox"/> No - doesn't meet 3.3.7.1), 3), 4), 5)
	Watermain Break	-AWQI -Low pressure	-Isolation of section of main -Manual operation of valve to maintain pressure on part of system -West Lorne Standpipe, Rodney Tower and WTP supply water to maintain pressure -AWWA Standard C651; MECP Watermain Disinfection Procedure -SOP#: WEDS-01, WEDS-06, WEDS-07, WEDS-08	1,3,6	2	3	6	<input type="checkbox"/> Yes – Mandatory CCP <input type="checkbox"/> Yes – Additional CCP identified for facility <input checked="" type="checkbox"/> No – doesn't meet 3.3.7. 3), 4), 5)
				4	4	3	12	

SUMMARY OF RISK ASSESSMENT OUTCOMES

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Activity/ Process Step	Description of Hazardous Event	Possible Outcome (Hazards/Risks)	Existing Control Measures	MECP Potential Hazardous Event/Hazard Reference # (see Table 4)	Likelihood	Consequence	Risk Value	CCP?
	Adverse from Routine Sampling	-Boil Water Advisory -AWQI	-Flushing -SOP#: WEDS-01, WEDS-02, WEDS-09	1,6,7,8,11	2	4	8	<input type="checkbox"/> Yes – Mandatory CCP <input type="checkbox"/> Yes – Additional CCP identified for facility
				4	3	4	12	<input checked="" type="checkbox"/> No – doesn't meet 3.3.7.3)
	Backflow Failure	-AWQI	-Inspections and maintenance on backflows -SOP#: WEDS-01	4,6	2	3	6	<input type="checkbox"/> Yes – Mandatory CCP <input type="checkbox"/> Yes – Additional CCP identified for facility
								<input checked="" type="checkbox"/> No - doesn't meet 3.3.7.1), 3), 4), 5)
	Low Chlorine	-AWQI (<0.5mg/L grab sample)	-Sampling and monitoring schedule -Flushing -SOP#: WEDS-01, WEDS-02, WEDS-05	1,6,8	2	4	8	<input type="checkbox"/> Yes – Mandatory CCP <input type="checkbox"/> Yes – Additional CCP identified for facility
				4	3	4	12	<input checked="" type="checkbox"/> No – doesn't meet 3.3.7.3)
	Biofilms	-Taste and Odour complaints -AWQI	-Routine sampling of HPC and free chlorine residuals -Maintenance (flushing) -SOP#: WEDS-01, WEDS-02, WEDS-07	1,4,8,11	2	3	6	<input type="checkbox"/> Yes – Mandatory CCP <input type="checkbox"/> Yes – Additional CCP identified for facility
				6	1	3	3	<input checked="" type="checkbox"/> No - doesn't meet 3.3.7.1), 3), 5)
	Aging Infrastructure failure	-AWQI -Reduced Flow -Biofilms -Main Breaks -Valve Failure	-Capital replacement projects, financial plans -Maintenance programs (flushing) -SOP#: WEDS-01, WEDS-02, WEDS-07, WEDS-08	1,6	2	3	6	<input type="checkbox"/> Yes – Mandatory CCP <input type="checkbox"/> Yes – Additional CCP identified for facility
				3,4	3	3	9	<input checked="" type="checkbox"/> No - doesn't meet 3.3.7.1), 3), 4), 5)
	New Watermain/Service Installations failure	-AWQI -Boil Water Advisory	-Training, qualified persons -AWWA Standards, MDWL/DWWP requirements,	7,8	2	3	6	<input type="checkbox"/> Yes – Mandatory CCP <input type="checkbox"/> Yes – Additional CCP

OPERATIONAL PLAN

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Activity/ Process Step	Description of Hazardous Event	Possible Outcome (Hazards/Risks)	Existing Control Measures	MECP Potential Hazardous Event/Hazard Reference # (see Table 4)	Likelihood	Consequence	Risk Value	CCP?
			MECP Watermain Disinfection Procedure -SOP#: WEDS-01					identified for facility <input checked="" type="checkbox"/> No - doesn't meet 3.3.7.1), 3), 4), 5)
	Illegal Hydrant Use	-AWQI -Watermain Break -Low pressure	-SOP#: WEDS-01, WEDS-06, WEDS-08	6	2	3	6	<input type="checkbox"/> Yes – Mandatory CCP <input type="checkbox"/> Yes – Additional CCP identified for facility <input checked="" type="checkbox"/> No - doesn't meet 3.3.7.1), 3), 4), 5)
	Illegal Connections	-AWQI	-SOP#: WEDS-01	6	3	3	9	<input type="checkbox"/> Yes – Mandatory CCP <input type="checkbox"/> Yes – Additional CCP identified for facility <input checked="" type="checkbox"/> No - doesn't meet 3.3.7.1), 2), 3), 4)
Operations	Staffing Issue	Is not able to meet regulatory requirements	CP-03	n/a	3	3	9	<input type="checkbox"/> Yes – Mandatory CCP <input type="checkbox"/> Yes – Additional CCP identified for facility <input checked="" type="checkbox"/> No - doesn't meet 3.3.7.1), 2), 4)

Table 2: Identified Critical Control Points (CCPs)

CCP	Critical Control Limits	Monitoring Procedures	Response, Reporting and Recording Procedures
Rodney Tower Low Chlorine	-0.40mg/L or less free chlorine for 600sec on AIT1 and 2 calls out alarm -0.30mg/L or less free chlorine for 600sec on AIT1 and 2 calls out alarm Ch 65	-Continuous Chlorine Analyzer -SCADA Monitoring -Alarms to Dialer and banner on SCADA -Grab samples using pocket	-Isolation of Tower -Draining of Tower -Overfilling of Tower -SOP #: WEDS-01, WEDS-10, WEDS-11, ALRM-65

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		colorimeter	-Facility Emergency Plan

Note: Standard Operating Procedures (SOPs) referenced in Tables 1 and 2 are controlled as per OP-05 Document and Records Control.

Related Standard Operating Procedures (SOPs):

SOP# WEDS-01: Reporting Adverse Drinking Water Quality
 SOP# WEDS-02: Flushing
 SOP# WEDS-03: 72hr Review of Continuous Monitoring Data
 SOP# WEDS-04: Alarm Response
 SOP# WEDS-05: Low Free Chlorine Residual in Distribution System
 SOP# WEDS-06: Low Pressure in Distribution System
 SOP# WEDS-07: Community Complaints
 SOP# WEDS-08: Watermain Repair
 SOP# WEDS-09: Collection and Handling of Drinking Water Samples
 SOP# WEDS-10: Isolating, Draining, Filling of Rodney Tower
 SOP# WEDS-11: Critical Control Point (CCP) Limit Reached

Tri-County WTP Standard Operating Procedures (SOPs)

SOP# WTP-08: 72hr Review of Continuous Monitoring Data
 SOP# WTP-21: Historian Data in Excel
 SOP# WTP-25: Historian Fault on SCADA Computer
 SOP# WTP-34: Review of Trending Data

Alarm Standard Operating Procedures

SOP#ALRM-63: Rodney Elevated Tank Alarm
 SOP#ALRM-64: Rodney Elevated Tank Communications Failure
 SOP#ALRM-65: Rodney Elevated Tank Chlorine Alarms

Table 3: Record of Annual Review/36-Month Risk Assessment

SUMMARY OF RISK ASSESSMENT OUTCOMES

Reviewed by: QEMS Representative

Approved by: Operations Management

The Drinking Water Quality Management Standard (DWQMS) requires that the currency of the information and the validity of the assumptions used in the risk assessment be verified at least once every calendar year. In addition, the risk assessment must be conducted at least once every thirty-six months.

Date of Activity	Type of Activity	Participants	Summary of Results
July 18, 2013	Conducted initial risk assessment	Dale LeBritton and Cindy Sigurdson	Risk Assessment completed
May 27, 2014	Risk Assessment Review	Cindy Sigurdson, Dale LeBritton	Reviewed Risk Assessment, made minor changes. The consequence for SCADA system historian faults reduced since it is a process analyzer and continuous monitoring is not required.
July 6, 2015	Annual Risk Assessment Review	Cindy Sigurdson, Dale LeBritton	Review of risk assessment; Added Low chlorine, vandalism and terrorism as an hazardous event in the distribution System; and low pressure as an outcome of illegal hydrant use; Revise name to Tri-County WTP from West Elgin; Revise name of SOP: AWQI to Reporting Adverse Drinking Water.
July 4, 2016	36 Month Risk Assessment	Cindy Sigurdson, Dale LeBritton	Revise/provide more information to the existing control measures; identify why the hazardous event isn't a CCP by referring to Step 5.7 criteria that is not met.
June 20, 2017	Annual Risk Assessment Review	Cindy Sigurdson	Add process analyzer under control measure for failure of historian and loss of communication, add portable generator under control measure for power failure.
May 11, 2018	Annual Risk Assessment Review	Terri-Lynn Thomson	Add in table 4 ad identify the reference numbers in Table 1
July 23, 2019	36-Month Risk Assessment redo. Once every calendar year review	Cindy Sigurdson, Terri-Lynn Thomson, Sam Smith	Separated risk value based on MECP Hazardous Events. Added second Rodney tower chlorine analyzer under CCPs
June 4, 2020	Annual Risk Assessment Review	Cindy Sigurdson, Terri-Lynn Thomson, Sam Smith	Added staffing issue due to current pandemic

Table 4: Potential Hazardous Event/Hazard Reference Numbers (based on MECP's "Potential Hazardous Events for Municipal Residential Drinking Water Systems" dated February 2017)

If the hazardous event/hazard is not applicable to this drinking water system (DWS), it will be noted in the first column of this table.

System Type (indicate all that apply to this DWS)		Reference Number	Description of Hazardous Event/Hazard
X	All Systems	1	Long Term Impacts of Climate Change
X	All Systems	2	Water supply shortfall

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Approved by: Operations Management

X	All Systems	3	Extreme weather events (e.g., tornado, ice storm)
X	All Systems	4	Sustained extreme temperatures (e.g., heat wave, deep freeze)
X	All Systems	5	Chemical spill impacting source water
X	All Systems	6	Terrorist and vandalism actions
X	Distribution Systems	7	Sustained pressure loss
X	Distribution Systems	8	Backflow
N/A	Treatment Systems	9	Sudden changes to raw water characteristics (e.g., turbidity, pH)
N/A	Treatment Systems	10	Failure of equipment or process associated with primary disinfection (e.g., coagulant dosing system, filters, UV system, chlorination system)
X	Treatment Systems and Distribution Systems providing secondary disinfection	11	Failure of equipment or process associated with secondary disinfection (e.g., chlorination equipment, chloramination equipment)
N/A	Treatment Systems using Surface Water	12	Algal blooms

Revision History

Date	Revision #	Reason for Revision
2013-07-19	0	Initial risk assessment conducted
2014-05-27	1	Risk Assessment Reviewed
2014-07-18	2	Revise Table 2 Critical Control Limit to clarify set points
2015-07-06	3	Revised Table 1 as per annual review
2016-07-18	4	Revised as per 36 Month Redo
2017-06-20	5	Revised as per annual review
2018-05-11	6	Revised as per annual review, added MOECC's hazardous events
2018-08-07	7	Changed MOECC to MECP
2019-08-06	8	Updated as per 36 month risk assessment redo
2020-07-08	9	Updated as per annual review

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1. Purpose

To document the following for the West Elgin Distribution System:

- Owner;
- Organizational structure of the Operating Authority;
- QEMS roles, responsibilities and authorities of staff, Top Management and individuals/groups that provide corporate oversight; and
- Responsibilities for conducting the Management Review

2. Definitions

Operations Management – refers to the General Manager, Senior Operations Manager and/or Operations Manager that directly oversees a facility's operations

Senior Leadership Team (SLT) – members include President and CEO, Executive Vice President and General Counsel, Vice Presidents of OCWA's business units and Regional Hub Managers

Top Management – a person, persons or a group of people at the highest management level within an operating authority that makes decisions respecting the QMS and recommendations to the owner respecting the subject system or subject systems

Operations Personnel – Employees of the drinking water system who perform various activities related to the compliance, operations and maintenance of the drinking water system that may directly affect drinking water quality

3. Procedure

3.1 Organizational Structure

The West Elgin Distribution System is owned by the Corporation of the Municipality of West Elgin and is represented by the Mayor and CAO/Clerk.


The organizational structure of OCWA, the Operating Authority, is outlined in appendix OP-09A: Organizational Structure.

3.2 Top Management

Top Management for the West Elgin Distribution System consists of:

- Operations Management – Tri-County Cluster
- Regional Hub Manager – Southwest Region
- Safety, Process & Compliance Manager – Southwest Region

Irrespective of other duties (see Table 9-2 below), Top Management's responsibilities and authorities include:

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- Endorsing the Operational Plan as per the Commitment and Endorsement procedure (OP-03);
- Ensuring that the QEMS meets the requirements of the DWQMS;
- Ensuring staff are aware of the applicable legislative and regulatory requirements;
- Communicating the QEMS according to the Communications procedure (OP-12);
- Providing resources needed to maintain and continually improve the QEMS;
- Appointing and authorizing a QEMS Representative (OP-04); and
- Undertaking Management Reviews as per the Management Review procedure (OP-20).

Note: Specific responsibilities of the individual members of Top Management are identified in the referenced procedures.

3.3 Corporate Oversight

Roles, responsibilities and authorities for individuals/groups providing corporate oversight of OCWA's QEMS are summarized in Table 9-1 below.

Table 9-1: Corporate QEMS Roles, Responsibilities and Authorities

Role	Responsibilities and Authorities
Board of Directors	<ul style="list-style-type: none"> • Set the Agency's strategic direction, monitor overall performance and ensure appropriate systems and controls are in place in accordance with the Agency's governing documents • Review and approve the QEMS Policy
Senior Leadership Team (SLT)	<ul style="list-style-type: none"> • Establish the Agency's organizational structure and governing documents and ensure resources are in place to support strategic initiatives • Monitor and report on OCWA's operational and business performance to the Board of Directors • Review the QEMS Policy and recommend its approval to the Board • Approve corporate QEMS programs and procedures
Corporate Compliance	<ul style="list-style-type: none"> • Manage the QEMS Policy and corporate QEMS programs and procedures • Provide support for the local implementation of the QEMS • Monitor and report on QEMS performance and any need for improvement to SLT • Consult with the MECP and other regulators and provide compliance support/guidance on applicable legislative, regulatory and policy requirements • Manage contract with OCWA's DWQMS accreditation body

3.4 Regional Hub Roles, Responsibilities and Authorities

ORGANIZATIONAL STRUCTURE, ROLES, RESPONSIBILITIES AND AUTHORITIES

Reviewed by: QEMS Representative

Approved by: Operations Management

QEMS roles, responsibilities and authorities of Regional Hub personnel are summarized in Table 9-2 below. This information is kept current as per the Document and Records Control procedure (OP-05) and is communicated to staff as per the Communications procedure (OP-12).

Additional duties of employees are detailed in their job specifications and in the various QEMS programs and procedures that form, or are referenced in, this Operational Plan.

Table 9-2: QEMS Roles, Responsibilities and Authorities for the Tri-County Cluster.

Role	Responsibilities and Authorities
All Operations Personnel	<ul style="list-style-type: none"> Perform duties in compliance with applicable legislative and regulatory requirements Be familiar with the QEMS Policy and work in accordance with QEMS programs and procedures Maintain operator certification (as required) Attend/participate in training relevant to their duties under the QEMS Document all operational activities Identify potential hazards at their facility that could affect the environmental and/or public health and report to Operations Management Report and act on all operational incidents Recommend changes to improve the QEMS
Regional Hub Manager (Top Management)	<ul style="list-style-type: none"> Oversee the administration and delivery of contractual water/wastewater services on a Regional Hub level Fulfill role of Top Management Ensure corporate QEMS programs and procedures are implemented consistently throughout the Regional Hub Manages the planning of training programs for Regional Hub Report to VP of Operations/SLT on the regional performance of the QEMS and any need for Agency-wide improvement Act as Overall Responsible Operator (ORO) when required.
Operations Management (Top Management)	<ul style="list-style-type: none"> Manage the day-to-day operations and maintenance of his/her assigned facilities and supervise facility operational staff Fulfill role of Top Management Ensure corporate and site-specific QEMS programs and procedures are implemented at his/her assigned facilities Determine necessary action and assign resources in response to operational issues Report to the Regional Hub Manager on facility operational performance Ensure operational training is provided for the cluster (in

ORGANIZATIONAL STRUCTURE, ROLES, RESPONSIBILITIES AND AUTHORITIES

Reviewed by: QEMS Representative

Approved by: Operations Management

Role	Responsibilities and Authorities
	<ul style="list-style-type: none"> consultation with the SPC Manager as required) Act as Overall Responsible Operator (ORO) when required.
Safety, Process & Compliance (SPC) Manager (Top Management, Alternate QEMS Representative)	<ul style="list-style-type: none"> Supervise facility compliance staff and provide technical and program support to the Regional Hub related to process control and compliant operations Fulfill role of Top Management Ensure corporate/regional QEMS programs and procedures are implemented consistently throughout the Regional Hub Assist in the development of site-specific operational procedures as required Ensure training on applicable legislative and regulatory requirements and the QEMS is provided for the Regional Hub (in consultation with Operations Management as required) Monitor and report to the Regional Hub Manager and Operations Management on the compliance status and QEMS performance within his/her Regional Hub and any need for improvement Act as alternate QEMS Representative (when required) Act as Overall Responsible Operator (ORO) when required.
Process & Compliance Technician (PCT) (QEMS Representative)	<ul style="list-style-type: none"> Implement, monitor and support corporate programs relating to environmental compliance and support management by evaluating and implementing process control systems at his/her assigned facilities Fulfill role of QEMS Representative (OP-04) Monitor, evaluate and report on compliance/quality status of his/her assigned facilities Implement facility-specific QEMS programs and procedures consistently at his/her assigned facilities Participate in audits and inspections and assist in developing, implementing and monitoring action items to respond to findings Report to the SPC Manager on QEMS implementation and identify the need for additional/improved processes and procedures at the regional/cluster/facility level (in consultation with the Operations Management as required) Communicates to Owners on facility compliance and DWQMS accreditation as directed Deliver/participate in/coordinate training including applicable legislative and regulatory requirements and the QEMS May act as Operator-in-Charge (OIC) and/or Overall Responsible Operator (ORO) when required.
Operator/Mechanic	<ul style="list-style-type: none"> Perform duties as assigned by Operations Management or designate Monitor, maintain and operate facilities in accordance with applicable regulations, approvals and established operating

ORGANIZATIONAL STRUCTURE, ROLES, RESPONSIBILITIES AND AUTHORITIES


Reviewed by: QEMS Representative

Approved by: Operations Management

Role	Responsibilities and Authorities
	<p>procedures</p> <ul style="list-style-type: none"> Collect samples and perform laboratory tests and equipment calibrations as required Regularly inspect operating equipment, perform routine preventive maintenance and repairs and prepare and complete work orders as assigned Participate in facility inspections and audits May act as Operator-in-Charge (OIC) and/or Overall Responsible Operator (ORO) when required.
Operational and Maintenance (O&M) Team Lead	<ul style="list-style-type: none"> Perform duties as assigned by Operations Management Oversee maintenance activities on equipment and process in order to maintain compliance with applicable legislation, regulations, approvals and established operating procedures Prepare and/or coordinate staff work assignments and follow up to ensure completion Act for management during vacations or periodic absences. Develop and provide O&M reports to management and recommend changes in operating procedures/processes to improve facility operations Assist with facility operations including monitoring facility processes, reviewing process data and trouble-shooting Assist management in developing annual O&M budgets and provide recommendations relating to potential O&M expenditures May act as Operator-in-Charge (OIC) and/or Overall Responsible Operator (ORO) when required.
Administrative Assistant	<ul style="list-style-type: none"> Support the administrative functions of the regional hub/cluster/facility including coordinating delivery of training as directed Assist with entering operational data (including operational training records, process data and maintenance records) into the appropriate database as directed

4. Related Documents

OP-03 Commitment and Endorsement
OP-04 QEMS Representative
OP-05 Document and Records Control
OP-09A Organizational Structure
OP-12 Communications
OP-20 Management Review

 Ontario Clean Water Agency	OPERATIONAL PLAN West Elgin Distribution System	QEMS Proc.: OP-09 Rev Date: 2020-07-09 Rev No: 3 Pages: 6 of 6
ORGANIZATIONAL STRUCTURE, ROLES, RESPONSIBILITIES AND AUTHORITIES		
Reviewed by: QEMS Representative	Approved by: Operations Management	

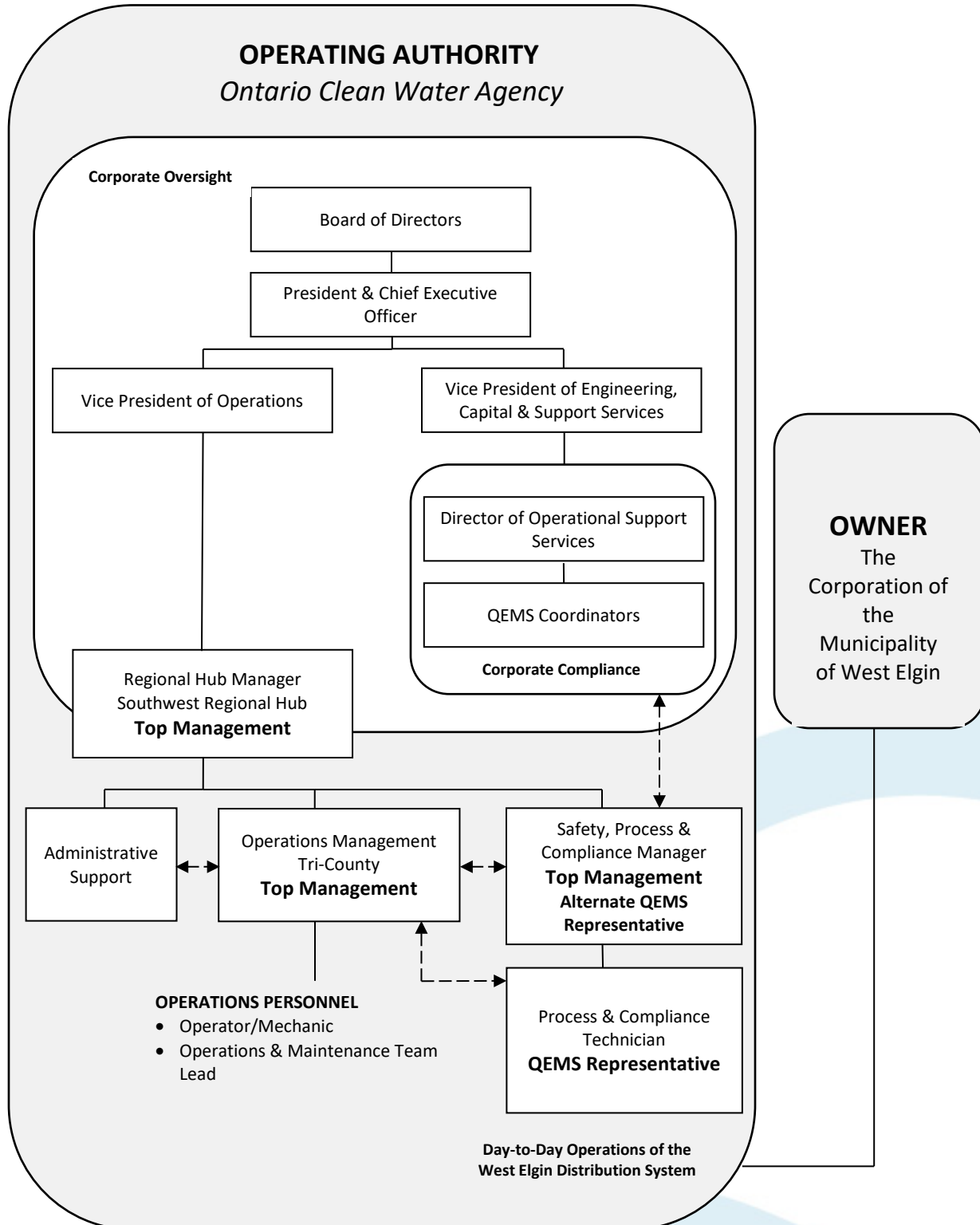
5. Revision History


Date	Revision #	Reason for Revision
2018-05-11	0	Procedure issued – Information within OP-09 was originally set out in the main body of OCWA's Operational Plan New Purpose, Definitions, Procedure, Related Documents and separate Revision History sections. Added definitions for Operations Management and Operations Personnel and throughout procedure replaced 'Senior Operations Manager' references with 'Operations Management'. (last revision # 4 dated 2017-06-20).
2018-08-07	1	Revised table 9.2 table to state Tri-County Cluster not Southwest Regional Hub. Changed MOECC to MECP as per IA July 20, 2018.
2019-08-06	2	Added Alt QEMS Rep to SPC manager position as per IA
2020-07-09	3	Added in System name in 1. As per IA

ORGANIZATIONAL STRUCTURE

Reviewed by: QEMS Representative

Approved by: Operations Management



 Ontario Clean Water Agency	OPERATIONAL PLAN West Elgin Distribution System	QEMS Doc.: OP-09A Rev Date: 2018-05-11 Rev No: 5 Pages: 2 of 2
ORGANIZATIONAL STRUCTURE		
Reviewed by: QEMS Representative		Approved by: Operations Management

Revision History

Date	Revision #	Reason for Revision
2018-05-11	5	Appendix issued - Organizational Chart previously contained as Appendix C of the Operational Plan. Moved to a new Appendix. Revision history previously maintained within the operations plan revision 4 dated 2017-06-23. Removed two levels of Top Management (e.g. Facility Level and Corporate level), instead Top Management is only at the facility level and corporate has been moved to Corporate oversight. Added Administrative Support.

 Ontario Clean Water Agency	OPERATIONAL PLAN West Elgin Distribution System	QEMS Proc.: OP-10 Rev Date: 2020-07-09 Rev No: 3 Pages: 1 of 5
COMPETENCIES		
Reviewed by: QEMS Representative	Approved by: Operations Management	

1. Purpose

To document a procedure that describes:

- the competencies required for personnel performing duties directly affecting drinking water quality;
- the activities to develop and/or maintain those competencies; and
- the activities to ensure personnel are aware of the relevance of their duties and how they affect safe drinking water.

2. Definitions

Competence – the combination of observable and measurable knowledge, skills, and abilities which are required for a person to carry out assigned responsibilities

Operations Management – refers to the General Manager, Senior Operations Manager and/or Operations Manager that directly oversees a facility's operations

Operations Personnel – employees of the drinking water system who perform various activities related to the compliance, operations and maintenance of the drinking water system that may directly affect drinking water quality

Top Management – a person, persons or a group of people at the highest management level within an operating authority that makes decisions respecting the QMS and recommendations to the Owner respecting the subject system or subject systems

3. Procedure

3.1 The following table presents the minimum competencies required by operations personnel.

Position	Required Minimum Competencies
Operations Management	<ul style="list-style-type: none"> • Valid operator certification; minimum WD1 if required to act as ORO • Experience and/or training in managing/supervising drinking water system operations, maintenance, financial planning and administration • Training and/or experience related to drinking water system processes, principles and technologies • Training on OCWA's QEMS and the DWQMS • Training on relevant legislation, regulations, codes, policies, guidelines and procedures • Experience using computers and operational computerized systems • WMS Primary

COMPETENCIES

Reviewed by: QEMS Representative

Approved by: Operations Management

Position	Required Minimum Competencies
Safety, Process & Compliance (SPC) Manager	<ul style="list-style-type: none"> Valid operator certification; minimum OIT or minimum WD1 if required to act as OIC and/or ORO Experience in providing technical support and leading/managing programs related to process control and compliant operations Experience and/or training in conducting compliance audits, and management system audits Experience and/or training in preparing and presenting informational and training material Training on OCWA's QEMS and the DWQMS Training on relevant legislation, regulations, codes, policies, guidelines and procedures Experience using computers and operational computerized systems WMS Primary
Operator/Mechanic	<ul style="list-style-type: none"> Valid operator certification; minimum OIT or minimum WD1 if required to act as OIC minimum WD 1 to act as ORO Training and/or experience in inspecting and monitoring drinking water system processes and performing/planning maintenance activities Training on OCWA's QEMS and the DWQMS Training on relevant legislation, regulations, codes, policies, guidelines and procedures Experience using computers and operational computerized systems
Process & Compliance Technician	<ul style="list-style-type: none"> Valid operator certification; minimum OIT or minimum WD 1 if required to act as OIC or ORO Experience and/or training in resolving/addressing compliance issues for drinking water systems Experience and/or training in monitoring, assessing and reporting on facility performance against legal requirements and corporate goals Experience and/or training in preparing and presenting informational and training material Experience in conducting management system audits or internal auditor education/training Training on OCWA's QEMS and the DWQMS Training on relevant legislation, regulations, codes, policies, guidelines and procedures Experience using computers and operational computerized systems WMS Primary
O&M Team Lead	<ul style="list-style-type: none"> Valid operator certification; minimum OIT or minimum WD 1 if required to act as OIC or ORO Experience and/or training in managing and planning multiple projects, assessing priorities and effectively coordinating operation and maintenance programs Training and/or experience related to operations and maintenance of drinking water system processes, principles and technologies Training on OCWA's QEMS and the DWQMS

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COMPETENCIES		
Reviewed by: QEMS Representative		Approved by: Operations Management

Position	Required Minimum Competencies
	<ul style="list-style-type: none"> • Training on relevant legislation, regulations, codes, policies, guidelines and procedures • Experience using computers and operational computerized systems WMS Primary

- 3.2 The following table presents the minimum competencies required by staff that provide administrative support to operations personnel.

Position	Required Minimum Competencies
Administrative Assistant	<ul style="list-style-type: none"> • Experience and/or training related to procurement and business administration practices • Training on OCWA's QEMS and the DWQMS • Training on relevant legislation, regulations, codes, policies, guidelines and procedures • Experience using computers

- 3.3 OCWA's recruiting and hiring practices follow those of the Ontario Public Service (OPS). As part of the OPS, minimum competencies, which include education, skills, knowledge and experience requirements, are established when designing the job description for a particular position. As part of the recruitment process, competencies are then evaluated against the job description. Based on this evaluation, the hiring manager selects and assigns personnel for specific duties.
- 3.4 OCWA's Operational Training Program aims to:
- Develop the skills and increase the knowledge of staff and management;
 - Provide staff with information and access to resources that can assist them in performing their duties; and
 - Assist OCWA certified operators in meeting the legislative and regulatory requirements with respect to training.
- 3.5 The Program consists of Director Approved, continuing education and on-the-job training and is delivered using a combination of methods (e.g., traditional classroom courses, e-learning/webinars and custom/program-based courses/sessions). A formal evaluation process is in place for all sessions under the Operational Training Program and is a critical part of the Program's continual improvement.
- 3.6 Awareness of OCWA's QEMS is promoted during the orientation of new staff, at facility/cluster/regional hub level training sessions and meetings and through OCWA's Environmental Compliance 101 (EC 101) course. All new staff are required to complete the EC 101 course within their first year of joining OCWA (depending on scheduling and availability). The EC 101 refresher course is required by all staff every 3 years. The purpose of the EC 101 course is to ensure staff are aware of applicable

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COMPETENCIES		
Reviewed by: QEMS Representative	Approved by: Operations Management	

legislative and regulatory requirements, to promote awareness of OCWA's QEMS and to reinforce their roles and responsibilities under OCWA's QEMS.

- 3.7 Staff are also required to complete the mandatory environmental and health and safety compliance training listed in OCWA's Mandatory Compliance Training Requirements document, based on their position and/or the duties they perform. This list is available on OCWA's intranet.
- 3.8 Operations personnel also receive site-specific training/instruction on relevant operational and emergency response procedures to ensure effective operational control of processes and equipment which may impact the safety and quality of drinking water.
- 3.9 As part of OCWA's annual Performance Planning and Review (PPR) process, employee performance is evaluated against their job expectations. Professional development opportunities and training needs (which could include formalized courses as well as site-specific on-the-job training or job shadowing/mentoring) are identified as part of this process (and on an ongoing basis). In addition to this process, OCWA employees may at any time request training from either internal or external providers by obtaining approval from their Manager.
- 3.10 Certified drinking water operators are responsible for completing the required number of training hours in order to renew their certificates based on the highest class of drinking water subsystem they operate. They are also responsible for completing mandatory courses required by *Safe Drinking Water Act* (SDWA) O. Reg. 128/04 Certification of Drinking Water System Operators and Water Quality Analysts. The Operations Management takes reasonable steps to ensure that every operator has the opportunity to attend training to meet the requirements.
- 3.11 It is the responsibility of operations personnel to ensure Operations Management are aware of any change to the status/classification of their drinking water operator certificate(s), the validity of their driver's licence (required to hold at a minimum a Class G license which is initially verified upon hire) and/or the validity of any other required certificates/qualifications.
- 3.12 Individual OCWA employee training records are maintained and tracked using a computerized system, the Training Summary database, which is administrated by OCWA's Training Department. Training records maintained at the facility are controlled as per OP-05 Document and Records Control.

4. Related Documents


OCWA's Training Resources (OCWA Intranet)
 OCWA's Mandatory Compliance Training list (OCWA intranet)
 Performance Planning and Review Database
 OP-5 Document and Records Control

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COMPETENCIES		
Reviewed by: QEMS Representative	Approved by: Operations Management	

OCWA Training Summary Database

5. Revision History

Date	Revision #	Reason for Revision
2018-05-11	0	Procedure issued – Information within OP-10 was originally set out in the main body of OCWA's Operational Plan (last revision 4 dated 2017-06-20) New Purpose, Definitions, Procedure, Related Documents and separate Revision History sections. Added definitions for Operations Management and Operations Personnel and throughout procedure replaced 'Senior Operations Manager' references with 'Operations Management'. Modified table in procedure (s. 3.1 and s. 3.2): removed/revised non-measurable competencies, added the word 'minimum' to competencies; removed 'Valid Class G Driver's License' listed under individual positions and referenced in s. 3.11; added competencies for Admin Assistants and merged competencies for Senior Operations Manager and Operations Manager under Operations Management. Updated training sections (s. 3.4 to s. 3.7) to reference new Environmental 101 course, Mandatory Compliance Training list and removed specific references to Orientation Training Program. Added s. 3.11 related to ensuring operators make Operations Management aware of changes to operator certification and other certificates/licenses. Other minor changes to wording.
2018-08-07	1	Revised competencies for all positions to be WD1 for ORO/OIC, revised 3.6 to state upon scheduling and availability as per IA July 20, 2018
2019-08-06	2	Added WMS Primary to required positions as per IA
2020-07-09	3	Added in the EC 101 refresher course and ORO level as per IA

 Ontario Clean Water Agency	OPERATIONAL PLAN West Elgin Distribution System	QEMS Proc.: OP-11 Rev Date: 2020-07-09 Rev No: 8 Pages: 1 of 3
PERSONNEL COVERAGE		
Reviewed by: QEMS Representative	Approved by: Operations Management	

1. Purpose

To describe the procedure for ensuring that sufficient and competent personnel are available for duties that directly affect drinking water quality for the West Elgin Distribution System.

2. Definitions

Competency – an integrated set of requisite skills and knowledge that enables an individual to effectively perform the activities of a given occupation *

Essential Services – services that are necessary to enable the employer to prevent,

- (a) danger to life, health or safety,
- (b) the destruction or serious deterioration of machinery, equipment or premises,
- (c) serious environmental damage, or
- (d) disruption of the administration of the courts or of legislative drafting.

(Crown Employees Collective Bargaining Act, 1993)

3. Procedure

3.1 Operations Management ensures that personnel meeting the competencies identified in OP-10 Competencies are available for duties that directly affect drinking water quality.

3.2 The West Elgin Distribution System is staffed by OCWA personnel as follows:

The regular hours are Monday to Friday 7:30 a.m. to 4:00 p.m, with a rotational on call schedule for 24/7 coverage


3.3 Operations personnel are assigned to act as and fulfill the duties of Overall Responsible Operator (ORO) and Operator-in-Charge (OIC) in accordance with SDWA O. Reg. 128/04.

An Overall Responsible Operator (ORO) is assigned with a minimum WD 1 to fulfill the duties. The ORO is communicated with all staff and designated in the facility logbook.

The designated OIC for each shift is recorded in the facility logbook.

3.4 Operations Management assigns an on-call operator for the time that the facility is not staffed (i.e., evenings, weekends and Statutory Holidays). The on-call shift change is the start of the business day on Monday and follows a weekly rotation of staff. A schedule of on call operators is prepared and is available as per OP-05.

* Based on the 2005 National Occupational Guidelines for Canadian Water and Wastewater Operators and International Board of Standards for Training, Performance and Instruction

 Ontario Clean Water Agency	OPERATIONAL PLAN West Elgin Distribution System	QEMS Proc.: OP-11 Rev Date: 2020-07-09 Rev No: 8 Pages: 2 of 3
PERSONNEL COVERAGE		
Reviewed by: QEMS Representative		Approved by: Operations Management

- 3.5 Operators routinely complete inspections of the system and facilities, details are recorded in the facility logbook and daily round sheets.
- 3.6 The SCADA system auto dialer is programmed to contact a contracted call-centre operator whenever there is an alarm condition. The call-centre operator contacts the on-call operator through a designated on-call pager. The on-call operator contacts the call-centre to acknowledge receipt of the alarm. If the nature of the alarm requires additional staff, the on-call operator can request assistance from any of the other certified operators. The on-call operator records details of the call-in in the facility logbook and call back reports in WMS.
- 3.7 Each manager (e.g. Operations Management/SPC Manager) is responsible for approving vacation time for their staff in a manner which ensures sufficient personnel are available for the performance of normal operating duties.
- 3.8 OCWA's operations personnel are represented by the Ontario Public Service Employees Union (OPSEU). In the event of a labour disruption, Operations Management, together with the union, identifies operations personnel to provide "essential services" required to operate the facility so that the quality of drinking water is not compromised in any way.
- 3.9 A contingency plan for Critical Shortage of Staff is included in the Facility Emergency Plan. This plan provides direction in the event that there is a severe shortage of operations personnel due to sickness (e.g., pandemic flu) or other unusual situations.

4. Related Documents

OP-10 Competencies
 Facility Logbook
 Daily Round Sheets
 On-Call Schedule
 Call-Back Reports
 Shift/Vacation Schedule
 Critical Shortage of Staff Contingency Plan (Facility Emergency Plan)

5. Revision History

Date	Revision #	Reason for Revision
2013-07-19	0	Procedure issued
2014-07-18	1	Revise 5.2-hours and weekend checks and 5.3 OIC info
2015-07-28	2	Remove redundant statement in 5.3 re: OIC; Add ORO Schedule
2016-07-18	3	Revise to update Senior Ops Manager to RHM and PCT to OCTL where
2017-06-23	4	Changed RHM to SOM where required



OPERATIONAL PLAN

West Elgin Distribution System


QEMS Proc.: OP-11
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PERSONNEL COVERAGE

Reviewed by: QEMS Representative

Approved by: Operations Management

2018-05-11	5	QP-03 procedure renamed OP-11. Removed Scope and Responsibilities sections. Other minor edits in wording.
2018-08-07	6	Revised 3.3 to state WD1 as per AI July 20, 2018
2019-08-06	7	Added Call back reports as per the IA.
2020-07-09	8	Revised to remove ORO schedule as per IA

 Ontario Clean Water Agency	OPERATIONAL PLAN West Elgin Distribution System	QEMS Proc.: OP-12 Rev Date: 2020-07-09 Rev No: 6 Pages: 1 of 4
COMMUNICATIONS		
Reviewed by: QEMS Representative	Approved by: Operations Management	

1. Purpose

To describe the procedure for facility level internal and external QEMS-related communications between Top Management and:

- OCWA staff;
- the Owner;
- essential suppliers and service providers (as identified in OP-13); and
- the public.


2. Definitions

Operations Management – refers to the General Manager, Senior Operations Manager and/or Operations Manager that directly oversees a facility's operations

Operations Personnel – employees of the drinking water system who perform various activities related to the compliance, operations and maintenance of the drinking water system that may directly affect drinking water quality.

3. Procedure

- 3.1 Operations Management and the QEMS Representative are responsible for identifying and coordinating any site-specific communications in relation to the status/development of the facility's QEMS.
- 3.2 Internal and external communication responsibilities and reporting requirements for emergency situations are set out under OCWA's Emergency Management Program (i.e., Facility Emergency Plan and OCWA's Emergency Response Plan). Refer to OP-18 Emergency Management for more information.
- 3.3 Communication with OCWA staff:
 - 3.3.1 Within the first year of hire (upon scheduling and availability), all staff are required to complete the Environmental Compliance 101 (EC101) course and refresher course. The objective of the EC 101 course is to ensure that staff are aware of applicable legislative and regulatory requirements and of OCWA's QEMS and to reinforce their roles and responsibilities under OCWA's QEMS.
 - 3.3.2 Operations Management are responsible for ensuring operations personnel receive site-specific training on the Operational Plan, the organizational structure for the facility including the roles and responsibilities and authorities (outlined in OP-09 Organizational Structure, Roles, Responsibilities and Authorities), QEMS Procedures and other related operating instructions and procedures as part of the orientation process and on an on-going basis as required.

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COMMUNICATIONS		
Reviewed by: QEMS Representative		Approved by: Operations Management

3.3.3 The SPC Manager is responsible for ensuring training is provided for the Regional Hub (in consultation with Operations Management as required) on applicable legislative and regulatory requirements and the QEMS.

3.3.4 The QEMS Representative assists Operations Management and/or the SPC Manager in the coordination/delivery of training as required.

3.3.5 Revisions to the QEMS and associated documentation are communicated as per OP-05 Document and Records Control.

3.3.6 The QEMS Policy is available to all OCWA personnel through OCWA's intranet and as outlined in 3.6.2 of this procedure.

3.3.7 Operations personnel are responsible for identifying potential hazards at the facility that could affect the environmental and/or public health, and communicating these to Operations Management. They may also recommend changes be made to improve the facility's QEMS by making a request to the QEMS Representative (as per OP-05).

3.3.8 The QEMS Representative is responsible for ensuring that the Operations Management and the Safety, Process and Compliance Manager are informed regarding the compliance/quality status of the facility and QEMS implementation and any need for improved processes/procedures at the cluster/facility level.


3.3.9 The SPC Manager reports to the Regional Hub Manager on the compliance status, the QEMS performance and effectiveness, any need for improvement and on issues that may have Agency-wide significance. Operations Management reports to the Regional Hub Manager on facility operational performance.

3.4 Communication with the Owner:

3.4.1 The Operations Management ensures that the Owner is provided with QEMS updates and that they are kept informed of the status of the facility's operational and compliance performance during regularly scheduled meetings and/or through electronic and/or verbal communications. The QEMS Representative assists in the coordination of these meetings and with communicating the updates as directed.

3.4.2 The continuing suitability, adequacy and effectiveness of OCWA's QEMS are communicated to the Owner as part of the Management Review process (refer to OP-20 Management Review).

3.5 Communications with Essential Suppliers and Service Providers:

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COMMUNICATIONS		
Reviewed by: QEMS Representative	Approved by: Operations Management	

3.5.1 Communication requirements to ensure essential suppliers and service providers understand the relevant OCWA QEMS policies, procedures and expectations are described in OP-13 Essential Supplies and Services.

3.6 Communication with the Public:


- 3.6.1 Media enquiries must be directed to the facility's designated media spokesperson as identified in the Facility Emergency Plan. The media spokesperson coordinates with local and corporate personnel (as appropriate) and the Owner in responding to media enquiries.
- 3.6.2 OCWA's QEMS and QEMS Policy are communicated to the public through OCWA's public website. The QEMS Policy is also posted at Tri County Water Treatment Plant.
- 3.6.3 Facility tours of interested parties must be approved in advance by the Operations Management.
- 3.6.4 All complaints, whether received from the consumer, the community or other interested parties, are documented in the OPEX database. As appropriate, the Operations Management ensures that the Owner is informed of the complaint and/or an action is developed to address the issue in a timely manner. The QEMS Representative ensures that consumer feedback is included for discussion at the Management Review.

4. Related Documents


Facility Logbook
 OP-05 Document and Records Control
 OP-09 Organizational Structure, Roles, Responsibilities and Authorities
 OP-13 Essential Supplies and Services
 OP-18 Emergency Management
 OP-20 Management Review
 Facility Emergency Plan
 Emergency Response Plan
 OPEX Incident Reports

5. Revision History

Date	Revision #	Reason for Revision
2013-07-19	0	Procedure issued

 Ontario Clean Water Agency	<p align="center">OPERATIONAL PLAN</p> <p align="center">West Elgin Distribution System</p>	QEMS Proc.: OP-12 Rev Date: 2020-07-09 Rev No: 6 Pages: 4 of 4
COMMUNICATIONS		
Reviewed by: QEMS Representative		Approved by: Operations Management

2014-07-18	1	Revise 3.0 to include Operator/Mechanics as per OFI IA 2014-04-01; Revise 5.2 to specify when the Env. Compliance course is taken as per OFI EA 2013-08-16; revise wording in 5.3, revise wording in 5.5 as per OFI IA 2014-04-01; 5.6 change to Tri-County Water Treatment Plant from West Elgin; 6.0 change OPEX Incident Report to Community Complaint as per OFI IA 2014-04-01
2016-07-18	2	Revise to change Senior Ops Manager to RHM and PCT to OCTL as appropriate; remove s 5.2 requirement of Env. Compliance course taken every 5 years to upon hire.
2017-06-23	3	Changed OCTL to SPC Manager, Changed RHM to SOM and OCTL to PCT where required.
2018-05-11	4	QP-04 procedure renamed OP-12. Removed Scope and Responsibilities sections. Added definitions for Operations Management and Operations Personnel. Reordered and created separate sections to clarify communications to each of the 4 parties. Clarified suppliers were those listed as essential as per Element 13 (as per DWQMS v. 2.0) and replaced references to Senior Operations Manager with 'Operations Management'. Updated training sections for OCWA personnel (s. 3.3.1 to s. 3.3.4) to reference new Environmental Compliance 101 course completed within first year of hire and to outline how training is coordinated between SPC Manager/Operations Management, and QEMS Representative. Included sections on R&Rs for performance reporting within OCWA (s. 3.3.7 to s. 3.3.9) and to Client (3.4.1). Replaced identification of media spokesperson (s. 3.6.1) with 'as identified in Facility Emergency Plan'. Added reference to site-specific records/documents used for recording tours (s. 3.6.3). Other minor edits.
2019-08-06	5	Added upon scheduling and availability to 3.3.1
2020-07-09	6	Added the EC 101 refresher course as per IA

 Ontario Clean Water Agency	OPERATIONAL PLAN West Elgin Distribution System	QEMS Proc.: OP-13 Rev Date: 2018-08-07 Rev No: 4 Pages: 1 of 3
ESSENTIAL SUPPLIES AND SERVICES		
Reviewed by: QEMS Representative	Approved by: Operations Management	

1. Purpose

To describe OCWA's procedures for procurement and for ensuring the quality of essential supplies and services.

2. Definitions

Essential Supplies and Services – supplies and services deemed to be critical to the delivery of safe drinking water

3. Procedure

3.1 Essential supplies and services for the West Elgin Distribution System are contained in the Facility Emergency Plan, Essential/Emergency Service and Supply Contact List. The list is reviewed and updated at least once every calendar year by the QEMS Representative.

3.2 Purchasing is conducted in accordance with OCWA's Corporate Procurement and Administration policies, procedures and guidelines, which are adopted from those of the Ontario Public Service.

Purchases of capital equipment are subject to formal approval by the facility's owner.


3.3 As part of the corporate procurement process, potential suppliers/service providers are informed of relevant aspects of OCWA's QEMS through the tendering process and through specific terms and conditions set out in our agreements and purchase orders. Essential suppliers and service providers (including those contracted locally) are sent a letter that provides an overview of the relevant aspects of the QEMS.

3.4 Contractors are selected based on their qualifications and ability to meet the facility's needs without compromising operational performance and compliance with applicable legislation and regulations.

Contracted personnel including suppliers may be requested or required to participate in additional relevant training/orientation activities to ensure conformance with facility procedures and to become familiar with OCWA workplaces.

If necessary, appropriate control measures are implemented while contracted work is being carried out and communicated to all relevant parties to minimize the risk to the integrity of the drinking water system and the environment.

3.5 All third-party drinking water testing services are provided by accredited and licensed laboratories. The Ministry of the Environment, Conservation and Parks (MECP) has agreement with The Canadian Association for Laboratory Accreditation (CALA) for accreditation of laboratories testing drinking water. The QEMS Representative is

 Ontario Clean Water Agency	OPERATIONAL PLAN West Elgin Distribution System	QEMS Proc.: OP-13 Rev Date: 2018-08-07 Rev No: 4 Pages: 2 of 3
ESSENTIAL SUPPLIES AND SERVICES		
Reviewed by: QEMS Representative	Approved by: Operations Management	

responsible for notifying the MECP of any change to the drinking water testing services being utilized.

- 3.6 Internal verification and calibration activities (e.g. chlorine analyzer, turbidimeter, etc.) are conducted by operations personnel in accordance with equipment manuals and/or procedures (Refer to OP-17 Measurement Recording Equipment Calibration and Maintenance).
- 3.7 External calibration activities (e.g. flow meters) are conducted by qualified third-party providers. Qualifications of the service provider are verified during the procurement process. The service provider is responsible for providing a record/certificate of all calibrations conducted.
- 3.8 Chemicals purchased for use in the drinking water treatment process must meet AWWA Standards and be ANSI/NSF certified as per the Municipal Drinking Water Licence (MDWL).
- 3.9 The facility orders and receives ongoing deliveries of chemicals to satisfy current short-term needs based on processing volumes and storage capacities. Incoming chemical orders are verified by reviewing the manifest or invoice in order to confirm that the product received is the product ordered.
- 3.10 Process components/equipment provided by the supplier must meet applicable regulatory requirements and industry standards for use in drinking water systems prior to their installation.

4. Related Documents

Essential/Emergency Service and Supply Contact List
 OP-17 Measurement Recording Equipment Calibration and Maintenance
 ANSI/NSF Documentation
 AWWA Standards
 MDWL
 Calibration Certificates/Records

5. Revision History

Date	Revision #	Reason for Revision
2013-07-19	0	Procedure issued
2016-07-18	1	Change Senior Ops Manager to RHM and PCT to OCTL; Remove "water" from s 5.1 name as per OFI EA 2015-08-11; add AWWA to s 6.0 as per OFI IA 216-03-24.
2017-06-23	2	Changed RHM to SOM and OCTL to PCT



OPERATIONAL PLAN

West Elgin Distribution System


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ESSENTIAL SUPPLIES AND SERVICES

Reviewed by: QEMS Representative

Approved by: Operations Management

2018-05-11	3	QP-05 procedure renamed OP-13. Removed Scope and Responsibilities sections. Changes to wording to provide clarification on ensuring quality of essential supplies and services (s. 3.5, 3.6, 3.7 and 3.9).
2018-08-07	4	Changed MOECC to MECP as per IA July 20, 2018

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REVIEW AND PROVISION OF INFRASTRUCTURE		
Reviewed by: QEMS Representative	Approved by: Operations Management	

1. Purpose

To describe OCWA's procedure for reviewing the adequacy of infrastructure necessary to operate and maintain the West Elgin Distribution System.

2. Definitions

Infrastructure – the set of interconnected structural elements that provide the framework for supporting the operation of the drinking water system, including buildings, workspace, process equipment, hardware, software and supporting services, such as transport or communication

3. Procedure

3.1 At least once every calendar year, Operations Management in conjunction with operations personnel conducts a review of the drinking water system's infrastructure to assess its adequacy for the operation and maintenance of the system. Operations personnel assist with identifying the need for infrastructure repairs, replacements or alterations and with prioritizing each identified item. Documents and records that are reviewed may include:


- Maintenance records
- Call-back reports
- Adverse Water Quality Incidents (AWQIs) or other incidents
- Health & Safety Inspections
- MECP Inspection Reports
- Hydrant and Valve inspection records
- Tower Inspection Reports
- Distribution System Chamber Inspections Reports
- Watermain Repair Forms

3.2 The outcomes of the risk assessment documented as per OP-08 are considered as part of this review.

3.3 The output of the review is a 6 year rolling Recommended Capital / Major Maintenance Report to assist the Owner and OCWA with planning infrastructure needs for the short and long-term. This report is submitted, at least once every calendar year by Operations Management, to the Owner for review and approval. Together with the Owner, Operations Management determines and documents timelines and responsibilities for implementation of priority items.

3.4 The final approved Recommended Capital / Major Maintenance Report forms the long term forecast for any major infrastructure maintenance, rehabilitation and renewal activities as per OP-15.

3.5 Operations Management ensures that results of this review are considered during the Management Review process (OP-20).


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REVIEW AND PROVISION OF INFRASTRUCTURE		
Reviewed by: QEMS Representative	Approved by: Operations Management	

4. Related Documents

Recommended Capital / Major Maintenance Report
 OP-08 Risk Assessment Outcomes
 OP-15 Infrastructure Maintenance, Rehabilitation and Renewal
 OP-20 Management Review
 Management Review Minutes

5. Revision History

Date	Revision #	Reason for Revision
2013-07-19	0	Procedure issued
2015-07-28	1	Revise 5.1 to include list of areas reviewed as per OFI EA 2014-08-01
2016-07-18	2	Revise to change Senior Ops Manager to RHM and PCT to OCTL.
2017-06-23	3	Changed RHM to SOM and OCTL to PCT
2018-05-11	4	QP-06 procedure renamed OP-14. Removed Scope and Responsibilities sections. Replaced 'once every 12 months' with 'once every calendar year' (s. 3.1) to reflect wording in DWQMS v. 2.0. Added s. 3.2 to consider the outcomes of the risk assessment under Element 8 during the review to reflect wording in DWQMS v. 2.0. Changes to wording to provide clarification on who is required to attend the review and what documents and records may be considered during the review (s. 3.1). Linked the procedure with OP-15 in terms of documenting a long-term forecast (s. 3.3 and s. 3.4).
2018-08-07	5	Changed MOECC to MECP as per IA July 20, 2018
2019-08-06	6	Update as per IA

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INFRASTRUCTURE MAINTENANCE, REHABILITATION AND RENEWAL		
Reviewed by: QEMS Representative	Approved by: Operations Management	

1. Purpose

To describe OCWA's infrastructure maintenance, rehabilitation and renewal program for the West Elgin Distribution System.

2. Definitions

Infrastructure – the set of interconnected structural elements that provide the framework for supporting the operation of the drinking water system, including buildings, workspace, process equipment, hardware, software and supporting services, such as transport or communication

Rehabilitation – the process of repairing or refurbishing an infrastructure element.

Renewal – the process of replacing the infrastructure elements with new elements.

3. Procedure

3.1 OCWA, under contract with the Owner, maintains a computerized Work Management System (WMS) to manage maintenance, rehabilitation and renewal of infrastructure for which it is operationally responsible. The major components of the WMS consist of planned maintenance, unplanned maintenance, rehabilitation, renewal and program monitoring and reporting.


3.1.1 Planned Maintenance

Routine planned maintenance activities include: pump inspection, analyzer calibrations, flow meter calibrations, valve inspection, hydrant flushing and inspections, tower inspections, weekly inspections of the facility, etc.

Planned maintenance activities are scheduled in the WMS that allows the user to:

- Enter detailed asset information;
- Generate and process work orders;
- Access maintenance and inspection procedures;
- Plan preventive maintenance and inspection work;
- Plan, schedule and document all asset related tasks and activities; and
- Access maintenance records and asset histories.

Planned maintenance activities are communicated to the person responsible for completing the task through the issuance of WMS work orders. Work orders are automatically generated on a daily, weekly, monthly, quarterly and annual schedule as determined based on manufacturer's recommendations and site specific operational and maintenance needs and are assigned directly to the appropriate operations personnel. This schedule is set up by the WMS Primary. Work orders are completed and electronically entered into WMS by the person

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INFRASTRUCTURE MAINTENANCE, REHABILITATION AND RENEWAL		
Reviewed by: QEMS Representative	Approved by: Operations Management	

responsible for completing the task. Records of these activities are maintained as per OP-05 Document and Records Control.

The Operations Management maintains the inventory of equipment in WMS and ensures that appropriate maintenance plans are in place. Maintenance plans are developed according to the manufacturer's instructions, regulatory requirements, industry standards, and/or client service requirements. Equipment Operation and Maintenance (O&M) manuals are accessible to operations personnel at the locations specified in OP-05 Document and Records Control.

3.1.2 Unplanned Maintenance

Unplanned maintenance is conducted as required. All unplanned maintenance activities are authorized by the Operations Management. Unplanned maintenance activities are recorded and entered into WMS by the person responsible for completing the unplanned maintenance activity.

3.1.3 Rehabilitation and Renewal


Rehabilitation and renewal activities including capital upgrades (major infrastructure maintenance) are determined at least once every calendar year in consultation with Operations Management and the Owner. A list of required replacement or desired new equipment is compiled and prioritized by Operations Management in conjunction with operations personnel and is presented to the Owner for review and comment. All major expenditures require the approval of the Owner. In addition to the short-term facility needs (i.e. current year), the Recommended Capital / Major Maintenance Report also provides a long-term (i.e. rolling 6-year) list of major maintenance recommendations. (Refer to OP-14 Review and Provision of Infrastructure).

3.1.4 Program Monitoring and Reporting

Maintenance needs for the facility are determined through review of manufacturer's instructions, regulatory requirements, industry standards, and/or client service requirements and are communicated by means of work orders. Additionally, Operations Management and operations personnel conduct a review of the drinking water system's infrastructure to assess its adequacy for the operation and maintenance of the system. (Refer to OP-14 Review and Provision of Infrastructure).

To assist in monitoring the effectiveness of the program Operations Management reviews the work order backlogs.

On a quarterly basis, the owner is provided an operations and maintenance report through the Operations Report.

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INFRASTRUCTURE MAINTENANCE, REHABILITATION AND RENEWAL		
Reviewed by: QEMS Representative	Approved by: Operations Management	


3.2 OCWA's infrastructure maintenance, rehabilitation and renewal program is initially communicated to the Owner through the operating agreement. OCWA's program is communicated to the Owner on a quarterly basis through the Operations Report and at a minimum of at least once every calendar year through submission of the Recommended Capital / Major Maintenance Report and through the results of the Management Review.

4. Related Documents

Minutes of Management Review
 Recommended Capital / Major Maintenance Report
 OP-05 Document and Records Control
 OP-14 Review and Provision of Infrastructure

5. Revision History

Date	Revision #	Reason for Revision
2018-05-11	0	Procedure issued – Information within OP-15 (s. 3) was originally set out in main body of OCWA's Operational Plan (last revised on Rev 4 2017-06-20). New Purpose, Definitions, Procedure, Related Documents and separate Revision History sections. Added the requirement to ensure the long term forecast is reviewed at once every calendar year and to document a long term forecast (s. 3.1.3) to reflect in DWQMS v. 2.0. Minor wording updates to reflect OCWA's current WMS.
2018-08-07	1	Remove EMT report under 3.1.4 as per IA July 20, 2018.
2019-08-06	2	Added work order backlogs to 3.1.4 as per the IA
2020-07-10	3	Updated 3.1.3 to read 6 year plan as per IA

 Ontario Clean Water Agency	OPERATIONAL PLAN West Elgin Distribution System	QEMS Proc.: OP-16 Rev Date: 2020-07-13 Rev No: Pages: 1 of 3
SAMPLING, TESTING AND MONITORING		
Reviewed by: QEMS Representative		Approved by: Operations Management

1. Purpose

To describe the procedure for sampling, testing and monitoring for process control and finished drinking water quality.

2. Definitions

Challenging Conditions – any existing characteristic of the water source or event-driven fluctuations that impact the operational process as identified and listed under OP-06 Drinking Water System

3. Procedure


- 3.1 All sampling, monitoring and testing is conducted at a minimum in accordance with SDWA O. Reg. 170/03, the facility's Municipal Drinking Water License (MDWL) as well as sampling/testing and monitoring requirements listed within MECP orders/inspection reports, etc.
- 3.2 Sampling requirements for the facility are defined in the facility's sampling schedule which is available to operations personnel, at the location(s) noted in OP-05 Document and Records Control. The sampling schedule is maintained by the QEMS Rep and is updated as required.
- 3.3 Samples that are required to be tested by an accredited and licensed laboratory, are collected, handled and submitted according to the directions provided by the licensed laboratory(ies) that conducts the analysis. The laboratory(ies) used for this facility are listed in the Essential Supplies and Services List (within the Facility Emergency Plan (FEP)).

Electronic and/or hardcopy reports received from the laboratory are maintained as per OP-05 Document and Records Control. Analytical results from laboratory reports are uploaded into OCWA's Process Data Management system (PDM).

- 3.4 Continuous monitoring equipment is used to sample and test for free chlorine residual at the Rodney Tower. Test results from continuous monitoring equipment are captured by the SCADA system and are reviewed by a certified operator in accordance with the requirements of SDWA O. Reg. 170/03.

The SCADA system also collects and records information on the following parameters related to process control and drinking water quality:

- Rodney Tower level
- pH
- Distribution system chamber flow rates


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SAMPLING, TESTING AND MONITORING		
Reviewed by: QEMS Representative	Approved by: Operations Management	

- 3.5 Adverse water quality incidents are responded to and reported as per SOP# WED-01: Reporting Adverse Water Quality.
- 3.6 In-house process control activities are conducted on a regular basis by the certified operator(s) on duty. In-house free chlorine residual samples are analyzed following approved laboratory procedures. The results of these activities are recorded on the rounds sheet and are entered into the PDM system. Any adjustments made to process parameters are recorded in the facility logbook.
- 3.7 Additional sampling, testing and monitoring related to the facility's most challenging conditions (i.e. maintaining chlorine residuals and dead ends) are included in the in-house process control activities as described in 3.6.
- 3.8 Upstream sampling, testing and monitoring activities take place within the Tri-County Drinking Water System. Chemical and bacterial parameters are sampled/tested/monitored in the treated water as well as chlorine residuals as per O. Reg. 170/03. A communication protocol is in place to ensure that the operators of the distribution system are notified by the Tri-County Drinking Water System of any changes in the quality of water supplied to the distribution system which may require operational adjustments. The West Elgin Distribution System relies on the Tri-County Drinking Water System to supply the distribution with safe drinking water.
- 3.9 Sampling, testing and monitoring results are readily accessible to the Owner by a request to the PCT. During regular meetings the performance of the system is discussed and results from sampling, testing and monitoring are provided to the owner.

At a minimum, Owners are provided with an annual summary of sampling, testing and monitoring results through the SDWA O. Reg. 170/03 Section 11 Annual Report, the Schedule 22 Municipal Summary Report and through the Management Review process outlined in OP-20 Management Review.

4. Related Documents

Facility Logbook
 OP-05 Document and Records Control
 OP-06 Drinking Water System
 OP-20 Management Review
 Laboratory Analysis Reports
 Laboratory Chain of Custody Forms
 Annual Report (O. Reg. 170 Section 11) and Municipal Summary Report (O. Reg. 170 Schedule 22)
 Process Data Management System (PDM)
 Emergency/Essential Service and Supply Contact List (Contacts section of FEP)
 Facility Emergency Plan (FEP) Binder
 SOP# WED-01: Reporting Adverse Water Quality
 Rounds Sheets

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SAMPLING, TESTING AND MONITORING		
Reviewed by: QEMS Representative		Approved by: Operations Management

Sampling Schedule
SCADA Records

5. Revision History

Date	Revision #	Reason for Revision
2013-07-19	0	Procedure issued
2014-07-18	1	Add mechanic to 3.0 as per OFI IA 2014-04-01; revise 5.6 to include sampling parameters; change West Elgin Water Treatment Plant to Tri-County
2015-07-28	2	Change PDC to PDM, change Tri-County WTP to Tri-County Drinking Water System
2016-07-18	3	Revise to change Senior Ops Manager to RHM and PCT to OCTL where appropriate; include WEDS-01 in s 6.0
2017-06-23	4	Revise to Change RHM to SOM and OCTL to PCT
2018-05-11	5	QP-07 procedure renamed OP-16. Removed Scope and Responsibilities sections. Expanded information related to accredited and licensed laboratories (s. 3.3). Reordered some sections and other minor edits.
2018-08-07	6	Changed MOECC to MECP as per IA July 20, 2018
2019-08-06	7	Changed PCT to QEMS Rep in 3.2
2020-07-13	8	Revised 3.8 to read West Elgin

MEASUREMENT AND RECORDING EQUIPMENT CALIBRATION AND MAINTENANCE

Reviewed by: QEMS Representative

Approved by: Operations Management

1. Purpose

To describe the procedure for the calibration and/or verification and maintenance of measurement and recording equipment at the West Elgin Distribution System.

2. Definitions


None

3. Procedure

- 3.1 All measurement and recording equipment calibration and maintenance activities must be performed by appropriately trained and qualified personnel or by a qualified third-party calibration service provider (refer to OP-13 Essential Supplies and Services).
- 3.2 Operations Management establishes and maintains a list of measurement and recording devices and associated calibration and/or verification schedules using the automated Work Management System (WMS). When a new device is installed, it is added to the WMS system by the WMS Primary. The new device is tagged with a unique identification number and the maintenance schedule is set up. Work orders are then automatically generated as per the schedule (refer to OP-15 Infrastructure Maintenance, Rehabilitation and Renewal).
- 3.3 Details regarding the results of the calibration and/or verification are recorded within each individual work order generated by the WMS and retained as per OP-05 Document and Records Control.
- 3.4 Calibration and maintenance activities are carried out in accordance with procedures specified in the manufacturer's manual, instructions specified in WMS.

Type of Instrumentation	Instrument ID	WMS ID	Frequency
Flow Meter	Beattie Line Meter	0000164779	Annually
Flow Meter	Rodney Tower	0000313786	Annually
Chlorine Analyzer	AIT 1	0000313788	Quarterly
Chlorine Analyzer	AIT 2	0000164766	Quarterly
Portable Chlorine Kit	Pocket Colorimeter	0000164741	Monthly
Portable Chlorine Kit	Pocket Colorimeter	0000164669	Monthly
Portable Chlorine Kit	Pocket Colorimeter	0000315294	Monthly

- 3.5 Standards, reagents and/or chemicals that may be utilized during calibration and/or verification and/or maintenance activities are verified before use to ensure they are not

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MEASUREMENT AND RECORDING EQUIPMENT CALIBRATION AND MAINTENANCE		
Reviewed by: QEMS Representative	Approved by: Operations Management	

expired. Any expired standards, reagents and/or chemicals are appropriately disposed of and are replaced with new standards, reagents and/or chemicals as applicable.

3.6 Any measurement device which does not meet its specified performance requirements during calibration and/or verification must be removed from service (if practical) until repaired, replaced or successfully calibrated. The failure must be reported to the Operations Management/ORO as soon as possible so that immediate measures can be taken to ensure that drinking water quality has not been compromised by the malfunctioning device. Any actions taken as a result of the failure are recorded in the facility logbook. The Process and Compliance Technician ensures that any notifications required by applicable legislation are completed and documented within the specified time period.


3.7 Calibration and maintenance records and maintenance/equipment manuals are maintained as per OP-05 Document and Records Control.

4. Related Documents

Facility Logbook
 WMS Records
 Calibration/Maintenance Records
 Maintenance/Equipment Manuals
 OP-05 Document and Records Control
 OP-13 Essential Supplies and Services
 OP-15 Infrastructure Maintenance, Rehabilitation and Renewal

5. Revision History

Date	Revision #	Reason for Revision
2013-07-19	0	Procedure issued
2014-07-18	1	Add mechanic to 3.0 as per OFI IA 2014-04-01
2015-07-28	2	Add Table to 5.3 as per OFI IA 2015-04-01
2016-07-18	3	Revise to change from Senior Ops Manager to RHM and PCT to OCTL where appropriate.
2017-06-26	4	Added Chlorine kit -#0000164669, Changed RHM to SOM and OCTL to PCT where required as per IA 2017-03-27.
2018-05-11	5	QP-08 procedure renamed OP-17. Removed Scope and Responsibilities sections. Added s. 3.3 to clarify how calibration and/or verification activities are documented. Other minor edits.
2018-08-07	6	Added list of assets in 3.5 as per IA July 20, 2018
2019-08-06	7	Revised who is to be notified
2020-07-13	8	Revised analyzers as per IA

 Ontario Clean Water Agency	OPERATIONAL PLAN West Elgin Distribution System	QEMS Proc.: OP-18 Rev Date: 2018-05-11 Rev No: 5 Pages: 1 of 4
EMERGENCY MANAGEMENT		
Reviewed by: QEMS Representative	Approved by: Operations Management	

1. Purpose

To describe the procedure for maintaining a state of emergency preparedness at the facility level under OCWA's Emergency Management Program.

2. Definitions

Emergency Response Plan (ERP) – a corporate-level emergency preparedness plan for responding to and supporting serious (Level 3) operations emergencies

Facility Emergency Plan (FEP) – a facility-level emergency preparedness plan for responding to and recovering from operations emergencies

Operations Management – refers to the General Manager, Senior Operations Manager and/or Operations Manager that directly oversees a facility's operations

3. Procedure


3.1 The Facility Emergency Plan (FEP) is the corporate standard for emergency management at OCWA-operated facilities. The FEP supports the facility-level response to and recovery from Level 1, 2 and 3 events related to water and wastewater operations and directly links to the corporate-level Emergency Response Plan (ERP) for management of Level 3 events that require corporate support. Operations Management is responsible for establishing a site-specific FEP that meets the corporate standard for this drinking water system.

3.2 OCWA recognizes three levels of events:

Level 1 is an event that can be handled entirely by plant staff and regular contractors. The event and the actions taken to resolve it (and to prevent a reoccurrence, if possible) are then included in regular reporting (both internally and externally). Examples may include response to an operational alarm, first aid incident, small on-site spill, or a process upset that can be easily brought under control.

Level 2 is an event that is more serious and requires immediate notification of others (regulator, owner). Examples may include minor basement flooding, injury to staff that requires medical attention, or a spill that causes or is likely to cause localized, off-site adverse effects.

Level 3 is an actual or potential situation that will likely require significant additional resources and/or threatens continued operations. It may require corporate-level support including activation of the OCWA Action Group and opening of an Emergency Operations Centre (EOC) as described in the corporate ERP. Level 3 events usually involve intervention from outside organizations (client, emergency responders, Ministry of the Environment and Climate Change, media, etc.). Examples may include:

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EMERGENCY MANAGEMENT		
Reviewed by: QEMS Representative		Approved by: Operations Management

- Disruption of service/inability to meet demand;
- Critical injury including loss of life;
- Breach of security that is a threat to public health;
- Intense media attention;
- Community emergency affecting water supply/treatment;
- Declared pandemic; or
- Catastrophic failure that could impact public health or the environment or cause significant property damage.

3.3 Potential emergency situations or service interruptions identified for the West Elgin Distribution System include:

- Unsafe Water
- Spill Response
- Critical Injury
- Critical Shortage of Staff
- Loss of Service
- Security Breach


3.4 The processes for responding to and recovering from each potential emergency situation/service disruption are documented within a site-specific contingency plan (CP). The CPs and related standard operating procedures (SOPs) are contained within the FEP.

3.5 OCWA's training requirements related to the FEP are as follows:

Training Topic	Training Provider	Type of Training	Frequency	Required For
Establishing and maintaining a FEP that meets the corporate standard	Safety, Process and Compliance Manager and/or Corporate Compliance (as required)	On-the-Job Practical	Upon hire and when changes are made to the corporate standard*	PCTs (or others identified by the Operations Management)
Contents of the site-specific FEP	Facility Level (coordinated by QEMS Representative)	On-the-Job Practical	Upon hire and when changes to the FEP are made*	All operations personnel with responsibilities for responding to an emergency

*Note: Changes to the corporate standard or site-specific FEP may only require the change to be communicated to Operations for implementation. Therefore, not all changes will require training.

3.6 At least one CP must be tested each calendar year and each CP must be reviewed at least once in a five-calendar year period. The reviews and tests are recorded on the FEP-01 Contingency Plan Review/Test Summary Form and in WMS as appropriate. This record includes the outcomes of the review/test, and identifies any opportunities for improvement and actions taken. A scheduled test of a CP may be regarded as a review of that particular CP as long as the outcomes are evaluated using the FEP-01 form. A CP-related response to an actual event may also be considered a review or a

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EMERGENCY MANAGEMENT		
Reviewed by: QEMS Representative		Approved by: Operations Management

test. A review of the incident including lessons learned should be recorded on FEP-01 following the resolution of the actual event, along with any opportunities for improvement/actions identified.


- 3.7 Revisions to the CPs, SOPs and other FEP documents are made (as necessary) following a review, test, actual event or other significant change (e.g., changes in regulatory requirements, corporate policy or operational processes and/or equipment, etc.). Results of the emergency response testing and any opportunities for improvement/actions identified are considered during the Management Review (OP-20).
- 3.8 Roles and responsibilities for emergency management at OCWA-operated facilities are set out in the FEP. Specific roles and responsibilities related to a particular emergency situation or service interruption (including those of the Owner where applicable) are set out in the relevant site-specific CP. A general description of the respective responsibilities of the Owner and the operating authority in the event an emergency occurs is included in the service agreement with the Owner (as required by the *Safe Drinking Water Act*).
- 3.9 Where they exist, any relevant sections of the Municipal Emergency Response Plan (MERP) are included or referenced in the appendices section of the FEP. Measures specified in the MERP are incorporated into CPs where appropriate.
- 3.10 An emergency contact list in conjunction with the essential supplies and services list is contained within the FEP and is reviewed/updated at least once per calendar year. An emergency communications protocol is contained within the FEP. Specific notification requirements during emergency situations or service interruptions are set out in the individual CPs and in the ERP.

4. Related Documents


Facility Emergency Plan
 Corporate Emergency Response Plan
 FEP-01 Contingency Plan Review/Test Summary Form
 WMS
 Municipal Emergency Response Plan (as applicable)
 Essential/Emergency Service and Supply Contact List (Contacts section of FEP)
 OP-20 Management Review

5. Revision History

Date	Revision #	Reason for Revision
2013-07-19	0	Procedure issued

 Ontario Clean Water Agency	OPERATIONAL PLAN West Elgin Distribution System	QEMS Proc.: OP-18 Rev Date: 2018-05-11 Rev No: 5 Pages: 4 of 4
EMERGENCY MANAGEMENT		
Reviewed by: QEMS Representative		Approved by: Operations Management

2014-07-18	1	revise wording in 5.2 to specify site specific contingencies as per OFI IA 2014-04-01; add mechanic to 3.0 as per OFI IA 2014-04-01; revised wording in 5.3 as per OFI EA 2013-08-16
2015-07-28	2	Revise 5.3 frequency of review of contingency plans as per corporate
2016-07-18	3	Revise to change from Senior Ops Manager to RHM and PCT to OCTL where appropriate.
2017-06-26	4	Revise to Change RHM to SOM. Added PCT and changed OCTL to SPC Manager.
2018-05-11	5	QP-09 procedure renamed OP-18. Removed Scope and Responsibilities sections and reordered some sections. Added definition 'Operations Management'. Throughout procedure replaced 'Senior Operations Manager' references with 'Operations Management'. Removed references to 'OCWA's Approach to Facility Emergency Planning' document throughout procedure and referenced FEP instead. Aligned wording for level 1, 2 & 3 events (s. 3.2) with wording in 'OCWA's Emergency Response Plan'. Updated training section to include role of SPC Manager (s. 3.5) and expanded testing/review section specifically to clarify how an actual test is documented (s. 3.6). Other minor edits

 Ontario Clean Water Agency	OPERATIONAL PLAN West Elgin Distribution System	QEMS Proc.: OP-19 Rev Date: 2019-08-06 Rev No: 6 Pages: 1 of 5
INTERNAL QEMS AUDITS		
Reviewed by: QEMS Representative	Approved by: Operations Management	

1. Purpose

To describe the procedure for conducting internal audits at the facility level that evaluate the conformance of OCWA's Quality & Environmental Management System (QEMS) to the requirements of the Drinking Water Quality Management Standard (DWQMS).

This procedure applies to Internal QEMS Audits conducted at the West Elgin Distribution System for the purpose of meeting the DWQMS requirements for internal audits.

Note: This procedure does not apply to internal compliance audits conducted in accordance with OCWA's Internal Audit Program.

2. Definitions

Audit Team – one or more Internal Auditors conducting an audit

Internal Auditor – an individual selected to conduct an Internal QEMS Audit

Internal QEMS Audit – a systematic and documented internal verification process that involves objectively obtaining and evaluating documents and processes to determine whether a quality management system conforms to the requirements of the DWQMS

Lead Auditor – Internal Auditor responsible for leading an Audit Team

Non-conformance – non-fulfillment of a DWQMS requirement

Objective Evidence – verifiable information, records or statements of facts. Audit evidence is typically based on interviews, examination of documents, observations of activities and conditions, reviewing results of measurements and tests or other means. Information gathered through interviews should be verified by acquiring supporting information from independent sources


Opportunity for Improvement (OFI) – an observation about the QEMS that may, in the opinion of the Internal Auditor, offer an opportunity to improve the effectiveness of the system or prevent future problems; implementation of an OFI is optional

3. Procedure

3.1 Audit Objectives, Scope and Criteria

3.1.1 In general, the objectives of an internal QEMS audit are:

- To evaluate conformance of the implemented QEMS to the requirements of the DWQMS;
- To identify non-conformances with the documented QEMS; and
- To assess the effectiveness of the QEMS and assist in its continual improvement.

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INTERNAL QEMS AUDITS		
Reviewed by: QEMS Representative		Approved by: Operations Management

3.1.2 The scope of an internal QEMS audit includes activities and processes related to the QEMS as documented in the Operational Plan.

3.1.3 The criteria covered by an internal QEMS audit include:

- Drinking Water Quality Management Standard (DWQMS)
- Current Operational Plan
- QEMS-related documents and records

3.1.4 The audit scope and criteria may be customized as necessary to focus on a particular process/critical control point and/or any elements of the DWQMS which may warrant specific attention. The results of previous internal and external audits should also be considered.

3.2 Audit Frequency

3.2.1 Internal QEMS audits may be scheduled and conducted once every calendar year or may be separated into smaller audit sessions scheduled at various intervals throughout the calendar year. However, all elements of the DWQMS must be audited at least once every calendar year.

3.2.2 The QEMS Representative is responsible for maintaining the internal QEMS audit schedule. The audit schedule may be modified based on previous audit results.

3.3 Internal Auditor Qualifications

3.3.1 Internal QEMS audits shall only be conducted by persons approved by the QEMS Representative and having the following minimum qualifications:

- Internal auditor training or experience in conducting management system audits; and
- Familiarity with the DWQMS requirements.


3.3.2 Internal Auditors that do not meet the qualifications in s.3.3.1 may form part of the Audit Team for training purposes, but cannot act as Lead Auditor.

3.3.3 Internal Auditors must remain objective and, where practical, be independent of the areas/activities being audited.

3.4 Audit Preparation

3.4.1 Together, the QEMS Representative and the Lead Auditor:

- Establish the audit objectives, scope and criteria;
- Confirm the audit logistics (locations, dates, expected time and duration of audit activities, any health and safety considerations, availability of key

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personnel, audit team assignments, etc.).

3.4.2 Each Internal Auditor is responsible for:


- Reviewing documentation to prepare for their audit assignments including:
 - the Operational Plan and related procedures;
 - results of previous internal and external QEMS audits;
 - the status and effectiveness of corrective and preventive actions implemented;
 - the results of the management review;
 - the status/consideration of OFIs identified in previous audits; and
 - other relevant documentation.
- Preparing work documents (e.g., checklists, forms, etc.) for reference purposes and for recording objective evidence collected during the audit

3.5 Conducting the Audit

- 3.5.1 Opening and closing meetings are not required, but may be conducted at the discretion of the QEMS Representative and the Lead Auditor taking into account expectations of Top Management.
- 3.5.2 The Audit Team gathers and records objective evidence by engaging in activities that may include conducting interviews with Operations Management and staff (in person, over the phone and/or through e-mail), observing operational activities and reviewing documents and records.
- 3.5.3 The Audit Team generates the audit findings by evaluating the objective evidence against the audit criteria (s. 3.1.3). In addition to indicating conformance or non-conformance, the audit findings may also lead to the identification of opportunities for improvement (OFIs). The Lead Auditor is responsible for resolving any differences of opinion among Audit Team members with respect to the audit findings and conclusions.

3.6 Reporting the Results

- 3.6.1 The Lead Auditor reviews the audit findings and conclusions with the QEMS Representative and Top Management. Other audit participants may also take part in this review as appropriate. This review may take place in person (e.g., during a closing meeting) or through other means (phone call, email, etc.). Any diverging opinions regarding the audit findings and conclusions should be discussed and, if possible, resolved. If not resolved, this should be noted by the Lead Auditor.
- 3.6.2 The Lead Auditor submits a written report and/or completed work documents to the QEMS Representative. The submitted documentation must identify (at a minimum):

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- Audit objectives, scope and criteria;
- Audit Team member(s) and audit participants;
- Date(s) and location(s) where audit activities were conducted;
- Audit findings including:
 - Related objective evidence for each element;
 - Any non-conformance identified referencing the requirement that was not met; and
 - OFIs or other observations.
- Audit conclusions.

3.6.3 The QEMS Representative distributes the audit results to Top Management and others as appropriate.

3.6.4 The QEMS Representative ensures that results of internal QEMS audits are included as inputs to the Management Review as per OP-20 Management Review.

3.7 Corrective Actions and Opportunities for Improvement (OFIs)

3.7.1 Corrective actions are initiated when non-conformances are identified through internal QEMS audits and are documented and monitored as per OP-21 Continual Improvement.

3.7.2 OFIs are considered, and preventive actions initiated, documented and monitored as per OP-21 Continual Improvement.

3.8 Record-Keeping


3.8.1 Internal QEMS audit records are filed by the QEMS Representative and retained as per OP-05 Document and Records Control.

4. Related Documents


Internal Audit Records (checklists, forms, reports, etc.)
 OP-05 Document and Records Control
 OP-20 Management Review
 OP-21 Continual Improvement
 Summary Table of Action Items Spreadsheet

5. Revision History

Date	Revision #	Reason for Revision
2013-07-19	0	Procedure issued
2014-07-18	1	Revise 5.7 to identify how OFIs are addressed as per OFI EA 2013-08-16

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2015-07-28	2	Revise to new corporate template as per OFI IA 2015-04-01
2016-07-18	3	Revise to change from Senior Ops Manager to RHM and PCT to OCTL where appropriate
2017-06-26	4	Revise to Change RHM to SOM where appropriate. Changed OCTL to. SPC Manager. Added PCT
2018-05-11	5	QP-10 procedure renamed OP-19. Removed Scope and Responsibilities sections and moved scope wording to purpose section. Added definition 'Objective Evidence' and modified 'non-conformance' definition. Replaced 'audit evidence' with 'objective evidence', and 'conformity' with 'conformance' throughout procedure. Replaced 'once every 12 months' with 'once every calendar year' (s. 3.2.1, s. 3.2.3 and s. 3.4.1) to reflect wording in DWQMS v. 2.0. Added s. 3.2.3 (and modified s. 3.4.1) to describe the frequency for auditing all DWSs covered in multi-facility Operational Plans. Changed s. 3.4.2 to include preventive actions, the results of the management review and the status/consideration of OFIs. Included wording 'for each element', and 'identified referencing the requirement that was not met' to s. 3.6.2. Moved description of process for corrective actions from QP-10 s. 5.7 and OFIs from QP-10 s. 5.8 to OP-21. Added s. 3.7 to refer to OP-21.
2019-08-06	6	Changed DWQMS Corrective Action Report to Summary Table of Action Items Spreadsheet

 Ontario Clean Water Agency	OPERATIONAL PLAN West Elgin Distribution System	QEMS Proc.: OP-20 Rev Date: 2020-07-14 Rev No: 6 Pages: 1 of 3
MANAGEMENT REVIEW		
Reviewed by: QEMS Representative	Approved by: Operations Management	

1. Purpose

To describe the procedure for conducting a Management Review of the Quality & Environmental Management System (QEMS) at the facility level.

2. Definitions

Management Review – a formal (documented) meeting conducted at least once every calendar year by Top Management to evaluate the continuing suitability, adequacy and effectiveness of OCWA's Quality & Environmental Management System (QEMS)

Operations Management – refers to the General Manager, Senior Operations Manager and/or Operations Manager that directly oversees a facility's operations

Top Management – a person, persons or group of people at the highest management level within an operating authority that makes decisions respecting the QMS and recommendations to the owner respecting the subject system or subject systems. OCWA has defined Top Management for the [Drinking Water System] as:


- Operations Management – Tri-County Cluster
- Regional Hub Manager – Southwest Regional Hub
- Safety, Process & Compliance (SPC) Manager – Southwest Regional Hub

3. Procedure

- 3.1 Top Management ensures that a Management Review is conducted at least once every calendar year.

Management Reviews for more than one drinking water system may be conducted at the same meeting provided the systems belong to the same owner and the considerations listed in section 3.4 below are taken into account for each individual system and documented in the Management Review meeting minutes.

- 3.2 At a minimum, the QEMS Representative, and at least one member of Top Management must attend the Management Review meeting. Other members of Top Management may participate though their attendance is optional.
- 3.3 Other staff may be invited to attend the Management Review meeting or to assist with presenting information or in reviewing the information presented, where they offer additional expertise regarding the subject matter.
- 3.4 The standing agenda for Management Review meetings is as follows:
- a) Incidents of regulatory non-compliance;
 - b) Incidents of adverse drinking water tests;
 - c) Deviations from critical control limits and response actions;
 - d) The effectiveness of the risk assessment process;

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MANAGEMENT REVIEW		
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- e) Internal and third-party audit results (including any preventive actions implemented to address Opportunities for Improvement (OFI) or rationale as to why OFIs were not implemented);
- f) Results of emergency response testing (including any OFIs identified);
- g) Operational performance;
- h) Raw water supply and drinking water quality trends;
- i) Follow-up on action items from previous Management Reviews;
- j) The status of management action items identified between reviews;
- k) Changes that could affect the QEMS;
- l) Consumer feedback;
- m) The resources needed to maintain the QEMS;
- n) The results of the infrastructure review;
- o) Operational Plan currency, content and updates;
- p) Staff suggestions; and
- q) Consideration of applicable Best Management Practices (BMPs).

3.5 In relation to standing agenda item q), applicable BMPs, if any, to address drinking water system risks discussed during other agenda items, are identified and documented in the Management Review minutes. Review and possible adoption of applicable BMPs are revisited during subsequent Management Reviews and are incorporated into preventive and/or corrective actions as per OP-21 as appropriate.

3.6 The QEMS Representative coordinates the Management Review and distributes the agenda with identified responsibilities to participants in advance of the Management Review meeting along with any related reference materials.


3.7 The Management Review participants review the data presented and make recommendations and/or initiate action to address identified deficiencies as appropriate as per OP-21.

3.8 The QEMS Representative ensures that minutes of and actions resulting from the Management Review meeting are prepared and distributed to the appropriate OCWA Top Management, personnel and owner/CAO.

3.9 The QEMS Representative monitors the progress and documents the completion of actions resulting from the Management Review using the Summary Table of Action Items Spreadsheet.


4. Related Documents

Management Review Reference Materials
 Minutes and actions resulting from the Management Review
 OP-21 Continual Improvement

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MANAGEMENT REVIEW		
Reviewed by: QEMS Representative	Approved by: Operations Management	

5. Revision History

Date	Revision #	Reason for Revision
2013-07-19	0	Procedure issued
2014-07-18	1	Revise to include MOE comments on the QEMS (Inspections, MDWL, DWWP) and re-endorsement discussion as per OFI EA 2013-08-16; change 5.4 to read PCT instead of QEMS Representative
2015-07-28	2	Add note to 5.2 for when re-endorsement is considered as per OFI EA 2014-08-01
2016-07-18	3	Revise to change from Senior Ops Manager to RHM and PCT to OCTL where appropriate; change s 5.4 from municipal representative to CAO as per OFI EA 2015-08-11.
2017-06-26	4	Changed RHM to SOM and added PCT and changed OCTL to SPC Manager.
2018-05-11	5	Removed Scope and Responsibilities sections. Added definitions for Top Management and Operations Management. Revisions based on new requirements of the Standard; at least once every 12 months changed to once every calendar year (s. 3.1) and efficacy changed to effectiveness (s. 3.4). Added s. 3.2 and s. 3.3 to describe who is participating in the Management Review process. Added clarification on including any preventive actions implemented to address Opportunities for Improvement (OFI) or rationale as to why OFIs were not implemented when reviewing audit results (s. 3.4.e). Added Best Management Practices (BMPs) as a standing agenda item (s. 3.4.q). Added s. 3.5 to include consideration of BMPs and link OP-20 to OP-21 Continual Improvement.
2020-07-14	6	Added the summary table in 3.9.

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CONTINUAL IMPROVEMENT		
Reviewed by: QEMS Representative	Approved by: Operations Management	

1. Purpose

To describe the procedure for tracking and measuring continual improvement of the Quality & Environmental Management System (QEMS) for the *West Elgin Distribution System*

2. Definitions

Continual Improvement - recurring activity to enhance performance (ISO 14001:2014)

Corrective Action – action to eliminate the cause of detected nonconformity of the QMS with the requirements of the DWQMS or other undesirable situation

Non-conformance – the non-fulfilment of a DWQMS requirement

Preventive Action – action to prevent the occurrence of nonconformity of the QMS with the requirements of the DWQMS or other undesirable situation

3. Procedure

3.1 OCWA strives to continually improve the effectiveness of its QEMS for this drinking water system(s) through the identification and implementation of corrective/preventive actions and, as appropriate, through review and consideration of applicable Best Management Practices (BMPs).


3.2 Corrective Actions

3.2.1 Non-conformances may be identified through an internal or external QEMS audit(s) conducted for this drinking water system. They may also be identified as a result of other events such as:

- an incident/emergency;
- community/Owner complaint;
- other reviews; and
- operational checks, inspections or audits.

3.2.2 The QEMS Representative (in consultation with Operations Management and/or the SPC Manager) investigates the need for a corrective action to eliminate the root cause(s) so as to prevent the non-conformance from recurring. The investigation may also include input from the operators and other stakeholders and the consideration of BMPs as appropriate.

3.2.3 The QEMS Representative determines the corrective action needed based on this consultation. The Operations Management (or designate) assigns responsibility and a target date for resolution.

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CONTINUAL IMPROVEMENT		
Reviewed by: QEMS Representative		Approved by: Operations Management

3.2.4 The QEMS Representative ensures corrective actions are documented using the Summary Table of Action Items Spreadsheet. The QEMS Representative monitors the progress of corrective action(s) and provides status updates to Top Management.

3.2.5 The implementation and effectiveness of corrective actions are verified during subsequent internal QEMS audits and are considered during the Management Review. If there is evidence that the action taken was not effective, the Operations Management (or designate) initiates further corrective action and assigns resources as appropriate until the non-conformance is fully resolved.

3.3 Preventive Actions

3.3.1 Potential preventive actions may be identified through an internal or external QEMS audit as Opportunities For Improvement (OFIs), during the Management Review or through other means such as:

- staff/Owner suggestions;
- regulator observations;
- evaluation of incidents/emergency response/tests;
- the analysis of facility/Regional Hub or OCWA-wide data/trends;
- non-conformances identified at other drinking water systems; or
- a result of considering a BMP.


3.3.2 The QEMS Representative (in consultation with Operations Management and/or the SPC Manager) considers whether a preventive action is necessary. The review may also include input from the operators and other stakeholders and the consideration of BMPs as appropriate.

3.3.3 If it is decided that a preventive action is necessary, the QEMS Representative determines the action to be taken based on this consultation and the Operations Management (or designate) assigns responsibility and a target date for implementation.

3.3.4 The implementation of preventive actions are tracked by the QEMS Representative using the Summary Table of Action Items Spreadsheet.

3.3.5 The implementation and effectiveness of preventive actions are verified during subsequent internal QEMS audits and are considered during the Management Review. If there is evidence that the action taken was not effective, the Operations Management (or designate) may consider further preventive actions and assigns resources as appropriate.

3.4 The QEMS Rep. and Operations Management monitor corrective/preventive actions on an ongoing basis and review the status and effectiveness of the actions during

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subsequent Management Review meetings.

3.5 Best Management Practices (BMPs)

3.5.1 The QEMS Representative and/or Operations Management in consultation with the SPC Manager will review and consider applicable internal and/or external BMPs identified by internal and/or external sources as part of the Management Review (OP-20) and in the corrective and preventive action processes described above.

3.5.2 BMPs may include, but are not limited to:

- Facility/Regional Hub practices developed and adopted as a result of changes to legislative or regulatory requirements, trends from audit findings or drinking water system performance trends;
- OCWA-wide BMPs/guidance or recommended actions;
- Drinking water industry based standards/BMPs or recommendations; or
- Those published by the Ministry of the Environment, Conservation and Parks.


3.5.3 At a minimum, applicable BMPs must be reviewed and considered once every 36 months.

4. Related Documents

OP-05 Document and Records Control
 OP-20 Management Review
 Internal Audit Records
 Summary Table of Action Items Spreadsheet.

5. Revision History

Date	Revision #	Reason for Revision
2018-05-11	0	Procedure issued – The original information within the main body of OCWA's Operational Plan (Revision 4 dated 2017-06-20) was not used in OP-21 as it did not meet the requirements of the new DWQMS v. 2.0. Information from QP-10 Internal Audit (s. 5.7 and s. 5.8) was incorporated into s. 3.2 and s. 3.3 of OP-21 but was modified to address non-conformances identified from additional inputs other than internal audits and preventive actions resulting from means other than OFIs from internal audits. In addition R&Rs were revised to include the SPC Manager, and to clarify the role of the QEMS Representative in investigating and determining corrective and preventive actions needed. A section on Best Management Practices (s. 3.5) was added to meet the new requirements of DWQMS v. 2.0.

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CONTINUAL IMPROVEMENT		
Reviewed by: QEMS Representative		Approved by: Operations Management

2018-08-07	1	Changed Ministry of the Environment and Climate Change to Ministry of the Environment. Conservation and Parks as per IA July 201, 2018
2019-08-06	2	Changed DWQMS Corrective Action Report to Summary Table of Action Items Spreadsheet as per the IA



Staff Report

Report To: Council Meeting
From: Jana Nethercott, Clerk
Date: 2020-08-27
Subject: Apportionment of Drainage Assessment for the Hay Drain due to Severance of Land, Pursuant to Section 65 (2) of the Drainage Act, R.S.O. 1990

Recommendation:

That West Elgin Council hereby receives the report from Jana Nethercott, Clerk re: Apportionment of Drainage Assessment for the Czajkowski Drain due to Severance of Land, Pursuant to Section 65 (2) of the *Drainage Act, R.S.O. 1990*; and

That West Elgin Council hereby approves the Apportionment of the Drainage Assessment Agreement for the Czajkowski Municipal Drain, as part of severance E4/20 as presented.

Purpose:

The purpose of this report is to confirm Council's approval of the drainage assessment apportionment due to severance of lands in the Czajkowski Municipal Drain system, copy attached.

Background:

The Drainage Act, R.S.O. 1990, section 65 (2) requires that if the owners of the subdivided land mutually agree on the share of the drainage assessment that each should pay, they may enter into a written agreement and file it with the clerk of the local municipality and, if the agreement is approved by the council by resolution, no engineer need be instructed under subsection (1).

Financial Implications:

There are no financial implications associated with this report.

Policies/Legislation:

Drainage Act, R.S.O. 1990

File No.: E 4120



MUNICIPALITY OF West Elgin

Apportionment of Drainage Assessment due to Severance of Land Application. Section 65 (2) of the Drainage Act, R.S.O. 1990, c. D. 17

Czajkowski Municipal Drain Watershed or System.
Latest Engineer's Report prepared by Graham, Berman + Assoc. Ltd
under the date of July 22 - 1968

Original Assessment Information as per Last Report

Roll # 030-08100 Owner: Mark Schweitzer
Concession # 9 Lot: SE 1/4 lot C SW 1/4 lot D
Original Assessment: 2758.43 Benefit: 2042.70
Area: 32.39 ha (80 acres)
Total Drainage Assessment: 10,122.72 Benefit: 6685.76 Outlet: 3442.96

Proposed New Assessment of Lands - Split 1 retained.

Roll # 030-08100 Owner: Mark Schweitzer
Concession # 9 Lot: SE 1/4 lot C SW 1/4 lot D
Original Assessment: 2758.43 Benefit: 1938.01
Area: 30.73 ha (75.9 ac.)
Total Drainage Assessment: Benefit: Outlet:

Proposed New Assessment of Lands - Split 2 severed

Roll # Owner:
Concession # 9 Lot: SW 1/4 lot D
Original Assessment: Benefit: Outlet: 104.69
Area: 1.66 ha (4.1 ac.)
Total Drainage Assessment: Benefit: Outlet:

Proposed New Assessment of Lands - Split 3

Roll # Owner:
Concession # Lot:
Original Assessment: Benefit: Outlet:
Area:
Total Drainage Assessment: Benefit: Outlet:

We, the owners of the share of the Drainage Assessment agree to the assessment as shown above.

Name (Print) _____ Signature _____ Date _____

Name (Print) _____ Signature _____ Date _____

Name (Print) _____ Signature _____ Date _____

This Agreement on share of assessment was approved by the Council of the Municipality of West Elgin by Resolution # _____ on _____

Municipal Clerk

Date

August 11, 2020

In This Issue

- Council Supports Royal Oak Retirement Residence Application for Transitional Beds
- Council Supports Safer and Vital Communities Grant Application
- Plowing Match Scholarship Awarded
- CSWB Public Survey Available
- Terrace Lodge Steering Committee Updates
- Planning Update
- Roads Update
- Library/Museum/Archives Update
- June 2020 Financial Update
- Council Approves Amending Agreement for POA Transfer Agreement
- Connectivity Committee

Contact Us

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Council Supports Royal Oak Retirement Residence Request for Transitional Beds

The County of Elgin voted to support the Royal Oak Retirement Residence Project's application to the Ministry of Health for 20 transitional beds at its new facility in Southwold Township.

Ensuring that residents of all ages have access to a superior quality of life is a key strategic priority of Elgin County Council. As our population ages, it is crucial that seniors have access to the services that will allow them to remain living within the community they call home.

The Royal Oak Retirement Residence Project is in the process of constructing a 6.5-acre seniors' residence in a park-like setting. Single units each with exterior access and concierge services will be offered to residents. This facility will provide a transition between independent living and long-term care settings.

An additional component of this project is the proposed 20 transitional beds for 30-60 day stays. These beds will provide residents of our community with safe transitions between discharge from hospital and a return to independent living in their homes. These beds will not only free up much needed space at the St. Thomas Elgin General Hospital but will provide the care necessary to prevent these individuals from being readmitted to hospital once they return home.

These transitional beds are part of an integrated system of care that is crucial for active, meaningful and safe living for senior residents of our community.

Council Supports Safer and Vital Communities Grant Application

County Council supported M.I. Understanding and the St. Thomas Rainbow Optimists' application to the Safer and Vital Communities Grant. If successful, grant funds will be utilized for the creation of videos and other communications tools that will increase understanding and awareness and connect families with resources to support children's mental health. The grant will allow M.I. Understanding to develop professional learning tools that address racism and deliver

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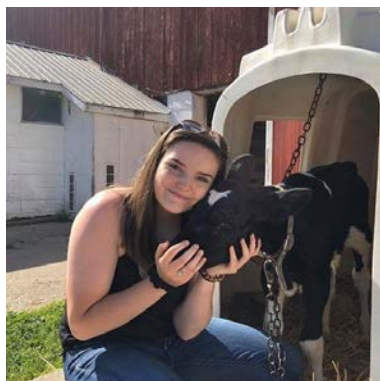
culturally adaptive programs and resources that consider the diversity of participants and support respectful curiosity and open communication.

Plowing Match Scholarships Awarded

Elgin County Council is pleased to award the 2020 International Plowing Match Legacy Scholarship to Annie Watson of Central Elgin and Isaac Clutterbuck of Southwold.

Ms. Watson is completing a Bachelor of Science in Agriculture degree from the University of Guelph. Her essay focused on ways to educate and inform the public on sustainable farming practices through open houses and displays. Mr. Clutterbuck is also completing a Bachelor of Science in Agriculture degree from the University of Guelph. His essay focused on ways to ensure a more stable food supply, especially in light of COVID-19. This includes creating incentives for food processing plants to locate in Elgin County, creating more local abattoirs and an awareness campaign on the importance of buying locally-sourced food.

Warden Mennill commended the recipient's dedication to their studies and their innovative focus on the future of agriculture in Elgin County.



Entrance to the Elgin County Exhibit at the 2010 International Plowing Match

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Community Safety and Well-Being Plan Public Survey Available

The Coordinating Committee for the Community Safety and Well-Being Plan has launched a survey that will be available throughout the month of August. This survey will seek feedback regarding what community safety and well-being means to the broader public.



Terrace Lodge Steering Committee Updates

The Province of Ontario announced a further \$4.2M in funding for the Terrace Lodge Redevelopment Project and Council considered how to utilize this additional funding based on recommendations by the Terrace Lodge Redevelopment Steering Committee.

The Committee recommended enhancements to the Project including oxygen storage, negative pressure rooms, and modifications to the staff locker room that would improve operational efficiency and resident comfort and safety during a pandemic. Additional cleaning and safety measures during construction will also need to be implemented due to COVID-19. The Committee also recommended the replacement of the aging Nurse Call System. These enhancements would cost an additional \$443,450.

The Committee also asked that Council consider enhancements to the dining areas that would allow for a more pleasurable dining experience for residents, more efficient use of staffing resources and space for physical distancing during future pandemics or outbreaks. Additional costs for this expanded dining space will be \$750,000.

Council voted to support both of the aforementioned enhancements. More comprehensive information can be found in the report titled

In This Issue

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“Terrace Lodge Redevelopment August 2020 Update” as contained in the [August 11, 2020 County Council Agenda Package](#).

Planning Update

The Elgin County Planner presented a summary of changes made to the Provincial Policy Statement that came into effect in May of 2020. In accordance with Section 3 of the Planning Act, all decisions on land use planning matters made on or after that date are required to be consistent with the PPS 2020. A detailed breakdown of these changes can be found in the report titled “Changes to the Provincial Policy Statement - May 1, 2020” contained within the [August 11, 2020 County Council Agenda Package](#).

Council granted approval of Official Plan Amendment CE-OPA 7-20 in the Municipality of Central Elgin. The lands in question are located on the north side of George Street, between Front Street and Sydenham Street, geographic Village of Port Stanley. The purpose of the amendment is to change the lands use designation on the subject lands from “Natural Heritage” to “Residential” recognizing the existing residential dwelling and accessory structure on the property and allowing for a proposed severance.

Elgin County Roads Update

County Council approved a pedestrian crossover on Belmont Road (County Road 74) and Union Street in the village of Port Stanley to be installed by the Municipality of Central Elgin. This crossover will include rapid flashing beacons and curb “bump outs” intended to shorten the crossing distance for pedestrians.

At the request of Central Elgin Council, the County of Elgin performed speed and volume counts on Centennial Ave (County Road 28) and reviewed traffic calming measures. The result of this investigation can be found in the report titled “Centennial Avenue- Speeding Concerns” in the [August 11, 2020 County Council Agenda package](#).

Council endorsed the Centennial Road / Elm Line Intersection Improvements Municipal Class Environmental Assessment Project File. The County of Elgin has completed a Municipal Class Environmental Assessment (MCEA) Study to develop a transportation plan for intersection improvements at Centennial Road (CR28) and Elm Line (CR56) in the Municipality of Central Elgin. The Study had evaluated alternatives to improve the operation, safety and capacity of the existing intersection, and has identified a 45m Roundabout as the preferred alternative. The full project file can be accessed [here](#).

At the request of the Elgin Group Police Services Board, the County of Elgin undertook an investigation of deer crossing signage on County roads as a result of an increase in deer/vehicular collisions in the first quarter of 2020. As a result of this investigation, Council approved additional deer crossing warning signage to be installed on County Roads.

In This Issue

- Council Supports Royal Oak Retirement Residence Application for Transitional Beds
- Council Supports Safer and Vital Communities Grant Application
- Plowing Match Scholarship Awarded
- CSWB Public Survey Available
- Terrace Lodge Steering Committee Updates
- Planning Update
- Roads Update
- Library/Museum/Archives Update
- June 2020 Financial Update
- Council Approves Amending Agreement for POA Transfer Agreement
- Connectivity Committee

Library, Museum and Archives Update

The Elgin County Library, Museum and Archives are all open, under strict health and safety guidelines, after having to close their doors in March as a result of COVID-19.

All ten branches of the Elgin County Library are now offering curbside pickup with limited hours of operation. The Elgin County Heritage Centre is open for drop in visits; however, capacity is limited to three (3) persons or two (2) social circles provided that the size of each circle is five persons or less.

The Elgin County Archives is open by appointment only and capacity is limited to two (2) researchers at a time.

June 2020 Financials Update

The budget comparison for the County shows favourable performance of \$68,000 for the month of June, primarily the result of favourable wage performance, bringing year-to-date favourable performance to \$341,000.

A detailed financial analysis can be found in the report titled “June 2020 Financial Update” in the [August 11, 2020 County Council Agenda package](#).

Council Approves Amending Agreement for POA Transfer Agreement

Elgin County Council approved the amending agreement to the Provincial Offences Court Transfer Agreement between the Province of Ontario and the County of Elgin in relation to the extension of functions to be provided by Elgin County in administration of the St. Thomas Provincial Offences Court and more specifically in relation to the prosecution of proceedings under Parts III and IX of the Provincial Offences Act.

Connectivity Committee Appointments

County Council appointed Shawn Southern, Justin Pennings and Mike Andrews as Community Members of the Connectivity Committee. All three individuals have considerable experience with telecom and fibre network projects and are passionate community volunteers.

The Committee is scheduled to meet for the first time on September 9th and will be tasked with finding innovative and effective solutions to connectivity challenges across the County.

Contact Us

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The complete August 11, 2020 County Council Agenda package can be found [here](#).



REPORT TO COUNTY COUNCIL

FROM: Nancy Pasato, Manager of Planning

DATE: August 11, 2020

SUBJECT: Changes to the Provincial Policy Statement - May 1, 2020

RECOMMENDATION:

THAT the report titled “Changes to the Provincial Policy Statement, May 1, 2020” from the Manager of Planning, dated August 11, 2020, be received and filed.

INTRODUCTION:

This report is to advise County Council of the recent Provincial Policy Statement (PPS) changes implemented by the Provincial government which took effect May 1, 2020.

A draft of the new Provincial Policy Statement (PPS) was introduced in July 2019 to align with the changes to the Planning Act through Bill 108, More Homes, More Choice Act, 2019.

Following consultations with municipalities, stakeholders and the public, a final version of the PPS was released on February 28, 2020.

The PPS came into effect on May 1, 2020. In accordance with Section 3 of the Planning Act, all decisions on land use planning matters made on or after that date are required to be consistent with the PPS 2020.

Highlights of the changes include:

- A new opportunity to provide a 25-year planning horizon extended from a 20-year horizon
- An extended minimum to accommodate residential growth from 10 to 15 years
- Additional flexibility for settlement area boundary expansion
- Market based housing policies with the addition of “affordable housing”
- New references to “a changing climate,” with a focus on adaptation
- Increased flexibility for sewage, water and stormwater servicing
- More flexibility regarding interpretation and implementation

- Changes between prescriptive language “shall” and suggestive language “should”
- Enhanced municipal engagement with Indigenous communities on land use planning matters
- Introduction of the new term “agricultural system” for agriculture-related economic growth
- Increased development opportunities in rural areas
- Enhanced direction on planning, protecting, and converting employment areas.

DISCUSSION:

The changes can be grouped under five areas: 1. Increasing the supply and mix of housing; 2. Protecting the environment and public safety; 3. Reducing barriers and costs; 4. Supporting rural, northern and Indigenous communities; and 5. Supporting certainty and economic growth. This report provides a summary of the changes that are anticipated to affect land use planning within Elgin County.

An infographic, provided by the Ministry of Municipal Affairs, and a “tracked changes” PPS are provided as attachments to this report.

1. Increasing the Supply and Mix of Housing

Planning Horizon

The PPS has increased the ‘planning horizon’ from 20 years to 25 years. Municipalities now need to consider lands needs for a 25-year time period, which is meant to encourage the development of an increased mix and supply of housing. Corresponding changes were implemented to ‘housing supply’ from 10 to 15 years. Planning authorities are now required to maintain the ability to accommodate residential growth for a minimum of 15 years, through residential intensification and redevelopment and, if necessary, lands that are designated and available for residential development.

The policies also note that projected land needs are to be ‘informed’ by as of yet unreleased provincial guidelines.

County Considerations: County may need to allocate more greenfield land for development in County OP and in local OP’s to meet projected needs over a longer time horizon. Revised lands needs will be required for the upcoming 5-year Official Plan review. Increase in requirement for serviced land supply in areas where sufficient servicing capacity exists. Possible addition of policy related to increased residential intensification and redevelopment.

Settlement Area Boundary Adjustments

The PPS 2020 will permit settlement area boundary adjustments outside of the Municipal Comprehensive Review Process, subject to evaluation criteria and provided there is no net increase in overall land within the settlement area. This change provides municipalities with additional flexibility to address limited settlement area boundary adjustments without undertaking an extensive planning exercise.

County Considerations: Update to settlement area expansion policies. Additional flexibility to address limited settlement area boundary adjustments in local OP's.

Housing Affordability

The PPS 2020 recognizes a greater mix of housing types through the addition of the term 'housing options'. This term provides a list of housing types including, but not limited to, single and semi-detached, rowhouses, townhouses, multiplexes, tiny homes, as well as housing for people with special needs and housing related to employment, institutional and educational uses.

The PPS 2020 requires that municipalities establish and implement minimum targets for the provision of housing which is affordable to low- and moderate-income households, which align with applicable Housing and Homelessness Plans.

County Considerations: Additional policies and/or revised policies on housing affordability in OP may be required. County to consider developing a Housing and Homelessness Strategy/Plan. Additional market analysis is required to ensure an appropriate range and mix of housing options and densities.

2. Protecting the Environment and Public Safety

A Changing Climate

The PPS 2020 provides greater direction on preparing for the impacts of climate change and increasing protection for the environment and human health. This includes policies to ensure that municipalities prepare for the impacts of climate change through enhanced sewage, water, and stormwater management policies.

County Considerations: Amend or add OP policy related to sewage, water and stormwater management policies and climate change, and have greater regard for preparing for the impacts of climate change in OP. Ensure County and local OP policies proactively consider impacts of severe weather events associated with a changing climate.

Servicing Hierarchy

While the PPS 2020 continues to place full municipal services as the preferred form of servicing for settlement areas, the wording has been modified to further allow municipalities to consider the use of other servicing options where municipal services are not available, planned, or feasible.

The PPS 2020 directs municipalities to assess the long-term impacts of individual on-site services on the environmental health and character of rural settlement areas and assess the feasibility of private communal services or the extension of municipal services to rural settlement areas at the time of an official plan review or update.

County Considerations: Amend or add OP policy related to alternative servicing or the extension of services to rural areas.

3. Reducing Barriers and Cost

Revised policy has been added to clarify that, where the Aggregate Resources Act applies, the depth of extraction for both new and existing mineral aggregate operations is regulated only by processes under that Act.

New policy has been added for planning authorities to engage with Indigenous communities and consider their interests when identifying, protecting, and managing cultural heritage and archaeological resources. The PPS has also updated various definitions including: cultural heritage landscape, areas of archaeological potential, and built heritage resources, amongst others.

Revisions to the PPS were made to support a broad range of energy types and opportunities for increased energy supply.

There are several policies in the PPS 2020 where wording has been modified from 'shall' to 'should'. The word 'shall' would imply a duty or mandatory requirement whereas the word 'should' would imply that something is recommended, but not mandatory.

County Considerations: Amend OP policy, as needed, to reflect wording changes and clarify policies related to cultural heritage to PPS.

4. Supporting Rural, Northern and Indigenous Communities

Rural Lands

A deletion of the term “limited” used in PPS, 2014 in reference to residential development within rural lands. This revised policy promotes rural residential development that is locally appropriate and provides clarification that residential development on rural lands includes lot creation.

County Considerations: Amend OP policy related rural residential development, if needed.

Sewer and Water

The PPS 2020 provides clarification that individual on site services may be used in settlement areas for infilling and minor rounding out of existing development where municipal and communal services are not available, planned or feasible. New policy has been added promoting assessment of long-term impacts of servicing on the health and character of rural settlement areas and the feasibility of moving to other forms of servicing at the time of the Official Plan review or update.

County Considerations: Amend OP policy related to servicing in settlement areas, if needed.

Agriculture

The PPS 2020 introduces the concept of an “agricultural systems” approach to enhance and maintain the geographic continuity of the agricultural land base and the economic connections of the ‘agri-food network’ which includes infrastructure, services, and assets that are important to the viability of the agri-food sector.

The agricultural system is defined as ...” a system comprised of a group of inter-connected elements that collectively create a viable, thriving agricultural sector. It has two components: a) an agricultural land base comprised of prime agricultural areas, including specialty crop areas, and rural lands that together create a continuous productive land base for agriculture; and b) an agri-food network which includes infrastructure, services, and assets important to the viability of the agri-food sector”.

The agri-food network is defined as “a network that includes elements important to the viability of the agri-food sector such as regional infrastructure and transportation

networks; on-farm buildings and infrastructure; agricultural services, farm markets, distributors, and primary processing; and vibrant, agriculture-supportive communities.”

A revised definition of “on farm diversified use” sets out that ground mounted solar facilities are permitted in prime agricultural and speciality crop areas only as an on farm diversified use.

County Considerations: Amend or add OP policy related to identifying agricultural systems, prime agricultural lands, specialty crop areas and rural lands and the agri-food network.

Indigenous Community Engagement

The PPS 2020 recognizes the important role Indigenous communities have in land use planning and development, as well as the contribution of Indigenous communities’ perspectives and traditional knowledge on land use planning decisions. The changes require municipalities to consult with Indigenous communities on land use matters that may affect their Section 35 treaty rights and encourage municipalities to build constructive, cooperative relationships with Indigenous communities through meaningful engagement that will facilitate knowledge sharing to inform decision making.

County Considerations: Amend or add OP policy related to Indigenous consultation on planning applications/matters.

5. Supporting Certainty and Economic Growth

Economic Development

The PPS 2020 provides policy direction to municipalities to plan for and facilitate conditions for economic investment. The policies require that municipalities identify strategic sites for investment, monitor the availability and suitability of employment sites, and address potential barriers to investment. The changes allow planning authorities to plan for, but not designate, beyond 25 years for the long-term protection of employment areas. In addition, the PPS 2020 requires the protection of industrial and manufacturing uses by planning for separation and mitigation between sensitive land uses and employment areas as well as prohibiting residential and institutional uses within employment areas. Where sensitive land uses (such as residential) are permitted in proximity to employment uses, potential impacts are to be minimized and mitigated.

County Considerations: Amend or add OP policy related to protection of employment lands, and separation between sensitive land uses and employment areas. Update to employment land inventory may be required.

Employment Land Conversions

The PPS 2020 will permit employment land conversions outside of the Municipal Comprehensive Review, subject to criteria.

County Considerations: Amend policy related to employment land conversion.

Regional Employment Lands

Reference is made to the identification of regionally-significant employment lands by a 'regional economic development corporation' working together with an affected upper-tier municipality. The references to 'regionally significant employment lands' and a 'regional economic development corporation' are not yet set out by the Province.

County Considerations: Amend or add OP policy related to regionally significant employment lands. Discussions required with local municipalities to collectively identify regionally significant employment lands.

FINANCIAL IMPLICATIONS:

There will be costs implications associated with the 5-year Official Plan review for the County of Elgin. Consulting costs related to preparing lands needs assessments and reviewing growth settlement areas, as well as updates to employment lands may be required. These funds were not previously approved in the 2020 Operating budget. It is estimated that this could have a \$75,000 impact on the 2021 budget.

ALIGNMENT WITH STRATEGIC PRIORITIES:

Serving Elgin	Growing Elgin	Investing in Elgin
<input type="checkbox"/> Ensuring alignment of current programs and services with community need. <input type="checkbox"/> Exploring different ways of addressing community need. <input checked="" type="checkbox"/> Engaging with our community and other stakeholders.	<input checked="" type="checkbox"/> Planning for and facilitating commercial, industrial, residential, and agricultural growth. <input checked="" type="checkbox"/> Fostering a healthy environment. <input checked="" type="checkbox"/> Enhancing quality of place.	<input checked="" type="checkbox"/> Ensuring we have the necessary tools, resources, and infrastructure to deliver programs and services now and in the future. <input checked="" type="checkbox"/> Delivering mandated programs and services efficiently and effectively.

LOCAL MUNICIPAL PARTNER IMPACT:

These PPS changes will need to be incorporated at the local municipal level, likely through the local municipalities' 5-year review of their official plans.

COMMUNICATION REQUIREMENTS:

Circulate report and attachments to local municipalities.

CONCLUSION:

This report is to advise of the recent PPS changes implemented by the Provincial government, which took effect May 1, 2020. Some of these policy changes will require review and implementation through the County Official Plan. As part of the Official Plan Review process, these changes will be implemented.



All of which is Respectfully Submitted

Approved for Submission

Nancy Pasato
Manager of Planning

Julie Gonyou
Chief Administrative Officer



Provincial Policy Statement, 2020

Under the *Planning Act*

Ontario 

Provincial Policy Statement 2014-2020 Comparison Tracked Changes Version

This document compares Provincial Policy Statement, 2014 and Provincial Policy Statement 2020. Additions are shown in blue underlined text and deletions are shown in ~~red strikethrough text~~. This document and the information contained herein are intended for illustrative purposes only. Users should refer back to the Provincial Policy Statement, 2020 when making decisions related to land use planning matters.

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Part I: Preamble

The Provincial Policy Statement provides policy direction on matters of provincial interest related to land use planning and development. As a key part of Ontario's policy-led planning system, the Provincial Policy Statement sets the policy foundation for regulating the development and use of land. It also supports the provincial goal to enhance the quality of life for all Ontarians.

The Provincial Policy Statement provides for appropriate development while protecting resources of provincial interest, public health and safety, and the quality of the natural and built environment. The Provincial Policy Statement supports improved land use planning and management, which contributes to a more effective and efficient land use planning system.

The policies of the Provincial Policy Statement may be complemented by provincial plans or by locally-generated policies regarding matters of municipal interest. Provincial plans and municipal official plans provide a framework for comprehensive, integrated, place-based and long-term planning that supports and integrates the principles of strong communities, a clean and healthy environment and economic growth, for the long term.

Municipal official plans are the most important vehicle for implementation of this Provincial Policy Statement and for achieving comprehensive, integrated and long-term planning. Official plans shall identify provincial interests and set out appropriate land use designations and policies.

Official plans should also coordinate cross-boundary matters to complement the actions of other planning authorities and promote mutually beneficial solutions. Official plans shall provide clear, reasonable and attainable policies to protect provincial interests and direct development to suitable areas. In order to protect provincial interests, planning authorities shall keep their official plans up-to-date with this Provincial Policy Statement.

Zoning and development permit by-laws are also important for implementation of this Provincial Policy Statement. Planning authorities shall keep their zoning and development permit by-laws up-to-date with their official plans and this Provincial Policy Statement.

Land use planning is only one of the tools for implementing provincial interests. A wide range of legislation, regulations, policies and programs may ~~also~~ apply to decisions with respect to Planning Act applications and affect planning matters, and assist in implementing these interests.

Within the Great Lakes – St. Lawrence River Basin, there may be circumstances where planning authorities should consider agreements related to the protection or restoration of the Great Lakes – St. Lawrence River Basin. Examples of these agreements include Great

[Lakes agreements between Ontario and Canada, between Ontario and Quebec and the Great Lakes States of the United States of America, and between Canada and the United States of America.](#)

Part II: Legislative Authority

The Provincial Policy Statement is issued under the authority of section 3 of the *Planning Act* and came into effect on ~~April 30, 2014~~ [May 1, 2020](#).

In respect of the exercise of any authority that affects a planning matter, section 3 of the *Planning Act* requires that decisions affecting planning matters “shall be consistent with” policy statements issued under the Act.

[Comments, submissions or advice that affect a planning matter that are provided by the council of a municipality, a local board, a planning board, a minister or ministry, board, commission or agency of the government “shall be consistent with” this Provincial Policy Statement.](#)

Part III: How to Read the Provincial Policy Statement

The provincial policy-led planning system recognizes and addresses the complex inter-relationships among environmental, economic and social factors in land use planning. The Provincial Policy Statement supports a comprehensive, integrated and long-term approach to planning, and recognizes linkages among policy areas.

Read the Entire Provincial Policy Statement

The Provincial Policy Statement is more than a set of individual policies. It is to be read in its entirety and the relevant policies are to be applied to each situation. When more than one policy is relevant, a decision-maker should consider all of the relevant policies to understand how they work together. The language of each policy, including the Implementation and Interpretation policies, will assist decision-makers in understanding how the policies are to be implemented.

While specific policies sometimes refer to other policies for ease of use, these cross-references do not take away from the need to read the Provincial Policy Statement as a whole.

There is no implied priority in the order in which the policies appear.

Consider Specific Policy Language

When applying the Provincial Policy Statement it is important to consider the specific language of the policies. Each policy provides direction on how it is to be implemented, how it is situated within the broader Provincial Policy Statement, and how it relates to other policies.

Some policies set out positive directives, such as “settlement areas shall be the focus of growth and development.” Other policies set out limitations and prohibitions, such as “development and site alteration shall not be permitted.” Other policies use enabling or supportive language, such as “should,” “promote” and “encourage.”

The choice of language is intended to distinguish between the types of policies and the nature of implementation. There is some discretion when applying a policy with enabling or supportive language in contrast to a policy with a directive, limitation or prohibition.

Geographic Scale of Policies

The Provincial Policy Statement recognizes the diversity of Ontario and that local context is important. Policies are outcome-oriented, and some policies provide flexibility in their implementation provided that provincial interests are upheld.

While the Provincial Policy Statement is to be read as a whole, not all policies will be applicable to every site, feature or area. The Provincial Policy Statement applies at a range of geographic scales.

Some of the policies refer to specific areas or features and can only be applied where these features or areas exist. Other policies refer to planning objectives that need to be considered in the context of the municipality or planning area as a whole, and are not necessarily applicable to a specific site or development proposal.

Policies Represent Minimum Standards

The policies of the Provincial Policy Statement represent minimum standards.

Within the framework of the provincial policy-led planning system, planning authorities and decision-makers may go beyond these minimum standards to address matters of importance to a specific community, unless doing so would conflict with any policy of the Provincial Policy Statement.

Defined Terms and Meanings

Except for references to legislation which are italicized, other italicized terms in the Provincial Policy Statement are defined in the Definitions section. For non-italicized terms, the normal meaning of the word applies. Terms may be italicized only in specific policies; for these terms, the defined meaning applies where they are italicized and the normal meaning applies where they are not italicized. Defined terms in the Definitions section are intended to capture both singular and plural forms of these terms in the policies.

Guidance Material

Guidance material and technical criteria may be issued from time to time to assist planning authorities and decision-makers with implementing the policies of the Provincial Policy Statement. Information, technical criteria and approaches outlined in guidance material are meant to support but not add to or detract from the policies of the Provincial Policy Statement.

Relationship with Provincial Plans

The Provincial Policy Statement provides overall policy directions on matters of provincial interest related to land use planning and development in Ontario, and applies province-wide, except where this policy statement or another provincial plan provides otherwise.

Provincial plans, such as the Greenbelt Plan, ~~the~~ A Place to Grow: Growth Plan for the Greater Golden Horseshoe and the Growth Plan for Northern Ontario, build upon the policy foundation provided by the Provincial Policy Statement. They provide additional land use planning policies to address issues facing specific geographic areas in Ontario.

Provincial plans are to be read in conjunction with the Provincial Policy Statement. They take precedence over the policies of the Provincial Policy Statement to the extent of any conflict, except where the relevant legislation provides otherwise.

Where the policies of provincial plans address the same, similar, related, or overlapping matters as the policies of the Provincial Policy Statement, applying the more specific policies of the provincial plan satisfies the more general requirements of the Provincial Policy Statement. In contrast, where matters addressed in the Provincial Policy Statement do not overlap with policies in provincial plans, the policies in the Provincial Policy Statement must be independently satisfied.

Land use planning decisions made by municipalities, planning boards, the Province, or a commission or agency of the government must be consistent with the Provincial Policy Statement. Where provincial plans are in effect, planning decisions must conform or not conflict with them, as the case may be.

Part IV: Vision for Ontario's Land Use Planning System

The long-term prosperity and social well-being of Ontario depends upon planning for strong, sustainable and resilient communities for people of all ages, a clean and healthy environment, and a strong and competitive economy.

Ontario is a vast province with diverse urban, rural and northern communities which may face different challenges related to diversity in population, economic activity, pace of growth and physical and natural conditions. Some areas face challenges related to maintaining population and diversifying their economy, while other areas face challenges related to accommodating and managing the development and population growth which is occurring, while protecting important resources and the quality of the natural environment.

~~Ontario's~~ The Province's rich cultural diversity is one of its distinctive and defining features. ~~The Provincial Policy Statement reflects Ontario's diversity~~ Indigenous communities have a unique relationship with the land and its resources, which ~~includes the histories and cultures of Aboriginal peoples,~~ continues to shape the history and ~~is based on good~~ economy of the Province today. Ontario recognizes the unique role Indigenous communities have in land use planning ~~principles that apply in communities across Ontario,~~ and development, and the contribution of Indigenous communities' perspectives and traditional knowledge to land use planning decisions. The Province recognizes the importance of consulting with Aboriginal communities on planning matters that may affect their ~~rights and interests~~ section 35 Aboriginal or treaty rights. Planning authorities are encouraged to build constructive, cooperative relationships through meaningful engagement with Indigenous communities to facilitate knowledge-sharing in land use planning processes and inform decision-making.

The Provincial Policy Statement focuses growth and development within urban and rural settlement areas while supporting the viability of rural areas. It recognizes that the wise management of land use change may involve directing, promoting or sustaining development. Land use must be carefully managed to accommodate appropriate development to meet the full range of current and future needs, while achieving efficient development patterns and avoiding significant or sensitive resources and areas which may pose a risk to public health and safety. Planning authorities are encouraged to permit and facilitate a range of housing options, including new development as well as residential intensification, to respond to current and future needs.

Efficient development patterns optimize the use of land, resources and public investment in infrastructure and public service facilities. These land use patterns promote a mix of housing, including affordable housing, employment, recreation, parks and open spaces, and transportation choices that increase the use of active transportation and transit before other modes of travel. They ~~also~~ support the financial well-being of the Province and municipalities over the long term, and minimize the undesirable effects of development,

PROVINCIAL POLICY STATEMENT 2014 – 2020 COMPARISON

including impacts on air, water and other resources. [They also permit better adaptation and response to the impacts of a changing climate, which will vary from region to region.](#)

Strong, liveable and healthy communities promote and enhance human health and social well-being, are economically and environmentally sound, and are resilient to climate change.

The Province's natural heritage resources, water resources, including the Great Lakes, agricultural resources, mineral resources, and cultural heritage and archaeological resources provide important environmental, economic and social benefits. The wise use and management of these resources over the long term is a key provincial interest. The Province must ensure that its resources are managed in a sustainable way to conserve biodiversity, protect essential ecological processes and public health and safety, provide for the production of food and fibre, minimize environmental and social impacts, [provide for recreational opportunities \(e.g. fishing, hunting and hiking\)](#) and meet its long-term needs.

It is equally important to protect the overall health and safety of the population, [including preparing for the impacts of a changing climate](#). The Provincial Policy Statement directs development away from areas of natural and human-made hazards. This preventative approach supports provincial and municipal financial well-being over the long term, protects public health and safety, and minimizes cost, risk and social disruption.

Taking action to conserve land and resources avoids the need for costly remedial measures to correct problems and supports economic and environmental principles.

Strong communities, a clean and healthy environment and a strong economy are inextricably linked. Long-term prosperity, human and environmental health and social well-being should take precedence over short-term considerations.

The fundamental principles set out in the Provincial Policy Statement apply throughout Ontario. To support our collective well-being, now and in the future, all land use must be well managed.

Part V: Policies

1.0 Building Strong Healthy Communities

Ontario is a vast province with urban, rural, and northern communities with diversity in population, economic activities, pace of growth, service levels and physical and natural conditions. Ontario's long-term prosperity, environmental health and social well-being depend on wisely managing change and promoting efficient land use and development patterns. Efficient land use and development patterns support sustainability by promoting strong, liveable, healthy and resilient communities, protecting the environment and public health and safety, and facilitating economic growth.

Accordingly:

1.1 Managing and Directing Land Use to Achieve Efficient and Resilient Development and Land Use Patterns

1.1.1 Healthy, liveable and safe communities are sustained by:

- a) promoting efficient development and land use patterns which sustain the financial well-being of the Province and municipalities over the long term;
- b) accommodating an appropriate [affordable and market-based](#) range and mix of residential [types](#) (including ~~second~~[single-detached, additional residential](#) units, [multi-unit housing](#), affordable housing and housing for older persons), employment (including industrial and commercial), institutional (including places of worship, cemeteries and long-term care homes), recreation, park and open space, and other uses to meet long-term needs;
- c) avoiding development and land use patterns which may cause environmental or public health and safety concerns;
- d) avoiding development and land use patterns that would prevent the efficient expansion of *settlement areas* in those areas which are adjacent or close to *settlement areas*;
- e) promoting [the integration of land use planning, growth management, transit-supportive development, intensification and infrastructure planning to achieve](#) cost-effective development patterns, [optimization of transit investments](#), and standards to minimize land consumption and servicing costs;
- f) improving accessibility for persons with disabilities and older persons by ~~identifying, preventing and removing~~[addressing](#) land use barriers which restrict their full participation in society;

PROVINCIAL POLICY STATEMENT 2014 – 2020 COMPARISON

- g) ensuring that necessary *infrastructure*, ~~electricity generation facilities and transmission and distribution systems~~, and *public service facilities* are or will be available to meet current and projected needs; ~~and~~
- h) promoting development and land use patterns that conserve biodiversity; ~~and consider~~
- i) preparing for the regional and local impacts of a changing climate.

1.1.2 Sufficient land shall be made available to accommodate an appropriate range and mix of land uses to meet projected needs for a time horizon of up to ~~20~~25 years, informed by provincial guidelines. However, where an alternate time period has been established for specific areas of the Province as a result of a provincial planning exercise or a *provincial plan*, that time frame may be used for municipalities within the area.

Within *settlement areas*, sufficient land shall be made available through *intensification* and *redevelopment* and, if necessary, *designated growth areas*.

Nothing in policy 1.1.2 limits the planning for *infrastructure* ~~and~~ *public service facilities* and employment areas beyond a ~~20~~25-year time horizon.

1.1.3 Settlement Areas

Settlement areas are urban areas and rural settlement areas, and include cities, towns, villages and hamlets. Ontario's settlement areas vary significantly in terms of size, density, population, economic activity, diversity and intensity of land uses, service levels, and types of infrastructure available.

The vitality and regeneration of settlement areas is critical to the long-term economic prosperity of our communities. Development pressures and land use change will vary across Ontario. It is in the interest of all communities to use land and resources wisely, to promote efficient development patterns, protect resources, promote green spaces, ensure effective use of infrastructure and public service facilities and minimize unnecessary public expenditures.

1.1.3.1 *Settlement areas* shall be the focus of growth and development, ~~and their vitality and regeneration shall be promoted~~.

1.1.3.2 Land use patterns within *settlement areas* shall be based on ÷

~~a)~~ — densities and a mix of land uses which:

- ~~1.a)~~ 1.a) efficiently use land and resources;
- ~~2.b)~~ 2.b) are appropriate for, and efficiently use, the *infrastructure* and *public service facilities* which are planned or available, and avoid the need for their unjustified and/or uneconomical expansion;

~~3-c)~~ minimize negative impacts to air quality and climate change, and promote energy efficiency;
d) prepare for the impacts of a changing climate;
~~4-e)~~ support *active transportation*;
~~5-f)~~ are *transit-supportive*, where transit is planned, exists or may be developed; and
~~6-g)~~ are *freight-supportive*; ~~and~~.
~~b) —~~
Land use patterns within settlement areas shall also be based on a range of uses and opportunities for *intensification* and *redevelopment* in accordance with the criteria in policy 1.1.3.3, where this can be accommodated.

1.1.3.3 Planning authorities shall identify appropriate locations and promote opportunities for transit-supportive development, accommodating a significant supply and range of housing options through *intensification* and *redevelopment* where this can be accommodated taking into account existing building stock or areas, including *brownfield sites*, and the availability of suitable existing or planned *infrastructure* and *public service facilities* required to accommodate projected needs.

~~Intensification and redevelopment shall be directed in accordance with the policies of Section 2: Wise Use and Management of Resources and Section 3: Protecting Public Health and Safety.~~

1.1.3.4 Appropriate development standards should be promoted which facilitate *intensification*, *redevelopment* and compact form, while avoiding or mitigating risks to public health and safety.

1.1.3.5 Planning authorities shall establish and implement minimum targets for *intensification* and *redevelopment* within built-up areas, based on local conditions. However, where provincial targets are established through *provincial plans*, the provincial target shall represent the minimum target for affected areas.

1.1.3.6 New development taking place in *designated growth areas* should occur adjacent to the existing built-up area and ~~shall~~should have a compact form, mix of uses and densities that allow for the efficient use of land, *infrastructure* and *public service facilities*.

1.1.3.7 Planning authorities ~~shall~~should establish and implement phasing policies to ensure:

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- a) that specified targets for *intensification* and *redevelopment* are achieved prior to, or concurrent with, new development within *designated growth areas*; and
- b) the orderly progression of development within *designated growth areas* and the timely provision of the *infrastructure* and *public service facilities* required to meet current and projected needs.

1.1.3.8 A planning authority may identify a *settlement area* or allow the expansion of a *settlement area* boundary only at the time of a *comprehensive review* and only where it has been demonstrated that:

- a) sufficient opportunities ~~for~~ to accommodate growth and to satisfy market demand are not available through *intensification*, *redevelopment* and *designated growth areas* to accommodate the projected needs over the identified planning horizon;
- b) the *infrastructure* and *public service facilities* which are planned or available are suitable for the development over the long term, are financially viable over their life cycle, and protect public health and safety and the natural environment;
- c) in *prime agricultural areas*:
 - 1. the lands do not comprise *specialty crop areas*;
 - 2. alternative locations have been evaluated, and
 - i. there are no reasonable alternatives which avoid *prime agricultural areas*; and
 - ii. there are no reasonable alternatives on lower priority agricultural lands in *prime agricultural areas*;
- d) the new or expanding *settlement area* is in compliance with the *minimum distance separation formulae*; and
- e) impacts from new or expanding *settlement areas* on agricultural operations which are adjacent or close to the *settlement area* are mitigated to the extent feasible.

~~In determining the most appropriate direction for expansions to the boundaries of settlement areas or the identification of a settlement area by a planning authority, a planning authority shall apply the policies of Section 2: Wise Use and Management of Resources and Section 3: Protecting Public Health and Safety. In undertaking a comprehensive review, the level of detail of the assessment should correspond with the complexity and scale of the settlement boundary expansion or development proposal.~~

1.1.3.9 Notwithstanding policy 1.1.3.8, municipalities may permit adjustments of settlement area boundaries outside a comprehensive review provided:

- a) there would be no net increase in land within the settlement areas;

- b) the adjustment would support the municipality's ability to meet intensification and redevelopment targets established by the municipality;
- c) prime agricultural areas are addressed in accordance with 1.1.3.8 (c), (d) and (e); and
- d) the settlement area to which lands would be added is appropriately serviced and there is sufficient reserve infrastructure capacity to service the lands.

1.1.4 Rural Areas in Municipalities

Rural areas are important to the economic success of the Province and our quality of life. Rural areas are a system of lands that may include rural settlement areas, rural lands, prime agricultural areas, natural heritage features and areas, and other resource areas. Rural areas and urban areas are interdependent in terms of markets, resources and amenities. It is important to leverage rural assets and amenities and protect the environment as a foundation for a sustainable economy.

Ontario's rural areas have diverse population levels, natural resources, geographies and physical characteristics, and economies. Across rural Ontario, local circumstances vary by region. For example, northern Ontario's natural environment and vast geography offer different opportunities than the predominately agricultural areas of southern regions of the Province.

1.1.4.1 Healthy, integrated and viable *rural areas* should be supported by:

- a) building upon rural character, and leveraging rural amenities and assets;
- b) promoting regeneration, including the redevelopment of *brownfield sites*;
- c) accommodating an appropriate range and mix of housing in rural *settlement areas*;
- d) encouraging the conservation and *redevelopment* of existing rural housing stock on *rural lands*;
- e) using rural *infrastructure* and *public service facilities* efficiently;
- f) promoting diversification of the economic base and employment opportunities through goods and services, including value-added products and the sustainable management or use of resources;
- g) providing opportunities for sustainable and diversified tourism, including leveraging historical, cultural, and natural assets;
- h) conserving biodiversity and considering the ecological benefits provided by nature; and
- i) providing opportunities for economic activities in *prime agricultural areas*, in accordance with policy 2.3.

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- 1.1.4.2 In *rural areas*, *rural settlement areas* shall be the focus of growth and development and their vitality and regeneration shall be promoted.
- 1.1.4.3 When directing development in *rural settlement areas* in accordance with policy 1.1.3, planning authorities shall give consideration to rural characteristics, the scale of development and the provision of appropriate service levels.
- 1.1.4.4 Growth and development may be directed to *rural lands* in accordance with policy 1.1.5, including where a municipality does not have a *settlement area*.

1.1.5 Rural Lands in Municipalities

- 1.1.5.1 When directing development on *rural lands*, a planning authority shall apply the relevant policies of Section 1: Building Strong Healthy Communities, as well as the policies of Section 2: Wise Use and Management of Resources and Section 3: Protecting Public Health and Safety.
- 1.1.5.2 On *rural lands* located in municipalities, permitted uses are:
- a) the management or use of resources;
 - b) resource-based recreational uses (including recreational dwellings);
 - c) ~~limited~~ residential development, including lot creation, that is locally appropriate;
 - d) agricultural uses, agriculture-related uses, on-farm diversified uses and normal farm practices, in accordance with provincial standards;
 - ~~d~~e) home occupations and home industries;
 - ~~e~~f) cemeteries; and
 - ~~f~~g) other rural land uses.
- 1.1.5.3 Recreational, tourism and other economic opportunities should be promoted.
- 1.1.5.4 Development that is compatible with the rural landscape and can be sustained by rural service levels should be promoted.
- 1.1.5.5 Development shall be appropriate to the *infrastructure* which is planned or available, and avoid the need for the unjustified and/or uneconomical expansion of this *infrastructure*.
- 1.1.5.6 Opportunities should be retained to locate new or expanding land uses that require separation from other uses.
- 1.1.5.7 Opportunities to support a diversified rural economy should be promoted by protecting agricultural and other resource-related uses and directing non-related development to areas where it will minimize constraints on these uses.

~~1.1.5.8 — Agricultural uses, agriculture-related uses, on-farm diversified uses and normal farm practices should be promoted and protected in accordance with provincial standards.~~

1.1.5.98 New land uses, including the creation of lots, and new or expanding livestock facilities, shall comply with the *minimum distance separation formulae*.

1.1.6 Territory Without Municipal Organization

1.1.6.1 On *rural lands* located in territory without municipal organization, the focus of development activity shall be related to the sustainable management or use of resources and resource-based recreational uses (including recreational dwellings).

1.1.6.2 Development shall be appropriate to the *infrastructure* which is planned or available, and avoid the need for the unjustified and/or uneconomical expansion of this *infrastructure*.

1.1.6.3 The establishment of new permanent townsites shall not be permitted.

1.1.6.4 In areas adjacent to and surrounding municipalities, only development that is related to the sustainable management or use of resources and resource-based recreational uses (including recreational dwellings) shall be permitted. Other uses may only be permitted if:

- a) the area forms part of a planning area;
- b) the necessary *infrastructure* and *public service facilities* are planned or available to support the development and are financially viable over their life cycle; and
- c) it has been determined, as part of a *comprehensive review*, that the impacts of development will not place an undue strain on the *public service facilities* and *infrastructure* provided by adjacent municipalities, regions and/or the Province.

1.2 Coordination

1.2.1 A coordinated, integrated and comprehensive approach should be used when dealing with planning matters within municipalities, across lower, single and/or upper-tier municipal boundaries, and with other orders of government, agencies and boards including:

- a) managing and/or promoting growth and development that is integrated with infrastructure planning;

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- b) economic development strategies;
 - c) managing natural heritage, water, agricultural, mineral, and cultural heritage and archaeological resources;
 - d) ~~infrastructure, electricity generation facilities and transmission and distribution systems,~~ multimodal transportation systems, public service facilities and waste management systems;
 - e) ecosystem, shoreline, watershed, and Great Lakes related issues;
 - f) natural and human-made hazards;
 - g) population, housing and employment projections, based on *regional market areas*; and
 - h) addressing housing needs in accordance with provincial policy statements such as the ~~Ontario Housing~~ Policy Statement: [Service Manager Housing and Homelessness Plans](#).
- 1.2.2 Planning authorities ~~are encouraged to~~ [shall engage with Indigenous communities and](#) coordinate [on land use](#) planning matters ~~with Aboriginal communities~~.
- 1.2.3 Planning authorities should coordinate emergency management and other economic, environmental and social planning considerations to support efficient and resilient communities.
- 1.2.4 Where planning is conducted by an upper-tier municipality, the upper-tier municipality in consultation with lower-tier municipalities shall:
- a) identify, ~~coordinate~~ and allocate population, housing and employment projections for lower-tier municipalities. Allocations and projections by upper-tier municipalities shall be based on and reflect *provincial plans* where these exist [and informed by provincial guidelines](#);
 - b) identify areas where growth or development will be directed, including the identification of nodes and the corridors linking these nodes;
 - c) identify targets for *intensification* and *redevelopment* within all or any of the lower-tier municipalities, including minimum targets that should be met before expansion of the boundaries of *settlement areas* is permitted in accordance with policy 1.1.3.8;
 - d) where [major](#) transit corridors exist or are to be developed, identify density targets for areas adjacent or in proximity to these corridors [and stations](#), including minimum targets that should be met before expansion of the boundaries of *settlement areas* is permitted in accordance with policy 1.1.3.8; and
 - e) ~~identify and~~ provide policy direction for the lower-tier municipalities on matters that cross municipal boundaries.

- 1.2.5 Where there is no upper-tier municipality, planning authorities shall ensure that policy 1.2.4 is addressed as part of the planning process, and should coordinate these matters with adjacent planning authorities.

1.2.6 Land Use Compatibility

- 1.2.6.1 *Major facilities and sensitive land uses* ~~should~~shall be planned and developed to ~~ensure they are appropriately designed, buffered and/avoid, or separated from each other to prevent or~~if avoidance is not possible, minimize and mitigate any potential adverse effects from odour, noise and other contaminants, minimize risk to public health and safety, and to ensure the long-term operational and economic viability of *major facilities* in accordance with provincial guidelines, standards and procedures.

1.2.6.2 Where avoidance is not possible in accordance with policy 1.2.6.1, planning authorities shall protect the long-term viability of existing or planned industrial, manufacturing or other uses that are vulnerable to encroachment by ensuring that the planning and development of proposed adjacent sensitive land uses are only permitted if the following are demonstrated in accordance with provincial guidelines, standards and procedures:

- a) there is an identified need for the proposed use;
- b) alternative locations for the proposed use have been evaluated and there are no reasonable alternative locations;
- c) adverse effects to the proposed sensitive land use are minimized and mitigated; and
- d) potential impacts to industrial, manufacturing or other uses are minimized and mitigated.

1.3 Employment

- 1.3.1 Planning authorities shall promote economic development and competitiveness by:

- a) providing for an appropriate mix and range of employment ~~and~~ institutional, and broader mixed uses to meet long-term needs;
- b) providing opportunities for a diversified economic base, including maintaining a range and choice of suitable sites for employment uses which support a wide range of economic activities and ancillary uses, and take into account the needs of existing and future businesses;
- c) facilitating the conditions for economic investment by identifying strategic sites for investment, monitoring the availability and suitability of

employment sites, including market-ready sites, and seeking to address potential barriers to investment;

- ~~e~~d) encouraging compact, mixed-use development that incorporates compatible employment uses to support liveable and resilient communities, with consideration of housing policy 1.4; and
- ~~d~~e) ensuring the necessary *infrastructure* is provided to support current and projected needs.

1.3.2 Employment Areas

- 1.3.2.1 Planning authorities shall plan for, protect and preserve *employment areas* for current and future uses and ensure that the necessary *infrastructure* is provided to support current and projected needs.

1.3.2.2 At the time of the official plan review or update, planning authorities should assess *employment areas* identified in local official plans to ensure that this designation is appropriate to the planned function of the *employment area*.

Employment areas planned for industrial and manufacturing uses shall provide for separation or mitigation from *sensitive land uses* to maintain the long-term operational and economic viability of the planned uses and function of these areas.

1.3.2.3 Within *employment areas* planned for industrial or manufacturing uses, planning authorities shall prohibit residential uses and prohibit or limit other *sensitive land uses* that are not ancillary to the primary employment uses in order to maintain land use compatibility.

Employment areas planned for industrial or manufacturing uses should include an appropriate transition to adjacent non-*employment areas*.

- 1.3.2.~~2~~4 Planning authorities may permit conversion of lands within *employment areas* to non-employment uses through a *comprehensive review*, only where it has been demonstrated that the land is not required for employment purposes over the long term and that there is a need for the conversion.

1.3.2.5 Notwithstanding policy 1.3.2.4, and until the official plan review or update in policy 1.3.2.4 is undertaken and completed, lands within existing *employment areas* may be converted to a designation that permits non-employment uses provided the area has not been identified as provincially significant through a provincial plan exercise or as regionally significant by a regional economic development corporation working together with affected upper and single-tier municipalities and subject to the following:

- a) there is an identified need for the conversion and the land is not required for employment purposes over the long term;
- b) the proposed uses would not adversely affect the overall viability of the employment area; and
- c) existing or planned infrastructure and public service facilities are available to accommodate the proposed uses.

1.3.2.36 Planning authorities shall protect *employment areas* in proximity to *major goods movement facilities and corridors* for employment uses that require those locations.

1.3.2.47 Planning authorities may plan beyond ~~20~~25 years for the long-term protection of employment areas provided lands are not designated beyond the planning horizon identified in policy 1.1.2.

1.4 Housing

1.4.1 To provide for an appropriate range and mix of *housing types* options and densities required to meet projected requirements of current and future residents of the *regional market area*, planning authorities shall:

- a) maintain at all times the ability to accommodate residential growth for a minimum of ~~10~~15 years through *residential intensification* and *redevelopment* and, if necessary, lands which are *designated and available* for residential development; and
- b) maintain at all times where new development is to occur, land with servicing capacity sufficient to provide at least a three-year supply of residential units available through lands suitably zoned to facilitate *residential intensification* and *redevelopment*, and land in draft approved and registered plans.

Upper-tier and single-tier municipalities may choose to maintain land with servicing capacity sufficient to provide at least a five-year supply of residential units available through lands suitably zoned to facilitate *residential intensification* and *redevelopment*, and land in draft approved and registered plans.

1.4.2 Where planning is conducted by an upper-tier municipality:

- a) the land and unit supply maintained by the lower-tier municipality identified in policy 1.4.1 shall be based on and reflect the allocation of population and units by the upper-tier municipality; and
- b) the allocation of population and units by the upper-tier municipality shall be based on and reflect *provincial plans* where these exist.

- 1.4.3 Planning authorities shall provide for an appropriate range and mix of *housing types*~~options~~ and densities to meet projected ~~requirements~~market-based and affordable housing needs of current and future residents of the *regional market area* by:
- a) establishing and implementing minimum targets for the provision of housing which is *affordable to low and moderate income households*; ~~and which aligns with applicable housing and homelessness plans.~~ However, where planning is conducted by an upper-tier municipality, the upper-tier municipality in consultation with the lower-tier municipalities may identify a higher target(s) which shall represent the minimum target(s) for these lower-tier municipalities;
 - b) permitting and facilitating:
 - 1. all ~~forms of~~ *housing options* required to meet the social, health, economic and well-being requirements of current and future residents, including *special needs* requirements; ~~and~~ needs arising from demographic changes and employment opportunities; and
 - 2. all ~~forms~~types of *residential intensification*, including ~~second~~additional residential units, and *redevelopment* in accordance with policy 1.1.3.3;
 - c) directing the development of new housing towards locations where appropriate levels of *infrastructure* and *public service facilities* are or will be available to support current and projected needs;
 - d) promoting densities for new housing which efficiently use land, resources, *infrastructure* and *public service facilities*, and support the use of *active transportation* and transit in areas where it exists or is to be developed; ~~and~~
 - e) requiring transit-supportive development and prioritizing intensification, including potential air rights development, in proximity to transit, including corridors and stations; and
 - ~~ef)~~ establishing development standards for *residential intensification*, *redevelopment* and new residential development which minimize the cost of housing and facilitate compact form, while maintaining appropriate levels of public health and safety.

1.5 Public Spaces, Recreation, Parks, Trails and Open Space

1.5.1 Healthy, active communities should be promoted by:

- a) planning public streets, spaces and facilities to be safe, meet the needs of pedestrians, foster social interaction and facilitate *active transportation* and community connectivity;

- b) planning and providing for a full range and equitable distribution of publicly-accessible built and natural settings for *recreation*, including facilities, parklands, public spaces, open space areas, trails and linkages, and, where practical, water-based resources;
- c) providing opportunities for public access to shorelines; and
- d) recognizing provincial parks, conservation reserves, and other protected areas, and minimizing negative impacts on these areas.

1.6 Infrastructure and Public Service Facilities

- 1.6.1 ~~Infrastructure, electricity generation facilities and transmission and distribution systems,~~ and *public service facilities* shall be provided in ~~a coordinated,~~ an efficient ~~and cost-effective~~ manner that ~~considers~~ prepares for the impacts ~~from of a changing~~ climate change while accommodating projected needs.

Planning for ~~infrastructure, electricity generation facilities and transmission and distribution systems,~~ and *public service facilities* shall be coordinated and integrated with land use planning and growth management so that they are:

- a) financially viable over their life cycle, which may be demonstrated through asset management planning; and
- b) available to meet current and projected needs.

- 1.6.2 Planning authorities should promote *green infrastructure* to complement *infrastructure*.

- 1.6.3 Before consideration is given to developing new *infrastructure* and *public service facilities*:

- a) the use of existing *infrastructure* and *public service facilities* should be optimized; and
- b) opportunities for adaptive re-use should be considered, wherever feasible.

- 1.6.4 *Infrastructure* and *public service facilities* should be strategically located to support the effective and efficient delivery of emergency management services, and to ensure the protection of public health and safety in accordance with the policies in Section 3.0: Protecting Public Health and Safety.

- 1.6.5 *Public service facilities* should be co-located in community hubs, where appropriate, to promote cost-effectiveness and facilitate service integration, access to transit and *active transportation*.

1.6.6 Sewage, Water and Stormwater

1.6.6.1 Planning for sewage and water services shall:

- a) ~~direct and~~ accommodate ~~expected~~ forecasted growth ~~or development~~ in a manner that promotes the efficient use and optimization of existing:
 - 1. *municipal sewage services and municipal water services*; and
 - 2. *private communal sewage services and private communal water services*, where *municipal sewage services and municipal water services* are not available or feasible;
- b) ensure that these systems are provided in a manner that:
 - 1. can be sustained by the water resources upon which such services rely;
 - 2. prepares for the impacts of a changing climate;
 - ~~23.~~ is feasible, and financially viable ~~and complies with all regulatory requirements over their lifecycle~~; and
 - ~~34.~~ protects human health and safety, and the natural environment;
- c) promote water conservation and water use efficiency;
- d) integrate servicing and land use considerations at all stages of the planning process; and
- e) be in accordance with the servicing hierarchy outlined through policies 1.6.6.2, 1.6.6.3, 1.6.6.4 and 1.6.6.5. For clarity, where municipal sewage services and municipal water services are not available, planned or feasible, planning authorities have the ability to consider the use of the servicing options set out through policies 1.6.6.3, 1.6.6.4, and 1.6.6.5 provided that the specified conditions are met.

1.6.6.2 *Municipal sewage services and municipal water services* are the preferred form of servicing for settlement areas. ~~Intensification and redevelopment within to support protection of the environment and minimize potential risks to human health and safety. Within settlement areas on with~~ existing *municipal sewage services and municipal water services* ~~should, intensification and redevelopment shall~~ be promoted, wherever feasible to optimize the use of the services.

1.6.6.3 Where *municipal sewage services and municipal water services* are not ~~provided, municipalities may allow the use of~~ available, planned or feasible, *private communal sewage services and private communal water services* are the preferred form of servicing for multi-unit/lot development to support protection of the environment and minimize potential risks to human health and safety.

1.6.6.4 Where *municipal sewage services and municipal water services* or *private communal sewage services and private communal water services* are not ~~provided~~ available, planned or feasible, *individual on-site sewage services and individual on-site water services* may be used provided that site conditions are suitable for the long-term provision of such services with no *negative impacts*. In

settlement areas, ~~these~~ individual on-site sewage services and individual on-site water services may ~~only~~ be used for infilling and minor rounding out of existing development.

At the time of the official plan review or update, planning authorities should assess the long-term impacts of individual on-site sewage services and individual on-site water services on the environmental health and the character of rural settlement areas. Where planning is conducted by an upper-tier municipality, the upper-tier municipality should work with lower-tier municipalities at the time of the official plan review or update to assess the long-term impacts of individual on-site sewage services and individual on-site water services on the environmental health and the desired character of rural settlement areas and the feasibility of other forms of servicing set out in policies 1.6.6.2 and 1.6.6.3.

1.6.6.5 *Partial services* shall only be permitted in the following circumstances:

- a) where they are necessary to address failed *individual on-site sewage services* and *individual on-site water services* in existing development; or
- b) within *settlement areas*, to allow for infilling and minor rounding out of existing development on *partial services* provided that site conditions are suitable for the long-term provision of such services with no *negative impacts*.

Where *partial services* have been provided to address failed services in accordance with subsection (a), infilling on existing lots of record in *rural areas* in municipalities may be permitted where this would represent a logical and financially viable connection to the existing *partial service* and provided that site conditions are suitable for the long-term provision of such services with no *negative impacts*. In accordance with subsection (a), the extension of *partial services* into *rural areas* is only permitted to address failed *individual on-site sewage* and *individual on-site water services* for existing development.

1.6.6.6 Subject to the hierarchy of services provided in policies 1.6.6.2, 1.6.6.3, 1.6.6.4 and 1.6.6.5, planning authorities may allow lot creation only if there is confirmation of sufficient *reserve sewage system capacity* and *reserve water system capacity* within *municipal sewage services* and *municipal water services* or *private communal sewage services* and *private communal water services*. The determination of sufficient *reserve sewage system capacity* shall include treatment capacity for hauled sewage from *private communal sewage services* and *individual on-site sewage services*.

1.6.6.7 Planning for stormwater management shall:

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- a) be integrated with planning for sewage and water services and ensure that systems are optimized, feasible and financially viable over the long term;
- ~~a)b)~~ minimize, or, where possible, prevent increases in contaminant loads;
- ~~b)c)~~ minimize erosion and changes in water balance ~~and erosion, and prepare for the impacts of a changing climate through the effective management of stormwater, including the use of green infrastructure;~~
- ~~e)d)~~ ~~not increase~~ mitigate risks to human health ~~and~~, safety ~~and~~, property ~~damage and the environment;~~
- ~~d)e)~~ maximize the extent and function of vegetative and pervious surfaces; and
- ~~e)f)~~ promote stormwater management best practices, including stormwater attenuation and re-use, water conservation and efficiency, and low impact development.

1.6.7 Transportation Systems

- 1.6.7.1 *Transportation systems* should be provided which are safe, energy efficient, facilitate the movement of people and goods, and are appropriate to address projected needs.
- 1.6.7.2 Efficient use ~~shall~~ should be made of existing and planned *infrastructure*, including through the use of *transportation demand management* strategies, where feasible.
- 1.6.7.3 As part of a *multimodal transportation system*, connectivity within and among *transportation systems* and modes should be maintained and, where possible, improved including connections which cross jurisdictional boundaries.
- 1.6.7.4 A land use pattern, density and mix of uses should be promoted that minimize the length and number of vehicle trips and support current and future use of transit and *active transportation*.
- ~~1.6.7.5 — Transportation and land use considerations shall be integrated at all stages of the planning process.~~

1.6.8 Transportation and Infrastructure Corridors

- 1.6.8.1 Planning authorities shall plan for and protect corridors and rights-of-way for *infrastructure*, including transportation, transit and electricity generation facilities and transmission systems to meet current and projected needs.
- 1.6.8.2 *Major goods movement facilities and corridors* shall be protected for the long term.

- 1.6.8.3 Planning authorities shall not permit *development* in *planned corridors* that could preclude or negatively affect the use of the corridor for the purpose(s) for which it was identified.

New *development* proposed on *adjacent lands* to existing or *planned corridors* and transportation facilities should be compatible with, and supportive of, the long-term purposes of the corridor and should be designed to avoid, mitigate or minimize negative impacts on and from the corridor and transportation facilities.

- 1.6.8.4 The preservation and reuse of abandoned corridors for purposes that maintain the corridor's integrity and continuous linear characteristics should be encouraged, wherever feasible.

1.6.8.5 The co-location of linear *infrastructure* should be promoted, where appropriate.

- 1.6.8.56 When planning for corridors and rights-of-way for significant transportation, electricity transmission, and *infrastructure* facilities, consideration will be given to the significant resources in Section 2: Wise Use and Management of Resources.

1.6.9 Airports, Rail and Marine Facilities

- 1.6.9.1 Planning for land uses in the vicinity of *airports*, *rail facilities* and *marine facilities* shall be undertaken so that:

- a) their long-term operation and economic role is protected; and
- b) *airports*, *rail facilities* and *marine facilities* and *sensitive land uses* are appropriately designed, buffered and/or separated from each other, in accordance with policy 1.2.6.

- 1.6.9.2 *Airports* shall be protected from incompatible land uses and development by:

- a) prohibiting new residential *development* and other sensitive land uses in areas near *airports* above 30 NEF/NEP;
- b) considering redevelopment of existing residential uses and other sensitive land uses or infilling of residential and other sensitive land uses in areas above 30 NEF/NEP only if it has been demonstrated that there will be no negative impacts on the long-term function of the *airport*; and
- c) discouraging land uses which may cause a potential aviation safety hazard.

1.6.10 Waste Management

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- 1.6.10.1 *Waste management systems* need to be provided that are of an appropriate size and type to accommodate present and future requirements, and facilitate, encourage and promote reduction, reuse and recycling objectives. ~~Planning authorities should consider the implications of development and land use patterns on waste generation, management and diversion.~~

Waste management systems shall be located and designed in accordance with provincial legislation and standards.

1.6.11 Energy Supply

- 1.6.11.1 Planning authorities should provide opportunities for the development of energy supply including electricity generation facilities and transmission and distribution systems, district energy, and renewable energy systems and alternative energy systems, to accommodate current and projected needs.

- ~~1.6.11.2 Planning authorities should promote *renewable energy systems and alternative energy systems*, where feasible, in accordance with provincial and federal requirements.~~

1.7 Long-Term Economic Prosperity

- 1.7.1 Long-term economic prosperity should be supported by:

- a) promoting opportunities for economic development and community investment-readiness;
- b) encouraging residential uses to respond to dynamic market-based needs and provide necessary housing supply and range of housing options for a diverse workforce;
- ~~b~~c) optimizing the long-term availability and use of land, resources, ~~infrastructure, electricity generation facilities and transmission and distribution systems,~~ and *public service facilities*;
- ~~c~~d) maintaining and, where possible, enhancing the vitality and viability of downtowns and mainstreets;
- ~~d~~e) encouraging a sense of place, by promoting well-designed built form and cultural planning, and by conserving features that help define character, including *built heritage resources* and *cultural heritage landscapes*;
- ~~e~~f) promoting the redevelopment of *brownfield sites*;
- ~~f~~g) providing for an efficient, cost-effective, reliable *multimodal transportation system* that is integrated with adjacent systems and those of other jurisdictions, and is appropriate to address projected needs to support the movement of goods and people;
- ~~g~~h) providing opportunities for sustainable tourism development;

- ~~h)i)~~ ~~providing opportunities to support local food, and promoting~~ sustaining and enhancing the ~~sustainability~~ viability of ~~agri-food and agri-product businesses by the agricultural system through~~ protecting agricultural resources, ~~and~~ minimizing land use conflicts, providing opportunities to support local food, and maintaining and improving the agri-food network;
- ~~i)~~ promoting energy conservation and providing opportunities for ~~development of renewable~~ increased energy ~~systems and alternative energy systems, including district energy~~ supply;
- ~~j)~~ minimizing negative impacts from a changing climate and considering the ecological benefits provided by nature; and
- ~~k)~~ encouraging efficient and coordinated communications and telecommunications infrastructure.

1.8 Energy Conservation, Air Quality and Climate Change

1.8.1 Planning authorities shall support energy conservation and efficiency, improved air quality, reduced greenhouse gas emissions, and preparing for the impacts of a changing climate ~~change adaptation~~ through land use and development patterns which:

- a) promote compact form and a structure of nodes and corridors;
- b) promote the use of *active transportation* and transit in and between residential, employment (including commercial and industrial) and institutional uses and other areas;
- c) focus major employment, commercial and other travel-intensive land uses on sites which are well served by transit where this exists or is to be developed, or designing these to facilitate the establishment of transit in the future;
- d) focus freight-intensive land uses to areas well served by major highways, *airports, rail facilities and marine facilities*;
- e) encourage transit-supportive development and intensification to improve the mix of employment and housing uses to shorten commute journeys and decrease transportation congestion;
- f) promote design and orientation which ~~1. maximizes energy efficiency and conservation, and considers the mitigating effects of vegetation and green infrastructure; and~~ maximizes energy efficiency and conservation, and considers the mitigating effects of vegetation and green infrastructure; and
 - ~~2. maximizes opportunities for the use of renewable energy systems and alternative energy systems; and~~
- g) maximize vegetation within *settlement areas*, where feasible.

2.0 Wise Use and Management of Resources

Ontario's long-term prosperity, environmental health, and social well-being depend on conserving biodiversity, protecting the health of the Great Lakes, and protecting natural heritage, water, agricultural, mineral and cultural heritage and archaeological resources for their economic, environmental and social benefits.

Accordingly:

2.1 Natural Heritage

- 2.1.1 Natural features and areas shall be protected for the long term.
- 2.1.2 The diversity and connectivity of natural features in an area, and the long-term *ecological function* and biodiversity of *natural heritage systems*, should be maintained, restored or, where possible, improved, recognizing linkages between and among *natural heritage features and areas, surface water features* and *ground water features*.
- 2.1.3 *Natural heritage systems* shall be identified in Ecoregions 6E & 7E¹, recognizing that *natural heritage systems* will vary in size and form in *settlement areas, rural areas, and prime agricultural areas*.
- 2.1.4 *Development and site alteration* shall not be permitted in:
 - a) *significant wetlands* in Ecoregions 5E, 6E and 7E¹; and
 - b) *significant coastal wetlands*.
- 2.1.5 *Development and site alteration* shall not be permitted in:
 - a) *significant wetlands* in the Canadian Shield north of Ecoregions 5E, 6E and 7E¹;
 - b) *significant woodlands* in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River)¹;
 - c) *significant valleylands* in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River)¹;
 - d) *significant wildlife habitat*;
 - e) *significant areas of natural and scientific interest*; and
 - f) *coastal wetlands* in Ecoregions 5E, 6E and 7E¹ that are not subject to policy 2.1.4(b) unless it has been demonstrated that there will be no *negative impacts* on the natural features or their *ecological functions*.

¹ Ecoregions 5E, 6E and 7E are shown on Figure 1.
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- 2.1.6 *Development and site alteration* shall not be permitted in *fish habitat* except in accordance with *provincial and federal requirements*.
- 2.1.7 *Development and site alteration* shall not be permitted in *habitat of endangered species and threatened species*, except in accordance with *provincial and federal requirements*.
- 2.1.8 *Development and site alteration* shall not be permitted on *adjacent lands* to the *natural heritage features and areas* identified in policies 2.1.4, 2.1.5, and 2.1.6 unless the *ecological function* of the *adjacent lands* has been evaluated and it has been demonstrated that there will be no *negative impacts* on the natural features or on their *ecological functions*.
- 2.1.9 Nothing in policy 2.1 is intended to limit the ability of *agricultural uses* to continue.

2.2 Water

- 2.2.1 Planning authorities shall protect, improve or restore the *quality and quantity of water* by:
- a) using the *watershed* as the ecologically meaningful scale for integrated and long-term planning, which can be a foundation for considering cumulative impacts of development;
 - b) minimizing potential *negative impacts*, including cross-jurisdictional and cross-*watershed* impacts;
 - c) evaluating and preparing for the *impacts of a changing climate to water resource systems at the watershed level*;
 - ~~e~~d) identifying water resource systems consisting of *ground water features, hydrologic functions, natural heritage features and areas*, and *surface water features* including shoreline areas, which are necessary for the ecological and hydrological integrity of the *watershed*;
 - ~~d~~e) maintaining linkages and related functions among *ground water features, hydrologic functions, natural heritage features and areas*, and *surface water features* including shoreline areas;
 - ~~e~~f) implementing necessary restrictions on *development and site alteration* to:
 1. protect all municipal drinking water supplies and *designated vulnerable areas*; and
 2. protect, improve or restore *vulnerable* surface and ground water, *sensitive surface water features* and *sensitive ground water features*, and their *hydrologic functions*;
 - ~~f~~g) planning for efficient and sustainable use of water resources, through practices for water conservation and sustaining water quality;

- g) ensuring consideration of environmental lake capacity, where applicable; and
- h) ensuring stormwater management practices minimize stormwater volumes and contaminant loads, and maintain or increase the extent of vegetative and pervious surfaces.

2.2.2 *Development and site alteration* shall be restricted in or near *sensitive surface water features* and *sensitive ground water features* such that these features and their related *hydrologic functions* will be protected, improved or restored.

Mitigative measures and/or alternative development approaches may be required in order to protect, improve or restore *sensitive surface water features*, *sensitive ground water features*, and their *hydrologic functions*.

2.3 Agriculture

2.3.1 *Prime agricultural areas* shall be protected for long-term use for agriculture.

Prime agricultural areas are areas where *prime agricultural lands* predominate. *Specialty crop areas* shall be given the highest priority for protection, followed by Canada Land Inventory Class 1, 2, and 3 lands, and any associated Class 4 through 7 lands within the *prime agricultural area*, in this order of priority.

2.3.2 Planning authorities shall designate *prime agricultural areas* and *specialty crop areas* in accordance with guidelines developed by the Province, as amended from time to time.

Planning authorities are encouraged to use an *agricultural system* approach to maintain and enhance the geographic continuity of the agricultural land base and the functional and economic connections to the *agri-food network*.

2.3.3 Permitted Uses

2.3.3.1 In *prime agricultural areas*, permitted uses and activities are: *agricultural uses*, *agriculture-related uses* and *on-farm diversified uses*.

Proposed *agriculture-related uses* and *on-farm diversified uses* shall be compatible with, and shall not hinder, surrounding agricultural operations. Criteria for these uses may be based on guidelines developed by the Province or municipal approaches, as set out in municipal planning documents, which achieve the same objectives.

2.3.3.2 In *prime agricultural areas*, all types, sizes and intensities of *agricultural uses* and *normal farm practices* shall be promoted and protected in accordance with provincial standards.

2.3.3.3 New land uses *in prime agricultural areas*, including the creation of lots, and new or expanding livestock facilities, shall comply with the *minimum distance separation formulae*.

2.3.4 Lot Creation and Lot Adjustments

2.3.4.1 Lot creation in *prime agricultural areas* is discouraged and may only be permitted for:

- a) *agricultural uses*, provided that the lots are of a size appropriate for the type of agricultural use(s) common in the area and are sufficiently large to maintain flexibility for future changes in the type or size of agricultural operations;
- b) *agriculture-related uses*, provided that any new lot will be limited to a minimum size needed to accommodate the use and appropriate *sewage and water services*;
- c) *a residence surplus to a farming operation* as a result of farm consolidation, provided that:
 - 1. the new lot will be limited to a minimum size needed to accommodate the use and appropriate *sewage and water services*; and
 - 2. the planning authority ensures that new residential dwellings are prohibited on any remnant parcel of farmland created by the severance. The approach used to ensure that no new residential dwellings are permitted on the remnant parcel may be recommended by the Province, or based on municipal approaches which achieve the same objective; and
- d) *infrastructure*, where the facility or corridor cannot be accommodated through the use of easements or rights-of-way.

2.3.4.2 Lot adjustments in *prime agricultural areas* may be permitted for *legal or technical reasons*.

2.3.4.3 The creation of new residential lots in *prime agricultural areas* shall not be permitted, except in accordance with policy 2.3.4.1(c).

2.3.5 Removal of Land from Prime Agricultural Areas

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- 2.3.5.1 Planning authorities may only exclude land from *prime agricultural areas* for expansions of or identification of *settlement areas* in accordance with policy 1.1.3.8.

2.3.6 Non-Agricultural Uses in Prime Agricultural Areas

- 2.3.6.1 Planning authorities may only permit non-agricultural uses in *prime agricultural areas* for:

- a) extraction of *minerals, petroleum resources* and *mineral aggregate resources*; ~~in accordance with policies 2.4 and 2.5~~; or
- b) limited non-residential uses, provided that all of the following are demonstrated:
 - 1. the land does not comprise a *specialty crop area*;
 - 2. the proposed use complies with the *minimum distance separation formulae*;
 - 3. there is an identified need within the planning horizon provided for in policy 1.1.2 for additional land to ~~be designated to~~ accommodate the proposed use; and
 - 4. alternative locations have been evaluated, and
 - i. there are no reasonable alternative locations which avoid *prime agricultural areas*; and
 - ii. there are no reasonable alternative locations in *prime agricultural areas* with lower priority agricultural lands.

- 2.3.6.2 Impacts from any new or expanding non-agricultural uses on surrounding agricultural operations and lands are to be mitigated to the extent feasible.

2.4 Minerals and Petroleum

- 2.4.1 *Minerals* and *petroleum resources* shall be protected for long-term use.

2.4.2 Protection of Long-Term Resource Supply

- 2.4.2.1 *Mineral mining operations* and *petroleum resource operations* shall be identified and protected from *development* and activities that would preclude or hinder their expansion or continued use or which would be incompatible for reasons of public health, public safety or environmental impact.

- 2.4.2.2 Known *mineral deposits*, known *petroleum resources* and *significant areas of mineral potential* shall be identified and *development* and activities in these resources or on *adjacent lands* which would preclude or hinder the establishment of new operations or access to the resources shall only be permitted if:

- a) resource use would not be feasible; or
- b) the proposed land use or development serves a greater long-term public interest; and
- c) issues of public health, public safety and environmental impact are addressed.

2.4.3 Rehabilitation

- 2.4.3.1 Rehabilitation to accommodate subsequent land uses shall be required after extraction and other related activities have ceased. Progressive rehabilitation should be undertaken wherever feasible.

2.4.4 Extraction in Prime Agricultural Areas

- 2.4.4.1 Extraction of *minerals* and *petroleum resources* is permitted in *prime agricultural areas* provided that the site will be rehabilitated.

2.5 Mineral Aggregate Resources

- 2.5.1 *Mineral aggregate resources* shall be protected for long-term use and, where provincial information is available, *deposits of mineral aggregate resources* shall be identified.

2.5.2 Protection of Long-Term Resource Supply

- 2.5.2.1 As much of the *mineral aggregate resources* as is realistically possible shall be made available as close to markets as possible.

Demonstration of need for *mineral aggregate resources*, including any type of supply/demand analysis, shall not be required, notwithstanding the availability, designation or licensing for extraction of *mineral aggregate resources* locally or elsewhere.

- 2.5.2.2 Extraction shall be undertaken in a manner which minimizes social, economic and environmental impacts.

- 2.5.2.3 *Mineral aggregate resource conservation* shall be undertaken, including through the use of accessory aggregate recycling facilities within operations, wherever feasible.

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2.5.2.4 *Mineral aggregate operations* shall be protected from *development* and activities that would preclude or hinder their expansion or continued use or which would be incompatible for reasons of public health, public safety or environmental impact. Existing *mineral aggregate operations* shall be permitted to continue without the need for official plan amendment, rezoning or development permit under the *Planning Act*. Where the *Aggregate Resources Act* applies, only processes under the *Aggregate Resources Act* shall address the depth of extraction of new or existing *mineral aggregate operations*. When a license for extraction or operation ceases to exist, policy 2.5.2.5 continues to apply.

2.5.2.5 In known *deposits of mineral aggregate resources* and on *adjacent lands*, *development* and activities which would preclude or hinder the establishment of new operations or access to the resources shall only be permitted if:

- a) resource use would not be feasible; or
- b) the proposed land use or development serves a greater long-term public interest; and
- c) issues of public health, public safety and environmental impact are addressed.

2.5.3 Rehabilitation

2.5.3.1 Progressive and final rehabilitation shall be required to accommodate subsequent land uses, to promote land use compatibility, to recognize the interim nature of extraction, and to mitigate negative impacts to the extent possible. Final rehabilitation shall take surrounding land use and approved land use designations into consideration.

2.5.3.2 *Comprehensive rehabilitation* planning is encouraged where there is a concentration of mineral aggregate operations.

2.5.3.3 In parts of the Province not designated under the *Aggregate Resources Act*, rehabilitation standards that are compatible with those under the Act should be adopted for extraction operations on private lands.

2.5.4 Extraction in Prime Agricultural Areas

2.5.4.1 In *prime agricultural areas*, on *prime agricultural land*, extraction of *mineral aggregate resources* is permitted as an interim use provided that the site will be rehabilitated back to an *agricultural condition*.

Complete rehabilitation to an *agricultural condition* is not required if:

- a) outside of a *specialty crop area*, there is a substantial quantity of *mineral aggregate resources* below the water table warranting extraction, or the depth of planned extraction in a quarry makes restoration of pre-extraction agricultural capability unfeasible;
- b) in a *specialty crop area*, there is a substantial quantity of *high quality mineral aggregate resources* below the water table warranting extraction, and the depth of planned extraction makes restoration of pre-extraction agricultural capability unfeasible;
- c) other alternatives have been considered by the applicant and found unsuitable. The consideration of other alternatives shall include resources in areas of Canada Land Inventory Class 4 through 7 lands, resources on lands identified as *designated growth areas*, and resources on *prime agricultural lands* where rehabilitation is feasible. Where no other alternatives are found, *prime agricultural lands* shall be protected in this order of priority: *specialty crop areas*, Canada Land Inventory Class 1, 2 and 3 lands; and
- d) agricultural rehabilitation in remaining areas is maximized.

2.5.5 Wayside Pits and Quarries, Portable Asphalt Plants and Portable Concrete Plants

- 2.5.5.1 *Wayside pits and quarries, portable asphalt plants and portable concrete plants* used on public authority contracts shall be permitted, without the need for an official plan amendment, rezoning, or development permit under the *Planning Act* in all areas, except those areas of existing development or particular environmental sensitivity which have been determined to be incompatible with extraction and associated activities.

2.6 Cultural Heritage and Archaeology

- 2.6.1 *Significant built heritage resources and significant cultural heritage landscapes* shall be *conserved*.
- 2.6.2 *Development and site alteration* shall not be permitted on lands containing *archaeological resources* or *areas of archaeological potential* unless *significant archaeological resources* have been *conserved*.
- 2.6.3 Planning authorities shall not permit *development and site alteration* on *adjacent lands* to *protected heritage property* except where the proposed *development and site alteration* has been evaluated and it has been demonstrated that the *heritage attributes* of the *protected heritage property* will be *conserved*.

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- 2.6.4 Planning authorities should consider and promote archaeological management plans and cultural plans in conserving cultural heritage and archaeological resources.
- 2.6.5 Planning authorities shall engage with Indigenous communities and consider ~~the~~their interests ~~of Aboriginal communities in conserving~~when identifying, protecting and managing cultural heritage and archaeological resources.

3.0 Protecting Public Health and Safety

Ontario's long-term prosperity, environmental health and social well-being depend on reducing the potential for public cost or risk to Ontario's residents from natural or human-made hazards.

Development shall be directed away from areas of natural or human-made hazards where there is an unacceptable risk to public health or safety or of property damage, and not create new or aggravate existing hazards.

Mitigating potential risk to public health or safety or of property damage from natural hazards, including the risks that may be associated with the impacts of a changing climate, will require the Province, planning authorities, and conservation authorities to work together.

Accordingly:

3.1 Natural Hazards

3.1.1 Development shall generally be directed in accordance with guidance developed by the Province (as amended from time to time), to areas outside of:

- a) *hazardous lands* adjacent to the shorelines of the *Great Lakes - St. Lawrence River System* and *large inland lakes* which are impacted by *flooding hazards, erosion hazards* and/or *dynamic beach hazards*;
- b) *hazardous lands* adjacent to *river, stream and small inland lake systems* which are impacted by *flooding hazards* and/or *erosion hazards*; and
- c) *hazardous sites*.

3.1.2 *Development and site alteration* shall not be permitted within:

- a) the *dynamic beach hazard*;
- b) *defined portions of the flooding hazard along connecting channels* (the St. Marys, St. Clair, Detroit, Niagara and St. Lawrence Rivers);
- c) areas that would be rendered inaccessible to people and vehicles during times of *flooding hazards, erosion hazards* and/or *dynamic beach hazards*, unless it has been demonstrated that the site has safe access appropriate for the nature of the *development* and the natural hazard; and
- d) a *floodway* regardless of whether the area of inundation contains high points of land not subject to flooding.

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- 3.1.3 Planning authorities shall ~~consider~~prepare for the ~~potential impacts of a~~changing climate change that may increase the risk associated with natural hazards.
- 3.1.4 Despite policy 3.1.2, *development* and *site alteration* may be permitted in certain areas associated with the *flooding hazard* along *river, stream and small inland lake systems*:
- a) in those exceptional situations where a *Special Policy Area* has been approved. The designation of a *Special Policy Area*, and any change or modification to the official plan policies, land use designations or boundaries applying to *Special Policy Area* lands, must be approved by the Ministers of Municipal Affairs and Housing and Natural Resources and Forestry prior to the approval authority approving such changes or modifications; or
 - b) where the *development* is limited to uses which by their nature must locate within the *floodway*, including flood and/or erosion control works or minor additions or passive non-structural uses which do not affect flood flows.
- 3.1.5 *Development* shall not be permitted to locate in *hazardous lands* and *hazardous sites* where the use is:
- a) an *institutional use* including hospitals, long-term care homes, retirement homes, pre-schools, school nurseries, day cares and schools;
 - b) an *essential emergency service* such as that provided by fire, police and ambulance stations and electrical substations; or
 - c) uses associated with the disposal, manufacture, treatment or storage of *hazardous substances*.
- 3.1.6 Where the *two zone concept* for *flood plains* is applied, *development* and *site alteration* may be permitted in the *flood fringe*, subject to appropriate floodproofing to the *flooding hazard* elevation or another *flooding hazard* standard approved by the Minister of Natural Resources and Forestry.
- 3.1.7 Further to policy 3.1.6, and except as prohibited in policies 3.1.2 and 3.1.5, *development* and *site alteration* may be permitted in those portions of *hazardous lands* and *hazardous sites* where the effects and risk to public safety are minor, could be mitigated in accordance with provincial standards, and where all of the following are demonstrated and achieved:
- a) *development* and *site alteration* is carried out in accordance with *floodproofing standards, protection works standards, and access standards*;
 - b) vehicles and people have a way of safely entering and exiting the area during times of flooding, erosion and other emergencies;

- c) new hazards are not created and existing hazards are not aggravated;
and
- d) no adverse environmental impacts will result.

3.1.8 *Development* shall generally be directed to areas outside of lands that are unsafe for *development* due to the presence of *hazardous forest types for wildland fire*.

Development may however be permitted in lands with *hazardous forest types for wildland fire* where the risk is mitigated in accordance with *wildland fire assessment and mitigation standards*.

3.2 Human-Made Hazards

3.2.1 Development on, abutting or adjacent to lands affected by *mine hazards; oil, gas and salt hazards; or former mineral mining operations, mineral aggregate operations or petroleum resource operations* may be permitted only if rehabilitation or other measures to address and mitigate known or suspected hazards are under way or have been completed.

3.2.2 Sites with contaminants in land or water shall be assessed and remediated as necessary prior to any activity on the site associated with the proposed use such that there will be no *adverse effects*.

3.2.3 Planning authorities should support, where feasible, on-site and local re-use of excess soil through planning and development approvals while protecting human health and the environment.

4.0 Implementation and Interpretation

4.1 This Provincial Policy Statement applies to all decisions in respect of the exercise of any authority that affects a planning matter made on or after ~~April 30, 2014~~May 1, 2020.

~~4.2 In accordance with section 3 of the *Planning Act*, a decision of the council of a municipality, a local board, a planning board, a minister of the Crown and a ministry, board, commission or agency of the government, including the Municipal Board, in respect of the exercise of any authority that affects a planning matter, “shall be consistent with” this Provincial Policy Statement.~~

~~Comments, submissions or advice that affect a planning matter that are provided by the council of a municipality, a local board, a planning board, a minister or ministry, board, commission or agency of the government “shall be consistent with” this Provincial Policy Statement.~~

This Provincial Policy Statement shall be read in its entirety and all relevant policies are to be applied to each situation.

4.3 This Provincial Policy Statement shall be implemented in a manner that is consistent with the recognition and affirmation of existing Aboriginal and treaty rights in section 35 of the *Constitution Act, 1982*.

4.4 This Provincial Policy Statement shall be ~~read in its entirety and all relevant policies are to be applied to each situation.~~implemented in a manner that is consistent with Ontario *Human Rights Code* and the *Canadian Charter of Rights and Freedoms*.

4.5 In implementing the Provincial Policy Statement, the Minister of Municipal Affairs and Housing may take into account other considerations when making decisions to support strong communities, a clean and healthy environment and the economic vitality of the Province.

~~4.6 This Provincial Policy Statement shall be implemented in a manner that is consistent with the Ontario *Human Rights Code* and the *Canadian Charter of Rights and Freedoms*.~~

~~4.7~~6 The official plan is the most important vehicle for implementation of this Provincial Policy Statement. Comprehensive, integrated and long-term planning is best achieved through official plans.

Official plans shall identify provincial interests and set out appropriate land use designations and policies. To determine the significance of some natural heritage features and other resources, evaluation may be required.

~~Official plans should also coordinate cross-boundary matters to complement the actions of other planning authorities and promote mutually beneficial solutions. Official plans shall provide clear, reasonable and attainable policies to protect provincial interests and direct development to suitable areas.~~

In order to protect provincial interests, planning authorities shall keep their official plans up-to-date with this Provincial Policy Statement. The policies of this Provincial Policy Statement continue to apply after adoption and approval of an official plan.

~~4.8 Zoning and development permit by laws are important for implementation of this Provincial Policy Statement. Planning authorities shall keep their zoning and development permit by laws up to date with their official plans and this Provincial Policy Statement.~~

~~4.9 The policies of this Provincial Policy Statement represent minimum standards. This Provincial Policy Statement does not prevent planning authorities and decision makers from going beyond the minimum standards established in specific policies, unless doing so would conflict with any policy of this Provincial Policy Statement.~~

~~4.10 A wide range of legislation, regulations, policies, and plans may apply to decisions with respect to *Planning Act* applications. In some cases, a *Planning Act* proposal may also require approval under other legislation or regulation, and policies and plans issued under other legislation may also apply.~~

4.11⁷ In addition to land use approvals under the *Planning Act*, infrastructure may also require approval under other legislation and regulations. An environmental assessment process may be applied to required for new infrastructure and modifications to existing infrastructure under applicable legislation.

~~There may be circumstances where land use~~ Wherever possible and practical, approvals under the *Planning Act* ~~may be integrated with approvals under and~~ other legislation, ~~for example, integrating the planning processes and approvals under the *Environmental Assessment Act* and the *Planning Act*, or regulations~~ should be integrated provided the intent and requirements of both Acts processes are met.

~~4.12 Provincial plans shall be read in conjunction with this Provincial Policy Statement and take precedence over policies in this Provincial Policy Statement to the extent of any conflict, except where legislation establishing provincial plans provides otherwise. Examples of these are plans created under the *Niagara Escarpment Planning and Development Act*, the *Ontario Planning and*~~

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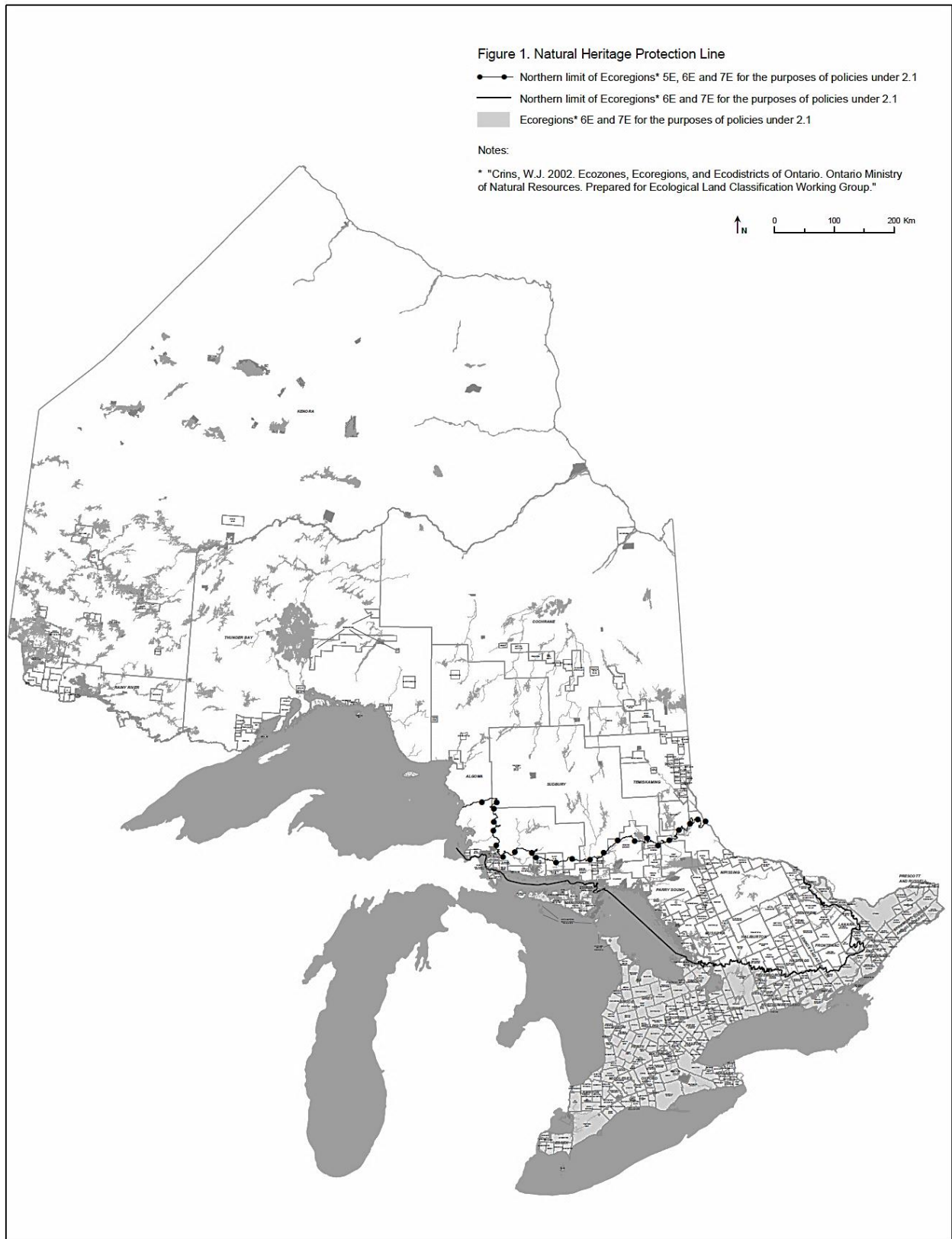
~~Development Act, 1994, the Oak Ridges Moraine Conservation Act, 2001, the Greenbelt Act, 2005 and the Places to Grow Act, 2005.~~

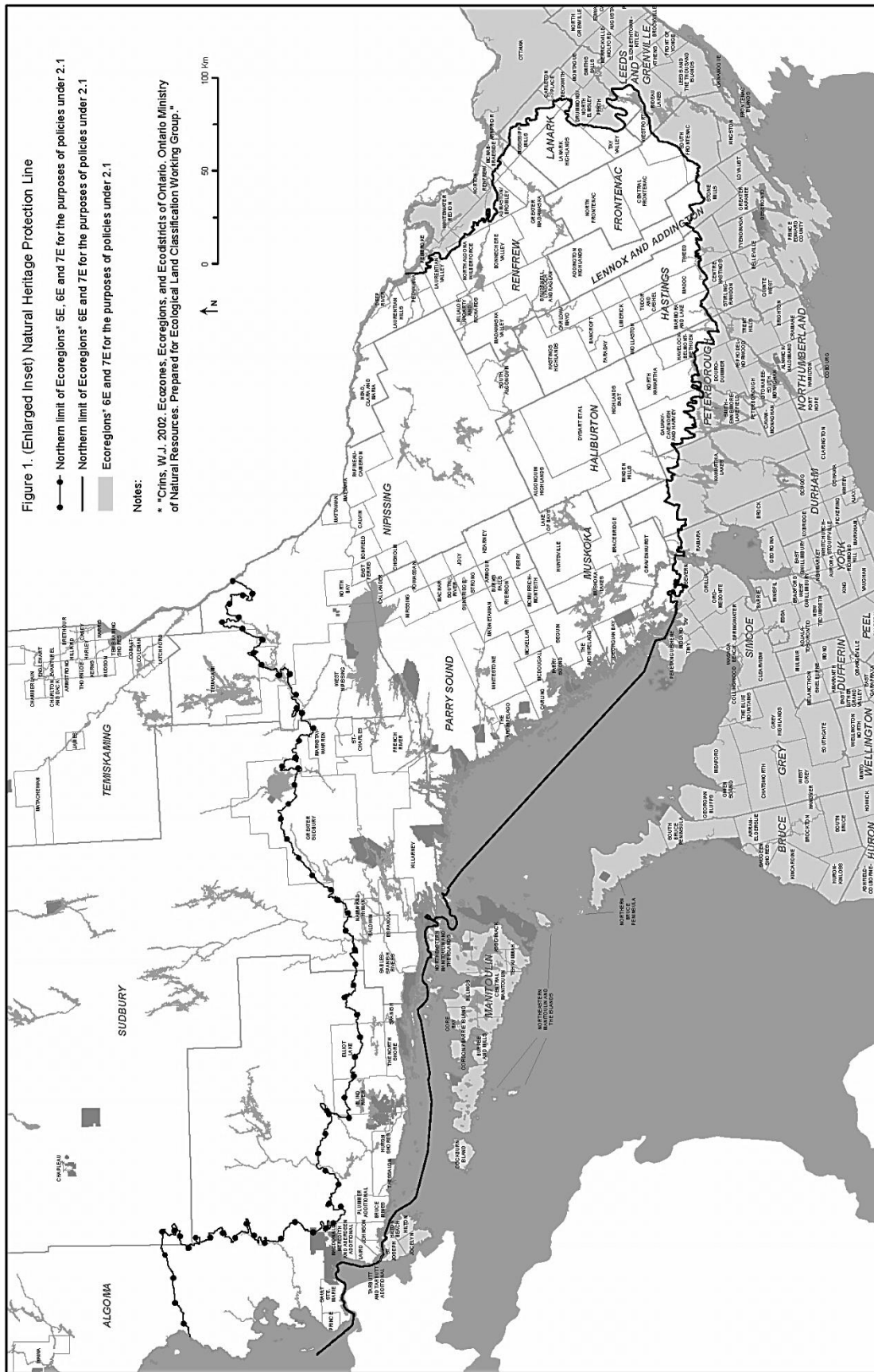
~~4.13 Within the Great Lakes – St. Lawrence River Basin, there may be circumstances where planning authorities should consider agreements related to the protection or restoration of the Great Lakes – St. Lawrence River Basin. Examples of these agreements include Great Lakes agreements between Ontario and Canada, between Ontario, Quebec and the Great Lakes States of the United States of America, and between Canada and the United States of America.~~

4.148 The Province, in consultation with municipalities, [Indigenous communities](#), other public bodies and stakeholders shall identify performance indicators for measuring the effectiveness of some or all of the policies. The Province shall monitor their implementation, including reviewing performance indicators concurrent with any review of this Provincial Policy Statement.

4.159 Municipalities are encouraged to ~~establish performance indicators to monitor~~ [and report on](#) the implementation of the policies in their official plans, ~~in accordance with any reporting requirements, data standards and any other guidelines that may be issued by the Minister.~~

5.0 Figure 1





6.0 Definitions

Access standards: means methods or procedures to ensure safe vehicular and pedestrian movement, and access for the maintenance and repair of protection works, during times of *flooding hazards, erosion hazards and/or other water-related hazards*.

Active transportation: means human-powered travel, including but not limited to, walking, cycling, inline skating and travel with the use of mobility aids, including motorized wheelchairs and other power-assisted devices moving at a comparable speed.

Adjacent lands: means

- a) for the purposes of policy 1.6.8.3, those lands contiguous to existing or planned corridors and transportation facilities where *development* would have a negative impact on the corridor or facility. The extent of the *adjacent lands* may be recommended in guidelines developed by the Province or based on municipal approaches that achieve the same objectives;
- b) for the purposes of policy 2.1.8, those lands contiguous to a specific *natural heritage feature or area* where it is likely that *development or site alteration* would have a *negative impact* on the feature or area. The extent of the *adjacent lands* may be recommended by the Province or based on municipal approaches which achieve the same objectives;
- c) for the purposes of policies 2.4.2.2 and 2.5.2.5, those lands contiguous to lands on the surface of known *petroleum resources, mineral deposits, or deposits of mineral aggregate resources* where it is likely that *development* would constrain future access to the resources. The extent of the *adjacent lands* may be recommended by the Province; and
- d) for the purposes of policy 2.6.3, those lands contiguous to a *protected heritage property* or as otherwise defined in the municipal official plan.

Adverse effects: as defined in the *Environmental Protection Act*, means one or more of:

- a) impairment of the quality of the natural environment for any use that can be made of it;
- b) injury or damage to property or plant or animal life;
- c) harm or material discomfort to any person;
- d) an adverse effect on the health of any person;
- e) impairment of the safety of any person;
- f) rendering any property or plant or animal life unfit for human use;
- g) loss of enjoyment of normal use of property; and
- h) interference with normal conduct of business.

Affordable: means

- a) in the case of ownership housing, the least expensive of:
 - 1. housing for which the purchase price results in annual accommodation costs which do not exceed 30 percent of gross annual household income for *low and moderate income households*; or
 - 2. housing for which the purchase price is at least 10 percent below the average purchase price of a resale unit in the *regional market area*;
- b) in the case of rental housing, the least expensive of:
 - 1. a unit for which the rent does not exceed 30 percent of gross annual household income for *low and moderate income households*; or
 - 2. a unit for which the rent is at or below the average market rent of a unit in the *regional market area*.

Agricultural condition: means

- a) in regard to *specialty crop areas*, a condition in which substantially the same areas and same average soil capability for agriculture are restored, the same range and productivity of specialty crops common in the area can be achieved, and, where applicable, the microclimate on which the site and surrounding area may be dependent for specialty crop production will be maintained or restored; and
- b) in regard to *prime agricultural land* outside of *specialty crop areas*, a condition in which substantially the same areas and same

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average soil capability for agriculture are restored.

Agricultural System: A system comprised of a group of inter-connected elements that collectively create a viable, thriving agricultural sector. It has two components:

- a) An agricultural land base comprised of prime agricultural areas, including specialty crop areas, and rural lands that together create a continuous productive land base for agriculture; and
- b) An agri-food network which includes infrastructure, services, and assets important to the viability of the agri-food sector.

Agricultural uses: means the growing of crops, including nursery, biomass, and horticultural crops; raising of livestock; raising of other animals for food, fur or fibre, including poultry and fish; aquaculture; apiaries; agro-forestry; maple syrup production; and associated on-farm buildings and structures, including, but not limited to livestock facilities, manure storages, value-retaining facilities, and accommodation for full-time farm labour when the size and nature of the operation requires additional employment.

Agri-food network: Within the agricultural system, a network that includes elements important to the viability of the agri-food sector such as regional infrastructure and transportation networks; on-farm buildings and infrastructure; agricultural services, farm markets, distributors, and primary processing; and vibrant, agriculture-supportive communities.

Agri-tourism uses: means those farm-related tourism uses, including limited accommodation such as a bed and breakfast, that promote the enjoyment, education or activities related to the farm operation.

Agriculture-related uses: means those farm-related commercial and farm-related industrial uses that are directly related to farm operations in the area, support agriculture, benefit from being in close proximity to farm operations, and provide direct products and/or services to farm operations as a primary activity.

Airports: means all Ontario airports, including designated lands for future airports, with Noise

Exposure Forecast (NEF)/Noise Exposure Projection (NEP) mapping.

Alternative energy system: means a system that uses sources of energy or energy conversion processes to produce power, heat and/or cooling that significantly reduces the amount of harmful emissions to the environment (air, earth and water) when compared to conventional energy systems.

Archaeological resources: includes artifacts, archaeological sites, marine archaeological sites, as defined under the *Ontario Heritage Act*. The identification and evaluation of such resources are based upon archaeological fieldwork undertaken in accordance with the *Ontario Heritage Act*.

Areas of archaeological potential: means areas with the likelihood to contain *archaeological resources*. ~~Methods~~Criteria to identify archaeological potential are established by the Province, ~~but municipal approaches which achieve the same objectives may also be used.~~ The *Ontario Heritage Act* requires archaeological potential to be confirmed ~~through archaeological fieldwork~~by a licensed archaeologist.

Areas of mineral potential: means areas favourable to the discovery of *mineral deposits* due to geology, the presence of known *mineral deposits* or other technical evidence.

Areas of natural and scientific interest (ANSI): means areas of land and water containing natural landscapes or features that have been identified as having life science or earth science values related to protection, scientific study or education.

Brownfield sites: means undeveloped or previously developed properties that may be contaminated. They are usually, but not exclusively, former industrial or commercial properties that may be underutilized, derelict or vacant.

Built heritage resource: means a building, structure, monument, installation or any manufactured or constructed part or remnant that contributes to a property's cultural heritage value or interest as identified by a community, including an ~~Aboriginal~~Indigenous community. *Built heritage resources* are ~~generally~~ located on property that ~~has been~~may be designated under Parts IV or V of

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the *Ontario Heritage Act*, or [that may be](#) included on local, provincial ~~and/or~~, federal [and/or](#) [international](#) registers.

Coastal wetland: means

- a) any *wetland* that is located on one of the Great Lakes or their connecting channels (Lake St. Clair, St. Marys, St. Clair, Detroit, Niagara and St. Lawrence Rivers); or
- b) any other *wetland* that is on a tributary to any of the above-specified water bodies and lies, either wholly or in part, downstream of a line located 2 kilometres upstream of the 1:100 year floodline (plus wave run-up) of the large water body to which the tributary is connected.

Comprehensive rehabilitation: means rehabilitation of land from which *mineral aggregate resources* have been extracted that is coordinated and complementary, to the extent possible, with the rehabilitation of other sites in an area where there is a high concentration of *mineral aggregate operations*.

Comprehensive review: means

- a) for the purposes of policies 1.1.3.8, [1.1.3.9](#) and 1.3.2.4, an official plan review which is initiated by a planning authority, or an official plan amendment which is initiated or adopted by a planning authority, which:
 1. is based on a review of population and employment projections and which reflect projections and allocations by upper-tier municipalities and *provincial plans*, where applicable; considers alternative directions for growth or development; and determines how best to accommodate the development while protecting provincial interests;
 2. utilizes opportunities to accommodate projected growth or development through *intensification* and *redevelopment*; and considers physical constraints to accommodating the proposed development within existing *settlement area* boundaries;
 3. is integrated with planning for *infrastructure* and *public service facilities*, and considers financial viability over the life cycle of these assets, which may be demonstrated through asset management planning;

4. confirms sufficient water quality, quantity and assimilative capacity of receiving water are available to accommodate the proposed development;
5. confirms that sewage and water services can be provided in accordance with policy 1.6.6; and
6. considers cross-jurisdictional issues.
- b) for the purposes of policy 1.1.6, means a review undertaken by a planning authority or comparable body which:
 1. addresses long-term population projections, *infrastructure* requirements and related matters;
 2. confirms that the lands to be developed do not comprise *specialty crop areas* in accordance with policy 2.3.2; and
 3. considers cross-jurisdictional issues.

In undertaking a *comprehensive review* the level of detail of the assessment should correspond with the complexity and scale of the settlement boundary or development proposal.

Conserved: means the identification, protection, management and use of *built heritage resources*, *cultural heritage landscapes* and *archaeological resources* in a manner that ensures their cultural heritage value or interest is retained ~~under the *Ontario Heritage Act*~~. This may be achieved by the implementation of recommendations set out in a conservation plan, archaeological assessment, and/or heritage impact assessment ~~that has been~~ [approved, accepted or adopted by the relevant planning authority and/or decision-maker](#). Mitigative measures and/or alternative development approaches can be included in these plans and assessments.

Cultural heritage landscape: means a defined geographical area that may have been modified by human activity and is identified as having cultural heritage value or interest by a community, including an ~~Aboriginal~~ [Indigenous](#) community. The area may ~~involve~~ [include](#) features such as [buildings](#), structures, spaces, [views](#), archaeological sites or natural elements that are valued together for their interrelationship, meaning or association. ~~Examples may include, but are not limited to, Cultural heritage conservation districts designated~~ [landscapes may be properties that have been determined to have cultural heritage value or interest](#) under the *Ontario Heritage Act*;

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~~villages, parks, gardens, battlefields, mainstreets and neighbourhoods, cemeteries, trailways, viewsheds, natural areas and industrial complexes of heritage significance; and areas recognized by, or have been included on federal and/or international designation authorities (e.g. a National Historic Site or District designation, or a UNESCO World Heritage Site); registers, and/or protected through official plan, zoning by-law, or other land use planning mechanisms.~~

Defined portions of the flooding hazard along connecting channels: means those areas which are critical to the conveyance of the flows associated with the *one hundred year flood level* along the St. Marys, St. Clair, Detroit, Niagara and St. Lawrence Rivers, where *development or site alteration* will create *flooding hazards*, cause updrift and/or downdrift impacts and/or cause adverse environmental impacts.

Deposits of mineral aggregate resources: means an area of identified *mineral aggregate resources*, as delineated in Aggregate Resource Inventory Papers or comprehensive studies prepared using evaluation procedures established by the Province for surficial and bedrock resources, as amended from time to time, that has a sufficient quantity and quality to warrant present or future extraction.

Designated and available: means lands designated in the official plan for urban residential use. For municipalities where more detailed official plan policies (e.g. secondary plans) are required before development applications can be considered for approval, only lands that have commenced the more detailed planning process are considered to be *designated and available* for the purposes of this definition.

Designated growth areas: means lands within *settlement areas* designated in an official plan for growth over the long-term planning horizon provided in policy 1.1.2, but which have not yet been fully developed. *Designated growth areas* include lands which are *designated and available* for residential growth in accordance with policy 1.4.1(a), as well as lands required for employment and other uses.

Designated vulnerable area: means areas defined as vulnerable, in accordance with provincial

standards, by virtue of their importance as a drinking water source.

Development: means the creation of a new lot, a change in land use, or the construction of buildings and structures requiring approval under the *Planning Act*, but does not include:

- a) activities that create or maintain *infrastructure* authorized under an environmental assessment process;
- b) works subject to the *Drainage Act*; or
- c) for the purposes of policy 2.1.4(a), underground or surface mining of *minerals* or advanced exploration on mining lands in *significant areas of mineral potential* in Ecoregion 5E, where advanced exploration has the same meaning as under the *Mining Act*. Instead, those matters shall be subject to policy 2.1.5(a).

Dynamic beach hazard: means areas of inherently unstable accumulations of shoreline sediments along the *Great Lakes - St. Lawrence River System* and *large inland lakes*, as identified by provincial standards, as amended from time to time. The *dynamic beach hazard* limit consists of the *flooding hazard* limit plus a dynamic beach allowance.

Ecological function: means the natural processes, products or services that living and non-living environments provide or perform within or between species, ecosystems and landscapes. These may include biological, physical and socio-economic interactions.

Employment area: means those areas designated in an official plan for clusters of business and economic activities including, but not limited to, manufacturing, warehousing, offices, and associated retail and ancillary facilities.

Endangered species: means a species that is ~~listed or categorized~~ classified as an “Endangered Species” on the ~~Ontario Ministry of Natural Resources’ official~~ Species at Risk ~~list~~ in Ontario List, as updated and amended from time to time.

Erosion hazard: means the loss of land, due to human or natural processes, that poses a threat to life and property. The *erosion hazard* limit is determined using considerations that include the 100 year erosion rate (the average annual rate of recession extended over a one hundred year time

span), an allowance for slope stability, and an erosion/erosion access allowance.

Essential emergency service: means services which would be impaired during an emergency as a result of flooding, the failure of floodproofing measures and/or protection works, and/or erosion.

Fish: means fish, which as defined in the *Fisheries Act*, includes fish, shellfish, crustaceans, and marine animals, at all stages of their life cycles.

Fish habitat: as defined in the *Fisheries Act*, means spawning grounds and any other areas, including nursery, rearing, food supply, and migration areas on which *fish* depend directly or indirectly in order to carry out their life processes.

Flood fringe: for *river, stream and small inland lake systems*, means the outer portion of the *flood plain* between the *floodway* and the *flooding hazard* limit. Depths and velocities of flooding are generally less severe in the flood fringe than those experienced in the *floodway*.

Flood plain: for *river, stream and small inland lake systems*, means the area, usually low lands adjoining a watercourse, which has been or may be subject to *flooding hazards*.

Flooding hazard: means the inundation, under the conditions specified below, of areas adjacent to a shoreline or a river or stream system and not ordinarily covered by water:

- a) along the shorelines of the *Great Lakes - St. Lawrence River System* and *large inland lakes*, the *flooding hazard* limit is based on the *one hundred year flood level* plus an allowance for *wave uprush* and *other water-related hazards*;
- b) along *river, stream and small inland lake systems*, the *flooding hazard* limit is the greater of:
 1. the flood resulting from the rainfall actually experienced during a major storm such as the Hurricane Hazel storm (1954) or the Timmins storm (1961), transposed over a specific watershed and combined with the local conditions, where evidence suggests that the storm event could have potentially occurred over watersheds in the general area;
 2. the *one hundred year flood*; and

3. a flood which is greater than 1. or 2. which was actually experienced in a particular watershed or portion thereof as a result of ice jams and which has been approved as the standard for that specific area by the Minister of Natural Resources [and Forestry](#);

except where the use of the *one hundred year flood* or the actually experienced event has been approved by the Minister of Natural Resources [and Forestry](#) as the standard for a specific watershed (where the past history of flooding supports the lowering of the standard).

Floodproofing standard: means the combination of measures incorporated into the basic design and/or construction of buildings, structures, or properties to reduce or eliminate *flooding hazards*, *wave uprush* and *other water-related hazards* along the shorelines of the *Great Lakes - St. Lawrence River System* and *large inland lakes*, and *flooding hazards* along *river, stream and small inland lake systems*.

Floodway: for *river, stream and small inland lake systems*, means the portion of the *flood plain* where *development* and *site alteration* would cause a danger to public health and safety or property damage.

Where the one zone concept is applied, the *floodway* is the entire contiguous *flood plain*.

Where the *two zone concept* is applied, the *floodway* is the contiguous inner portion of the *flood plain*, representing that area required for the safe passage of flood flow and/or that area where flood depths and/or velocities are considered to be such that they pose a potential threat to life and/or property damage. Where the *two zone concept* applies, the outer portion of the *flood plain* is called the *flood fringe*.

Freight-supportive: in regard to land use patterns, means transportation systems and facilities that facilitate the movement of goods. This includes policies or programs intended to support efficient freight movement through the planning, design and operation of land use and transportation systems. Approaches may be recommended in guidelines developed by the Province or based on

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municipal approaches that achieve the same objectives.

Great Lakes - St. Lawrence River System: means the major water system consisting of Lakes Superior, Huron, St. Clair, Erie and Ontario and their connecting channels, and the St. Lawrence River within the boundaries of the Province of Ontario.

Green infrastructure: means natural and human-made elements that provide ecological and hydrological functions and processes. *Green infrastructure* can include components such as natural heritage features and systems, parklands, stormwater management systems, street trees, urban forests, natural channels, permeable surfaces, and green roofs.

Ground water feature: means water-related features in the earth's subsurface, including recharge/discharge areas, water tables, aquifers and unsaturated zones that can be defined by surface and subsurface hydrogeologic investigations.

Habitat of endangered species and threatened species: means [habitat within the meaning of Section 2 of the Endangered Species Act, 2007](#).

~~a) —with respect to a species listed on the Species at Risk in Ontario List as an endangered or threatened species for which a regulation made under clause 55(1)(a) of the Endangered Species Act, 2007 is in force, the area prescribed by that regulation as the habitat of the species; or~~

~~b) —with respect to any other species listed on the Species at Risk in Ontario List as an endangered or threatened species, an area on which the species depends, directly or indirectly, to carry on its life processes, including life processes such as reproduction, rearing, hibernation, migration or feeding, as approved by the Ontario Ministry of Natural Resources; and~~

~~places in the areas described in clause (a) or (b), whichever is applicable, that are used by members of the species as dens, nests, hibernacula or other residences.~~

Hazardous forest types for wildland fire: means forest types assessed as being associated with the risk of high to extreme wildland fire using risk assessment tools established by the Ontario

Ministry of Natural Resources [and Forestry](#), as amended from time to time.

Hazardous lands: means property or lands that could be unsafe for development due to naturally occurring processes. Along the shorelines of the *Great Lakes - St. Lawrence River System*, this means the land, including that covered by water, between the international boundary, where applicable, and the furthest landward limit of the *flooding hazard, erosion hazard or dynamic beach hazard* limits. Along the shorelines of *large inland lakes*, this means the land, including that covered by water, between a defined offshore distance or depth and the furthest landward limit of the *flooding hazard, erosion hazard or dynamic beach hazard* limits. Along *river, stream and small inland lake systems*, this means the land, including that covered by water, to the furthest landward limit of the *flooding hazard or erosion hazard* limits.

Hazardous sites: means property or lands that could be unsafe for *development* and *site alteration* due to naturally occurring hazards. These may include unstable soils (sensitive marine clays [leda], organic soils) or unstable bedrock (karst topography).

Hazardous substances: means substances which, individually, or in combination with other substances, are normally considered to pose a danger to public health, safety and the environment. These substances generally include a wide array of materials that are toxic, ignitable, corrosive, reactive, radioactive or pathological.

Heritage attributes: means the principal features or elements that contribute to a *protected heritage property's* cultural heritage value or interest, and may include the property's built, [constructed](#), or manufactured elements, as well as natural landforms, vegetation, water features, and its visual setting ([including e.g.](#) significant views or vistas to or from a *protected heritage property*).

High quality: means primary and secondary sand and gravel resources and bedrock resources as defined in the Aggregate Resource Inventory Papers (ARIP).

[Housing options:](#) means a range of housing types such as, but not limited to single-detached, semi-detached, rowhouses, townhouses, stacked townhouses, multiplexes, additional residential

units, tiny homes, multi-residential buildings. The term can also refer to a variety of housing arrangements and forms such as, but not limited to life lease housing, co-ownership housing, co-operative housing, community land trusts, land lease community homes, affordable housing, housing for people with special needs, and housing related to employment, institutional or educational uses.

Hydrologic function: means the functions of the hydrological cycle that include the occurrence, circulation, distribution and chemical and physical properties of water on the surface of the land, in the soil and underlying rocks, and in the atmosphere, and water's interaction with the environment including its relation to living things.

Impacts of a changing climate: means the present and future consequences from changes in weather patterns at local and regional levels including extreme weather events and increased climate variability.

Individual on-site sewage services: means sewage systems, as defined in O. Reg. 332/12 under the *Building Code Act, 1992*, that are owned, operated and managed by the owner of the property upon which the system is located.

Individual on-site water services: means individual, autonomous water supply systems that are owned, operated and managed by the owner of the property upon which the system is located.

Infrastructure: means physical structures (facilities and corridors) that form the foundation for development. *Infrastructure* includes: sewage and water systems, septage treatment systems, stormwater management systems, waste management systems, electricity generation facilities, electricity transmission and distribution systems, communications/telecommunications, transit and transportation corridors and facilities, oil and gas pipelines and associated facilities.

Institutional use: for the purposes of policy 3.1.5, means land uses where there is a threat to the safe evacuation of vulnerable populations such as older persons, persons with disabilities, and those who are sick or young, during an emergency as a result of flooding, failure of floodproofing measures or protection works, or erosion.

Intensification: means the development of a property, site or area at a higher density than currently exists through:

- a) *redevelopment*, including the reuse of *brownfield sites*;
- b) the development of vacant and/or underutilized lots within previously developed areas;
- c) infill development; and
- d) the expansion or conversion of existing buildings.

Large inland lakes: means those waterbodies having a surface area of equal to or greater than 100 square kilometres where there is not a measurable or predictable response to a single runoff event.

Legal or technical reasons: means severances for purposes such as easements, corrections of deeds, quit claims, and minor boundary adjustments, which do not result in the creation of a new lot.

Low and moderate income households: means

- a) in the case of ownership housing, households with incomes in the lowest 60 percent of the income distribution for the *regional market area*; or
- b) in the case of rental housing, households with incomes in the lowest 60 percent of the income distribution for renter households for the *regional market area*.

Major facilities: means facilities which may require separation from *sensitive land uses*, including but not limited to airports, *manufacturing uses*, transportation infrastructure and corridors, *rail facilities*, *marine facilities*, sewage treatment facilities, *waste management systems*, oil and gas pipelines, industries, energy generation facilities and transmission systems, and resource extraction activities.

Major goods movement facilities and corridors: means transportation facilities and corridors associated with the inter- and intra-provincial movement of goods. Examples include: inter-modal facilities, ports, *airports*, *rail facilities*, truck terminals, freight corridors, freight facilities, and haul routes and primary transportation corridors used for the movement of goods. Approaches that are *freight-supportive* may be recommended

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in guidelines developed by the Province or based on municipal approaches that achieve the same objectives.

Marine facilities: means ferries, harbours, ports, ferry terminals, canals and associated uses, including designated lands for future *marine facilities*.

Mine hazard: means any feature of a mine as defined under the *Mining Act*, or any related disturbance of the ground that has not been rehabilitated.

Minerals: means metallic minerals and non-metallic minerals as herein defined, but does not include *mineral aggregate resources* or *petroleum resources*.

Metallic minerals means those minerals from which metals (e.g. copper, nickel, gold) are derived.

Non-metallic minerals means those minerals that are of value for intrinsic properties of the minerals themselves and not as a source of metal. They are generally synonymous with industrial minerals (e.g. asbestos, graphite, kyanite, mica, nepheline syenite, salt, talc, and wollastonite).

Mineral aggregate operation: means

- a) lands under license or permit, other than for *wayside pits and quarries*, issued in accordance with the *Aggregate Resources Act*;
- b) for lands not designated under the *Aggregate Resources Act*, established pits and quarries that are not in contravention of municipal zoning by-laws and including adjacent land under agreement with or owned by the operator, to permit continuation of the operation; and
- c) associated facilities used in extraction, transport, beneficiation, processing or recycling of *mineral aggregate resources* and derived products such as asphalt and concrete, or the production of secondary related products.

Mineral aggregate resources: means gravel, sand, clay, earth, shale, stone, limestone, dolostone, sandstone, marble, granite, rock or other material prescribed under the *Aggregate Resources Act* suitable for construction, industrial, manufacturing and maintenance purposes but does not include

metallic ores, asbestos, graphite, kyanite, mica, nepheline syenite, salt, talc, wollastonite, mine tailings or other material prescribed under the *Mining Act*.

Mineral aggregate resource conservation: means

- a) the recovery and recycling of manufactured materials derived from mineral aggregates (e.g. glass, porcelain, brick, concrete, asphalt, slag, etc.), for re-use in construction, manufacturing, industrial or maintenance projects as a substitute for new mineral aggregates; and
- b) the wise use of mineral aggregates including utilization or extraction of on-site *mineral aggregate resources* prior to development occurring.

Mineral deposits: means areas of identified *minerals* that have sufficient quantity and quality based on specific geological evidence to warrant present or future extraction.

Mineral mining operation: means mining operations and associated facilities, or, past producing mines with remaining mineral development potential that have not been permanently rehabilitated to another use.

Minimum distance separation formulae: means formulae and guidelines developed by the Province, as amended from time to time, to separate uses so as to reduce incompatibility concerns about odour from livestock facilities.

Multimodal transportation system: means a transportation system which may include several forms of transportation such as automobiles, walking, trucks, cycling, buses, rapid transit, rail (such as commuter and freight), air and marine.

Municipal sewage services: means a sewage works within the meaning of section 1 of the *Ontario Water Resources Act* that is owned or operated by a municipality, [including centralized and decentralized systems](#).

Municipal water services: means a municipal drinking-water system within the meaning of section 2 of the *Safe Drinking Water Act, 2002*, [including centralized and decentralized systems](#).

Natural heritage features and areas: means features and areas, including *significant wetlands*, *significant coastal wetlands*, other *coastal*

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wetlands in Ecoregions 5E, 6E and 7E, *fish habitat*, *significant woodlands* and *significant valleylands* in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River), *habitat of endangered species and threatened species*, *significant wildlife habitat*, and *significant areas of natural and scientific interest*, which are important for their environmental and social values as a legacy of the natural landscapes of an area.

Natural heritage system: means a system made up of *natural heritage features and areas*, and linkages intended to provide connectivity (at the regional or site level) and support natural processes which are necessary to maintain biological and geological diversity, natural functions, viable populations of indigenous species, and ecosystems. These systems can include *natural heritage features and areas*, federal and provincial parks and conservation reserves, other natural heritage features, lands that have been restored or have the potential to be restored to a natural state, areas that support hydrologic functions, and working landscapes that enable ecological functions to continue. The Province has a recommended approach for identifying *natural heritage systems*, but municipal approaches that achieve or exceed the same objective may also be used.

Negative impacts: means

- a) in regard to policy 1.6.6.4 and 1.6.6.5, [potential risks to human health and safety and](#) degradation to the *quality and quantity of water*, *sensitive surface water features* and *sensitive ground water features*, and their related *hydrologic functions*, due to single, multiple or successive *development*. *Negative impacts* should be assessed through environmental studies including hydrogeological or water quality impact assessments, in accordance with provincial standards;
- b) in regard to policy 2.2, degradation to the *quality and quantity of water*, *sensitive surface water features* and *sensitive ground water features*, and their related *hydrologic functions*, due to single, multiple or successive *development* or *site alteration* activities;
- c) in regard to *fish habitat*, any permanent alteration to, or destruction of *fish habitat*, except where, in conjunction with the

- appropriate authorities, it has been authorized under the *Fisheries Act*; and
- d) in regard to other *natural heritage features and areas*, degradation that threatens the health and integrity of the natural features or *ecological functions* for which an area is identified due to single, multiple or successive *development* or *site alteration* activities.

Normal farm practices: means a practice, as defined in the *Farming and Food Production Protection Act, 1998*, that is conducted in a manner consistent with proper and acceptable customs and standards as established and followed by similar agricultural operations under similar circumstances; or makes use of innovative technology in a manner consistent with proper advanced farm management practices. Normal farm practices shall be consistent with the *Nutrient Management Act, 2002* and regulations made under that Act.

Oil, gas and salt hazards: means any feature of a well or work as defined under the *Oil, Gas and Salt Resources Act*, or any related disturbance of the ground that has not been rehabilitated.

On-farm diversified uses: means uses that are secondary to the principal agricultural use of the property, and are limited in area. *On-farm diversified uses* include, but are not limited to, home occupations, home industries, *agri-tourism uses*, and uses that produce value-added agricultural products. [Ground-mounted solar facilities are permitted in prime agricultural areas, including specialty crop areas, only as on-farm diversified uses.](#)

One hundred year flood: for *river, stream and small inland lake systems*, means that flood, based on an analysis of precipitation, snow melt, or a combination thereof, having a return period of 100 years on average, or having a 1% chance of occurring or being exceeded in any given year.

One hundred year flood level: means

- a) for the shorelines of the Great Lakes, the peak instantaneous stillwater level, resulting from combinations of mean monthly lake levels and wind setups, which has a 1% chance of being equalled or exceeded in any given year;
- b) in the connecting channels (St. Marys, St. Clair, Detroit, Niagara and St. Lawrence

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Rivers), the peak instantaneous stillwater level which has a 1% chance of being equalled or exceeded in any given year; and

- c) for large inland lakes, lake levels and wind setups that have a 1% chance of being equalled or exceeded in any given year, except that, where sufficient water level records do not exist, the one hundred year flood level is based on the highest known water level and wind setups.

Other water-related hazards: means water-associated phenomena other than *flooding hazards* and *wave uprush* which act on shorelines. This includes, but is not limited to ship-generated waves, ice piling and ice jamming.

Partial services: means

- a) *municipal sewage services or private communal sewage services ~~and~~ combined with individual on-site water services*; or
- b) *municipal water services or private communal water services ~~and~~ combined with individual on-site sewage services*.

Petroleum resource operations: means oil, gas and salt wells and associated facilities and other drilling operations, oil field fluid disposal wells and associated facilities, and wells and facilities for the underground storage of natural gas and other hydrocarbons.

Petroleum resources: means oil, gas, and salt (extracted by solution mining method) and formation water resources which have been identified through exploration and verified by preliminary drilling or other forms of investigation. This may include sites of former operations where resources are still present or former sites that may be converted to underground storage for natural gas or other hydrocarbons.

Planned corridors: means corridors or future corridors which are required to meet projected needs, and are identified through *provincial plans*, preferred alignment(s) determined through the *Environmental Assessment Act* process, or identified through planning studies where the Ontario Ministry of Transportation, [Metrolinx](#), [Ontario Ministry of Energy, Northern Development and Mines](#) or [Independent Electricity System Operator \(IESO\)](#) or [any successor to those ministries or entities](#) is actively pursuing the identification of a corridor.

Approaches for the protection of *planned corridors* may be recommended in guidelines developed by the Province.

Portable asphalt plant: means a facility

- a) with equipment designed to heat and dry aggregate and to mix aggregate with bituminous asphalt to produce asphalt paving material, and includes stockpiling and storage of bulk materials used in the process; and
- b) which is not of permanent construction, but which is to be dismantled at the completion of the construction project.

Portable concrete plant: means a building or structure

- a) with equipment designed to mix cementing materials, aggregate, water and admixtures to produce concrete, and includes stockpiling and storage of bulk materials used in the process; and
- b) which is not of permanent construction, but which is designed to be dismantled at the completion of the construction project.

Prime agricultural area: means areas where *prime agricultural lands* predominate. This includes areas of *prime agricultural lands* and associated Canada Land Inventory Class 4 through 7 lands, and additional areas where there is a local concentration of farms which exhibit characteristics of ongoing agriculture. *Prime agricultural areas* may be identified by the Ontario Ministry of Agriculture and Food using guidelines developed by the Province as amended from time to time. A *prime agricultural area* may also be identified through an alternative agricultural land evaluation system approved by the Province.

Prime agricultural land: means *specialty crop areas* and/or Canada Land Inventory Class 1, 2, and 3 lands, as amended from time to time, in this order of priority for protection.

Private communal sewage services: means a sewage works within the meaning of section 1 of the *Ontario Water Resources Act* that serves six or more lots or private residences and is not owned by a municipality.

Private communal water services: means a non-municipal drinking-water system within the meaning of section 2 of the *Safe Drinking Water*

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Act, 2002 that serves six or more lots or private residences.

Protected heritage property: means property designated under Parts IV, V or VI of the *Ontario Heritage Act*; property subject to a heritage conservation easement under Parts II or IV of the *Ontario Heritage Act*; property identified by the Province and prescribed public bodies as provincial heritage property under the Standards and Guidelines for Conservation of Provincial Heritage Properties; property protected under federal legislation, and UNESCO World Heritage Sites.

Protection works standards: means the combination of non-structural or structural works and allowances for slope stability and flooding/erosion to reduce the damage caused by *flooding hazards, erosion hazards and other water-related hazards*, and to allow access for their maintenance and repair.

Provincial and federal requirements: means
~~a) in regard to policy 1.6.11.2, legislation, regulations, policies and standards administered by the federal or provincial governments for the purpose of protecting the environment from potential impacts associated with energy systems and ensuring that the necessary approvals are obtained;~~

- a) ~~b)~~ in regard to policy 2.1.6, legislation and policies administered by the federal or provincial governments for the purpose of fisheries protection (including *fish and fish habitat*), and related, scientifically established standards such as water quality criteria for protecting lake trout populations; and
- b) ~~c)~~ in regard to policy 2.1.7, legislation and policies administered by the provincial government or federal government, where applicable, for the purpose of protecting species at risk and their habitat.

Provincial plan: means a provincial plan within the meaning of section 1 of the *Planning Act*.

Public service facilities: means land, buildings and structures for the provision of programs and services provided or subsidized by a government or other body, such as social assistance, recreation, police and fire protection, health and educational programs, [long-term care services](#),

and cultural services. *Public service facilities* do not include *infrastructure*.

Quality and quantity of water: is measured by indicators associated with hydrologic function such as minimum base flow, depth to water table, aquifer pressure, oxygen levels, suspended solids, temperature, bacteria, nutrients and hazardous contaminants, and hydrologic regime.

Rail facilities: means rail corridors, rail sidings, train stations, inter-modal facilities, rail yards and associated uses, including designated lands for future *rail facilities*.

Recreation: means leisure time activity undertaken in built or natural settings for purposes of physical activity, health benefits, sport participation and skill development, personal enjoyment, positive social interaction and the achievement of human potential.

Redevelopment: means the creation of new units, uses or lots on previously developed land in existing communities, including *brownfield sites*.

Regional market area: refers to an area that has a high degree of social and economic interaction. The upper or single-tier municipality, or planning area, will normally serve as the *regional market area*. However, where a *regional market area* extends significantly beyond these boundaries, then the *regional market area* may be based on the larger market area. Where *regional market areas* are very large and sparsely populated, a smaller area, if defined in an official plan, may be utilized.

Renewable energy source: means an energy source that is renewed by natural processes and includes wind, water, biomass, biogas, biofuel, solar energy, geothermal energy and tidal forces.

Renewable energy system: means a system that generates electricity, heat and/or cooling from a *renewable energy source*.

Reserve sewage system capacity: means design or planned capacity in a centralized waste water treatment facility which is not yet committed to existing or approved development. For the purposes of policy 1.6.6.6, reserve capacity for *private communal sewage services and individual*

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on-site sewage services is considered sufficient if the hauled sewage from the development can be treated and land-applied on agricultural land under the *Nutrient Management Act*, or disposed of at sites approved under the *Environmental Protection Act* or the *Ontario Water Resources Act*, but not by land-applying untreated, hauled sewage.

Reserve water system capacity: means design or planned capacity in a centralized water treatment facility which is not yet committed to existing or approved development.

Residence surplus to a farming operation: means an existing habitable farm residence that is rendered surplus as a result of farm consolidation (the acquisition of additional farm parcels to be operated as one farm operation).

Residential intensification: means intensification of a property, site or area which results in a net increase in residential units or accommodation and includes:

- a) redevelopment, including the redevelopment of *brownfield sites*;
- b) the development of vacant or underutilized lots within previously developed areas;
- c) infill development;
- d) [development and introduction of new housing options within previously developed areas](#);
- e) the conversion or expansion of existing industrial, commercial and institutional buildings for residential use; and
- f) the conversion or expansion of existing residential buildings to create new residential units or accommodation, including accessory apartments, ~~second~~ [additional residential](#) units ~~and~~ [rooming houses, and other housing options](#).

River, stream and small inland lake systems: means all watercourses, rivers, streams, and small inland lakes or waterbodies that have a measurable or predictable response to a single runoff event.

Rural areas: means a system of lands within municipalities that may include rural *settlement areas*, *rural lands*, *prime agricultural areas*, natural heritage features and areas, and resource areas.

Rural lands: means lands which are located outside *settlement areas* and which are outside *prime agricultural areas*.

Sensitive: in regard to *surface water features* and *ground water features*, means areas that are particularly susceptible to impacts from activities or events including, but not limited to, water withdrawals, and additions of pollutants.

Sensitive land uses: means buildings, amenity areas, or outdoor spaces where routine or normal activities occurring at reasonably expected times would experience one or more *adverse effects* from contaminant discharges generated by a nearby *major facility*. *Sensitive land uses* may be a part of the natural or built environment. Examples may include, but are not limited to: residences, day care centres, and educational and health facilities.

Settlement areas: means urban areas and rural settlement areas within municipalities (such as cities, towns, villages and hamlets) that are:

- a) built up areas where development is concentrated and which have a mix of land uses; and
- b) lands which have been designated in an official plan for development over the long-term planning horizon provided for in policy 1.1.2. In cases where land in *designated growth areas* is not available, the *settlement area* may be no larger than the area where development is concentrated.

Sewage and water services: includes *municipal sewage services* and *municipal water services*, *private communal sewage services* and *private communal water services*, *individual on-site sewage services* and *individual on-site water services*, and *partial services*.

Significant: means

- a) in regard to *wetlands*, *coastal wetlands* and *areas of natural and scientific interest*, an area identified as provincially significant by the Ontario Ministry of Natural Resources [and Forestry](#) using evaluation procedures established by the Province, as amended from time to time;
- b) in regard to *woodlands*, an area which is ecologically important in terms of features such as species composition, age of trees and stand history; functionally important due to

its contribution to the broader landscape because of its location, size or due to the amount of forest cover in the planning area; or economically important due to site quality, species composition, or past management history. These are to be identified using criteria established by the Ontario Ministry of Natural Resources [and Forestry](#);

- c) in regard to other features and areas in policy 2.1, ecologically important in terms of features, functions, representation or amount, and contributing to the quality and diversity of an identifiable geographic area or *natural heritage system*;
- d) in regard to *mineral* potential, an area identified as provincially significant through evaluation procedures developed by the Province, as amended from time to time, such as the Provincially Significant Mineral Potential Index; and
- e) in regard to cultural heritage and archaeology, resources that have been determined to have cultural heritage value or interest ~~for the important contribution they make to our understanding of the history of a place, an event, or a people.~~ [Processes and criteria for determining cultural heritage value or interest are established by the Province under the authority of the Ontario Heritage Act.](#)

Criteria for determining significance for the resources identified in sections (c)-(ed) are recommended by the Province, but municipal approaches that achieve or exceed the same objective may also be used.

While some significant resources may already be identified and inventoried by official sources, the significance of others can only be determined after evaluation.

Site alteration: means activities, such as grading, excavation and the placement of fill that would change the landform and natural vegetative characteristics of a site.

For the purposes of policy 2.1.4(a), *site alteration* does not include underground or surface mining of *minerals* or advanced exploration on mining lands in *significant areas of mineral potential* in Ecoregion 5E, where advanced exploration has the same meaning as in the *Mining Act*. Instead, those matters shall be subject to policy 2.1.5(a).

Special needs: means any housing, including dedicated facilities, in whole or in part, that is used by people who have specific needs beyond economic needs, including but not limited to, needs such as mobility requirements or support functions required for daily living. Examples of *special needs* housing may include, but are not limited to, [long-term care homes, adaptable and accessible housing, and](#) housing for persons with disabilities such as physical, sensory or mental health disabilities, and housing for older persons.

Special Policy Area: means an area within a community that has historically existed in the *flood plain* and where site-specific policies, approved by both the Ministers of Natural Resources and [Forestry and](#) Municipal Affairs and Housing, are intended to provide for the continued viability of existing uses (which are generally on a small scale) and address the significant social and economic hardships to the community that would result from strict adherence to provincial policies concerning *development*. The criteria and procedures for approval are established by the Province.

A *Special Policy Area* is not intended to allow for new or intensified *development* and *site alteration*, if a community has feasible opportunities for *development* outside the *flood plain*.

Specialty crop area: means areas designated using guidelines developed by the Province, as amended from time to time. In these areas, specialty crops are predominantly grown such as tender fruits (peaches, cherries, plums), grapes, other fruit crops, vegetable crops, greenhouse crops, and crops from agriculturally developed organic soil, usually resulting from:

- a) soils that have suitability to produce specialty crops, or lands that are subject to special climatic conditions, or a combination of both;
- b) farmers skilled in the production of specialty crops; and
- c) a long-term investment of capital in areas such as crops, drainage, infrastructure and related facilities and services to produce, store, or process specialty crops.

Surface water feature: means water-related features on the earth's surface, including

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headwaters, rivers, stream channels, inland lakes, seepage areas, recharge/discharge areas, springs, wetlands, and associated riparian lands that can be defined by their soil moisture, soil type, vegetation or topographic characteristics.

Threatened species: means a species that is ~~listed or categorized~~ classified as a “Threatened Species” on the ~~Ontario Ministry of Natural Resources’ official~~ Species at Risk ~~list~~ in Ontario List, as updated and amended from time to time.

Transit-supportive: in regard to land use patterns, means development that makes transit viable, optimizes investments in transit infrastructure, and improves the quality of the experience of using transit. It often refers to compact, mixed-use development that has a high level of employment and residential densities, including air rights development, in proximity to transit stations, corridors and associated elements within the transportation system. Approaches may be recommended in guidelines developed by the Province or based on municipal approaches that achieve the same objectives.

Transportation demand management: means a set of strategies that result in more efficient use of the *transportation system* by influencing travel behaviour by mode, time of day, frequency, trip length, regulation, route, or cost.

Transportation system: means a system consisting of facilities, corridors and rights-of-way for the movement of people and goods, and associated transportation facilities including transit stops and stations, sidewalks, cycle lanes, bus lanes, high occupancy vehicle lanes, *rail facilities*, parking facilities, park’n’ride lots, service centres, rest stops, vehicle inspection stations, inter-modal facilities, harbours, *airports*, *marine facilities*, ferries, canals and associated facilities such as storage and maintenance.

Two zone concept: means an approach to *flood plain* management where the *flood plain* is differentiated in two parts: the *floodway* and the *flood fringe*.

Valleylands: means a natural area that occurs in a valley or other landform depression that has water flowing through or standing for some period of the year.

Vulnerable: means surface and/or ground water that can be easily changed or impacted.

Waste management system: means sites and facilities to accommodate solid waste from one or more municipalities and includes recycling facilities, transfer stations, processing sites and disposal sites.

Watershed: means an area that is drained by a river and its tributaries.

Wave uprush: means the rush of water up onto a shoreline or structure following the breaking of a wave; the limit of wave uprush is the point of furthest landward rush of water onto the shoreline.

Wayside pits and quarries: means a temporary pit or quarry opened and used by or for a public authority solely for the purpose of a particular project or contract of road construction and not located on the road right-of-way.

Wetlands: means lands that are seasonally or permanently covered by shallow water, as well as lands where the water table is close to or at the surface. In either case the presence of abundant water has caused the formation of hydric soils and has favoured the dominance of either hydrophytic plants or water tolerant plants. The four major types of wetlands are swamps, marshes, bogs and fens.

Periodically soaked or wet lands being used for agricultural purposes which no longer exhibit wetland characteristics are not considered to be wetlands for the purposes of this definition.

Wildland fire assessment and mitigation standards: means the combination of risk assessment tools and environmentally appropriate mitigation measures identified by the Ontario Ministry of Natural Resources and Forestry to be incorporated into the design, construction and/or modification of buildings, structures, properties and/or communities to reduce the risk to public safety, infrastructure and property from wildland fire.

Wildlife habitat: means areas where plants, animals and other organisms live, and find adequate amounts of food, water, shelter and space needed to sustain their populations.

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Specific wildlife habitats of concern may include areas where species concentrate at a vulnerable point in their annual or life cycle; and areas which are important to migratory or non-migratory species.

Woodlands: means treed areas that provide environmental and economic benefits to both the private landowner and the general public, such as erosion prevention, hydrological and nutrient cycling, provision of clean air and the long-term storage of carbon, provision of wildlife habitat, outdoor recreational opportunities, and the sustainable harvest of a wide range of woodland products. *Woodlands* include treed areas, woodlots or forested areas and vary in their level of significance at the local, regional and provincial levels. *Woodlands* may be delineated according to the *Forestry Act* definition or the Province's Ecological Land Classification system definition for "forest."



The following is a high-level summary of key changes in the PPS, 2020 from the PPS, 2014. It should not be relied upon as a substitute for specialized legal or professional advice in connection with any matter. The Ministry does not accept legal responsibility for its contents or for any consequences, including direct or indirect liability, arising from its use.

Increasing Housing Supply & Mix	Land Supply Requirements	<ul style="list-style-type: none"> Long term Planning Horizon: Increased from 20 to 25 years [1.1.2] Housing Land Supply: Increased from 10 to 15 years [1.4.1(a)] Serviced Residential Land Supply: 3-year supply continued with new policy enabling single / upper-tier municipalities to increase requirement to up to 5 years) [1.4.1(b)] <p><i>Projection Methodology Guideline is being reviewed to support municipal land needs forecasting outside the Greater Golden Horseshoe (GGH); land needs forecasting in the GGH is guided by Land Needs Assessment Methodology for the Greater Golden Horseshoe issued May 4, 2018</i></p>
	Phasing and Form of Development	<ul style="list-style-type: none"> Policies 1.1.3.6 (compact form / mix of uses and densities) and 1.1.3.7 (phasing of development) changed from “shall” to “should” to increase flexibility for decision-making
	Transit-Supportive Development & Air Rights	<ul style="list-style-type: none"> New policy for transit-supportive development and prioritizing intensification in transit areas. This could include potential air rights development near transit corridors and stations [1.1.1(e), 1.1.3.3, 1.4.3(e), 1.8.1(e), definition of transit-supportive]
	Settlement Area Boundary Expansions	<ul style="list-style-type: none"> New policy for boundary adjustments outside the comprehensive review process [1.1.3.9] Clarification that the level of detail of a comprehensive review can correspond with the complexity and scale of a boundary expansion [1.1.3.8] In addition to existing criteria, justification for boundary expansions needs to consider and satisfy market demand [1.1.3.8(a)]
	Housing	<ul style="list-style-type: none"> New direction for planning authorities to address both “market-based” and “affordable housing” needs [1.1.1(b), 1.4.3] New requirement for planning authorities to demonstrate there are not sufficient opportunities “to accommodate growth and satisfy market demand” before identifying or expanding a settlement area [1.1.3.8(a)] New definition for “housing options” New references to meeting “needs arising from demographic changes” and “employment opportunities” [1.4.3(b)1] New requirement to align affordable housing targets in official plans with housing and homelessness plans [1.4.3(a), 1.2.1(h)] Revised definitions of “public service facilities” and “special needs” include specific focus on long-term care homes, as well as the addition of “adaptable and accessible housing” in the “special needs” definition



Protecting the Environment & Public Safety	Climate Change Resilience	<ul style="list-style-type: none"> Enhancements in various policies require planning authorities to prepare for the impacts of climate change [Vision, 1.1.1(i), 1.1.3.2(d), 1.6.1, 1.6.6.1(b), 1.6.6.7(c), 1.8.1, 2.2.1(c), 3.1.3] New definition for “impacts of a changing climate”
	Stormwater Management	<ul style="list-style-type: none"> New policy requiring planning authorities to integrate stormwater planning with planning for sewage and water services, ensure optimization, feasibility and financial viability of systems, and prepare for the impacts of a changing climate [1.6.6.7(a)] Enhanced direction for mitigation of risks to human health, safety, property and the environment [1.6.6.7(d)] Additional references for green infrastructure (e.g., permeable surfaces) [1.6.6.7(c)]
	Natural Hazards	<ul style="list-style-type: none"> Acknowledge the role of the province, planning authorities and conservation authorities in working together to mitigate risks associated with natural hazards, including the impacts of a changing climate [Section 3 Preamble] New direction to ensure natural hazards policies are considered when locating infrastructure and public service facilities [1.6.4] Clarification of the role of existing technical guides when directing development away from hazardous lands [3.1.1] <p><i>Protecting People and Property: Ontario's Flooding Strategy, was released March 9, 2020, and outlines steps the Ontario government will take with partners to make Ontario more resilient to flooding</i></p>
	Excess Soil	<ul style="list-style-type: none"> New policy encouraging planning authorities to support on-site and local re-use of excess soil through planning and development approvals while protecting human health and the environment [3.2.3]
Reducing Barriers & Costs	Minerals Aggregates	<ul style="list-style-type: none"> Revised policy to clarify that, where the Aggregate Resources Act applies, the depth of extraction for both new and existing mineral aggregate operations is regulated only by processes under that Act [2.5.2.4]
	Cultural Heritage Resources	<ul style="list-style-type: none"> New policy for planning authorities to engage with Indigenous communities and consider their interests when identifying, protecting, and managing cultural heritage and archaeological resources [2.6.5] Updates to various definitions: cultural heritage landscape, areas of archaeological potential, built heritage resource, conserved, heritage attributes, significant
	Housekeeping (Energy, Waste Management)	<ul style="list-style-type: none"> Revisions to policies 1.6.11.1 and 1.7.1(j) to support a broad range of energy types and opportunities for increased energy supply Policy 1.6.10.1 revised by removing language (“planning authorities should consider the implications of development and land use patterns on waste generation, management and diversion”)



Supporting Rural, Northern & Indigenous Communities	Rural Lands	<ul style="list-style-type: none"> Deletion of term “limited” used in PPS, 2014 in reference to residential development – revised policy promotes rural residential development that is locally-appropriate [1.1.5.2(c)] Clarification that residential development on rural lands includes lot creation [1.1.5.2(c)]
		<i>MMAH will update Additional Residential Units Info Sheet (Second Units Info Sheet) and develop implementation guidance to support implementation of policy changes</i>
	Sewer and Water	<ul style="list-style-type: none"> Clarification that servicing hierarchy is not “rigid” [1.6.6.1(e)] Identification of public interest rationale for the servicing hierarchy [1.6.6.2] Clarification that individual on-site services may be used in settlement areas for infilling and minor rounding out of existing development where municipal and communal services are not available, planned or feasible [1.6.6.4] New policy promoting assessment of long-term impacts of servicing on the health and character of rural settlement areas and the feasibility of moving to other forms of servicing at the time of the Official Plan review or update [1.6.6.4] More flexibility for “infilling and minor rounding out” on partial services where these have been provided to address failed services and subject to specified tests [1.6.6.5]
	Agriculture	<ul style="list-style-type: none"> New policy encouraging the use of an agricultural system approach - a voluntary, flexible approach which considers both the agricultural land base and the agri-food network which includes infrastructure and assets that are important to the viability of the agri-food sector [2.3.2] New definitions for “agricultural system” and “agri-food network” Revised definition of “on-farm diversified use” sets out that ground mounted solar facilities are permitted in prime agricultural and speciality crop areas only as an on-farm diversified use
	Indigenous Engagement	<ul style="list-style-type: none"> Enhancements in Vision recognizing unique relationship of Indigenous communities with the land and resources and promoting meaningful engagement New policy for planning authorities to engage with Indigenous communities, coordinate on land use planning matters, and consider their interests when identifying, protecting, and managing cultural heritage and archaeological resources [1.2.2, 2.6.5] Indigenous communities are added to the list of bodies the Province will engage with when developing performance indicators [4.8]



Supporting Certainty & Economic Growth	Employment Planning	<ul style="list-style-type: none"> ▪ New policy encouraging planning authorities to facilitate conditions for economic investment [1.3.1(c)] ▪ Enhanced policy supporting mixed-use development, where appropriate [1.3.1(a), (d)] ▪ New policy encouraging planning authorities to assess locally-identified employment areas to ensure designations are appropriate at the time of the Official Plan review or update [1.3.2.2] ▪ New policy requiring planning authorities to plan for an appropriate transition between employment areas and adjacent non-employment areas [1.3.2.3] ▪ New policy requiring planning authorities to prohibit residential and prohibit or limit sensitive land uses that are not ancillary to the primary employment uses in employment areas planned for industrial / manufacturing uses [1.3.2.3] ▪ New policy setting out tests for conversion of land in employment areas outside comprehensive review process [1.3.2.5]
	Land Use Compatibility	<ul style="list-style-type: none"> ▪ Policy 1.2.6 changed from encouraging to requiring e.g. “should” to “shall” and enhanced with new reference “to avoid, or if avoidance is not possible, minimize and mitigate any potential adverse effects” [1.2.6.1] ▪ Enhanced “major facilities” definition includes manufacturing uses ▪ New tests for approval authorities when sensitive land uses are proposed adjacent to existing or planned industrial, manufacturing or other uses that are vulnerable to encroachment uses [1.2.6.2]
	Infrastructure Planning	<ul style="list-style-type: none"> ▪ Clarifications to various policies set out that planning for infrastructure needs to be integrated with growth management and land use planning [1.6, 1.1.1(e), 1.2.1(a)] ▪ Definition of “planned corridor” enhanced to include Metrolinx, Ministry of Energy Northern Development and Mines, and the Independent Electricity System Operator ▪ New policy encouraging the co-location of linear infrastructure [1.6.8.5]

Questions can be directed to one of the regional offices of the Ministry of Municipal Affairs and Housing:

Eastern Municipal Services Office Rockwood House, 8 Estate Lane, Kingston K7M 9Ax General Inquiry: 613-545-2100 Toll Free: 1-800-267-9438 Fax: 613-548-6822	Western Municipal Services Office 2nd Floor, 659 Exeter Rd., London N6E 1L3 General Inquiry: 519-873-4020 Toll Free: 1-800-265-4736 Fax: 519-873-4018	Central Municipal Services Office 777 Bay St, 2 nd Floor, Toronto, M5G 2E5 General Inquiry: 416-585-6226 Toll Free: 1-800-668-0230 Fax: 416-585-6882
Municipal Services Office North (Sudbury) Suite 401, 159 Cedar St., Sudbury, P3E 6A5 General Inquiry: 705-564-0120 Toll Free: 1-800-461-1193 Fax: 705-564-6863	Municipal Services Office North (Thunder Bay) Suite 223, 435 James St S., Thunder Bay, P7E 6S7 General Inquiry: 807-475-1651 Toll Free: 1-800-465-5027 Fax: 807-475-1196	

Board of Directors Meeting

MINUTES

The meeting of the Lower Thames Valley Conservation Authority's Board of Directors was held remotely via the LTVCA's Administration Office at 100 Thames Street, Chatham, at 2:00 P.M. on Thursday, August 20, 2020. The following directors were in attendance: L. McKinlay, T. Thompson, A. Finn, J. Wright, M. Hentz, P. Tiessen, J. Frawley, C. Cowell, S. Emons and R. Leatham. S. Hipple was unable to attend.

1. First Nations Acknowledgment

M. Peacock read the First Nations acknowledgement.

2. Call to Order

Chair, Linda McKinlay called the meeting to order and thanked everyone for their continued patience and cooperation during these difficult times.

M. Peacock took a roll call of Board members.

3. Adoption of Agenda

BD-2020-47 C. Cowell – P. Tiessen

Moved that the agenda be adopted as presented.

CARRIED

4. Disclosures of Conflicts of Interest

None Declared.

5. Approval of Previous Meeting Minutes (Previously circulated)

BD-2020-48 A. Finn – R. Leatham

Moved that the Board of Directors remote meeting minutes of June 25, 2020 be approved as circulated.

CARRIED

BD-2020-49 S. Emons – M. Hentz

Moved that the Board of Directors poll meeting minutes of July 16, 2020 be approved as circulated.

CARRIED

6. Business Arising From the Minutes

None declared.

7. New Business

None noted.

8. Business for Approval

8.1) Transferability of an LTVCA Issued Permit

BD-2020-50 C. Cowell – M. Hentz

Moved that the Board of Directors approve the policy on transfers of permissions as:

“Permission granted by the LTVCA can only be changed or transferred with prior written approval by the LTVCA. Transfers will require written authorization from the current holder of the permission. The proposed new holder of the permission must request the transfer in writing confirming that they intend to undertake the same works as previously approved by the LTVCA and accept the Conditions specified on the permission being transferred. If the design for the approved works was undertaken by a third party, an acknowledgement in writing must be provided confirming that the proposed new holder of the application/permission has the intellectual property rights to use the design. A transfer does not come with a time extension, so the work must be completed in the timeframe specified on the original permission. The Executive Committee reserves the right to limit or deny the transfer of any permit issued to a permit holder.”

to be implemented immediately and posted online for public comment, and that a fee of \$75 be implemented for transfers of permissions.

MOTION FAILED

BD-2020-51 R. Leatham – P. Tiessen

Moved that the following board approved policy be implemented by staff:

Should the owner of a property with a permit (a permission given under Section 28 of the Conservation Authorities Act) wish to transfer the permission to a new owner, the transfer can only happen through the review and approval of the Executive Committee.

CARRIED

8.2) Income and Expenditure vs Budget to June 30, 2020

BD-2020-52 A. Finn – J. Frawley

Moved that the Board of Directors receives the Income and Expenditure vs Budget report for the period ended June 30, 2020.

CARRIED

8.3) 2021 Preliminary Budget Preparation Report

BD-2020-53 S. Emons – P. Tiessen

Moved that the Board direct staff to prepare the 2021 budget based on a 1% general levy increase, meet with member municipalities and bring the preliminary 2021 budget and municipal comments back to the October meeting for review and approval.

CARRIED

8.4) Big Creek Two -Zone Floodplain Policy

BD-2020-54 A. Finn – C. Cowell

Moved that the Big Creek 2-Zone Floodplain Policy Report be received for information.

And Further that the draft Big Creek 2-Zone Floodplain Policy be provided to the public for comment, with those comments being brought back to this board for review prior to approval of the policy.

CARRIED

9. New Business

- 9.1) CAO's Report: Update to Board on Impacts to Operations from COVID-19 Pandemic
- 9.2) Water Management
- 9.3) Planning and Regulations
- 9.4) Conservation Areas
- 9.5) Conservation Services
- 9.6) Communications, Outreach and Education
- 9.7) Ska-Nah-Doht Advisory Committee Meeting Minutes – July 2, 2020
- 9.8) Joint Health & Safety Committee Meeting Minutes – July 2, 2020
- 9.9) Wheatley Two Creeks Association Minutes – August 6, 2020
- 9.10) Proposed Amendment to Chatham-Kent Grass Cutting Bylaw

BD-2020-55 A. Finn – S. Emons

Moved that the above reports under New Business, 9.1) through to 9.10) be received for information.

CARRIED

10. Correspondence

- 10.1) Chatham Daily News – Chatham-Kent Children's Safety Village Vandalism
- 10.2) Media Release - Ribbon Cutting Unveils "The Oluuc" at E.M. Warwick Conservation Area

BD-2020-56 R. Leatham – P. Tiessen

Moved that Correspondence items 10.1) and 10.2) be received for information.

CARRIED

11. Other Business

None noted.


12. Adjournment

BD-2020-57 J. Frawley – C. Cowell

Moved that the meeting be adjourned.

CARRIED

Linda McKinlay
Chair



Mark Peacock, P. Eng.
CAO/Secretary-Treasurer



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Honourable Doug Ford, Premier of Ontario,
Queen's Park Legislative Building
1 Queen's Park, Room 281
Toronto, ON M7A 1A1

August 17, 2020

Dear Honourable Doug Ford;

Re: Copy of Resolution #485

Motion No. 485

Moved by: Don Murray Seconded by: Carl Sloetjes

THAT the Township of Huron-Kinloss hereby support the Council of the Township of Mapleton in their request that: The Province of Ontario undertake a review of the Farm Property Tax Class Rate Program to determine:

- a. The appropriateness of the cost of the Farm Property Tax Class Rate Program falling disproportionately amongst rural residential and business property owners when the benefit of an economically competitive agricultural industry and affordable food and agricultural products is a provincial objective that should be shared amongst all taxpayers in Ontario;
- b. The adequacy of funding being provided to rural municipalities to offset the cost of the Farm Property Tax Class Rate Program;
- c. The differences between the amount of property taxes paid in rural and urban municipalities and the root causes of those differences;
- d. Economic competitiveness concerns with disproportionately higher average property taxes being paid in rural municipalities;
- e. Other methods of delivering the farm tax rebate program to farmland owners where the cost can be shared province wide

Sincerely,

A handwritten signature in dark ink, appearing to read 'Kelly Lush', written in a cursive style.

Kelly Lush
Deputy Clerk

c.c. Honourable Steve Clark, Minister of Municipal Affairs and Housing, Honourable Rod Phillips, Minister of Finance, Honourable Ernie Hardeman, Minister of Agriculture, Food & Rural Affairs, MPP Randy Pettapiece, Honourable Ted Arnott, all Ontario Municipalities, Rural Ontario Municipal Association (ROMA) and Association of Municipalities of Ontario (AMO).



P.O. Box 444
Lambeth Station
N6P 1R1

August 24, 2020

The Municipality of West Elgin
22413 Hoskins Line
Rodney, ON N0L 2C0

Attention: Heather James, Planner

Re: Seaside Waterfronts Inc.

Dear Ms. James:

Please consider this correspondence as the formal request from Seaside Waterfronts Inc. for the scheduling of a public meeting under Section 51(20) of The Planning Act, to consider the Draft Plan of Condominium (subdivision) from Seaside Waterfronts Inc. in Port Glasgow.

As you are aware, the proposed Seaside development has been the subject of a lengthy Environmental Study Review, as part of an Integrated Draft Plan/Class EA process, which focussed primarily on establishing functional plans for wastewater services. The Notice of Completion for the Environmental Assessment was filed on August 8, 2019.

The draft plan concept that is proposed for public presentation as per the requirements of The Planning Act is unchanged from the version that has been included in the Environmental Study Report, and presented at numerous previous public meetings.

We would be pleased to work with the Municipality of West Elgin in the planning and preparation of a safe public meeting within the regulations and guidelines of the Province of Ontario. Members of our project team have considerable experience in the planning and execution of statutory public meetings in the current emergency environment. Costs associated with facility and equipment rentals, publication notice, etc. will be borne by Seaside Waterfronts Inc.

Given the time required to schedule and plan a public meeting, including giving of Notice under The Planning Act, we respectfully request consideration from the Municipality for an early October date for the public meeting.

Please do not hesitate to contact the undersigned if you have any questions.

Yours truly,

Gary Blazak MA, RPP, MCIP
Consulting Planner for Seaside Waterfronts Inc.

August 25, 2020

Hand Delivered

Municipality of West Elgin
22413 Hoskins Line
Rodney, ON
N0L 2C0

Attention: Mayor Duncan McPhail and Council

Dear Mayor and Council Members:
Re: Recreation Centre Proposal

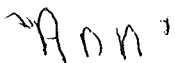
The Rodney Recreation Centre is a hub of activity for our village, and is a place where all ages can come together for different activities and events. It is well maintained and we are very fortunate to be able to use this facility for public and private events.

The paintings on the northwest wall done by Jenny Hanley many years ago are such a heartwarming welcome to our facility. We have such wonderful talent in our community.

Please consider this proposal to honour two more "Home Town Heros" by adding more local artwork to the walls of the Rodney Recreation Centre.

Thank you for your consideration.

Regards,



Ann Smith
cc. Tim & Mona Blain

Proposal

Purpose:

To create a mural displaying the accomplishments of two successful athletes from our community.

1. Angie Schneider, Silver Medal 1984 Summer Olympic Rowing Champion
2. Bo Horvat, Captain of the Vancouver Canucks (2019)

The mural will also have "HOMETOWN PROUD" on the display. The completion of this mural would be a slow process, as the artist will be attending school full time and doing this in her spare time. The goal is to complete the mural by the summer of 2021.

Attached are sketches for your perusal.

Artist:

Evangeline currently lives in Rodney with her grandparents, Tim & Mona Blain. She is an amazing, talented 15-year-old. Evangeline gets up at 5:00 a.m. every day to attend Beal Secondary School in London. Beal is a diverse high school that offers a wide range of exceptional programming, including Bealart, a nationally renowned specialty art program.

Attached is Evangeline's autobiography outlining her talents and is part of the Bealart program mentioned on their website.

Expenses:

Evangeline has graciously offered to donate her time, but would ask the Municipality to cover the cost of her paints and brushes. This cost is estimated high, and could range from \$750.00 - \$1,200. Should cost be an issue, I would be willing to fund raise for the project.

Scaffolding:

Evangeline and her grandparents would appreciate it if scaffolding could be provided by the municipality through the recreation department.

Liability:

Evangeline's grandparents have asked if she would be covered under the liability portion of the Municipal insurance. We would appreciate someone at the municipality looking into this matter before proceeding.

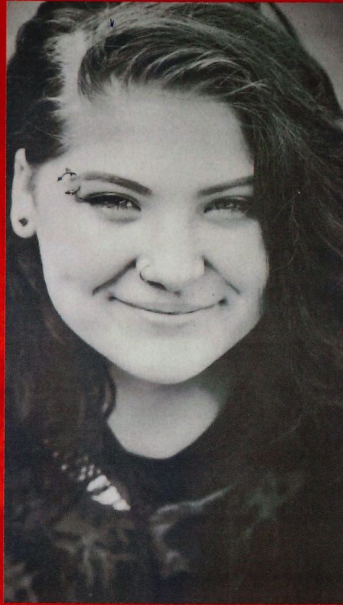


Please note these are
very rough copies to give
an IDEA.

The final Product will
have much more detail



EVANGELINE BRADBURY



Evangeline (lovingly known as "Banjo"), is a 14 year old Indigenous artist who currently attends gr. 9 at HB Beal Secondary School, and will be advancing to the BealArt Program in gr. 11. Evangeline resides in Rodney, ON with her grandparents. Her Indigenous roots stem from Ojibwe territory, known as the Anishinaabe people. Evangeline also has deep Scottish and Hungarian roots.

Evangeline's preferred medium is paint. Her favorite subject to focus on is animals; in particular house cats & large felines. She also enjoys working on landscapes.

While viewing Banjo's art please take a moment to see if you can find the often hidden paw print within the piece.

Most weekends you can find Evangeline at Romantic Designs Artist Studio in St. Thomas, ON, where she enjoys learning new skills & improving on her talent.

10% of all proceeds from sales of Banjo's art will be donated to the London Humane Society.

Banjo hopes you will enjoy her art for many years to come

<https://www.facebook.com/peekintomymind/>



MUNICIPALITY OF **West Elgin**

The Corporation Of the Municipality Of West Elgin

By-Law No. 2020-59

Being A By-Law to provide for the Crabbe Drain in the Municipality of West Elgin.

Whereas the Council of the Municipality of West Elgin has procured a report under Section 78 of the *Drainage Act, R.S.O. 1990*, as amended, for the improvement of the Crabbe Drain; and

Whereas the reported dated May 1, 2020 has been authored by J.M Spriet of Spriet Associates Engineers and Architects and the attached report forms part of this By-Law; and

Whereas the estimated total cost of the drainage work is \$75,500.00; and

Whereas \$75,500.00 is the estimated amount to be contributed by the Municipality of West Elgin for the drainage works; and

Whereas the Council of The Corporation of the Municipality of West Elgin is of the opinion that the drainage of the area is desirable;

Now Therefore be it resolved that the Council of The Corporation of the Municipality of West Elgin pursuant to the *Drainage Act, R.S.O. 1990*, as amended, enacts as follows:

1. That the report dated May 1, 2020 and attached hereto is hereby adopted and the drainage works as therein indicated and set forth is hereby authorized and shall be completed in accordance therewith.
2. That The Corporation of the Municipality of West Elgin may borrow on the credit of the Corporation the amount of \$75,500.00, being the amount necessary for the improvement of the drainage works. This project may be debentured.
3. The Corporation may issue debenture(s) for the amount borrowed less the total amount of:
 - a) grants received under Section 85 of the *Drainage Act*;
 - b) monies paid as allowances;
 - c) commuted payments made in respect of lands and roads assessed with the municipality;

- d) money paid under subsection 61(3) of the *Drainage Act*; and
e) money assessed in and payable by another municipality.
4. Such debenture(s) shall be made payable within up to 10 years from the date of the debenture(s) and shall bear interest at a rate not higher than 2% more than the municipal lending rates as posted by Infrastructure Ontario on the date of the sale of such debenture(s).
 5. A special equal annual rate sufficient to redeem the principal and interest on the debenture(s) and shall be levied upon the lands and roads as shown in the schedule and shall be collected in the same manner and at the same as other taxes are collected in each year for up to 10 years after the passing of this By-Law.
 6. All assessments of \$1,000.00 or less are payable in the first year in which assessments are imposed.
 8. That this By-Law comes into force and effect upon the final reading thereof.

Read a first and second time and provisionally adopted this 27th day of August, 2020

Duncan McPhail
Mayor

Jana Nethercott
Clerk

Read for a third and final time this 8th day of October, 2020

Duncan McPhail
Mayor

Jana Nethercott
Clerk

CRABBE DRAIN
Municipality of West Elgin



**SPRIET
ASSOCIATES**
ENGINEERS & ARCHITECTS

155 York Street
London, Ontario N6A 1A8
Tel. (519) 672-4100
Fax (519) 433-9351
E-mail MAIL@SPRIET.ON.CA

Our Job No. 219070

May 1, 2020

London, Ontario
May 1, 2020

CRABBE DRAIN

Municipality of West Elgin

To the Mayor and Council of
the Municipality of West Elgin

Mayor and Council:

We are pleased to present our report on the reconstruction of parts of the Crabbe Municipal Drain serving parts of Lot 21 & 22, Concessions 12 and 13, in the Municipality of West Elgin.

AUTHORIZATION

This report was prepared pursuant to Section 78 of the Drainage Act. Instructions were received from your Municipality with respect to a motion of Council. The work was initiated by a request signed by an affected landowner.

HISTORY

The Crabbe Drain was originally constructed pursuant to a report submitted by H.H. Todgham, P. Eng., dated July 12, 1960 and consisted of the construction of an open and closed drain, commencing at the Bonn open drain and running east, then northeast through Lots 21 and 22 in Concession 12. The work called for approximately 715 meters of open ditch cleanout and 549 meters of 150mm – 300mm diameter tile.

EXISTING DRAINAGE CONDITIONS

A site meeting held with respect to the project and through later discussions, the owners reported the following:

- that the requesting landowner, Larch Lane Farms Ltd. (Roll No. 50-123), indicated their desire to enclose a portion of the existing open drain through their lands

A field investigation and survey were completed. Upon reviewing our findings, we note the following:

- that the existing drain has not been cleaned out in a very long time and is substantially overgrown with trees along the entire course of the open drain



EXISTING DRAINAGE CONDITIONS (cont'd)

- that the lands would benefit from enclosure due to the increased workability of them
- that the existing drain should be brushed, where possible, to allow the Municipality to maintain the drain

Preliminary design, cost estimates and assessments were prepared, and informal discussions were held to review the findings and preliminary proposals. Further input and requests were provided by the affected owners at that time and at later dates. Based on the proposed design it was decided to proceed with the report.

DESIGN CONSIDERATIONS

The proposed drain was designed, with respect to capacity, using the Drainage Coefficient method contained in the "DRAINAGE GUIDE FOR ONTARIO", Publication 29 by the Ontario Ministry of Agriculture, Food, and Rural Affairs. The Drainage Coefficient defines a depth of water that can be removed in a 24-hour period and is expressed in millimetres per 24 hours. The coefficient used for the Main Drain was 38mm per 24 hrs.

We would like to point out that there have been indications of sandy soil conditions, but no formal soil investigation has been made.

All of the proposed work has been generally designed and shall be constructed in accordance with the DESIGN AND CONSTRUCTION GUIDELINES FOR WORK UNDER THE DRAINAGE ACT.

RECOMMENDATIONS

We are therefore recommending the following:

- that a portion of the existing Main Drain be backfilled through the lands of Larch Lane Farms Ltd. (Roll No. 50-123), commencing at the outlet of the existing Main Drain tile downstream for approximately 369 lineal meters
- that the existing short portion of the open drain, downstream from the current outlet, be replaced with a tile drain approximately 77 meters in length
- that the open drain downstream of the new tile outlet be cleaned out and deepened for a length of approximately 150m.
- that downstream of the tile drain a pool and riffle be constructed in accordance with the requirements of the DFO
- that the existing open ditch be brushed where work is being done to allow access to the drain as needed
- that the existing open ditch be backfilled along the course of the new drain in such a manner as to permit overland flows from the upstream lands



RECOMMENDATIONS (cont'd)

- that the existing open ditch be backfilled along the course of the new drain in such a manner as to permit overland flows from the upstream lands

We have reviewed the existing Schedule of Assessment for the Crabbe Drain and found it them to be out-of-date and unfair due to property splits, changes in land use, the watershed, and drainage conditions. We therefore recommend that a new Maintenance Schedule be included as part of this report for future maintenance purposes.

ENVIRONMENTAL CONSIDERATIONS AND MITIGATION MEASURES

There are no significant wetlands or sensitive areas within the affected watershed area or along the route of the drains. The proposed construction of the Crabbe Drain includes quarry stone outlet protection and surface inlets which greatly help reduce the overland surface flows and any subsequent erosion. A temporary flow check of silt fencing is to be installed in the ditch downstream of the tile outlet for the duration of the construction.

We have reviewed the proposed work with the Department of Fisheries and Oceans (File No. 19-HCAA-0087) and they recommend the following mitigation measure be followed in their letter of advice dated January 15, 2020; the existing open drain is to be isolated prior to any backfilling by installing sediment and erosion controls at the bottom end of the work and that work be conducted in dry conditions after July 15th of the given year, as well as the creation of a pool and riffle downstream of the enclosure.

We are also recommending that the following erosion and sediment control measures be included as part of our reconstruction proposal to help mitigate any potential adverse impacts of the proposed drainage works on water quality and fishery habitat:

- timing of construction is to be only at times of low or no flow
- a temporary flow check of silt fencing is to be installed for the duration of the construction at the bottom end of the ditch reconstruction
- a cleanout of the ditch bottom only has been specified so that the existing bank vegetation is not disturbed. However, where the existing banks are unstable, or may become unstable, they are to be resloped and seeded as noted on the plans

SUMMARY OF PROPOSED WORK

The proposed work consists of approximately 150 lineal meters of open ditch reconstruction including quarry stone rip-rap bank protection, pool and riffle, bank seeding, and approximately 446 lineal meters of 300mm (12") to 400mm (16") diameter concrete field tile including related appurtenances.

SCHEDULES

Four schedules are attached hereto and form part of this report, being Schedule 'A' - Allowances, Schedule 'B' - Cost Estimate, Schedule 'C' - Assessment for Construction, and Schedule 'D' - Assessment for Maintenance.

Schedule 'A' - Allowances. In accordance with Sections 29 and 30 of the Drainage Act, allowances are provided for right-of-way and damages to lands and crops along the route of the drain as defined below.

Schedule 'B' - Cost Estimate. This schedule provides for a detailed cost estimate of the proposed work which is in the amount of \$ 75,500.00. This estimate includes engineering and administrative costs associated with this project.

Schedule 'C' - Assessment for Construction. This schedule outlines the distribution of the total estimated cost of construction over the roads and lands which are involved.

Schedule 'D' - Assessment for Maintenance. In accordance with Section 38 of the Drainage Act, this schedule outlines the distribution of future repair and/or maintenance costs for portions of, or the entire drainage works.

Drawing No. 1, Job No. 219070, and specifications form part of this report. They show and describe in detail the location and extent of the work to be done and the lands which are affected.

ALLOWANCES

DAMAGES: Section 30 of the Drainage Act provides for the compensation to landowners along the drain for damages to lands and crops caused by the construction of the drain. The amount granted is based on \$4,647.00/ha. for open ditch work with excavated material levelled adjacent the drain, and \$3,613.00/ha for closed drain installed with a wheel machine. These base rates are multiplied by the hectares derived from the working widths shown on the plans and the applicable lengths.

RIGHT-OF-WAY Section 29 of the Drainage Act provides for an allowance to the owners whose land must be used for the construction, repair, or future maintenance of a drainage works.

For open ditches, the allowance provides for the loss of land due to the construction provided for in the report. The amounts granted are based on the value of the land, and the rate used was \$33,360.00/ha. When any buffer strip is incorporated and/or created, the allowance granted is for any land beyond a 1.8-meter width deemed to have always been part of the drain. For existing open ditches, the right-of-way to provide for the right to enter and restrictions imposed on those lands, is deemed to have already been granted.

ASSESSMENT DEFINITIONS

In accordance with the Drainage Act, lands that make use of a drainage works are liable for assessment for part of the cost of constructing and maintaining the system. These liabilities are known as benefit, outlet liability and special benefit liability as set out under Sections 22, 23, 24 and 26 of the Act.

ASSESSMENT DEFINITIONS (cont'd)

BENEFIT as defined in the Drainage Act means the advantages to any lands, roads, buildings or other structures from the construction, improvement, repair or maintenance of a drainage works such as will result in a higher market value or increased crop production or improved appearance or better control of surface or sub-surface water, or any other advantages relating to the betterment of lands, roads, buildings or other structures.

OUTLET liability is assessed to lands or roads that may make use of a drainage works as an outlet either directly or indirectly through the medium of any other drainage works or of a swale, ravine, creek or watercourse.

In addition, a Public Utility or Road Authority shall be assessed for and pay all the increased cost to a drainage works due to the construction and operation of the Public Utility or Road Authority. This may be shown as either benefit or special assessment.

ASSESSMENT

A modified "Todgham Method" was used to calculate the assessments shown on Schedule 'C'- Assessment for Construction. This entailed breaking down the costs of the drain into sections along its route. Special Assessments and Special Benefits were then extracted from each section.

The remainder is then separated into Benefit and Outlet costs. The Benefit cost is distributed to those properties receiving benefit as defined under "Assessment Definitions", with such properties usually being located along or close to the route of the drain. The Outlet Costs are distributed to all properties within the watershed area of that section on an adjusted basis. The areas are adjusted for location along that section, and relative run-off rates. Due to their different relative run-off rates, forested lands have been assessed for outlet at lower rates than cleared lands.

The actual cost of the work involving this report, with the exception of Special Assessments, is to be assessed on a pro-rata basis against the lands and roads liable for assessment for benefit and outlet as shown in detail below and on Schedule 'C' - Assessment for Construction.

The majority of the enclosing and backfilling of the drain is assessed to the benefitting landowners, with the exception of the cost of two cleanouts, which are assessed to all lands within this watershed area. A value of \$5,500.00 has been used for this cost and shall be non-proratable, and can be found in the Assessment Schedule 'C'- Main Drain (Closed Portion)

SPECIAL ASSESSMENT

If any additional work is required to the drainage works due to the existence of buried utilities such as gas pipe lines, communications cables, etc. or if any of the utilities require relocation or repair, then, the extra costs incurred shall be borne by the utility involved in accordance with the provisions of Section 26 of the Drainage Act.



GRANTS

In accordance with the provisions of Section 85 of the Drainage Act, a grant **may** be available for assessments against privately owned parcels of land which are used for agricultural purposes and eligible for the Farm Property Class Tax rate. Further to this, regarding the closed portion of this project, the proposed theoretical cleanout costs of the project may be eligible for the normal 1/3 grants for the outlet lands. These lands have been assessed for their portion of the theoretical cost of clean-outs of the open ditch. The remaining portion of the drain will be in-eligible for the 1/3 grant. Section 88 of the Drainage Act directs the Municipality to make application for this grant upon certification of completion of this drain. The Municipality will then deduct the grant from the assessments prior to collecting the final assessments.

MAINTENANCE

Upon completion of construction, all owners are hereby made aware of Sections 80 and 82 of the Drainage Act which forbid the obstruction of or damage or injury to a municipal drain.

After completion, the entire Crabbe Drain, including the existing portions, shall be maintained by the Municipality of West Elgin at the expense of all upstream lands and roads assessed in Schedule 'D' - Assessment for Maintenance and in the same relative proportions until such time as the assessment is changed under the Drainage Act.

The above existing portions of the drain shall be maintained in accordance with the grades and dimensions set out in the plans and specifications contained in the reports submitted by H.H. Todgham, P.Eng., dated July 12, 1960.

Respectfully submitted,

SPRIET ASSOCIATES LONDON LIMITED

JMS:bv




J.M. Spriet, P.Eng.



SCHEDULE 'A' - ALLOWANCES

CRABBE DRAIN

Municipality of West Elgin

In accordance with Sections 29 and 30 of the Drainage Act, we determine the allowances payable to owners entitled thereto as follows:

CONCESSION	LOT	ROLL NUMBER (Owner)	Section 29 Right-of-Way	Section 30 Damages	TOTALS
MAIN DRAIN (OPEN PORTION)					
12	Pt. 21	50-117-03 (L. Connolly)	\$ 70.00	\$ 130.00	\$ 200.00
12	Pt. 21	50-117-04 (F. Connolly)	200.00	350.00	550.00
12	Pt. 21 & 22	50-123 (Larch Lane Farms Ltd)	330.00	570.00	900.00
Total Allowances			\$ 600.00	\$ 1,050.00	\$ 1,650.00
TOTAL ALLOWANCES ON THE MAIN DRAIN (OPEN PORTION)					\$ 1,650.00
MAIN DRAIN (CLOSED PORTION)					
12	Pt. 21 & 22	50-123 (Larch Lane Farms Ltd)	\$	\$ 2,000.00	\$ 2,000.00
Total Allowances			\$	\$ 2,000.00	\$ 2,000.00
TOTAL ALLOWANCES ON THE MAIN DRAIN (CLOSED PORTION)					\$ 2,000.00
TOTAL ALLOWANCES ON THE CRABBE DRAIN					\$ 3,650.00

CRABBE DRAIN**Municipality of West Elgin**

We have made an estimate of the cost of the proposed work which is outlined in detail as follows:

MAIN DRAIN (OPEN PORTION)

Clearing & grubbing of ditch bank (Approx. 150m)	\$ 3,000.00
150 meters of open ditch cleanout	\$ 1,500.00
Construt pool and riffle as per drawings including rip-rap and filter blanket	\$ 2,000.00
Levelling of excavated material	\$ 800.00
Seeding of ditch banks and buffer strips (Approx 500m ²)	\$ 200.00
Contingencies	\$ 500.00
Allowances under Sections 29 and 30 of the Drainage Act	\$ 1,650.00

MAIN DRAIN (CLOSED PORTION)

6 meters of 450mm dia., H.D.P.E. plastic sewer pipe including rodent gate, quarry stone rip-rap protection around pipe and end of ditch (Approximately 6m ³ quarry stone req'd)	
Supply	\$ 600.00
Installation	\$ 1,300.00
Installation of the following concrete field tile installed on crushed stone bedding including supply & installation of geotextile around tile joints (approx. 2200m req'd)	
77 meters of 300mm dia. concrete tile (stub)	\$ 3,000.00
169 meters of 350mm dia. concrete tile	\$ 7,200.00
194 meters of 400mm dia. concrete tile	\$ 8,800.00
Supply of the above listed tile	\$ 9,200.00
Supply & delivery of 19mm crushed stone (Approx. 180 tonnes req'd)	\$ 5,400.00
Backfilling of existing open ditches and grading for overland flow route	\$ 9,000.00
Exposing and locating existing tile drains and utilities	\$ 1,500.00
Tile connection and pre-fabricated fittings	\$ 1,000.00
Tile connections and contingencies	\$ 1,500.00
Allowances under Section 30 of the Drainage Act	\$ 2,000.00

CRABBE DRAIN
Municipality of West Elgin**ADMINISTRATION**

Interest and Net Harmonized Sales Tax	\$ 1,780.00
Survey, Plan and Final Report	\$ 9,900.00
Expenses	\$ 950.00
Supervision and Final Inspection	\$ <u>2,720.00</u>
TOTAL ESTIMATED COST	\$ <u><u>75,500.00</u></u>

SCHEDULE 'C' - ASSESSMENT FOR CONSTRUCTION

CRABBE DRAIN

Municipality of West Elgin

Job No. 219070

May 1, 2020

* = Non-agricultural

CON.	LOT	HECTARES AFFECTED	ROLL No. (OWNER)	BENEFIT	OUTLET	TOTAL
MAIN DRAIN (OPEN PORTION)						
12	W Pt. 21	4.0	50-117-01 (BonneField Farmland Ont	\$	\$	\$
* 12	Pt. 21	1.0	50-117-02 (M. Vandenburg)			
* 12	Pt. 21	0.3	50-117-03 (L. Connolly)	320.00	2.00	322.00
* 12	Pt. 21	0.3	50-117-04 (F. Connolly)	890.00	9.00	899.00
12	NW Pt. 21	0.8	50-118-50 (M. Howard)		38.00	38.00
* 12	Pt. 21	1.5	50-119 (C. Bell)		142.00	142.00
12	Pt. 21 & 22	43.3	50-123 (Larch Lane Farms Ltd)	5,860.00	3,451.00	9,311.00
12	NW Pt. 22	6.1	50-121 (M. & S. Peterne)		501.00	501.00
* 12	Pt. 22	0.6	50-123-10 (Larch Lane Farms Ltd)		55.00	55.00
13	21	8.1	50-164 (J. & R. Colpaert)		255.00	255.00
13	21	2.0	50-166 (S. & L. KirkPatrick)		63.00	63.00
TOTAL ASSESSMENT ON LANDS				\$ 7,070.00	\$ 4,516.00	\$ 11,586.00
Talbot Line 2.5 County of Elgin				\$	\$ 414.00	\$ 414.00
TOTAL ASSESSMENT ON ROADS				\$	\$ 414.00	\$ 414.00
TOTAL ASSESSMENT ON THE MAIN DRAIN (OPEN PORTION)						<u>\$ 12,000.00</u>
MAIN DRAIN (CLOSED PORTION)						
12	NW Pt. 21	0.8	50-118-50 (M. Howard)		98.00	98.00
12	Pt. 21 & 22	31.0	50-123 (Larch Lane Farms Ltd)		4,107.00	4,107.00
*			50-123 (Larch Lane Farms Ltd)	58,000.00		58,000.00
12	NW Pt. 22	6.1	50-121 (M. & S. Peterne)		1,295.00	1,295.00
TOTAL ASSESSMENT ON LANDS				\$ 58,000.00	\$ 5,500.00	\$ 63,500.00
TOTAL ASSESSMENT ON THE MAIN DRAIN (CLOSED PORTION)						<u>\$ 63,500.00</u>
TOTAL ASSESSMENT ON THE CRABBE DRAIN						<u>\$ 75,500.00</u>

SCHEDULE 'D' - ASSESSMENT FOR MAINTENANCE

CRABBE DRAIN

Municipality of West Elgin

Job No. 219070

May 1, 2020

CON.	LOT	HECTARES AFFECTED	ROLL No. (OWNER)	PERCENTAGE OF MAINTENANCE COST
MAIN DRAIN (OPEN PORTION)				
12	W Pt. 21	4.0	50-117-01 (BonneField Farmland Ont)	4.5 %
12	Pt. 21	1.0	50-117-02 (M. Vandenburg)	22.6
12	Pt. 21	0.3	50-117-03 (L. Connolly)	7.2
12	Pt. 21	0.3	50-117-04 (F. Connolly)	6.2
12	NW Pt. 21	0.8	50-118-50 (M. Howard)	0.4
12	Pt. 21	1.5	50-119 (C. Bell)	1.4
12	Pt. 21 & 22	43.3	50-123 (Larch Lane Farms Ltd)	45.0
12	NW Pt. 22	6.1	50-121 (M. & S. Peterne)	4.9
12	Pt. 22	0.6	50-123-10 (Larch Lane Farms Ltd)	0.6
13	21	8.1	50-164 (J. & R. Colpaert)	2.5
13	21	2.0	50-166 (S. & L. KirkPatrick)	0.6
				=====
TOTAL ASSESSMENT ON LANDS				95.9 %
				=====
Talbot Line		2.5	County of Elgin	4.1 %
				=====
TOTAL ASSESSMENT ON ROADS				4.1 %
				=====
TOTAL ASSESSMENT FOR MAINTENANCE OF THE MAIN DRAIN (OPEN PORTION)				<u>100.0 %</u>
MAIN DRAIN (CLOSED PORTION)				
12	NW Pt. 21	0.8	50-118-50 (M. Howard)	1.0 %
12	Pt. 21 & 22	31.0	50-123 (Larch Lane Farms Ltd)	87.0
12	NW Pt. 22	6.1	50-121 (M. & S. Peterne)	12.0
				=====
TOTAL ASSESSMENT ON LANDS				100.0 %
				=====
TOTAL ASSESSMENT FOR MAINTENANCE OF THE MAIN DRAIN (CLOSED PORTION)				<u>100.0 %</u>

SCHEDULE OF NET ASSESSMENT

CRABBE DRAIN

Municipality of West Elgin

(FOR INFORMATION PURPOSES ONLY)

Job No. 219070

May 1, 2020

* = Non-agricultural

ROLL NUMBER (OWNER)	TOTAL ASSESSMENT	GRANT	ALLOWANCES	APPROX. NET
50-117-01 (BonneField Farmland Ont)	\$	\$	\$	\$
* 50-117-02 (M. Vandenburg)				
* 50-117-03 (L. Connolly)	322.00		200.00	122.00
* 50-117-04 (F. Connolly)	899.00		550.00	349.00
50-118-50 (M. Howard)	136.00	45.00		91.00
* 50-119 (C. Bell)	142.00			142.00
50-123 (Larch Lane Farms Ltd)	13,418.00	4,473.00	2,900.00	6,045.00
* 50-123 (Larch Lane Farms Ltd)	58,000.00			58,000.00
50-121 (M. & S. Peternel)	1,796.00	599.00		1,197.00
* 50-123-10 (Larch Lane Farms Ltd)	55.00			55.00
50-164 (J. & R. Colpaert)	255.00			255.00
50-166 (S. & L. KirkPatrick)	63.00			63.00
* Talbot Line	\$ 414.00	\$	\$	\$ 414.00
TOTALS	\$ 75,500.00	\$ 5,117.00	\$ 3,650.00	\$ 66,733.00

CRABBE DRAIN
Municipality of West Elgin



**SPRIET
ASSOCIATES**
ENGINEERS & ARCHITECTS

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Our Job No. 219070

May 1, 2020

London, Ontario
May 1, 2020

CRABBE DRAIN

Municipality of West Elgin

To the Mayor and Council of
the Municipality of West Elgin

Mayor and Council:

We are pleased to present our report on the reconstruction of parts of the Crabbe Municipal Drain serving parts of Lot 21 & 22, Concessions 12 and 13, in the Municipality of West Elgin.

AUTHORIZATION

This report was prepared pursuant to Section 78 of the Drainage Act. Instructions were received from your Municipality with respect to a motion of Council. The work was initiated by a request signed by an affected landowner.

HISTORY

The Crabbe Drain was originally constructed pursuant to a report submitted by H.H. Todgham, P. Eng., dated July 12, 1960 and consisted of the construction of an open and closed drain, commencing at the Bonn open drain and running east, then northeast through Lots 21 and 22 in Concession 12. The work called for approximately 715 meters of open ditch cleanout and 549 meters of 150mm – 300mm diameter tile.

EXISTING DRAINAGE CONDITIONS

A site meeting held with respect to the project and through later discussions, the owners reported the following:

- that the requesting landowner, Larch Lane Farms Ltd. (Roll No. 50-123), indicated their desire to enclose a portion of the existing open drain through their lands

A field investigation and survey were completed. Upon reviewing our findings, we note the following:

- that the existing drain has not been cleaned out in a very long time and is substantially overgrown with trees along the entire course of the open drain



EXISTING DRAINAGE CONDITIONS (cont'd)

- that the lands would benefit from enclosure due to the increased workability of them
- that the existing drain should be brushed, where possible, to allow the Municipality to maintain the drain

Preliminary design, cost estimates and assessments were prepared, and informal discussions were held to review the findings and preliminary proposals. Further input and requests were provided by the affected owners at that time and at later dates. Based on the proposed design it was decided to proceed with the report.

DESIGN CONSIDERATIONS

The proposed drain was designed, with respect to capacity, using the Drainage Coefficient method contained in the "DRAINAGE GUIDE FOR ONTARIO", Publication 29 by the Ontario Ministry of Agriculture, Food, and Rural Affairs. The Drainage Coefficient defines a depth of water that can be removed in a 24-hour period and is expressed in millimetres per 24 hours. The coefficient used for the Main Drain was 38mm per 24 hrs.

We would like to point out that there have been indications of sandy soil conditions, but no formal soil investigation has been made.

All of the proposed work has been generally designed and shall be constructed in accordance with the DESIGN AND CONSTRUCTION GUIDELINES FOR WORK UNDER THE DRAINAGE ACT.

RECOMMENDATIONS

We are therefore recommending the following:

- that a portion of the existing Main Drain be backfilled through the lands of Larch Lane Farms Ltd. (Roll No. 50-123), commencing at the outlet of the existing Main Drain tile downstream for approximately 369 lineal meters
- that the existing short portion of the open drain, downstream from the current outlet, be replaced with a tile drain approximately 77 meters in length
- that the open drain downstream of the new tile outlet be cleaned out and deepened for a length of approximately 150m.
- that downstream of the tile drain a pool and riffle be constructed in accordance with the requirements of the DFO
- that the existing open ditch be brushed where work is being done to allow access to the drain as needed
- that the existing open ditch be backfilled along the course of the new drain in such a manner as to permit overland flows from the upstream lands



RECOMMENDATIONS (cont'd)

- that the existing open ditch be backfilled along the course of the new drain in such a manner as to permit overland flows from the upstream lands

We have reviewed the existing Schedule of Assessment for the Crabbe Drain and found it them to be out-of-date and unfair due to property splits, changes in land use, the watershed, and drainage conditions. We therefore recommend that a new Maintenance Schedule be included as part of this report for future maintenance purposes.

ENVIRONMENTAL CONSIDERATIONS AND MITIGATION MEASURES

There are no significant wetlands or sensitive areas within the affected watershed area or along the route of the drains. The proposed construction of the Crabbe Drain includes quarry stone outlet protection and surface inlets which greatly help reduce the overland surface flows and any subsequent erosion. A temporary flow check of silt fencing is to be installed in the ditch downstream of the tile outlet for the duration of the construction.

We have reviewed the proposed work with the Department of Fisheries and Oceans (File No. 19-HCAA-0087) and they recommend the following mitigation measure be followed in their letter of advice dated January 15, 2020; the existing open drain is to be isolated prior to any backfilling by installing sediment and erosion controls at the bottom end of the work and that work be conducted in dry conditions after July 15th of the given year, as well as the creation of a pool and riffle downstream of the enclosure.

We are also recommending that the following erosion and sediment control measures be included as part of our reconstruction proposal to help mitigate any potential adverse impacts of the proposed drainage works on water quality and fishery habitat:

- timing of construction is to be only at times of low or no flow
- a temporary flow check of silt fencing is to be installed for the duration of the construction at the bottom end of the ditch reconstruction
- a cleanout of the ditch bottom only has been specified so that the existing bank vegetation is not disturbed. However, where the existing banks are unstable, or may become unstable, they are to be resloped and seeded as noted on the plans

SUMMARY OF PROPOSED WORK

The proposed work consists of approximately 150 lineal meters of open ditch reconstruction including quarry stone rip-rap bank protection, pool and riffle, bank seeding, and approximately 446 lineal meters of 300mm (12") to 400mm (16") diameter concrete field tile including related appurtenances.

SCHEDULES

Four schedules are attached hereto and form part of this report, being Schedule 'A' - Allowances, Schedule 'B' - Cost Estimate, Schedule 'C' - Assessment for Construction, and Schedule 'D' - Assessment for Maintenance.

Schedule 'A' - Allowances. In accordance with Sections 29 and 30 of the Drainage Act, allowances are provided for right-of-way and damages to lands and crops along the route of the drain as defined below.

Schedule 'B' - Cost Estimate. This schedule provides for a detailed cost estimate of the proposed work which is in the amount of \$ 75,500.00. This estimate includes engineering and administrative costs associated with this project.

Schedule 'C' - Assessment for Construction. This schedule outlines the distribution of the total estimated cost of construction over the roads and lands which are involved.

Schedule 'D' - Assessment for Maintenance. In accordance with Section 38 of the Drainage Act, this schedule outlines the distribution of future repair and/or maintenance costs for portions of, or the entire drainage works.

Drawing No. 1, Job No. 219070, and specifications form part of this report. They show and describe in detail the location and extent of the work to be done and the lands which are affected.

ALLOWANCES

DAMAGES: Section 30 of the Drainage Act provides for the compensation to landowners along the drain for damages to lands and crops caused by the construction of the drain. The amount granted is based on \$4,647.00/ha. for open ditch work with excavated material levelled adjacent the drain, and \$3,613.00/ha for closed drain installed with a wheel machine. These base rates are multiplied by the hectares derived from the working widths shown on the plans and the applicable lengths.

RIGHT-OF-WAY Section 29 of the Drainage Act provides for an allowance to the owners whose land must be used for the construction, repair, or future maintenance of a drainage works.

For open ditches, the allowance provides for the loss of land due to the construction provided for in the report. The amounts granted are based on the value of the land, and the rate used was \$33,360.00/ha. When any buffer strip is incorporated and/or created, the allowance granted is for any land beyond a 1.8-meter width deemed to have always been part of the drain. For existing open ditches, the right-of-way to provide for the right to enter and restrictions imposed on those lands, is deemed to have already been granted.

ASSESSMENT DEFINITIONS

In accordance with the Drainage Act, lands that make use of a drainage works are liable for assessment for part of the cost of constructing and maintaining the system. These liabilities are known as benefit, outlet liability and special benefit liability as set out under Sections 22, 23, 24 and 26 of the Act.



ASSESSMENT DEFINITIONS (cont'd)

BENEFIT as defined in the Drainage Act means the advantages to any lands, roads, buildings or other structures from the construction, improvement, repair or maintenance of a drainage works such as will result in a higher market value or increased crop production or improved appearance or better control of surface or sub-surface water, or any other advantages relating to the betterment of lands, roads, buildings or other structures.

OUTLET liability is assessed to lands or roads that may make use of a drainage works as an outlet either directly or indirectly through the medium of any other drainage works or of a swale, ravine, creek or watercourse.

In addition, a Public Utility or Road Authority shall be assessed for and pay all the increased cost to a drainage works due to the construction and operation of the Public Utility or Road Authority. This may be shown as either benefit or special assessment.

ASSESSMENT

A modified "Todgham Method" was used to calculate the assessments shown on Schedule 'C'- Assessment for Construction. This entailed breaking down the costs of the drain into sections along its route. Special Assessments and Special Benefits were then extracted from each section.

The remainder is then separated into Benefit and Outlet costs. The Benefit cost is distributed to those properties receiving benefit as defined under "Assessment Definitions", with such properties usually being located along or close to the route of the drain. The Outlet Costs are distributed to all properties within the watershed area of that section on an adjusted basis. The areas are adjusted for location along that section, and relative run-off rates. Due to their different relative run-off rates, forested lands have been assessed for outlet at lower rates than cleared lands.

The actual cost of the work involving this report, with the exception of Special Assessments, is to be assessed on a pro-rata basis against the lands and roads liable for assessment for benefit and outlet as shown in detail below and on Schedule 'C' - Assessment for Construction.

The majority of the enclosing and backfilling of the drain is assessed to the benefitting landowners, with the exception of the cost of two cleanouts, which are assessed to all lands within this watershed area. A value of \$5,500.00 has been used for this cost and shall be non-proratable, and can be found in the Assessment Schedule 'C'- Main Drain (Closed Portion)

SPECIAL ASSESSMENT

If any additional work is required to the drainage works due to the existence of buried utilities such as gas pipe lines, communications cables, etc. or if any of the utilities require relocation or repair, then, the extra costs incurred shall be borne by the utility involved in accordance with the provisions of Section 26 of the Drainage Act.

GRANTS

In accordance with the provisions of Section 85 of the Drainage Act, a grant **may** be available for assessments against privately owned parcels of land which are used for agricultural purposes and eligible for the Farm Property Class Tax rate. Further to this, regarding the closed portion of this project, the proposed theoretical cleanout costs of the project may be eligible for the normal 1/3 grants for the outlet lands. These lands have been assessed for their portion of the theoretical cost of clean-outs of the open ditch. The remaining portion of the drain will be in-eligible for the 1/3 grant. Section 88 of the Drainage Act directs the Municipality to make application for this grant upon certification of completion of this drain. The Municipality will then deduct the grant from the assessments prior to collecting the final assessments.

MAINTENANCE

Upon completion of construction, all owners are hereby made aware of Sections 80 and 82 of the Drainage Act which forbid the obstruction of or damage or injury to a municipal drain.

After completion, the entire Crabbe Drain, including the existing portions, shall be maintained by the Municipality of West Elgin at the expense of all upstream lands and roads assessed in Schedule 'D' - Assessment for Maintenance and in the same relative proportions until such time as the assessment is changed under the Drainage Act.

The above existing portions of the drain shall be maintained in accordance with the grades and dimensions set out in the plans and specifications contained in the reports submitted by H.H. Todgham, P.Eng., dated July 12, 1960.

Respectfully submitted,

SPRIET ASSOCIATES LONDON LIMITED

JMS:bv



J.M. Spriet, P.Eng.



SPRIET ASSOCIATES
Engineers & architects

SCHEDULE 'A' - ALLOWANCES

CRABBE DRAIN

Municipality of West Elgin

In accordance with Sections 29 and 30 of the Drainage Act, we determine the allowances payable to owners entitled thereto as follows:

CONCESSION	LOT	ROLL NUMBER (Owner)	Section 29 Right-of-Way	Section 30 Damages	TOTALS
MAIN DRAIN (OPEN PORTION)					
12	Pt. 21	50-117-03 (L. Connolly)	\$ 70.00	\$ 130.00	\$ 200.00
12	Pt. 21	50-117-04 (F. Connolly)	200.00	350.00	550.00
12	Pt. 21 & 22	50-123 (Larch Lane Farms Ltd)	330.00	570.00	900.00
Total Allowances			\$ 600.00	\$ 1,050.00	\$ 1,650.00
TOTAL ALLOWANCES ON THE MAIN DRAIN (OPEN PORTION)					<u>\$ 1,650.00</u>
MAIN DRAIN (CLOSED PORTION)					
12	Pt. 21 & 22	50-123 (Larch Lane Farms Ltd)	\$	\$ 2,000.00	\$ 2,000.00
Total Allowances			\$	\$ 2,000.00	\$ 2,000.00
TOTAL ALLOWANCES ON THE MAIN DRAIN (CLOSED PORTION)					<u>\$ 2,000.00</u>
TOTAL ALLOWANCES ON THE CRABBE DRAIN					<u>\$ 3,650.00</u>

CRABBE DRAIN**Municipality of West Elgin**

We have made an estimate of the cost of the proposed work which is outlined in detail as follows:

MAIN DRAIN (OPEN PORTION)

Clearing & grubbing of ditch bank (Approx. 150m)	\$ 3,000.00
150 meters of open ditch cleanout	\$ 1,500.00
Construt pool and riffle as per drawings including rip-rap and filter blanket	\$ 2,000.00
Levelling of excavated material	\$ 800.00
Seeding of ditch banks and buffer strips (Approx 500m ²)	\$ 200.00
Contingencies	\$ 500.00
Allowances under Sections 29 and 30 of the Drainage Act	\$ 1,650.00

MAIN DRAIN (CLOSED PORTION)

6 meters of 450mm dia., H.D.P.E. plastic sewer pipe including rodent gate, quarry stone rip-rap protection around pipe and end of ditch (Approximately 6m ³ quarry stone req'd)	
Supply	\$ 600.00
Installation	\$ 1,300.00
Installation of the following concrete field tile installed on crushed stone bedding including supply & installation of geotextile around tile joints (approx. 2200m req'd)	
77 meters of 300mm dia. concrete tile (stub)	\$ 3,000.00
169 meters of 350mm dia. concrete tile	\$ 7,200.00
194 meters of 400mm dia. concrete tile	\$ 8,800.00
Supply of the above listed tile	\$ 9,200.00
Supply & delivery of 19mm crushed stone (Approx. 180 tonnes req'd)	\$ 5,400.00
Backfilling of existing open ditches and grading for overland flow route	\$ 9,000.00
Exposing and locating existing tile drains and utilities	\$ 1,500.00
Tile connection and pre-fabricated fittings	\$ 1,000.00
Tile connections and contingencies	\$ 1,500.00
Allowances under Section 30 of the Drainage Act	\$ 2,000.00

CRABBE DRAIN
Municipality of West Elgin**ADMINISTRATION**

Interest and Net Harmonized Sales Tax	\$ 1,780.00
Survey, Plan and Final Report	\$ 9,900.00
Expenses	\$ 950.00
Supervision and Final Inspection	\$ <u>2,720.00</u>
TOTAL ESTIMATED COST	\$ <u><u>75,500.00</u></u>

SCHEDULE 'C' - ASSESSMENT FOR CONSTRUCTION

CRABBE DRAIN

Municipality of West Elgin

Job No. 219070

May 1, 2020

* = Non-agricultural

CON.	LOT	HECTARES AFFECTED	ROLL No. (OWNER)	BENEFIT	OUTLET	TOTAL
MAIN DRAIN (OPEN PORTION)						
12	W Pt. 21	4.0	50-117-01 (BonneField Farmland Ont	\$	\$	\$
* 12	Pt. 21	1.0	50-117-02 (M. Vandenburg)			
* 12	Pt. 21	0.3	50-117-03 (L. Connolly)	320.00	2.00	322.00
* 12	Pt. 21	0.3	50-117-04 (F. Connolly)	890.00	9.00	899.00
12	NW Pt. 21	0.8	50-118-50 (M. Howard)		38.00	38.00
* 12	Pt. 21	1.5	50-119 (C. Bell)		142.00	142.00
12	Pt. 21 & 22	43.3	50-123 (Larch Lane Farms Ltd)	5,860.00	3,451.00	9,311.00
12	NW Pt. 22	6.1	50-121 (M. & S. Peterne)		501.00	501.00
* 12	Pt. 22	0.6	50-123-10 (Larch Lane Farms Ltd)		55.00	55.00
13	21	8.1	50-164 (J. & R. Colpaert)		255.00	255.00
13	21	2.0	50-166 (S. & L. KirkPatrick)		63.00	63.00
TOTAL ASSESSMENT ON LANDS				\$ 7,070.00	\$ 4,516.00	\$ 11,586.00
Talbot Line 2.5 County of Elgin				\$	\$ 414.00	\$ 414.00
TOTAL ASSESSMENT ON ROADS				\$	\$ 414.00	\$ 414.00
TOTAL ASSESSMENT ON THE MAIN DRAIN (OPEN PORTION)						<u>\$ 12,000.00</u>
MAIN DRAIN (CLOSED PORTION)						
12	NW Pt. 21	0.8	50-118-50 (M. Howard)		98.00	98.00
12	Pt. 21 & 22	31.0	50-123 (Larch Lane Farms Ltd)		4,107.00	4,107.00
*			50-123 (Larch Lane Farms Ltd)	58,000.00		58,000.00
12	NW Pt. 22	6.1	50-121 (M. & S. Peterne)		1,295.00	1,295.00
TOTAL ASSESSMENT ON LANDS				\$ 58,000.00	\$ 5,500.00	\$ 63,500.00
TOTAL ASSESSMENT ON THE MAIN DRAIN (CLOSED PORTION)						<u>\$ 63,500.00</u>
TOTAL ASSESSMENT ON THE CRABBE DRAIN						<u>\$ 75,500.00</u>

SCHEDULE 'D' - ASSESSMENT FOR MAINTENANCE

CRABBE DRAIN

Municipality of West Elgin

Job No. 219070

May 1, 2020

CON.	LOT	HECTARES AFFECTED	ROLL No. (OWNER)	PERCENTAGE OF MAINTENANCE COST
MAIN DRAIN (OPEN PORTION)				
12	W Pt. 21	4.0	50-117-01 (BonneField Farmland Ont)	4.5 %
12	Pt. 21	1.0	50-117-02 (M. Vandenburg)	22.6
12	Pt. 21	0.3	50-117-03 (L. Connolly)	7.2
12	Pt. 21	0.3	50-117-04 (F. Connolly)	6.2
12	NW Pt. 21	0.8	50-118-50 (M. Howard)	0.4
12	Pt. 21	1.5	50-119 (C. Bell)	1.4
12	Pt. 21 & 22	43.3	50-123 (Larch Lane Farms Ltd)	45.0
12	NW Pt. 22	6.1	50-121 (M. & S. Peterne)	4.9
12	Pt. 22	0.6	50-123-10 (Larch Lane Farms Ltd)	0.6
13	21	8.1	50-164 (J. & R. Colpaert)	2.5
13	21	2.0	50-166 (S. & L. KirkPatrick)	0.6
				=====
TOTAL ASSESSMENT ON LANDS				95.9 %
				=====
Talbot Line		2.5	County of Elgin	4.1 %
				=====
TOTAL ASSESSMENT ON ROADS				4.1 %
				=====
TOTAL ASSESSMENT FOR MAINTENANCE OF THE MAIN DRAIN (OPEN PORTION)				<u>100.0 %</u>
MAIN DRAIN (CLOSED PORTION)				
12	NW Pt. 21	0.8	50-118-50 (M. Howard)	1.0 %
12	Pt. 21 & 22	31.0	50-123 (Larch Lane Farms Ltd)	87.0
12	NW Pt. 22	6.1	50-121 (M. & S. Peterne)	12.0
				=====
TOTAL ASSESSMENT ON LANDS				100.0 %
				=====
TOTAL ASSESSMENT FOR MAINTENANCE OF THE MAIN DRAIN (CLOSED PORTION)				<u>100.0 %</u>

SCHEDULE OF NET ASSESSMENT

CRABBE DRAIN

Municipality of West Elgin

(FOR INFORMATION PURPOSES ONLY)

Job No. 219070

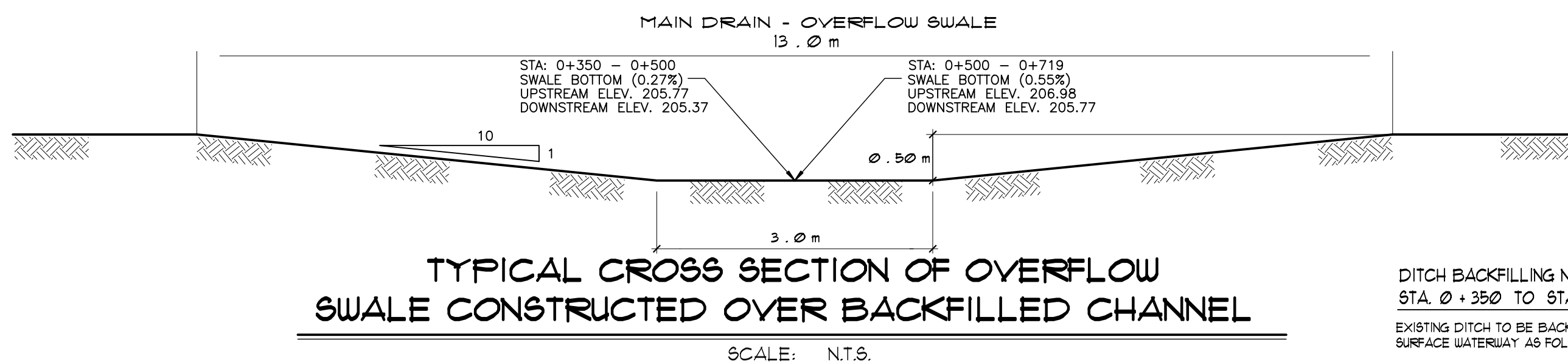
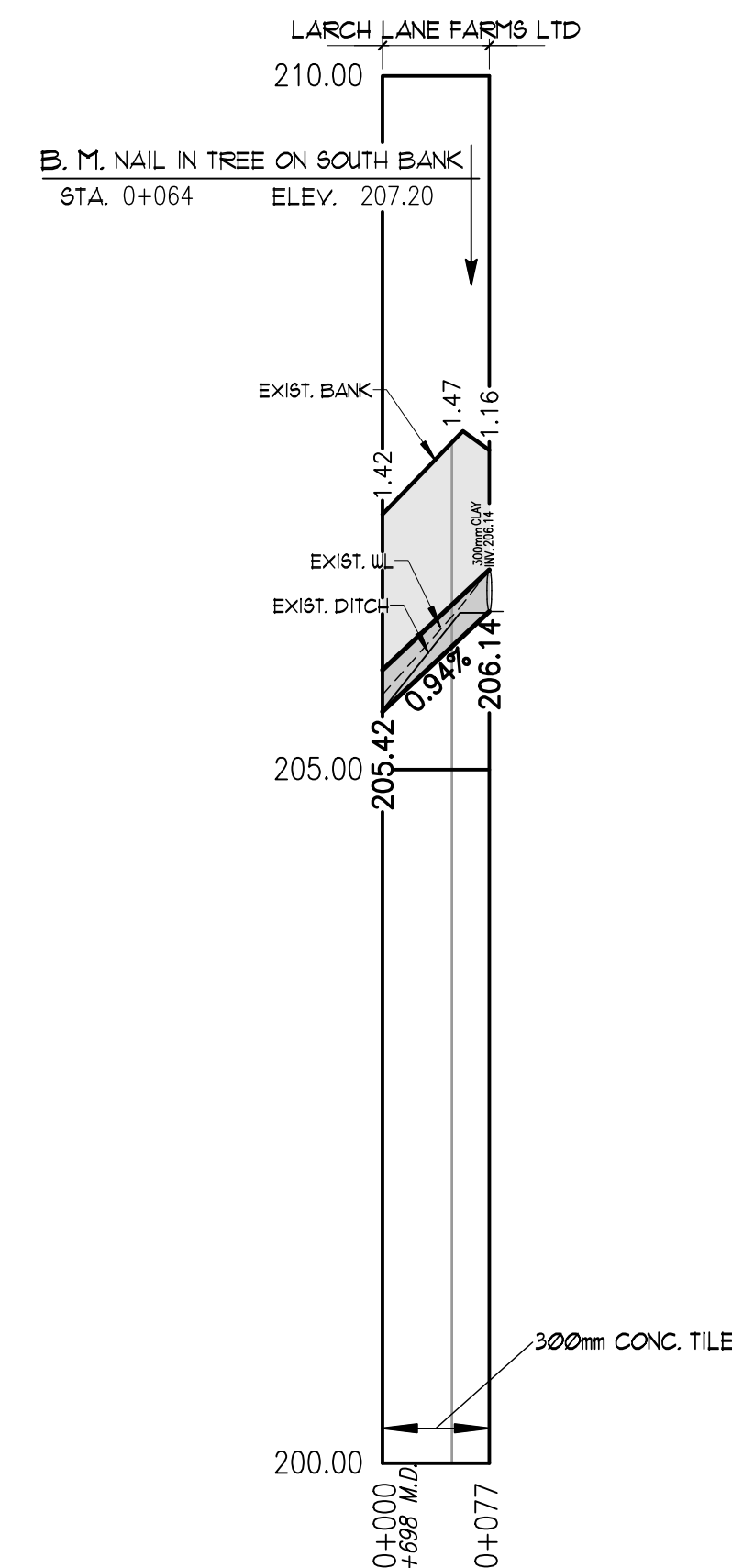
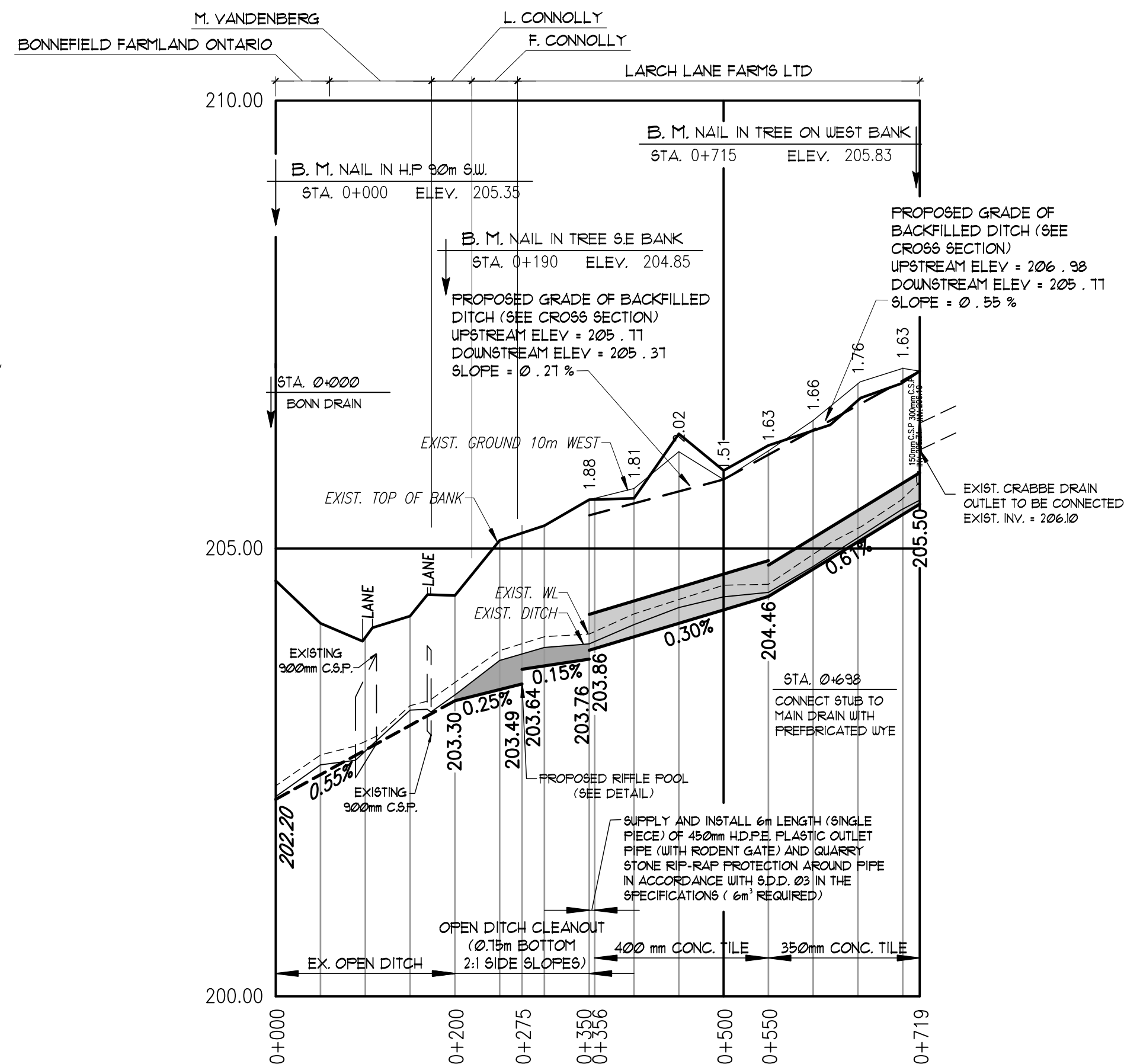
May 1, 2020

* = Non-agricultural

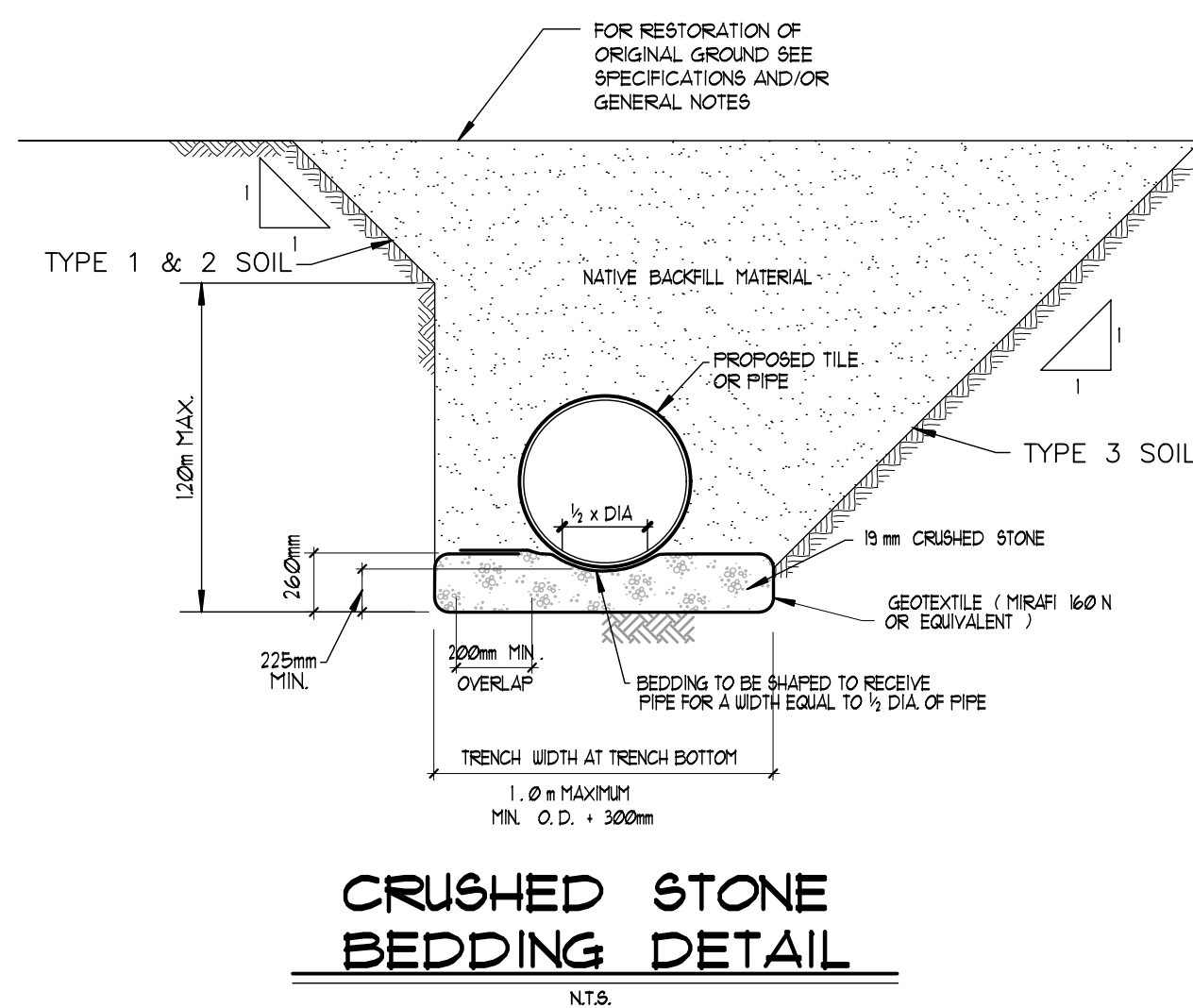
ROLL NUMBER (OWNER)	TOTAL ASSESSMENT	GRANT	ALLOWANCES	APPROX. NET
50-117-01 (BonneField Farmland Ont)	\$	\$	\$	\$
* 50-117-02 (M. Vandenburg)				
* 50-117-03 (L. Connolly)	322.00		200.00	122.00
* 50-117-04 (F. Connolly)	899.00		550.00	349.00
50-118-50 (M. Howard)	136.00	45.00		91.00
* 50-119 (C. Bell)	142.00			142.00
50-123 (Larch Lane Farms Ltd)	13,418.00	4,473.00	2,900.00	6,045.00
* 50-123 (Larch Lane Farms Ltd)	58,000.00			58,000.00
50-121 (M. & S. Peternel)	1,796.00	599.00		1,197.00
* 50-123-10 (Larch Lane Farms Ltd)	55.00			55.00
50-164 (J. & R. Colpaert)	255.00			255.00
50-166 (S. & L. KirkPatrick)	63.00			63.00
* Talbot Line	\$ 414.00	\$	\$	\$ 414.00
TOTALS	\$ 75,500.00	\$ 5,117.00	\$ 3,650.00	\$ 66,733.00

GENERAL NOTES

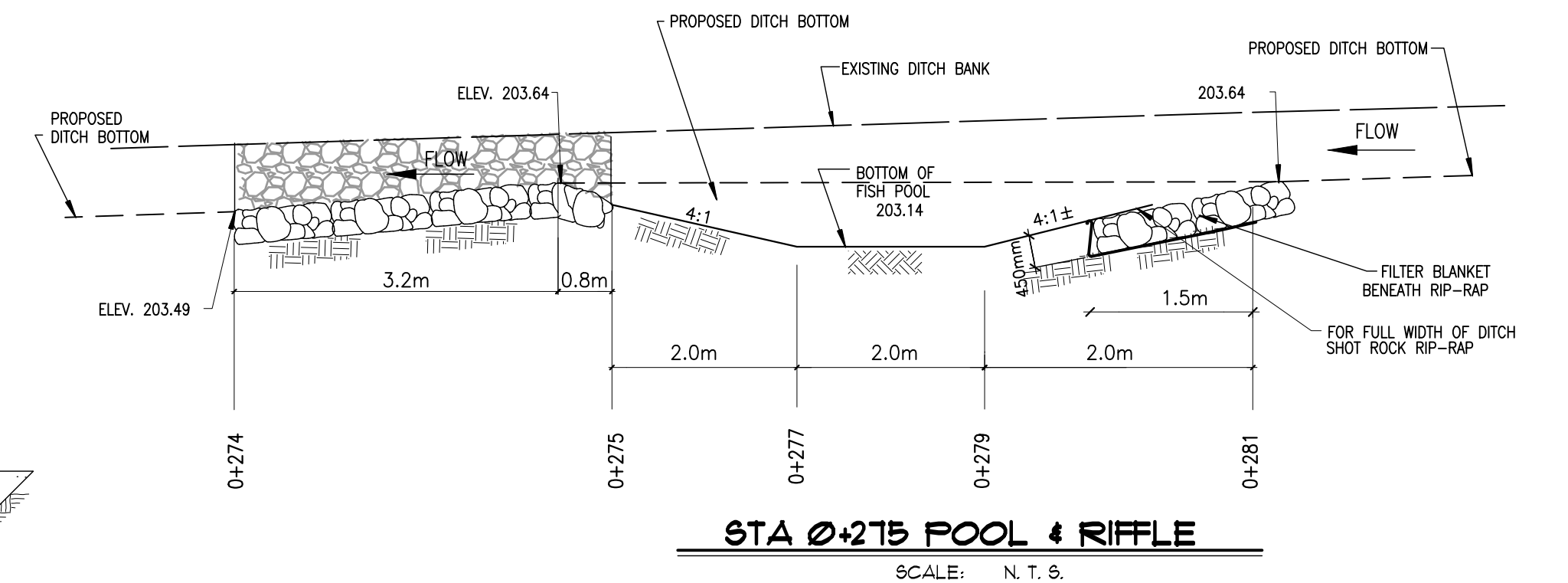
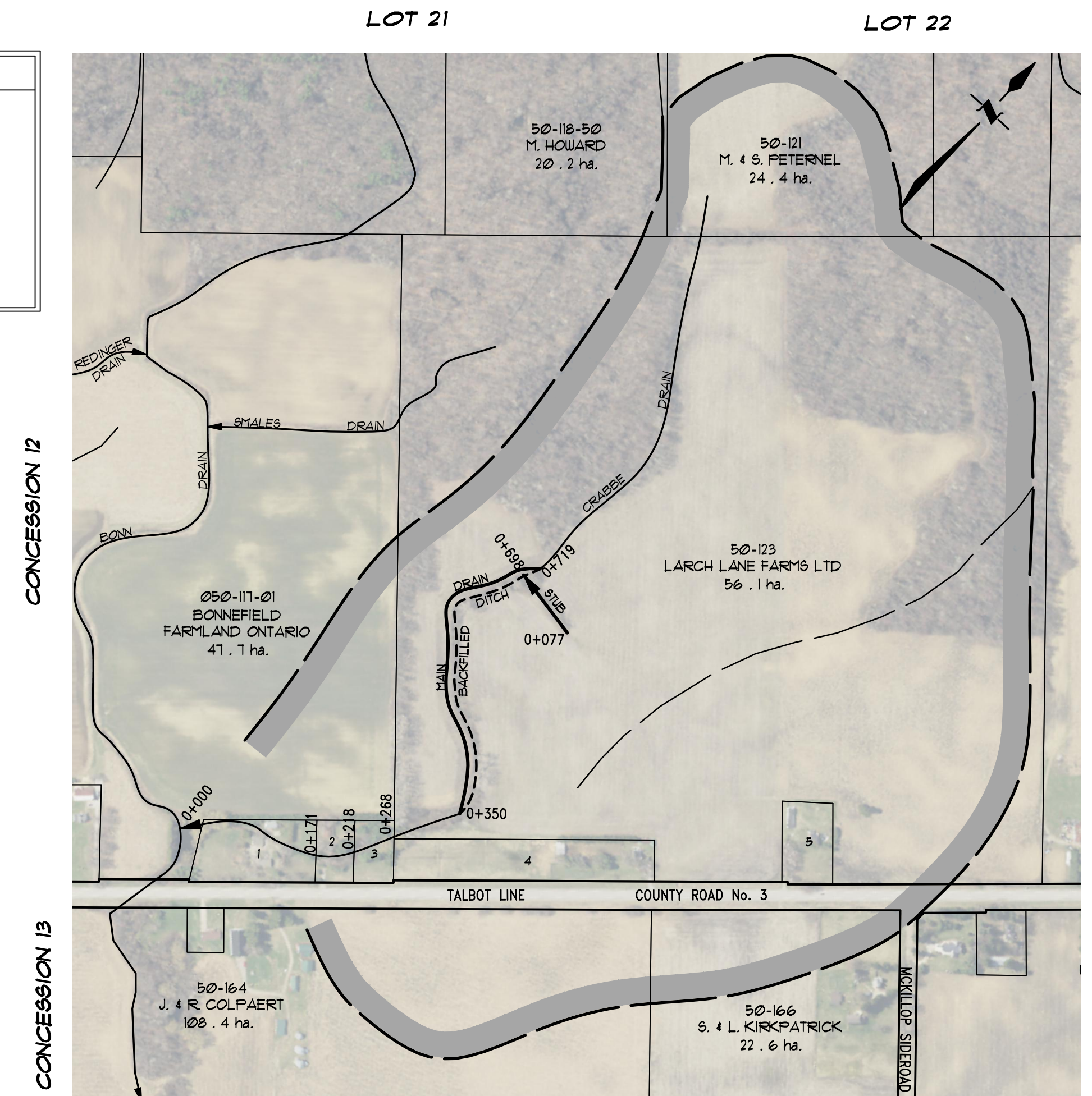
- 1/ OUR SPECIFICATIONS DATED JANUARY 2020 APPLY TO THIS PROJECT.
- 2/ THE WORKING WIDTH AVAILABLE TO THE CONTRACTOR TO CONSTRUCT THE NEW DRAINS SHALL CONSIST OF THOSE LANDS IMMEDIATELY ADJACENT TO THE DRAIN AND CONNECTIONS AND SHALL NOT EXCEED THE FOLLOWING AVERAGE WIDTHS:
OPEN PORTIONS - 15 meters (INCLUDING 3m BUFFER)
CLOSED PORTIONS - 15 meters
THE WORKING WIDTH FOR PURPOSES OF FUTURE MAINTENANCE SHALL BE 10m.
- 3/ ALL OWNERS ALONG THE COURSE OF THE DRAIN SHALL MAKE AN ACCESS ROUTE FROM THE NEAREST ROAD TO THE DRAIN LOCATION AVAILABLE TO THE CONTRACTOR THE AVERAGE WIDTH OF THIS ROUTE SHALL NOT EXCEED 8 METERS. THE ACCESS ROUTE SHALL ALSO APPLY FOR FUTURE MAINTENANCE PURPOSES.
- 4/ a) ALL UTILITIES TO BE LOCATED AND EXPOSED PRIOR TO CONSTRUCTION SO THAT THE NEW TILE GRADES CAN BE CONFIRMED. IF THERE IS A CONFLICT IN ELEVATION BETWEEN THE PROPOSED DRAIN AND THE UTILITY, THE ENGINEER IS TO BE NOTIFIED IMMEDIATELY.
b) CONTRACTOR TO NOTIFY ALL UTILITIES 12 HOURS PRIOR TO HIS SCHEDULED TIME FOR STARTING THE ABOVE WORK.
c) THE COST FOR THIS WORK SHALL BE INCLUDED IN THE ITEM ON THE EXTENT OF WORK AND NO EXTRA PAYMENT SHALL BE MADE TO THE CONTRACTOR, EXCEPT IF ROAD RESTORATION IS REQUIRED.
- 5/ ALL TREES, SCRUB, BRUSH, ETC. TO BE CLEARED AND GRUBBED IN ACCORDANCE WITH 'SECTION B.3 AND C.4' SPECIFICATIONS.
- 6/ RIP-RAP TO BE SUPPLIED AND INSTALLED IN ACCORDANCE WITH 'SECTION A.12' IN THE SPECIFICATIONS.
- 7/ CONTRACTOR TO ARRANGE A PRE-CONSTRUCTION MEETING WITH THE ENGINEER, DRAINAGE SUPERINTENDENT, AND THE AFFECTED OWNERS. ALL PARTIES SHALL RECEIVE 48 HOURS NOTICE TO THE MEETING.
- 8/ ALL CONCRETE AND PLASTIC TILE AND PIPE TO CONFORM TO 'SECTION C.1' IN THE SPECIFICATIONS.
a) SEWER PIPE TO BE CONCRETE, H.D.P.E. PLASTIC 320 KPA (BELL & SPIGOT WITH RUBBER GASKETS, CONFORMING TO C.S.A. 1026-08), PVC ULTRA RIB OR PVC SDR 35
b) CONCRETE TILE SHALL BE HEAVY DUTY
- 9/ EXISTING TILE DRAINS TO BE EXPOSED IN AS MANY LOCATIONS AS ARE NECESSARY TO CONFIRM THEIR EXACT LOCATION AND ELEVATION PRIOR TO CONSTRUCTION. EXACT LOCATION OF NEW TILE DRAINS THEN TO BE CONFIRMED BY DRAINAGE SUPERINTENDENT OR ENGINEER.
- 10/ a) INSTALLATION OF TILE AND TRENCH WIDTHS SHALL BE IN ACCORDANCE WITH 'SECTION C - TILE DRAIN' IN THE SPECIFICATIONS.
b) ALL CONCRETE TILE AND TILE-PIPE JOINTS TO BE WRAPPED WITH GEOTEXTILE IN ACCORDANCE WITH 'SECTION C.8' IN THE SPECIFICATIONS.
c) NO CONSTRUCTION EQUIPMENT OR FARM MACHINERY SHALL CROSS OVER THE MOUNDED BACKFILLED TILE TRENCHES UNTIL SUFFICIENT SETTLEMENT HAS OCCURRED.
d) STRIP AND STOCKPILE TOPSOIL FROM CONSTRUCTION AREA (4 metre width) EXCEPT LANEWAYS & ROADS. EXCESS SPOIL TO BE LEVELLED AND TOPSOIL RELEVELLED OVER SPOIL, MOUNDED TRENCH AND REMAINING CONSTRUCTION AREA.
- 11/ a) THE CONTRACTOR SHALL ENSURE THAT ALL TRIBUTARY DRAINS ARE CONNECTED DURING TIME OF CONSTRUCTION. ANY MISSED TILE CONNECTIONS THAT ARE FOUND DURING THE WARRANTY PERIOD OF THE CONTRACT SHALL BE COMPLETED BY THE CONTRACTOR AND SHALL BE PAID THE AMOUNT SET OUT ON PAGE 2 OF THE 'FORM OF TENDER'. NO ADDITIONAL PAYMENT FOR MOBILIZATION WILL BE ALLOWED. THE CONTRACTOR IS NOT RESPONSIBLE FOR COMPLETING MISSED TILE CONNECTIONS THAT ARE FOUND AFTER THE WARRANTY PERIOD FOR THE CONTRACT HAS EXPIRED.
b) ALL TILE CONNECTIONS TO BE MADE WITH CORING MACHINE AND PLASTIC ADAPTOR OR PREFABRICATED FITTINGS.
c) THE CONTRACTOR SHALL SUPPLY THE ENGINEER WITH A LIST SHOWING STATIONS OF ALL TILE CONNECTIONS UPON COMPLETION OF CONSTRUCTION.
- 12/ SILT FENCE TO BE PLACED ACROSS DITCH BOTTOM AT STA. 0+200 DURING CONSTRUCTION TO PREVENT SILT FROM FLUSHING DOWNSIDE, AND ARE TO BE MAINTAINED AS NECESSARY DURING CONSTRUCTION. SILT FENCE AND SILT TO BE REMOVED AND DISPOSED OF AFTER CONSTRUCTION.
- 13/ EXISTING DITCH BOTTOM ONLY TO BE CLEANED OUT IN ACCORDANCE WITH SPECIFICATIONS UNLESS OTHERWISE NOTED ON PROFILES AND IN SECTIONS.
- 14/ WORK TO BE COMPLETED FROM AND EXCAVATED MATERIAL TO BE DEPOSITED AND LEVELLED ON THE FOLLOWING SIDES OF THE DITCH IN ACCORDANCE WITH 'SECTION B.5' IN THE SPECIFICATIONS.
STA. 0+200 TO STA. 0+350 - NORTH SIDE AND LEVELLED
- 15/ A 3 METER WIDE BUFFER STRIP OF NEW & EXISTING VEGETATION BETWEEN THE TOP OF THE BANK AND THE CULTIVATED LANDS ON BOTH SIDES OF THE DITCH SHALL BE MAINTAINED AS PART OF THE OPEN PORTION OF THE DRAIN.
- 16/ NEWLY EXPOSED DITCH BANKS ARE TO BE HAND SEEDING UPON COMPLETION OF CONSTRUCTION IN ACCORDANCE WITH 'SECTION B.11' IN THE SPECIFICATIONS



- DITCH BACKFILLING NOTES**
STA. 0+350 TO STA. 0+719
- EXISTING DITCH TO BE BACKFILLED AND GRADED TO PROVIDE A SURFACE WATERWAY AS FOLLOWS:
- 1/ TOPSOIL FROM CONSTRUCTION AREA SHOULD BE STRIPPED AND REDISTRIBUTED AFTER CONSTRUCTION.
 - 11/ DITCH TO BE BACKFILLED USING EXISTING MATERIAL BLADED IN AND EXCESS TILE TRENCH MATERIAL.
 - 111/ SURFACE WATERWAY TO BE LOCATED AND SHAPED IN ACCORDANCE WITH SECTION ON THIS DRAWING
 - 1111/ NEW TILE DRAIN TO BE LOCATED OUTSIDE LIMITS OF WATERWAY AS SHOWN ON PLAN. NO MACHINERY SHALL CROSS OVER THE MOUNDED BACKFILLED TILE TRENCHES UNTIL SUFFICIENT SETTLEMENT HAS OCCURRED.



LOT LEGEND		
ROLL NO.	OWNERSHIP	HECTARES OWNED
1) 50-117-02	M. VANDENBERG	1.03
2) 50-117-03	L. CONNOLLY	0.33
3) 50-117-04	F. CONNOLLY	0.34
4) 50-119	C. BELL	1.50
5) 50-123-10	LARCH LANE FARMS LTD	0.58



CRABBE DRAIN

Municipality of West Elgin

Drainage Superintendent: TOM MOHAN 519-785-0560		No.	REVISIONS	DATE
<div style="display: flex; align-items: center;"> <div style="margin-left: 10px;"> <p>Drawn By: TS</p> <p>Date: MAY, 1, 2020</p> </div> </div>		Field Book D-265	JOB No. 219070	Drawing No. 1 of 1
PLAN, PROFILE, & DETAIL SPRIET ASSOCIATES LONDON CONSULTING ENGINEERS <small>155 YORK STREET - LONDON (519) 672-4100 - NEA 1A8</small>				



MUNICIPALITY OF **West Elgin**

The Corporation Of the Municipality Of West Elgin

By-Law No. 2020-60

Being A By-Law to provide for the Yauch Drain in the Municipality of West Elgin.

Whereas the Council of the Municipality of West Elgin has procured a report under Section 78 of the *Drainage Act, R.S.O. 1990*, as amended, for the improvement of the Yauch Drain; and

Whereas the reported dated February 14, 2020 has been authored by J.M Spriet of Spriet Associates Engineers and Architects and the attached report forms part of this By-Law; and

Whereas the estimated total cost of the drainage work is \$316,500.00; and

Whereas \$316,500.00 is the estimated amount to be contributed by the Municipality of West Elgin for the drainage works; and

Whereas the Council of The Corporation of the Municipality of West Elgin is of the opinion that the drainage of the area is desirable;

Now Therefore be it resolved that the Council of The Corporation of the Municipality of West Elgin pursuant to the *Drainage Act, R.S.O. 1990*, as amended, enacts as follows:

1. That the report dated February 14, 2020 and attached hereto is hereby adopted and the drainage works as therein indicated and set forth is hereby authorized and shall be completed in accordance therewith.
2. That The Corporation of the Municipality of West Elgin may borrow on the credit of the Corporation the amount of \$316,500.00, being the amount necessary for the improvement of the drainage works. This project may be debentured.
3. The Corporation may issue debenture(s) for the amount borrowed less the total amount of:
 - a) grants received under Section 85 of the *Drainage Act*;
 - b) monies paid as allowances;
 - c) commuted payments made in respect of lands and roads assessed with the municipality;

- d) money paid under subsection 61(3) of the *Drainage Act*; and
e) money assessed in and payable by another municipality.
4. Such debenture(s) shall be made payable within up to 10 years from the date of the debenture(s) and shall bear interest at a rate not higher than 2% more than the municipal lending rates as posted by Infrastructure Ontario on the date of the sale of such debenture(s).
 5. A special equal annual rate sufficient to redeem the principal and interest on the debenture(s) and shall be levied upon the lands and roads as shown in the schedule and shall be collected in the same manner and at the same as other taxes are collected in each year for up to 10 years after the passing of this By-Law.
 6. For paying the amount of \$36,081.00 being the amount assessed upon the lands and roads belonging to or controlled by the municipality a special rate sufficient to pay the amount assessed plus interest thereon shall be levied upon the whole rateable property in the Municipality of West Elgin to be collected in the same manner and at the time as other taxes collected.
 7. All assessments of \$1,000.00 or less are payable in the first year in which assessments are imposed.
 8. That this By-Law comes into force and effect upon the final reading thereof.

Read a first and second time and provisionally adopted this 27th day of August, 2020

Duncan McPhail
Mayor

Jana Nethercott
Clerk

Read for a third and final time this 8th day of October, 2020

Duncan McPhail
Mayor

Jana Nethercott
Clerk

YAUCH DRAIN
Municipality of West Elgin



**SPRIET
ASSOCIATES**
ENGINEERS & ARCHITECTS
155 York Street
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London, Ontario
February 14, 2020

YAUCH DRAIN

Municipality of West Elgin

To the Mayor and Council of
the Municipality of West Elgin

Mayor and Council:

We are pleased to present our report on the reconstruction and extension of parts of the Yauch Municipal Drain serving parts of Lots 9 to 11, Concessions 9 to 11, in the Municipality of West Elgin.

AUTHORIZATION

This report was prepared pursuant to Section 4 and 78 of the Drainage Act. Instructions were received from your Municipality with respect to a motion of Council. The Section 78 work was initiated by a request signed by an affected landowner.

The Section 4 work was petitioned by two affected landowners whose lands contain over 60 percent of the area requiring drainage.

DRAINAGE AREA

The total watershed area as described above contains approximately 121 hectares. The area requiring drainage for the new branch drain is described as the lands located within Lots 9 and 10, Concession 10, located west of the Main Drain and bounded by Marsh Line to the north. These lands contain agricultural land and a residential property.

HISTORY

The Yauch Drain was last reconstructed pursuant to a report submitted by H.H. Todgham, P. Eng. dated October 17, 1979, and consisted of the twinning of the existing Yauch Drain from its outlet at the open drain to its head located on the north side of Marsh Line, at the easterly limits of Lot 10. The work involved tile installation ranging in size from 250mm diameter to 450mm diameter at the outlet and a total length of 1,854 meters. The twinned drain (1962 and 1979) had a capacity to accommodate a rainfall event of approximately 12mm in a 24-hour period.



EXISTING DRAINAGE CONDITIONS

A site meeting held with respect to the project and through later discussions, the owners reported the following:

- that the requesting landowners, E. Krumm & H. Taylor (Roll No. 30-159), inquired about the replacement of the Main Drain as it is no longer functioning effectively. They indicated that their lands were subject to frequent and prolonged ponding
- that the upstream landowner, 1058492 Ontario Inc. (Roll No. 30-121 & 30-160), indicated that the drain was functioning adequately for their needs
- that landowners D. Ciparis (Roll No. 30-155), and D. & B. Bechard & A. & P. Turner (Roll No. 30-156) inquired as to a branch drain to provide an outlet for their lands to alleviate water problems

A field investigation and survey were completed. Upon reviewing our findings, we note the following:

- that the Drainage Superintendent dug up the existing tile drain in several locations and observed that the drain was full of sediment
- that the existing drain is undersized by current drainage standards
- that the most logical route to replace the existing drain would be in approximately the same location as the existing drains
- given the location of the existing well to the drain in the lands of R. & L. Jones (Roll No. 30-158) it was decided to seek the opinion of a Hydrogeologist, JFM Environmental Limited to investigate the effects of deepening the existing drain near the location of the well. Their analysis indicated the possibility of decreased water production in the well due to the lowering of the invert of the Yauch Drain seems minimal as the existing drains are currently lower than the well water level now

Preliminary design, cost estimates and assessments were prepared, and an informal public meeting was held to review the findings and preliminary proposals. Further input and requests were provided by the affected owners at that time and at later dates. Based on the proposed design it was decided to proceed with the report.

DESIGN CONSIDERATIONS

The proposed drain was designed, with respect to capacity, using the Drainage Coefficient method contained in the "DRAINAGE GUIDE FOR ONTARIO", Publication 29 by the Ontario Ministry of Agriculture, Food, and Rural Affairs. The Drainage Coefficient defines a depth of water that can be removed in a 24-hour period and is expressed in millimetres per 24 hours. The coefficient used for the Main Drain and Branch "A" was 38mm.



DESIGN CONSIDERATIONS (cont'd)

We would like to point out that there have been indications of sandy soil conditions, but no formal soil investigation has been made.

All of the proposed work has been generally designed and shall be constructed in accordance with the DESIGN AND CONSTRUCTION GUIDELINES FOR WORK UNDER THE DRAINAGE ACT.

RECOMMENDATIONS

We are therefore recommending the following:

- that the existing Yauch Drain – Main Drain be reconstructed commencing at the open drain on the south side of Thomson Line, running north and north-easterly through the lands of C. & I. Kovacs (Roll No. 30-158-01), R. & L. Jones (Roll No. 30-158), C. & I. Kovacs (Roll No. 30-161), and E. Krumm & H. Taylor (Roll No. 30-159), to its head at the lot line between E. Krumm & H. Taylor and 1058492 Ontario Inc., for a total length of 1505 meters
- that a closed branch drain, to be referred to as Branch 'A', be constructed commencing at the Main Drain in the lands of E. Krumm & H. Taylor (Roll No. 30-159) and travel west through these land and those of D. Ciparis (Roll No. 30-155) to its head just within the lands of D. & B. Bechard & A. & P. Turner (Roll No. 30-156) for a total length of 455 meters
- that catchbasins be installed along the course of the drain to alleviate surface ponding and surface flows
- that the road crossing under Thomson Line be done by open cut and that the exiting surface culvert be replaced
- that all lawn areas disturbed by construction be levelled, top soiled with imported topsoil, and seeded, as part of the restoration
- that clay collars be installed on the lower end of the drain to prevent the stone bedding from acting as a French drain
- that contingency be made to provide any wells adversely affected by the drain construction with supplement water / replacement. It should be noted that the firm of JFM Environmental has been engaged to monitor the wells in the area of the drain before, during, and after construction. It should be noted that a prolonged period of drought could also adversely affect the well
- that the existing 1962 and 1979 Yauch Drains, from the outlet at Sta. 0+000 to Sta. 1+505 be officially abandoned from municipal status pursuant to Section 19 of the Drainage Act

Due to the indications of poor soil conditions our design includes the wrapping of tile joints with geotextile and a crushed stone bedding wrapped with geotextile.



ENVIRONMENTAL CONSIDERATIONS AND MITIGATION MEASURES

There are no significant wetlands or sensitive areas within the affected watershed area or along the route of the drains. The proposed construction of the Yauch Drain includes quarry stone outlet protection and surface inlets which greatly help reduce the overland surface flows and any subsequent erosion. A temporary flow check of silt fencing is to be installed in the ditch downstream of the tile outlet for the duration of the construction.

SUMMARY OF PROPOSED WORK

The proposed work consists of approximately 1,978 lineal meters of 200mm (8") to 750mm (30") concrete field tile and HDPE sewer pipe including related appurtenances.

SCHEDULES

Four schedules are attached hereto and form part of this report, being Schedule 'A' - Allowances, Schedule 'B' - Cost Estimate, Schedule 'C' - Assessment for Construction, and Schedule 'D' - Assessment for Maintenance.

Schedule 'A' - Allowances. In accordance with Sections 29 and 30 of the Drainage Act, allowances are provided for right-of-way and damages to lands and crops along the route of the drain as defined below.

Schedule 'B' - Cost Estimate. This schedule provides for a detailed cost estimate of the proposed work which is in the amount of \$ 316,500.00. This estimate includes engineering and administrative costs associated with this project.

Schedule 'C' - Assessment for Construction. This schedule outlines the distribution of the total estimated cost of construction over the roads and lands which are involved.

Schedule 'D' - Assessment for Maintenance. In accordance with Section 38 of the Drainage Act, this schedule outlines the distribution of future repair and/or maintenance costs for portions of, or the entire drainage works.

Drawing No. 1, Job No. 218131, and specifications form part of this report. They show and describe in detail the location and extent of the work to be done and the lands which are affected.

ALLOWANCES

DAMAGES: Section 30 of the Drainage Act provides for the compensation to landowners along the drain for damages to lands and crops caused by the construction of the drain. The amount granted is based on \$3,613.00/ha. for closed drain. This base rate is multiplied by the hectares derived from the working widths shown on the plans and the applicable lengths.

ALLOWANCES (cont'd)

RIGHT-OF-WAY Section 29 of the Drainage Act provides for an allowance to the owners whose land must be used for the construction, repair, or future maintenance of a drainage works.

For tile drains where the owners will be able to continue to use the land, the allowance provides for the right to enter upon such lands, and at various times for the purpose of inspecting such drain, removing obstructions, and making repairs. Also, the allowance provides for the restrictions imposed on those lands to protect the right-of-way from obstruction or derogation. The amounts granted for right-of-way on tile drains is based on a percentage of the value of the land designated for future maintenance. Therefore, the amounts granted are based on \$6,750.00/ha. through cropped lands. This value is multiplied by the hectares derived from the width granted for future maintenance and the applicable lengths. It should be noted that the 1979 report provided for damages only, and not for right-of-way.

ASSESSMENT DEFINITIONS

In accordance with the Drainage Act, lands that make use of a drainage works are liable for assessment for part of the cost of constructing and maintaining the system. These liabilities are known as benefit, outlet liability and special benefit liability as set out under Sections 22, 23, 24 and 26 of the Act.

BENEFIT as defined in the Drainage Act means the advantages to any lands, roads, buildings or other structures from the construction, improvement, repair or maintenance of a drainage works such as will result in a higher market value or increased crop production or improved appearance or better control of surface or sub-surface water, or any other advantages relating to the betterment of lands, roads, buildings or other structures.

OUTLET liability is assessed to lands or roads that may make use of a drainage works as an outlet either directly or indirectly through the medium of any other drainage works or of a swale, ravine, creek or watercourse.

In addition, a Public Utility or Road Authority shall be assessed for and pay all the increased cost to a drainage works due to the construction and operation of the Public Utility or Road Authority. This may be shown as either benefit or special assessment.

In the event that a well is adversely affected by the drain the cost of remedial work shall be borne by the drain in the same relative proportion as set out in Schedule 'C' – Assessment for Construction.

ASSESSMENT

A modified "Todgham Method" was used to calculate the assessments shown on Schedule 'C'- Assessment for Construction. This entailed breaking down the costs of the drain into sections along its route. Special Assessments and Special Benefits were then extracted from each section.

ASSESSMENT (cont'd)

The remainder is then separated into Benefit and Outlet costs. The Benefit cost is distributed to those properties receiving benefit as defined under "Assessment Definitions", with such properties usually being located along or close to the route of the drain. The Outlet Costs are distributed to all properties within the watershed area of that section on an adjusted basis. The areas are adjusted for location along that section, and relative run-off rates. Due to their different relative run-off rates, forested lands have been assessed for outlet at lower rates than cleared lands. Also, roads and residential properties have been assessed for outlet at higher rates than cleared farmlands.

The actual cost of the work involving this report, with the exception of Special Assessments, is to be assessed on a pro-rata basis against the lands and roads liable for assessment for benefit, outlet and for special assessments as shown in detail below and on Schedule 'C' - Assessment for Construction. The Special Assessments shall be levied as noted in the Section "Special Assessment".

SPECIAL ASSESSMENT

In accordance with Section 26 of the Drainage Act, a Special Assessment has been made against the Municipality of West Elgin being the increased cost to the drainage work for installing a C.S.P. Surface culvert and a H.D.P.E. pipe (subsurface) across their road allowance on the Main Drain due to the construction and operation of Thomson Line. The Special Assessment shall be made up of the actual cost of this work and both the final and estimated values of the Special Assessment are to be calculated as follows:

Drain	Cost of Work	Less Equivalent Drain Cost (Fixed)	Plus Administration Cost	Plus Interest & Net H.S.T.	Special Assessment
900mm C.S.P. (surface) and 750mm H.D.P.E (sub-surface)	\$14,200.00	\$2,010.00	\$2,800.00	\$370.00	\$15,360.00

The above special assessments shall not apply for future maintenance purposes.

If any additional work is required to the drainage works due to the existence of buried utilities such as gas pipe lines, communications cables, etc. or if any of the utilities require relocation or repair, then, the extra costs incurred shall be borne by the utility involved in accordance with the provisions of Section 26 of the Drainage Act.

GRANTS

In accordance with the provisions of Section 85 of the Drainage Act, a grant **may** be available for assessments against privately owned parcels of land which are used for agricultural purposes and eligible for the Farm Property Class Tax rate. Section 88 of the Drainage Act directs the Municipality to make application for this grant upon certification of completion of this drain. The Municipality will then deduct the grant from the assessments prior to collecting the final assessments.



MAINTENANCE

Upon completion of construction, all owners are hereby made aware of Sections 80 and 82 of the Drainage Act which forbid the obstruction of or damage or injury to a municipal drain.

After completion, the entire Yauch Drain shall be maintained by the Municipality of West Elgin at the expense of all upstream lands and roads assessed in Schedule 'D' - Assessment for Maintenance and in the same relative proportions until such time as the assessment is changed under the Drainage Act.

Special Assessments shall **not** be pro-rated for future maintenance purposes.

Repairs or improvements to any road culvert or bridge or sub-surface road crossing required by the performance of this work and for future repair and/or replacement, shall be the responsibility of the applicable Road Authority, entirely at their cost.

Respectfully submitted,

SPRIET ASSOCIATES LONDON LIMITED

JMS:bv



J.M. Spriet, P.Eng.



SCHEDULE 'A' - ALLOWANCES

YAUCH DRAIN

Municipality of West Elgin

In accordance with Sections 29 and 30 of the Drainage Act, we determine the allowances payable to owners entitled thereto as follows:

CONCESSION	LOT	ROLL NUMBER (Owner)	Section 29 Right-of-Way	Section 30 Damages	TOTALS
MAIN DRAIN					
10	NW¼ 10	30-159 (E. Krumm & H. Taylor)	\$ 4,500.00	\$ 3,610.00	\$ 8,110.00
10	SW¼ 10	30-161 (C. & I. Kovacs)	2,870.00	2,300.00	5,170.00
10	SE ¼ 9	30-158-01 (C. & I. Kovacs)	1,560.00	1,250.00	2,810.00
10	Pt. 9	30-158 (R. & L. Jones)	1,070.00	860.00	1,930.00
Total Allowances			\$ 10,000.00	\$ 8,020.00	\$ 18,020.00

TOTAL ALLOWANCES ON THE MAIN DRAIN

\$ 18,020.00

BRANCH 'A'

10	Pt. 9	30-156 (D. & B. Bechard & A. & P. Turner)	\$ 40.00	\$ 30.00	\$ 70.00
10	N½ 9	30-155 (D. Ciparis)	1,080.00	870.00	1,950.00
10	NW¼ 10	30-159 (E. Krumm & H. Taylor)	1,950.00	1,570.00	3,520.00
Total Allowances			\$ 3,070.00	\$ 2,470.00	\$ 5,540.00

TOTAL ALLOWANCES ON BRANCH 'A'

\$ 5,540.00

TOTAL ALLOWANCES ON THE YAUCH DRAIN

\$ 23,560.00

YAUCH DRAIN**Municipality of West Elgin**

We have made an estimate of the cost of the proposed work which is outlined in detail as follows:

MAIN DRAIN

Supply and Installation of rodent gate in end of 750mm dia., H.D.P.E. plastic sewer pipe including quarry stone rip-rap protection around pipe and end of ditch
(Approximately 8m³ quarry stone req'd)

Supply \$ 200.00

Installation \$ 1,200.00

Installation of the following concrete field tile, including supply and installation of geotextile around tile joints (approx. 2750m req'd)

10 meters of 250mm dia. H.D.P.E. pipe \$ 600.00

405 meters of 525mm dia. concrete tile \$ 19,000.00

920 meters of 600mm dia. concrete tile \$ 44,600.00

150 meters of 600mm dia. concrete tile (2000-D) \$ 7,400.00

Supply of the above listed tile and pipe \$ 64,000.00

Supply & delivery of 19mm crushed stone (Approx. 600 tonnes req'd) \$ 18,000.00

Strip, stockpile and releve topsoil from tile trench and adjacent working area (4m wide) specified on drawings (approx. 1505m) \$ 7,500.00

Supply and install five 900mm x 1200mm ditch inlet catchbasins, and one including berms, leads, ditching, removal and disposal of existing catchbasins \$ 12,000.00

18 meters of 750 mm dia., H.D.P.E. pipe (subsurface)

16 meters of 900 mm dia., H.D.P.E. pipe (surface)

Supply \$ 7,400.00

Installation under Thompson Line by Open Cut \$ 6,800.00

12 meters of 600 mm dia., H.D.P.E. pipe

Supply \$ 1,300.00

Installation under Laneway by Open Cut \$ 3,000.00

Installation of Clay Collars as noted on Drawings \$ 2,000.00

Restoration of Lawn to original conditions including imported topsoil and seed \$ 2,500.00

Exposing and locating existing tile drains and utilities \$ 2,000.00

Tile connections and contingencies \$ 12,000.00

Allowances under Sections 29 & 30 of the Drainage Act \$ 18,020.00

YAUCH DRAIN**Municipality of West Elgin****BRANCH 'A'**

Installation of the following farm tile by drainage plow	
455 meters of 300mm dia. plastic farm tile with sock	\$ 6,800.00
Supply of the above listed tile	\$ 10,500.00
Strip, stockpile and relevel topsoil from tile trench and adjacent working area (4m wide) specified on drawings (approx. 455m)	\$ 2,300.00
Supply and install one 600mm x 600mm ditch inlet catchbasins, and one 600mm x 600mm standard catchbasin including grates, berms, and ditching	\$ 3,600.00
Exposing and locating existing tile drains and utilities	\$ 600.00
Tile connections and contingencies	\$ 1,200.00
Allowances under Sections 29 & 30 of the Drainage Act	\$ 5,540.00

ADMINISTRATION

Interest and Net Harmonized Sales Tax	\$ 7,010.00
Survey, Plan and Final Report	\$ 38,900.00
Hydrogeological Assessment	\$ 2,500.00
Expenses	\$ 1,990.00
Supervision and Final Inspection	\$ <u>6,040.00</u>
TOTAL ESTIMATED COST	\$ <u>316,500.00</u>

SCHEDULE 'C' - ASSESSMENT FOR CONSTRUCTION

YAUCH DRAIN

Municipality of West Elgin

Job No. 218131

February 14, 2020

* = Non-agricultural

CON.	LOT	HECTARES AFFECTED	ROLL No. (OWNER)	BENEFIT	OUTLET	TOTAL
MAIN DRAIN						
9	S Pt. 10	17.7	30-119 (Bonfield Farmland Ontario)	\$	\$ 31,647.00	\$ 31,647.00
9	W Pt. 11	5.7	30-121 (1058492 Ontario Ltd)		10,192.00	10,192.00
9	E Pt. 11	9.3	30-122 (F. Kadlex & H. White)		8,314.00	8,314.00
10	Pt. 8 & 9	6.1	30-154 (571419 Ontario Ltd)	1,000.00	141.00	1,141.00
10	Pt. 9	2.4	30-158 (R. & L. Jones)	10,150.00	480.00	10,630.00
10	SE ¼ 9	17.8	30-158-01 (C. & I. Kovacs)	21,060.00	7,023.00	28,083.00
10	N½ 9	10.7	30-155 (D. Ciparis)		8,603.00	8,603.00
10	Pt. 9	0.6	30-156 (D. & B. Bechard & A. & P. Turner)		1,530.00	1,530.00
10	SW¼ 10	14.2	30-161 (C. & I. Kovacs)	38,740.00	7,536.00	46,276.00
10	NW¼ 10	20.2	30-159 (E. Krumm & H. Taylor)	54,260.00	25,702.00	79,962.00
10	NE¼ 10	12.2	30-160 (1058492 Ontario Ltd)	1,000.00	17,335.00	18,335.00
10	N½ 11	1.3	30-163 (M. Miller)		2,324.00	2,324.00
TOTAL ASSESSMENT ON LANDS				\$ 126,210.00	\$ 120,827.00	\$ 247,037.00
Marsh Line				\$	\$ 12,911.00	\$ 12,911.00
Thomson Line				4,960.00	32.00	4,992.00
TOTAL ASSESSMENT ON ROADS				\$ 4,960.00	\$ 12,943.00	\$ 17,903.00
SPECIAL ASSESSMENT against Municipality of West Elgin for the increased cost of installing a 750mm H.D.P.E. pipe (Subsurface) and a 900mm H.D.P.E. pipe (Surface) under Thompson Line by open cut.						\$ 15,360.00
TOTAL ASSESSMENT ON THE MAIN DRAIN						\$ 280,300.00
BRANCH 'A'						
10	N½ 9	2.0	30-155 (D. Ciparis)	\$ 5,880.00	4,798.00	10,678.00
10	Pt. 9	0.6	30-156 (D. & B. Bechard & A. & P. Turner)	3,280.00	1,888.00	5,168.00
10	NW¼ 10	4.3	30-159 (E. Krumm & H. Taylor)	11,840.00	5,696.00	17,536.00
TOTAL ASSESSMENT ON LANDS				\$ 21,000.00	\$ 12,382.00	\$ 33,382.00
Marsh Line				\$	\$ 2,818.00	\$ 2,818.00
TOTAL ASSESSMENT ON ROADS				\$	\$ 2,818.00	\$ 2,818.00
TOTAL ASSESSMENT ON THE BRANCH 'A'						\$ 36,200.00
TOTAL ASSESSMENT ON THE YAUCH DRAIN						\$ 316,500.00

SCHEDULE 'D' - ASSESSMENT FOR MAINTENANCE

YAUCH DRAIN

Municipality of West Elgin

Job No. 218131

February 14, 2020

CON.	LOT	HECTARES AFFECTED	ROLL No. (OWNER)	PERCENTAGE OF MAINTENANCE COST
MAIN DRAIN				
9	S Pt. 10	17.7	30-119 (Bonfield Farmland Ontario)	15.9 %
9	W Pt. 11	5.7	30-121 (1058492 Ontario Ltd)	5.1
9	E Pt. 11	9.3	30-122 (F. Kadlex & H. White)	4.2
10	Pt. 8 &	9	30-154 (571419 Ontario Ltd)	0.3
10	Pt. 9	2.4	30-158 (R. & L. Jones)	2.8
10	SE ¼	9	30-158-01 (C. & I. Kovacs)	8.8
10	N½	9	30-155 (D. Ciparis)	4.3
10	Pt. 9	0.6	30-156 (D. & B. Bechard & A. & P. Turner)	0.8
10	SW¼	10	30-161 (C. & I. Kovacs)	13.5
10	NW¼	10	30-159 (E. Krumm & H. Taylor)	26.5
10	NE¼	10	30-160 (1058492 Ontario Ltd)	8.9
10	N½	11	30-163 (M. Miller)	1.2
TOTAL ASSESSMENT ON LANDS				92.3 %
Marsh Line				6.4 %
Thomson Line				1.3
TOTAL ASSESSMENT ON ROADS				7.7 %
TOTAL ASSESSMENT FOR MAINTENANCE OF THE MAIN DRAIN				<u>100.0 %</u>
BRANCH 'A'				
10	N½	9	30-155 (D. Ciparis)	30.1 %
10	Pt. 9	0.6	30-156 (D. & B. Bechard & A. & P. Turner)	13.7
10	NW¼	10	30-159 (E. Krumm & H. Taylor)	45.2
TOTAL ASSESSMENT ON LANDS				89.0 %
Marsh Line				11.0 %
TOTAL ASSESSMENT ON ROADS				11.0 %
TOTAL ASSESSMENT FOR MAINTENANCE OF BRANCH 'A'				<u>100.0 %</u>

SCHEDULE OF NET ASSESSMENT

YAUCH DRAIN

Municipality of West Elgin

(FOR INFORMATION PURPOSES ONLY)

Job No. 218131

February 14, 2020

* = Non-agricultural

ROLL NUMBER (OWNER)	TOTAL ASSESSMENT	GRANT	ALLOWANCES	APPROX. NET
30-119 (Bonfield Farmland Ontario)	31,647.00	10,549.00		21,098.00
30-121 (1058492 Ontario Ltd)	10,192.00	3,397.00		6,795.00
* 30-122 (F. Kadlex & H. White)	8,314.00			8,314.00
30-154 (571419 Ontario Ltd)	1,141.00	380.00		761.00
* 30-158 (R. & L. Jones)	10,630.00		1,930.00	8,700.00
30-158-01 (C. & I. Kovacs)	28,083.00	9,361.00	2,810.00	15,912.00
30-155 (D. Ciparis)	19,281.00	6,427.00	1,950.00	10,904.00
* 30-156 (D. & B. Bechard & A. & P. Turner)	6,698.00		70.00	6,628.00
30-161 (C. & I. Kovacs)	46,276.00	15,425.00	5,170.00	25,681.00
30-159 (E. Krumm & H. Taylor)	97,498.00	32,499.00	11,630.00	53,369.00
30-160 (1058492 Ontario Ltd)	18,335.00	6,112.00		12,223.00
30-163 (M. Miller)	2,324.00	775.00		1,549.00
Marsh Line	15,729.00			15,729.00
Thomson Line	4,992.00			4,992.00
Special Assessment	15,360.00			15,360.00
TOTALS	\$ 316,500.00	\$ 84,925.00	\$ 23,560.00	\$ 208,015.00

YAUCH DRAIN
Municipality of West Elgin



**SPRIET
ASSOCIATES**
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E-mail MAIL@SPRIET.ON.CA

London, Ontario
February 14, 2020

YAUCH DRAIN

Municipality of West Elgin

To the Mayor and Council of
the Municipality of West Elgin

Mayor and Council:

We are pleased to present our report on the reconstruction and extension of parts of the Yauch Municipal Drain serving parts of Lots 9 to 11, Concessions 9 to 11, in the Municipality of West Elgin.

AUTHORIZATION

This report was prepared pursuant to Section 4 and 78 of the Drainage Act. Instructions were received from your Municipality with respect to a motion of Council. The Section 78 work was initiated by a request signed by an affected landowner.

The Section 4 work was petitioned by two affected landowners whose lands contain over 60 percent of the area requiring drainage.

DRAINAGE AREA

The total watershed area as described above contains approximately 121 hectares. The area requiring drainage for the new branch drain is described as the lands located within Lots 9 and 10, Concession 10, located west of the Main Drain and bounded by Marsh Line to the north. These lands contain agricultural land and a residential property.

HISTORY

The Yauch Drain was last reconstructed pursuant to a report submitted by H.H. Todgham, P. Eng. dated October 17, 1979, and consisted of the twinning of the existing Yauch Drain from its outlet at the open drain to its head located on the north side of Marsh Line, at the easterly limits of Lot 10. The work involved tile installation ranging in size from 250mm diameter to 450mm diameter at the outlet and a total length of 1,854 meters. The twinned drain (1962 and 1979) had a capacity to accommodate a rainfall event of approximately 12mm in a 24-hour period.



EXISTING DRAINAGE CONDITIONS

A site meeting held with respect to the project and through later discussions, the owners reported the following:

- that the requesting landowners, E. Krumm & H. Taylor (Roll No. 30-159), inquired about the replacement of the Main Drain as it is no longer functioning effectively. They indicated that their lands were subject to frequent and prolonged ponding
- that the upstream landowner, 1058492 Ontario Inc. (Roll No. 30-121 & 30-160), indicated that the drain was functioning adequately for their needs
- that landowners D. Ciparis (Roll No. 30-155), and D. & B. Bechard & A. & P. Turner (Roll No. 30-156) inquired as to a branch drain to provide an outlet for their lands to alleviate water problems

A field investigation and survey were completed. Upon reviewing our findings, we note the following:

- that the Drainage Superintendent dug up the existing tile drain in several locations and observed that the drain was full of sediment
- that the existing drain is undersized by current drainage standards
- that the most logical route to replace the existing drain would be in approximately the same location as the existing drains
- given the location of the existing well to the drain in the lands of R. & L. Jones (Roll No. 30-158) it was decided to seek the opinion of a Hydrogeologist, JFM Environmental Limited to investigate the effects of deepening the existing drain near the location of the well. Their analysis indicated the possibility of decreased water production in the well due to the lowering of the invert of the Yauch Drain seems minimal as the existing drains are currently lower than the well water level now

Preliminary design, cost estimates and assessments were prepared, and an informal public meeting was held to review the findings and preliminary proposals. Further input and requests were provided by the affected owners at that time and at later dates. Based on the proposed design it was decided to proceed with the report.

DESIGN CONSIDERATIONS

The proposed drain was designed, with respect to capacity, using the Drainage Coefficient method contained in the "DRAINAGE GUIDE FOR ONTARIO", Publication 29 by the Ontario Ministry of Agriculture, Food, and Rural Affairs. The Drainage Coefficient defines a depth of water that can be removed in a 24-hour period and is expressed in millimetres per 24 hours. The coefficient used for the Main Drain and Branch "A" was 38mm.



DESIGN CONSIDERATIONS (cont'd)

We would like to point out that there have been indications of sandy soil conditions, but no formal soil investigation has been made.

All of the proposed work has been generally designed and shall be constructed in accordance with the DESIGN AND CONSTRUCTION GUIDELINES FOR WORK UNDER THE DRAINAGE ACT.

RECOMMENDATIONS

We are therefore recommending the following:

- that the existing Yauch Drain – Main Drain be reconstructed commencing at the open drain on the south side of Thomson Line, running north and north-easterly through the lands of C. & I. Kovacs (Roll No. 30-158-01), R. & L. Jones (Roll No. 30-158), C. & I. Kovacs (Roll No. 30-161), and E. Krumm & H. Taylor (Roll No. 30-159), to its head at the lot line between E. Krumm & H. Taylor and 1058492 Ontario Inc., for a total length of 1505 meters
- that a closed branch drain, to be referred to as Branch 'A', be constructed commencing at the Main Drain in the lands of E. Krumm & H. Taylor (Roll No. 30-159) and travel west through these land and those of D. Ciparis (Roll No. 30-155) to its head just within the lands of D. & B. Bechard & A. & P. Turner (Roll No. 30-156) for a total length of 455 meters
- that catchbasins be installed along the course of the drain to alleviate surface ponding and surface flows
- that the road crossing under Thomson Line be done by open cut and that the exiting surface culvert be replaced
- that all lawn areas disturbed by construction be levelled, top soiled with imported topsoil, and seeded, as part of the restoration
- that clay collars be installed on the lower end of the drain to prevent the stone bedding from acting as a French drain
- that contingency be made to provide any wells adversely affected by the drain construction with supplement water / replacement. It should be noted that the firm of JFM Environmental has been engaged to monitor the wells in the area of the drain before, during, and after construction. It should be noted that a prolonged period of drought could also adversely affect the well
- that the existing 1962 and 1979 Yauch Drains, from the outlet at Sta. 0+000 to Sta. 1+505 be officially abandoned from municipal status pursuant to Section 19 of the Drainage Act

Due to the indications of poor soil conditions our design includes the wrapping of tile joints with geotextile and a crushed stone bedding wrapped with geotextile.



ENVIRONMENTAL CONSIDERATIONS AND MITIGATION MEASURES

There are no significant wetlands or sensitive areas within the affected watershed area or along the route of the drains. The proposed construction of the Yauch Drain includes quarry stone outlet protection and surface inlets which greatly help reduce the overland surface flows and any subsequent erosion. A temporary flow check of silt fencing is to be installed in the ditch downstream of the tile outlet for the duration of the construction.

SUMMARY OF PROPOSED WORK

The proposed work consists of approximately 1,978 lineal meters of 200mm (8") to 750mm (30") concrete field tile and HDPE sewer pipe including related appurtenances.

SCHEDULES

Four schedules are attached hereto and form part of this report, being Schedule 'A' - Allowances, Schedule 'B' - Cost Estimate, Schedule 'C' - Assessment for Construction, and Schedule 'D' - Assessment for Maintenance.

Schedule 'A' - Allowances. In accordance with Sections 29 and 30 of the Drainage Act, allowances are provided for right-of-way and damages to lands and crops along the route of the drain as defined below.

Schedule 'B' - Cost Estimate. This schedule provides for a detailed cost estimate of the proposed work which is in the amount of \$ 316,500.00. This estimate includes engineering and administrative costs associated with this project.

Schedule 'C' - Assessment for Construction. This schedule outlines the distribution of the total estimated cost of construction over the roads and lands which are involved.

Schedule 'D' - Assessment for Maintenance. In accordance with Section 38 of the Drainage Act, this schedule outlines the distribution of future repair and/or maintenance costs for portions of, or the entire drainage works.

Drawing No. 1, Job No. 218131, and specifications form part of this report. They show and describe in detail the location and extent of the work to be done and the lands which are affected.

ALLOWANCES

DAMAGES: Section 30 of the Drainage Act provides for the compensation to landowners along the drain for damages to lands and crops caused by the construction of the drain. The amount granted is based on \$3,613.00/ha. for closed drain. This base rate is multiplied by the hectares derived from the working widths shown on the plans and the applicable lengths.

ALLOWANCES (cont'd)

RIGHT-OF-WAY Section 29 of the Drainage Act provides for an allowance to the owners whose land must be used for the construction, repair, or future maintenance of a drainage works.

For tile drains where the owners will be able to continue to use the land, the allowance provides for the right to enter upon such lands, and at various times for the purpose of inspecting such drain, removing obstructions, and making repairs. Also, the allowance provides for the restrictions imposed on those lands to protect the right-of-way from obstruction or derogation. The amounts granted for right-of-way on tile drains is based on a percentage of the value of the land designated for future maintenance. Therefore, the amounts granted are based on \$6,750.00/ha. through cropped lands. This value is multiplied by the hectares derived from the width granted for future maintenance and the applicable lengths. It should be noted that the 1979 report provided for damages only, and not for right-of-way.

ASSESSMENT DEFINITIONS

In accordance with the Drainage Act, lands that make use of a drainage works are liable for assessment for part of the cost of constructing and maintaining the system. These liabilities are known as benefit, outlet liability and special benefit liability as set out under Sections 22, 23, 24 and 26 of the Act.

BENEFIT as defined in the Drainage Act means the advantages to any lands, roads, buildings or other structures from the construction, improvement, repair or maintenance of a drainage works such as will result in a higher market value or increased crop production or improved appearance or better control of surface or sub-surface water, or any other advantages relating to the betterment of lands, roads, buildings or other structures.

OUTLET liability is assessed to lands or roads that may make use of a drainage works as an outlet either directly or indirectly through the medium of any other drainage works or of a swale, ravine, creek or watercourse.

In addition, a Public Utility or Road Authority shall be assessed for and pay all the increased cost to a drainage works due to the construction and operation of the Public Utility or Road Authority. This may be shown as either benefit or special assessment.

In the event that a well is adversely affected by the drain the cost of remedial work shall be borne by the drain in the same relative proportion as set out in Schedule 'C' – Assessment for Construction.

ASSESSMENT

A modified "Todgham Method" was used to calculate the assessments shown on Schedule 'C'- Assessment for Construction. This entailed breaking down the costs of the drain into sections along its route. Special Assessments and Special Benefits were then extracted from each section.

ASSESSMENT (cont'd)

The remainder is then separated into Benefit and Outlet costs. The Benefit cost is distributed to those properties receiving benefit as defined under "Assessment Definitions", with such properties usually being located along or close to the route of the drain. The Outlet Costs are distributed to all properties within the watershed area of that section on an adjusted basis. The areas are adjusted for location along that section, and relative run-off rates. Due to their different relative run-off rates, forested lands have been assessed for outlet at lower rates than cleared lands. Also, roads and residential properties have been assessed for outlet at higher rates than cleared farmlands.

The actual cost of the work involving this report, with the exception of Special Assessments, is to be assessed on a pro-rata basis against the lands and roads liable for assessment for benefit, outlet and for special assessments as shown in detail below and on Schedule 'C' - Assessment for Construction. The Special Assessments shall be levied as noted in the Section "Special Assessment".

SPECIAL ASSESSMENT

In accordance with Section 26 of the Drainage Act, a Special Assessment has been made against the Municipality of West Elgin being the increased cost to the drainage work for installing a C.S.P. Surface culvert and a H.D.P.E. pipe (subsurface) across their road allowance on the Main Drain due to the construction and operation of Thomson Line. The Special Assessment shall be made up of the actual cost of this work and both the final and estimated values of the Special Assessment are to be calculated as follows:

Drain	Cost of Work	Less Equivalent Drain Cost (Fixed)	Plus Administration Cost	Plus Interest & Net H.S.T.	Special Assessment
900mm C.S.P. (surface) and 750mm H.D.P.E (sub-surface)	\$14,200.00	\$2,010.00	\$2,800.00	\$370.00	\$15,360.00

The above special assessments shall not apply for future maintenance purposes.

If any additional work is required to the drainage works due to the existence of buried utilities such as gas pipe lines, communications cables, etc. or if any of the utilities require relocation or repair, then, the extra costs incurred shall be borne by the utility involved in accordance with the provisions of Section 26 of the Drainage Act.

GRANTS

In accordance with the provisions of Section 85 of the Drainage Act, a grant **may** be available for assessments against privately owned parcels of land which are used for agricultural purposes and eligible for the Farm Property Class Tax rate. Section 88 of the Drainage Act directs the Municipality to make application for this grant upon certification of completion of this drain. The Municipality will then deduct the grant from the assessments prior to collecting the final assessments.



MAINTENANCE

Upon completion of construction, all owners are hereby made aware of Sections 80 and 82 of the Drainage Act which forbid the obstruction of or damage or injury to a municipal drain.

After completion, the entire Yauch Drain shall be maintained by the Municipality of West Elgin at the expense of all upstream lands and roads assessed in Schedule 'D' - Assessment for Maintenance and in the same relative proportions until such time as the assessment is changed under the Drainage Act.

Special Assessments shall **not** be pro-rated for future maintenance purposes.

Repairs or improvements to any road culvert or bridge or sub-surface road crossing required by the performance of this work and for future repair and/or replacement, shall be the responsibility of the applicable Road Authority, entirely at their cost.

Respectfully submitted,

SPRIET ASSOCIATES LONDON LIMITED

JMS:bv



J.M. Spriet, P.Eng.



SCHEDULE 'A' - ALLOWANCES

YAUCH DRAIN

Municipality of West Elgin

In accordance with Sections 29 and 30 of the Drainage Act, we determine the allowances payable to owners entitled thereto as follows:

CONCESSION	LOT	ROLL NUMBER (Owner)	Section 29 Right-of-Way	Section 30 Damages	TOTALS
MAIN DRAIN					
10	NW¼ 10	30-159 (E. Krumm & H. Taylor)	\$ 4,500.00	\$ 3,610.00	\$ 8,110.00
10	SW¼ 10	30-161 (C. & I. Kovacs)	2,870.00	2,300.00	5,170.00
10	SE ¼ 9	30-158-01 (C. & I. Kovacs)	1,560.00	1,250.00	2,810.00
10	Pt. 9	30-158 (R. & L. Jones)	1,070.00	860.00	1,930.00
Total Allowances			\$ 10,000.00	\$ 8,020.00	\$ 18,020.00

TOTAL ALLOWANCES ON THE MAIN DRAIN

\$ 18,020.00

BRANCH 'A'

10	Pt. 9	30-156 (D. & B. Bechard & A. & P. Turner)	\$ 40.00	\$ 30.00	\$ 70.00
10	N½ 9	30-155 (D. Ciparis)	1,080.00	870.00	1,950.00
10	NW¼ 10	30-159 (E. Krumm & H. Taylor)	1,950.00	1,570.00	3,520.00
Total Allowances			\$ 3,070.00	\$ 2,470.00	\$ 5,540.00

TOTAL ALLOWANCES ON BRANCH 'A'

\$ 5,540.00

TOTAL ALLOWANCES ON THE YAUCH DRAIN

\$ 23,560.00

YAUCH DRAIN**Municipality of West Elgin**

We have made an estimate of the cost of the proposed work which is outlined in detail as follows:

MAIN DRAIN

Supply and Installation of rodent gate in end of 750mm dia., H.D.P.E. plastic sewer pipe including quarry stone rip-rap protection around pipe and end of ditch
(Approximately 8m³ quarry stone req'd)

Supply \$ 200.00

Installation \$ 1,200.00

Installation of the following concrete field tile, including supply and installation of geotextile around tile joints (approx. 2750m req'd)

10 meters of 250mm dia. H.D.P.E. pipe \$ 600.00

405 meters of 525mm dia. concrete tile \$ 19,000.00

920 meters of 600mm dia. concrete tile \$ 44,600.00

150 meters of 600mm dia. concrete tile (2000-D) \$ 7,400.00

Supply of the above listed tile and pipe \$ 64,000.00

Supply & delivery of 19mm crushed stone (Approx. 600 tonnes req'd) \$ 18,000.00

Strip, stockpile and releve topsoil from tile trench and adjacent working area (4m wide) specified on drawings (approx. 1505m) \$ 7,500.00

Supply and install five 900mm x 1200mm ditch inlet catchbasins, and one including berms, leads, ditching, removal and disposal of existing catchbasins \$ 12,000.00

18 meters of 750 mm dia., H.D.P.E. pipe (subsurface)

16 meters of 900 mm dia., H.D.P.E. pipe (surface)

Supply \$ 7,400.00

Installation under Thompson Line by Open Cut \$ 6,800.00

12 meters of 600 mm dia., H.D.P.E. pipe

Supply \$ 1,300.00

Installation under Laneway by Open Cut \$ 3,000.00

Installation of Clay Collars as noted on Drawings \$ 2,000.00

Restoration of Lawn to original conditions including imported topsoil and seed \$ 2,500.00

Exposing and locating existing tile drains and utilities \$ 2,000.00

Tile connections and contingencies \$ 12,000.00

Allowances under Sections 29 & 30 of the Drainage Act \$ 18,020.00

YAUCH DRAIN
Municipality of West Elgin

BRANCH 'A'

Installation of the following farm tile by drainage plow	
455 meters of 300mm dia. plastic farm tile with sock	\$ 6,800.00
Supply of the above listed tile	\$ 10,500.00
Strip, stockpile and relevel topsoil from tile trench and adjacent working area (4m wide) specified on drawings (approx. 455m)	\$ 2,300.00
Supply and install one 600mm x 600mm ditch inlet catchbasins, and one 600mm x 600mm standard catchbasin including grates, berms, and ditching	\$ 3,600.00
Exposing and locating existing tile drains and utilities	\$ 600.00
Tile connections and contingencies	\$ 1,200.00
Allowances under Sections 29 & 30 of the Drainage Act	\$ 5,540.00

ADMINISTRATION

Interest and Net Harmonized Sales Tax	\$ 7,010.00
Survey, Plan and Final Report	\$ 38,900.00
Hydrogeological Assessment	\$ 2,500.00
Expenses	\$ 1,990.00
Supervision and Final Inspection	\$ <u>6,040.00</u>
TOTAL ESTIMATED COST	\$ <u>316,500.00</u>

SCHEDULE 'C' - ASSESSMENT FOR CONSTRUCTION

YAUCH DRAIN

Municipality of West Elgin

Job No. 218131

February 14, 2020

* = Non-agricultural

CON.	LOT	HECTARES AFFECTED	ROLL No. (OWNER)	BENEFIT	OUTLET	TOTAL
MAIN DRAIN						
9	S Pt. 10	17.7	30-119 (Bonfield Farmland Ontario)	\$	\$ 31,647.00	\$ 31,647.00
9	W Pt. 11	5.7	30-121 (1058492 Ontario Ltd)		10,192.00	10,192.00
9	E Pt. 11	9.3	30-122 (F. Kadlex & H. White)		8,314.00	8,314.00
10	Pt. 8 & 9	6.1	30-154 (571419 Ontario Ltd)	1,000.00	141.00	1,141.00
10	Pt. 9	2.4	30-158 (R. & L. Jones)	10,150.00	480.00	10,630.00
10	SE ¼ 9	17.8	30-158-01 (C. & I. Kovacs)	21,060.00	7,023.00	28,083.00
10	N½ 9	10.7	30-155 (D. Ciparis)		8,603.00	8,603.00
10	Pt. 9	0.6	30-156 (D. & B. Bechard & A. & P. Turner)		1,530.00	1,530.00
10	SW¼ 10	14.2	30-161 (C. & I. Kovacs)	38,740.00	7,536.00	46,276.00
10	NW¼ 10	20.2	30-159 (E. Krumm & H. Taylor)	54,260.00	25,702.00	79,962.00
10	NE¼ 10	12.2	30-160 (1058492 Ontario Ltd)	1,000.00	17,335.00	18,335.00
10	N½ 11	1.3	30-163 (M. Miller)		2,324.00	2,324.00
TOTAL ASSESSMENT ON LANDS				\$ 126,210.00	\$ 120,827.00	\$ 247,037.00
Marsh Line				\$	\$ 12,911.00	\$ 12,911.00
Thomson Line				4,960.00	32.00	4,992.00
TOTAL ASSESSMENT ON ROADS				\$ 4,960.00	\$ 12,943.00	\$ 17,903.00
SPECIAL ASSESSMENT against Municipality of West Elgin for the increased cost of installing a 750mm H.D.P.E. pipe (Subsurface) and a 900mm H.D.P.E. pipe (Surface) under Thompson Line by open cut.						\$ 15,360.00
TOTAL ASSESSMENT ON THE MAIN DRAIN						\$ 280,300.00
BRANCH 'A'						
10	N½ 9	2.0	30-155 (D. Ciparis)	\$ 5,880.00	4,798.00	10,678.00
10	Pt. 9	0.6	30-156 (D. & B. Bechard & A. & P. Turner)	3,280.00	1,888.00	5,168.00
10	NW¼ 10	4.3	30-159 (E. Krumm & H. Taylor)	11,840.00	5,696.00	17,536.00
TOTAL ASSESSMENT ON LANDS				\$ 21,000.00	\$ 12,382.00	\$ 33,382.00
Marsh Line				\$	\$ 2,818.00	\$ 2,818.00
TOTAL ASSESSMENT ON ROADS				\$	\$ 2,818.00	\$ 2,818.00
TOTAL ASSESSMENT ON THE BRANCH 'A'						\$ 36,200.00
TOTAL ASSESSMENT ON THE YAUCH DRAIN						\$ 316,500.00

SCHEDULE 'D' - ASSESSMENT FOR MAINTENANCE

YAUCH DRAIN

Municipality of West Elgin

Job No. 218131

February 14, 2020

CON.	LOT	HECTARES AFFECTED	ROLL No. (OWNER)	PERCENTAGE OF MAINTENANCE COST
MAIN DRAIN				
9	S Pt. 10	17.7	30-119 (Bonfield Farmland Ontario)	15.9 %
9	W Pt. 11	5.7	30-121 (1058492 Ontario Ltd)	5.1
9	E Pt. 11	9.3	30-122 (F. Kadlex & H. White)	4.2
10	Pt. 8 &	9	30-154 (571419 Ontario Ltd)	0.3
10	Pt. 9	2.4	30-158 (R. & L. Jones)	2.8
10	SE ¼	9	30-158-01 (C. & I. Kovacs)	8.8
10	N½	9	30-155 (D. Ciparis)	4.3
10	Pt. 9	0.6	30-156 (D. & B. Bechard & A. & P. Turner)	0.8
10	SW¼	10	30-161 (C. & I. Kovacs)	13.5
10	NW¼	10	30-159 (E. Krumm & H. Taylor)	26.5
10	NE¼	10	30-160 (1058492 Ontario Ltd)	8.9
10	N½	11	30-163 (M. Miller)	1.2
TOTAL ASSESSMENT ON LANDS				92.3 %
Marsh Line				2.1 Municipality of West Elgin
Thomson Line				0.4 Municipality of West Elgin
TOTAL ASSESSMENT ON ROADS				7.7 %
TOTAL ASSESSMENT FOR MAINTENANCE OF THE MAIN DRAIN				<u>100.0 %</u>
BRANCH 'A'				
10	N½	9	30-155 (D. Ciparis)	30.1 %
10	Pt. 9	0.6	30-156 (D. & B. Bechard & A. & P. Turner)	13.7
10	NW¼	10	30-159 (E. Krumm & H. Taylor)	45.2
TOTAL ASSESSMENT ON LANDS				89.0 %
Marsh Line				0.4 Municipality of West Elgin
TOTAL ASSESSMENT ON ROADS				11.0 %
TOTAL ASSESSMENT FOR MAINTENANCE OF BRANCH 'A'				<u>100.0 %</u>

SCHEDULE OF NET ASSESSMENT

YAUCH DRAIN

Municipality of West Elgin

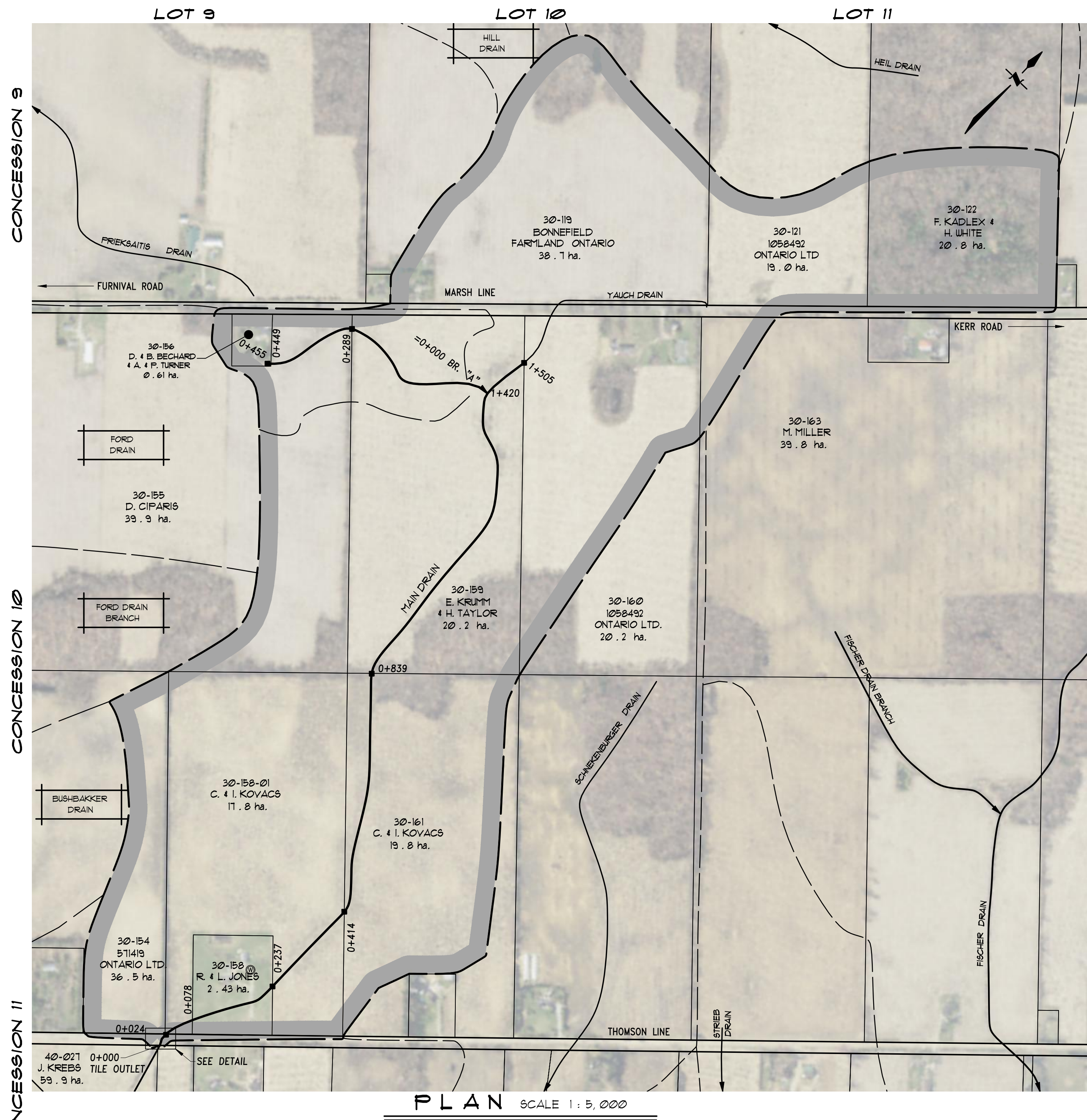
(FOR INFORMATION PURPOSES ONLY)

Job No. 218131

February 14, 2020

* = Non-agricultural

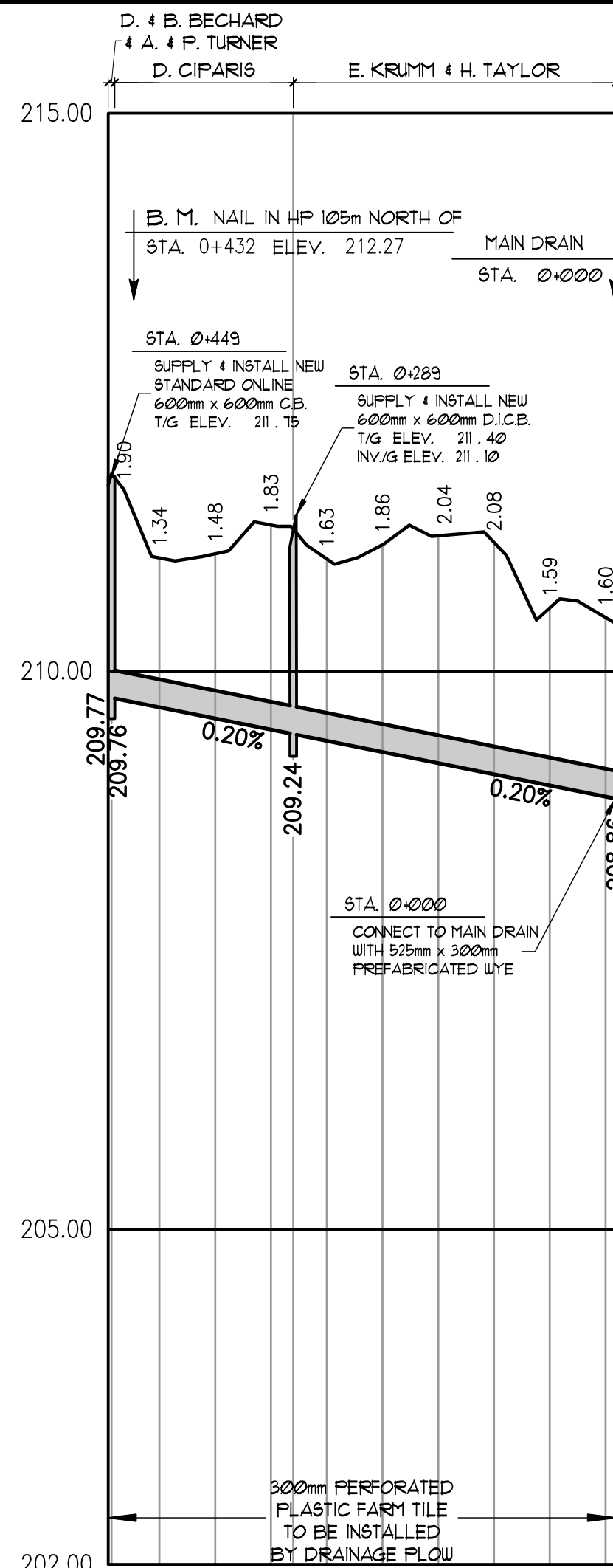
ROLL NUMBER (OWNER)	TOTAL ASSESSMENT	GRANT	ALLOWANCES	APPROX. NET
30-119 (Bonfield Farmland Ontario)	31,647.00	10,549.00		21,098.00
30-121 (1058492 Ontario Ltd)	10,192.00	3,397.00		6,795.00
* 30-122 (F. Kadlex & H. White)	8,314.00			8,314.00
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* 30-158 (R. & L. Jones)	10,630.00		1,930.00	8,700.00
30-158-01 (C. & I. Kovacs)	28,083.00	9,361.00	2,810.00	15,912.00
30-155 (D. Ciparis)	19,281.00	6,427.00	1,950.00	10,904.00
* 30-156 (D. & B. Bechard & A. & P. Turner)	6,698.00		70.00	6,628.00
30-161 (C. & I. Kovacs)	46,276.00	15,425.00	5,170.00	25,681.00
30-159 (E. Krumm & H. Taylor)	97,498.00	32,499.00	11,630.00	53,369.00
30-160 (1058492 Ontario Ltd)	18,335.00	6,112.00		12,223.00
30-163 (M. Miller)	2,324.00	775.00		1,549.00
Marsh Line	15,729.00			15,729.00
Thomson Line	4,992.00			4,992.00
Special Assessment	15,360.00			15,360.00
TOTALS	\$ 316,500.00	\$ 84,925.00	\$ 23,560.00	\$ 208,015.00



GENERAL NOTES

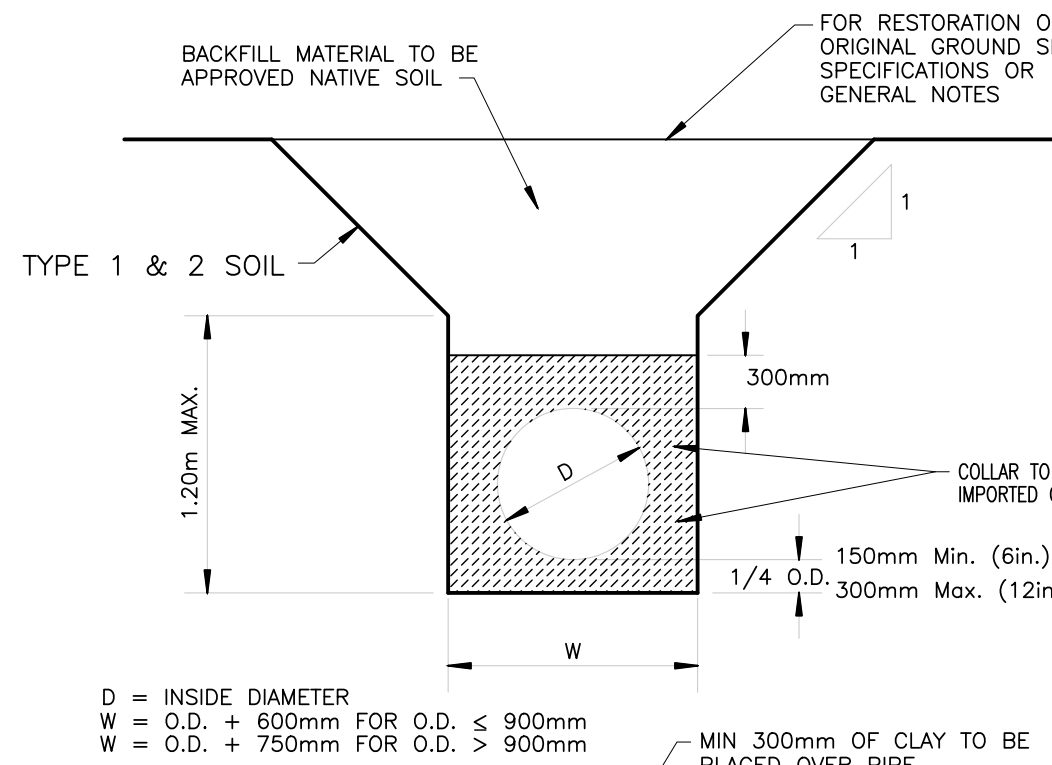
- OUR SPECIFICATIONS DATED JANUARY 2020 APPLY TO THIS PROJECT.
 - THE WORKING WIDTH AVAILABLE TO THE CONTRACTOR TO CONSTRUCT THE NEW DRAINS SHALL CONSIST OF THOSE LANDS IMMEDIATELY ADJACENT TO THE DRAIN AND CONNECTIONS AND SHALL NOT EXCEED THE FOLLOWING AVERAGE WIDTHS:
CLOSED PORTIONS - 15 METERS
THE WORKING WIDTH FOR PURPOSES OF FUTURE MAINTENANCE SHALL BE 10M.
 - ALL OWNERS ALONG THE COURSE OF THE DRAIN SHALL MAKE AN ACCESS ROUTE FROM THE NEAREST ROAD TO THE DRAIN LOCATION AVAILABLE TO THE CONTRACTOR THE AVERAGE WIDTH OF THIS ROUTE SHALL NOT EXCEED 8 METERS. THE ACCESS ROUTE SHALL ALSO APPLY FOR FUTURE MAINTENANCE PURPOSES.
 - ALL UTILITIES TO BE LOCATED AND EXPOSED PRIOR TO CONSTRUCTION SO THAT THE NEW TILE GRADES CAN BE CONFIRMED. IF THERE IS A CONFLICT IN ELEVATION BETWEEN THE PROPOSED DRAIN AND THE UTILITY, THE ENGINEER IS TO BE NOTIFIED IMMEDIATELY.
b) CONTRACTOR TO NOTIFY ALL UTILITIES 12 HOURS PRIOR TO HIS SCHEDULED TIME FOR STARTING THE ABOVE WORK.
c) THE COST FOR THIS WORK SHALL BE INCLUDED IN THE ITEM ON THE EXTENT OF WORK AND NO EXTRA PAYMENT SHALL BE MADE TO THE CONTRACTOR, EXCEPT IF ROAD RESTORATION IS REQUIRED.
 - ALL TREES, SCRUB, BRUSH, ETC. TO BE CLEARED AND GRUBBED IN ACCORDANCE WITH SECTION B.3 AND C.4 SPECIFICATIONS.
 - RIP-RAP TO BE SUPPLIED AND INSTALLED IN ACCORDANCE WITH SECTION A.12 IN THE SPECIFICATIONS.
 - CONTRACTOR TO ARRANGE A PRE-CONSTRUCTION MEETING WITH THE ENGINEER, DRAINAGE SUPERINTENDENT, AND THE AFFECTED OWNERS. ALL PARTIES SHALL RECEIVE 48 HOURS NOTICE TO THE MEETING.
- ### CLOSED PORTIONS
- ALL CONCRETE AND PLASTIC TILE AND PIPE TO CONFORM TO SECTION C.1 IN THE SPECIFICATIONS.
a) SEWER PIPE TO BE CONCRETE, H.D.P.E. PLASTIC 320 KPA (BELL & SPIGOT WITH RUBBER GASKETS, CONFORMING TO C.S.A. 1026-08), PVC ULTRA RIB OR PVC SDR 35.
b) CONCRETE TILE SHALL BE HEAVY DUTY UNLESS SPECIFIED AS 2000 D OR 3400 D ON PROFILE.
c) PLASTIC TILE SHALL BE PERFORATED AGRICULTURAL TUBING WITH FILTER SOCK CONFORMING TO TERRAFIX 200R, TEXEL F-100 ID OR APPROVED EQUAL.
 - ALL CATCHBASINS SHALL BE SUPPLIED AND INSTALLED IN ACCORDANCE WITH SECTION C.16 IN THE SPECIFICATIONS, EXCEPT AS FOLLOWS:
a) ALL NON ROAD DITCH INLET CATCHBASINS TO HAVE BERM'S (CONSTRUCTED WITH SUBSOIL) WITH OVERFLOW CHUTE PROTECTED WITH N.A.G. C350 TURF REINFORCEMENT MAT.
 - EXACT LOCATION TO BE DETERMINED AT TIME OF CONSTRUCTION BY DRAINAGE SUPERINTENDENT OR ENGINEER. EXISTING TILE DRAINS TO BE EXPOSED IN AS MANY LOCATIONS AS ARE NECESSARY TO CONFIRM THEIR EXACT LOCATION AND ELEVATION PRIOR TO CONSTRUCTION.

- INSTALLATION OF TILE AND TRENCH WIDTHS SHALL BE IN ACCORDANCE WITH SECTION C - TILE DRAIN IN THE SPECIFICATIONS & DETAIL SHOWN ON THIS DRAWING.
b) SEWER PIPE UNDER TRAVEL PORTION OF ROADS TO BE INSTALLED IN ACCORDANCE WITH STANDARD DETAILED DRAWING No. 02 IN THE SPECIFICATIONS.
c) ALL CONCRETE TILE AND TILE-PIPE JOINTS TO BE WRAPPED WITH GEOTEXTILE IN ACCORDANCE WITH SECTION C.8 IN THE SPECIFICATIONS.
d) NO CONSTRUCTION EQUIPMENT OR FARM MACHINERY SHALL CROSS OVER THE MOUNDED BACKFILLED TILE TRENCHES UNTIL SUFFICIENT SETTLEMENT HAS OCCURRED.
e) STRIP AND STOCKPILE TOPSOIL FROM CONSTRUCTION AREA (4 metre width) EXCEPT LANEWAYS & ROADS. EXCESS SPOIL TO BE LEVELLED AND TOPSOIL RELEVELLED OVER SPOIL, MOUNDED TRENCH AND REMAINING CONSTRUCTION AREA.
- RESTORATION OF LAWN AREAS SHALL BE IN ACCORDANCE WITH SECTIONS A.14 AND B.11 IN THE SPECIFICATION WITH THE FOLLOWING EXCEPTIONS:
a) 100mm DEPTH OF IMPORTED FIRST QUALITY TOPSOIL IS TO BE LEVELLED OVER THE TRENCH AND ADJACENT AREAS DISTURBED BY CONSTRUCTION.
b) TOPSOILED AREAS TO BE SEEDED IN ACCORDANCE WITH SECTION A.14 IN THE SPECIFICATIONS.
c) LANEWAY TO BE RESTORED TO ORIGINAL CONDITION IN ACCORDANCE WITH SPECIFICATIONS.
- IF IT BECOMES IMPRACTICAL TO INSTALL THE NEW TILE IN THE EXISTING TILE LOCATION DUE TO EXISTING TILE ALIGNMENT AND/OR TOO MUCH WATER FLOWING THROUGH THE TILE, THEN THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND/OR THE DRAINAGE SUPERINTENDENT.
b) IF SO ORDERED BY THE ENGINEER AND/OR DRAINAGE SUPERINTENDENT THEN THE CONTRACTOR SHALL INSTALL THE NEW TILE IMMEDIATELY ADJACENT TO THE EXISTING TILE. AFTER CONSTRUCTION IS COMPLETED THE EXISTING TILE SHALL BE DESTROYED WITH A RUBBER TIRE BACKHOE. TILE CONNECTIONS INTO THE EXISTING TILE SHALL BE CONNECTED TO THE NEW TILE.
- THE CONTRACTOR SHALL ENSURE THAT ALL TRIBUTARY DRAINS ARE CONNECTED DURING TIME OF CONSTRUCTION. ANY MISSED TILE CONNECTIONS THAT ARE FOUND DURING THE WARRANTY PERIOD OF THE CONTRACT SHALL BE COMPLETED BY THE CONTRACTOR AND SHALL BE PAID THE AMOUNT SET OUT ON PAGE 2 OF THE "FORM OF TENDER". NO ADDITIONAL PAYMENT FOR MOBILIZATION WILL BE ALLOWED. THE CONTRACTOR IS NOT RESPONSIBLE FOR COMPLETING MISSED TILE CONNECTIONS THAT ARE FOUND AFTER THE WARRANTY PERIOD FOR THE CONTRACT HAS EXPIRED.
b) ALL TILE CONNECTIONS TO BE MADE WITH CORING MACHINE AND PLASTIC ADAPTOR OR PREFABRICATED FITTINGS.
c) THE CONTRACTOR SHALL SUPPLY THE ENGINEER WITH A LIST SHOWING STATIONS OF ALL TILE CONNECTIONS UPON COMPLETION OF CONSTRUCTION.
- SILT FENCE TO BE PLACED ACROSS DITCH BOTTOM AT STA. 0+000 DURING CONSTRUCTION TO PREVENT SILT FROM FLUSHING DOWNSTREAM, AND ARE TO BE MAINTAINED AS NECESSARY DURING CONSTRUCTION. SILT FENCE AND SILT TO BE REMOVED AND DISPOSED OF AFTER CONSTRUCTION.



BRANCH "A"

SCALE: HOR. 1:5,000
VERT. 1:50

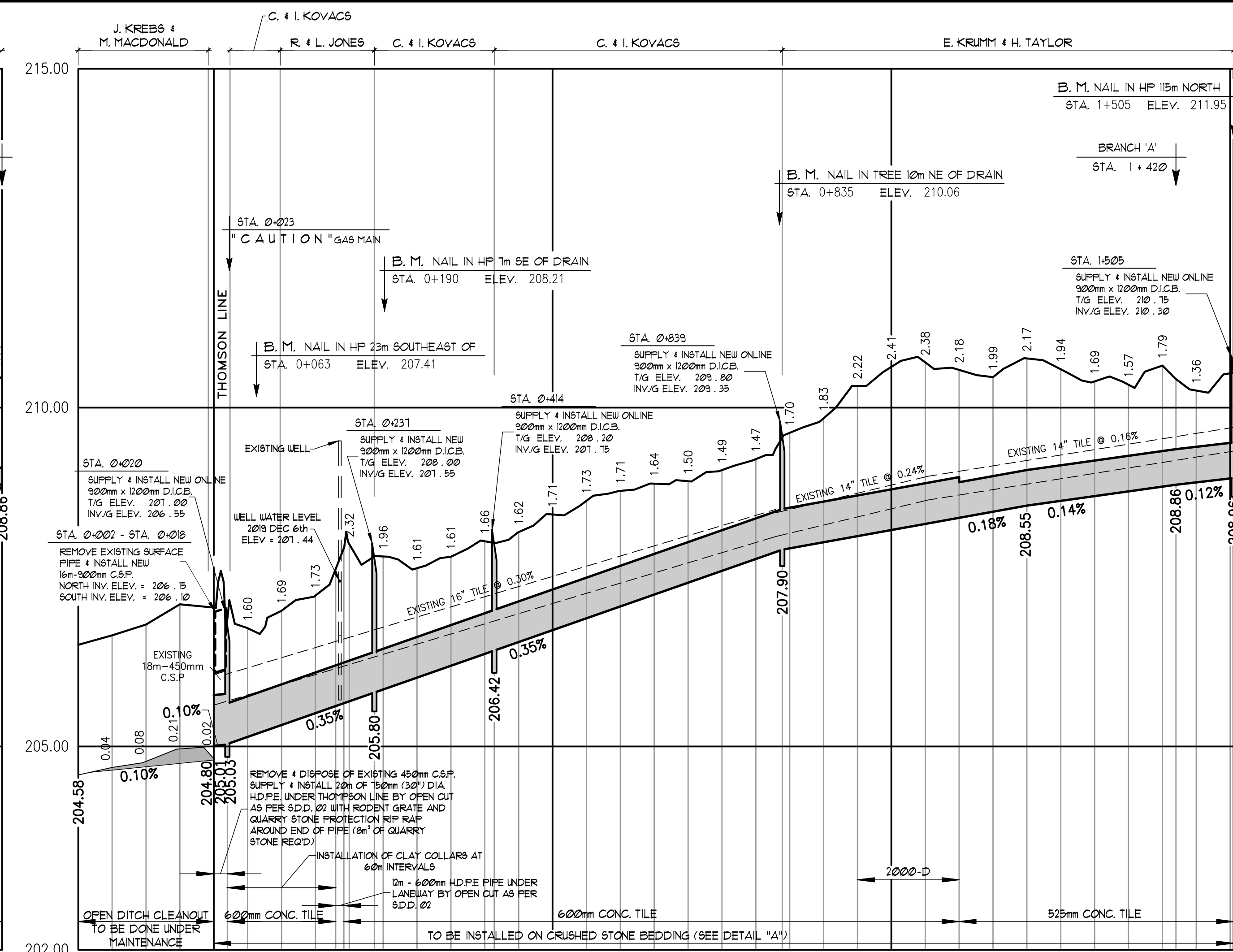


CLAY COLLAR FOR SEWER PIPE

DETAIL "B"

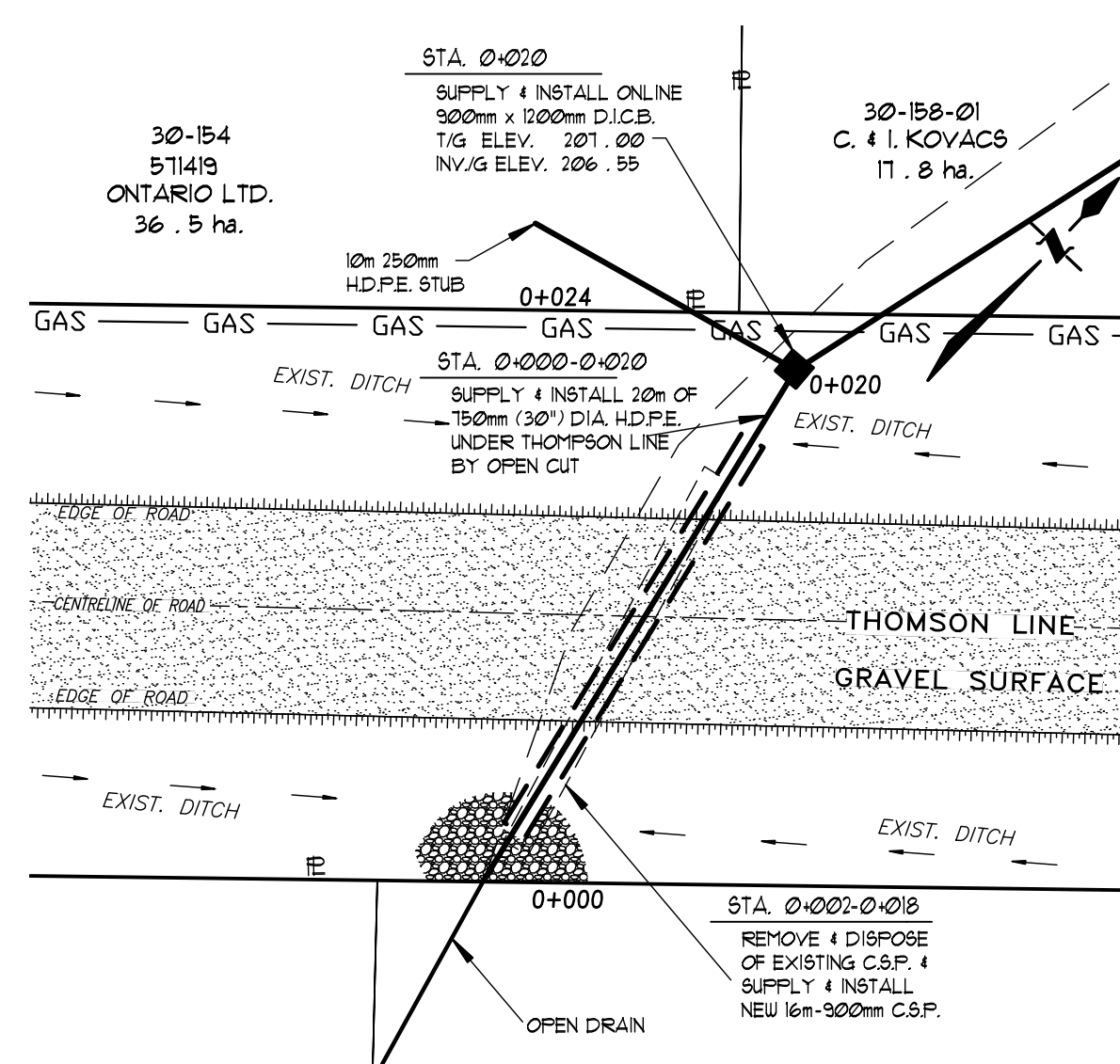
ROAD OPEN CUT CROSSINGS NOTES

- ROAD BASE SHALL CONSIST OF MINIMUM OF 150mm GRANULAR 'A' AND MINIMUM OF 450mm OF GRANULAR 'B'.
- CONTRACTOR TO GIVE ROAD SUPERINTENDENT 48 HOUR NOTICE BEFORE OPEN CUT BEGINS.
- CONTRACTOR PERMITTED TO CLOSE ROAD, NO OVERNIGHT CLOSURES PERMITTED.

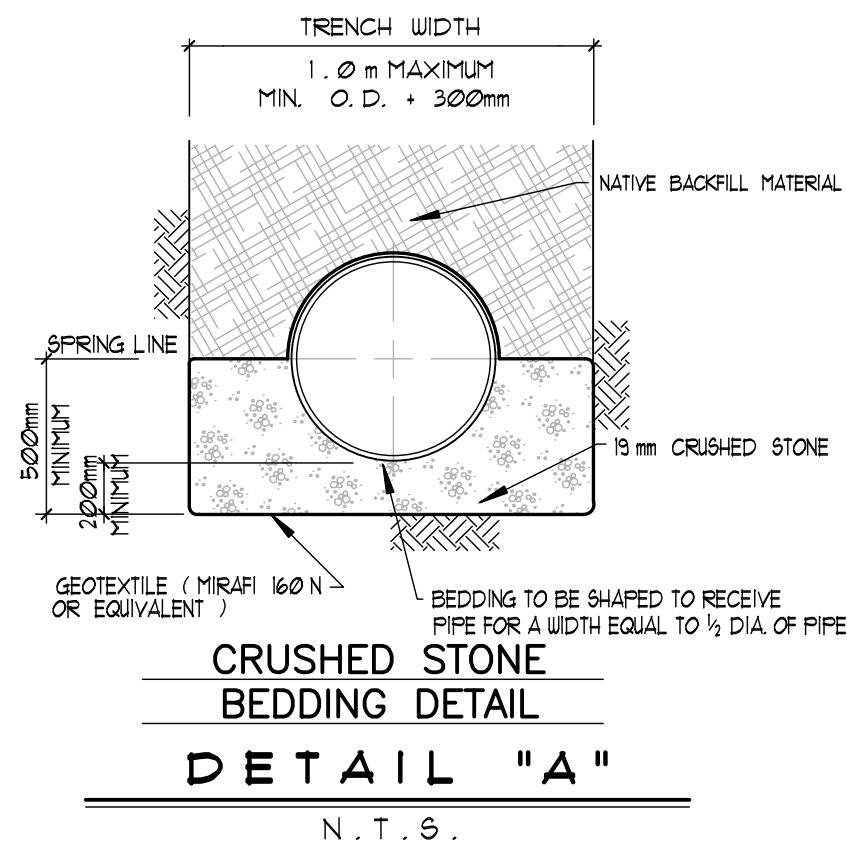


MAIN DRAIN

SCALE: HOR. 1:5,000
VERT. 1:50



ROAD DETAIL SCALE 1:250



YAUCH DRAIN

MUNICIPALITY OF
West Elgin

Municipality of
West Elgin



Drainage Superintendent:
TOM MOHAN
519-785-0560

No.	REVISIONS	DATE



Drawn By: NW	Field Book	JOB No.	Drawing No.
Date: FEB. 14, 2020	G.P.S./B-1174	218131	1 of 1

PLAN, PROFILE, DETAIL & NOTES

SPRIET ASSOCIATES
LONDON CONSULTING ENGINEERS
155 YORK STREET - LONDON (519) 672-4100 - NEA 1A8



MUNICIPALITY OF **West Elgin**

The Corporation Of The Municipality Of West Elgin

By-Law No. 2020-61

A By-law to adopt and maintain a policy with respect community flag raising and flag protocol

Whereas Section 5(3) of the *Municipal Act, 2001, S.O. 2001, c.25*, as amended, provides that a municipal power shall be exercised by By-Law; and

Whereas the Council of The Corporation of the Municipality of West Elgin is desirous of adopting a policy with respect to community flag raising and flag protocol;

Now Therefore the Council of The Corporation of the Municipality of West Elgin enacts as follows:

1. That the Policy with respect to flag raising and flag protocol, identified as Schedule 'A' attached hereto is authorized and approved.
2. That this by-law shall come into force and effect upon the final reading thereof.

Read a first, second, and third time and finally passed this 27th day of August, 2020.

Duncan McPhail
Mayor

Jana Nethercott
Clerk

Municipality of West Elgin

Schedule “A” to By-Law #2020-61

Policy #2020-07

Community Flag Raising and Flag Protocol Policy

Effective Date: August 27, 2020

Review Date:

Purpose

The purpose of this Policy is to provide a protocol by which flags are flown by the Municipality of West Elgin at the following locations:

- Municipal Office – 22413 Hoskins Line, Rodney
- West Elgin Community Centre – 171 Graham Road, West Lorne
- West Elgin Fire Department, Station 2 – 158 Main Street, West Lorne

Scope

This policy relates to displaying of flags, flag raising and half-masting.

Procedure for Community Flag Raising

The Municipality of West Elgin reserves the right to determine which flags will be displayed at the Municipal Office or any Municipal Flag pole as listed and will strive to accommodate and provide opportunities for community groups to display their flags.

The following flags shall be permitted to be flown at the Municipal Office at 22413 Hoskins Line, Rodney, and West Elgin Community Centre, 171 Graham Road, West Lorne including:

- National Flag of Canada, or the flag approved by the Parliament of Canada as a national symbol of Canada;
- Provincial Flag of Ontario, or the flag approved by the Legislative Assembly of Ontario as a provincial symbol of Ontario;
- Flag of a charitable or non-profit organization to help increase public awareness of their programs and activities; and organization that has achieved national or international distinction or made a significant contribution to the community, or an organization that has helped to enhance the Municipality of West Elgin in a positive manner.

Requests for displaying flags and flag raisings may be approved for:

- Non-profit or charitable organizations;

- Recognition of an important visit to the Council of the Municipality of West Elgin;
- Public Awareness Campaigns.

Request will not be approved:

- For political parties or political organizations;
- For religious organizations or the celebration of religious events;
- If the intent is contrary to Municipal policies or by-laws;
- If the intent is to defame the integrity of Council; and
- If the event or organization has no direct relationship to the Municipality of West Elgin.

Process for Displaying of Flags/Flag Raising

Requests for the use of the Municipal flag pole must be submitted in writing to the Clerk, Municipality of West Elgin, 22413 Hoskins Line, Rodney ON N0L 2C0, at least four (4) weeks prior to the day requesting the flag to be displayed. Written requests must include the following information:

- Organization name, address, contact, title, email address, telephone number;
- Proposed date and time;
- Identify whether the request is for displaying a flag and or a flag raising; and
- Type of flag to be raised.

Once submitted the requests will be vetted against this policy and then submitted to the Mayor for formal approval.

The Clerk will maintain an inventory of all flags flown on municipal flag poles.

General Rules

- Approvals and use of the Municipality of West Elgin flag pole will be granted by the Mayor on a first come first served basis;
- An organization's flag shall be flown no more than once per calendar year; organizations shall be required to submit flag raising requests on an annual basis;
- A flag shall be flown for a period of up to one week, or for the duration of the associated event, whichever is less;
- Flags shall only be raised and lowered on those business days that the Municipality is open;
- The maximum number of community flags to be flown at any one time will be one (1);
- The National Flag of Canada must be flown at all times and when no community flag is on a pole, the Flag of the Province of Ontario shall be flown;
- Individuals, groups or associations approved for flag raisings are required to provide the flag to be flown and must pick up the flag once it has been removed; and

- The Municipality of West Elgin reserves the right to choose which flags may or may not be flown on the Municipal Office or any Municipal Flag pole as listed.

Conflicts

- Conflicts with the dates requested for flags to be flown by two or more organizations on the Municipal flag pole shall be settled in favour of the organization which first made its request;
- In the event there is a dispute between an organization and the Clerk as to the eligibility of a request, the appeal process shall be that the Council as a whole considers the request, having full and final say as to whether or not the request to fly a flag will be granted.

Procedure for flying flag at half-mast

Flying a flag at half-mast shall mean the action of flying all flags, forming a single display of flags, at a position that is equal distance from the top and bottom of a flag pole, to mark periods of mourning or to commemorate solemn occasions.

Half-masting (3 days duration), upon notice of death of an individual noted in this section, Operations & Community Services staff shall, at the direction of the Mayor, be immediately notified to take action to lower the Canadian flag for all municipal flag poles. A flag may be removed, for a period of time, due to inclement weather.

Flags are flown at the half-mast position as a sign of respect and condolence or to commemorate significant dates. The flags flown on municipal flag poles are flown at half-mast through this specific application on the death of:

- The current Mayor or member of Municipal Council
- The current Warden or member of County Council
- A current Municipality of West Elgin Employee
- A former Mayor or member of Municipal Council
- A current resident of West Elgin killed in the line of duty for the Canadian Armed Forces

In accordance with the National Flag of Canada protocol, flags will be flown at half-mast:

- On the death of the Sovereign or members of the immediate Royal Family, the Governor General, the Prime Minister, a former Governor General or a former Prime Minister
- On the death of the Lieutenant Governor of Ontario or the Premier of Ontario
- On the death of the local Member of Parliament or the local Member of Provincial Parliament
- November 11: Remembrance Day
- The commemoration of other periods of official mourning and solemn occasions, in keeping with principles of this policy, may be approved by the Mayor.

Municipal Council will be advised of the circumstances surrounding the other solemn occasion. In the event that the Mayor is not available, the Deputy Mayor shall have the delegated authority to decide on circumstances not identified within this policy.

Process

Once approved by the Mayor, the Manager of Operations & Community Services will be responsible for notifying the appropriate staff, regarding the half-masting of flags with respect to the reason and the duration that the flag will be flown at half-mast.



MUNICIPALITY OF **West Elgin**

The Corporation Of the Municipality Of West Elgin

By-Law No. 2019-15

Being A By-Law to provide for the McColl Drain West in the Municipality of West Elgin.

Whereas the Council of the Municipality of West Elgin has procured a report under Section 78 of the *Drainage Act, R.S.O. 1990*, as amended, for the improvement of the McColl Drain West; and

Whereas the reported dated November 11, 2019 has been authored by J.M Spriet of Spriet Associates Engineers and Architects and the attached report forms part of this By-Law; and

Whereas the estimated total cost of the drainage work is \$79,000.00 and

Whereas the Council of The Corporation of the Municipality of West Elgin is of the opinion that the drainage of the area is desirable;

Now Therefore be it resolved that the Council of The Corporation of the Municipality of West Elgin pursuant to the *Drainage Act, R.S.O. 1990*, as amended, enacts as follows:

1. That the report dated November 11, 2019 and attached hereto is hereby adopted and the drainage works as therein indicated and set forth is hereby authorized and shall be completed in accordance therewith.
2. The Corporation may issue debenture(s) for the amount borrowed less the total amount of:
 - a) grants received under Section 85 of the *Drainage Act*;
 - b) monies paid as allowances;
 - c) commuted payments made in respect of lands and roads assessed with the municipality;
 - d) money paid under subsection 61(3) of the *Drainage Act*; and
 - e) money assessed in and payable by another municipality.
3. Such debenture(s) shall be made payable within 5 years from the date of the debenture(s) and shall bear interest at a rate not higher than 2% more than the

municipal lending rates as posted by Infrastructure Ontario on the date of the sale of such debenture(s).

5. A special equal annual rate sufficient to redeem the principal and interest on the debenture(s) and shall be levied upon the lands and roads as shown in the schedule and shall be collected in the same manner and at the same as other taxes are collected in each year for 5 years after the passing of this By-Law.
6. All assessments of \$1,000.00 or less are payable in the first year in which assessments are imposed.
7. That this By-Law comes into force and effect upon the final reading thereof.

Read a first and second time and provisionally adopted this 23rd day of January, 2020.

Duncan McPhail
Mayor

Jana Nethercott
Clerk

Read for a third and final time this 26th day of March, 2020

Duncan McPhail
Mayor

Jana Nethercott
Clerk

McCOLL DRAIN WEST
Municipality of West Elgin



**SPRIET
ASSOCIATES**
ENGINEERS & ARCHITECTS

155 York Street
London, Ontario N6A 1A8
Tel. (519) 672-4100
Fax (519) 433-9351
E-mail MAIL@SPRIET.ON.CA

London, Ontario
November 11, 2019

McCOLL DRAIN WEST
Municipality of West Elgin

To the Mayor and Council of
the Municipality of West Elgin

Mayor and Council:

We are pleased to present our report on the reconstruction and extension of the McColl Municipal Drain West serving parts of Lots A to C, Concession 9, in the Municipality of West Elgin. The total watershed area contains approximately 28.5 hectares.

AUTHORIZATION

This report was prepared pursuant to Section 78 of the Drainage Act. Instructions were received from your Municipality with respect to a motion of Council. The work was initiated by a request signed by an affected landowner.

HISTORY

The McColl Drain was incorporated pursuant to a report submitted by H.H. Todgham, P. Eng. dated June 24, 1964 and consisted of the incorporation of an existing award drain referred to as the McColl Award Drain and the construction of 365 lineal meters of 200mm diameter tile. The total length of the incorporation and construction was 990 lineal meters.

EXISTING DRAINAGE CONDITIONS

A site meeting held with respect to the project and through later discussions, the owners reported the following:

- that the requesting landowner, R. Hyslop (Roll No. 30-076) indicated that the existing drain was no longer functioning adequately. He indicated that the drain was almost entirely full of sediment in various locations and lacked sufficient depth to provide an outlet for the lands draining to it

A field investigation and survey were completed. Upon reviewing our findings, we note the following:



EXISTING DRAINAGE CONDITIONS (cont'd)

- that the existing drain is undersized by current standards and that it lacks sufficient depth to provide an adequate outlet to the lands tributary to it
- that the existing drain is in a state of disrepair and, given the age of it, further repairs are no longer practical

Preliminary design, cost estimates and assessments were prepared, and an informal public meeting was held to review the findings and preliminary proposals. Further input and requests were provided by the affected owners at that time and at later dates. Based on the proposed design it was decided to proceed with the report.

DESIGN CONSIDERATIONS

The proposed drain was designed, with respect to capacity, using the Drainage Coefficient method contained in the "DRAINAGE GUIDE FOR ONTARIO", Publication 29 by the Ontario Ministry of Agriculture, Food, and Rural Affairs. The Drainage Coefficient defines a depth of water that can be removed in a 24-hour period and is expressed in millimetres per 24 hours. The coefficient used for the Main Drain was 38mm.

We would like to point out that there have been no indications of any adverse soil conditions, but no formal soil investigation has been made.

All of the proposed work has been generally designed and shall be constructed in accordance with the DESIGN AND CONSTRUCTION GUIDELINES FOR WORK UNDER THE DRAINAGE ACT.

RECOMMENDATIONS

We are therefore recommending the following:

- that the existing McColl Drain be reconstructed to provide a sufficient outlet for the lands within the watershed area, based on current design standards
- that the McColl Drain now be referred to as McColl Drain West to avoid confusion with another drain of the same name in the Municipality
- that the drain be reconstructed in approximately the same location as the existing drain, commencing at the Morden open drain and travelling east through the lands of A. Dewild (Roll No. 30-073), M. McMillian and D. Stuart (Roll No. 30-075), R. Hyslop (Roll No. 30-076), and to its head just within the lands of C. & R. Knight (Roll No. 30-078) for a total length of 832 lineal meters
- that catchbasins be installed along the course of the drain to alleviate surface flows and ponding and to provide access to the drain
- that the existing McColl Drain, from the Morden Drain to Sta. 0+832, be officially abandoned from municipal status pursuant to Section 19 of the Drainage Act



RECOMMENDATIONS (cont'd)

If areas of poor soil are encountered at the time of construction, it may become necessary to install the tile on crushed stone bedding wrapped with geotextile or substitute plastic filter tile through such areas. The additional costs of such work would be an extra to the project. These areas are typically identified at the time of construction but may only become apparent after construction is completed. In this case, the extra costs for removal and reinstallation on stone bedding would be an extra to the project and if already billed become a supplementary billing.

ENVIRONMENTAL CONSIDERATIONS AND MITIGATION MEASURES

There are no significant wetlands or sensitive areas within the affected watershed area or along the route of the drains. The proposed construction of the McColl Drain West includes quarry stone outlet protection and surface inlets which greatly help reduce the overland surface flows and any subsequent erosion. A temporary flow check of silt fencing is to be installed in the ditch downstream of the tile outlet for the duration of the construction.

SUMMARY OF PROPOSED WORK

The proposed work consists of approximately 832 lineal meters of 350mm (14") to 450mm (18") concrete field tile, including related appurtenances.

SCHEDULES

Four schedules are attached hereto and form part of this report, being Schedule 'A' - Allowances, Schedule 'B' - Cost Estimate, Schedule 'C' - Assessment for Construction, and Schedule 'D' - Assessment for Maintenance.

Schedule 'A' - Allowances. In accordance with Sections 29 and 30 of the Drainage Act, allowances are provided for right-of-way and damages to lands and crops along the route of the drain as defined below.

Schedule 'B' - Cost Estimate. This schedule provides for a detailed cost estimate of the proposed work which is in the amount of \$ 79,000.00. This estimate includes engineering and administrative costs associated with this project.

Schedule 'C' - Assessment for Construction. This schedule outlines the distribution of the total estimated cost of construction over the roads and lands which are involved.

Schedule 'D' - Assessment for Maintenance. In accordance with Section 38 of the Drainage Act, this schedule outlines the distribution of future repair and/or maintenance costs for portions of, or the entire drainage works.

Drawing No. 1, Job No. 219092, and specifications form part of this report. They show and describe in detail the location and extent of the work to be done and the lands which are affected.



ALLOWANCES

DAMAGES: Section 30 of the Drainage Act provides for the compensation to landowners along the drain for damages to lands and crops caused by the construction of the drain. The amount granted is based on \$3,613.00/ha. for closed drain installed with wheel machine. This base rate is multiplied by the hectares derived from the working widths shown on the plans and the applicable lengths.

RIGHT-OF-WAY Section 29 of the Drainage Act provides for an allowance to the owners whose land must be used for the construction, repair, or future maintenance of a drainage works.

For tile drains where the owners will be able to continue to use the land, the allowance provides for the right to enter upon such lands, and at various times for the purpose of inspecting such drain, removing obstructions, and making repairs. Also, the allowance provides for the restrictions imposed on those lands to protect the right-of-way from obstruction or derogation. The amounts granted for right-of-way on tile drains is based on a percentage of the value of the land designated for future maintenance. Therefore, the amounts granted are based on \$6,670.00/ha. through cropped lands. This value is multiplied by the hectares derived from the width granted for future maintenance and the applicable lengths.

ASSESSMENT DEFINITIONS

In accordance with the Drainage Act, lands that make use of a drainage works are liable for assessment for part of the cost of constructing and maintaining the system. These liabilities are known as benefit and outlet liability as set out under Sections 22, 23, 24 and 26 of the Act.

BENEFIT as defined in the Drainage Act means the advantages to any lands, roads, buildings or other structures from the construction, improvement, repair or maintenance of a drainage works such as will result in a higher market value or increased crop production or improved appearance or better control of surface or sub-surface water, or any other advantages relating to the betterment of lands, roads, buildings or other structures.

OUTLET liability is assessed to lands or roads that may make use of a drainage works as an outlet either directly or indirectly through the medium of any other drainage works or of a swale, ravine, creek or watercourse.

In addition, a Public Utility or Road Authority shall be assessed for and pay all the increased cost to a drainage works due to the construction and operation of the Public Utility or Road Authority. This may be shown as either benefit or special assessment.

ASSESSMENT

A modified "Todgham Method" was used to calculate the assessments shown on Schedule 'C'- Assessment for Construction. This entailed breaking down the costs of the drain into sections along its route.



ASSESSMENT (cont'd)

The remainder is then separated into Benefit and Outlet costs. The Benefit cost is distributed to those properties receiving benefit as defined under "Assessment Definitions", with such properties usually being located along or close to the route of the drain. The Outlet Costs are distributed to all properties within the watershed area of that section on an adjusted basis. The areas are adjusted for location along that section, and relative run-off rates. Due to their different relative run-off rates, forested lands have been assessed for outlet at lower rates than cleared lands.

The actual cost of the work involving this report is to be assessed on a pro-rata basis against the lands and roads liable for assessment for benefit and outlet as shown in detail below and on Schedule 'C' - Assessment for Construction.

MAINTENANCE

Upon completion of construction, all owners are hereby made aware of Sections 80 and 82 of the Drainage Act which forbid the obstruction of or damage or injury to a municipal drain.

After completion, the McColl Drain West including the existing upstream portion shall be maintained by the Municipality of West Elgin at the expense of all upstream lands and roads assessed in Schedule 'D' - Assessment for Maintenance and in the same relative proportions until such time as the assessment is changed under the Drainage Act.

The above existing portions of the drain, upstream of these works, shall be maintained in accordance with the grades and dimensions set out in the plans and specifications contained in the report by H.H. Todgham, P.Eng., dated June 24, 1964.

Respectfully submitted,

SPRIET ASSOCIATES LONDON LIMITED

JMS:bv



J.M. Spriet, P.Eng.



SPRIET ASSOCIATES
engineers & architects

SCHEDULE 'A' - ALLOWANCES

McCOLL DRAIN WEST

Municipality of West Elgin

In accordance with Sections 29 and 30 of the Drainage Act, we determine the allowances payable to owners entitled thereto as follows:

CONCESSION	LOT	ROLL NUMBER (Owner)	Section 29 Right-of-Way	Section 30 Damages	TOTALS
MAIN DRAIN					
9	Pt. A	30-073 (A. Dewild)	\$ 1,150.00	\$ 940.00	\$ 2,090.00
9	NW¼ B	30-075 (M. McMillian)	2,030.00	1,650.00	3,680.00
9	NE¼ B	30-076 (R. Hyslop)	2,330.00	1,890.00	4,220.00
9	NW¼ C	30-078 (C. & R. Knight)	40.00	30.00	70.00
			=====		
Total Allowances			\$ 5,550.00	\$ 4,510.00	\$ 10,060.00
			=====		
TOTAL ALLOWANCES ON THE MAIN DRAIN					\$ <u>10,060.00</u>
TOTAL ALLOWANCES ON THE McCOLL DRAIN WEST					\$ <u>10,060.00</u>

SCHEDULE 'B' - COST ESTIMATE

7

McCOLL DRAIN WEST

Municipailty of West Elgin

We have made an estimate of the cost of the proposed work which is outlined in detail as follows:

MAIN DRAIN

6 meters of 450mm dia., H.D.P.E. plastic sewer pipe including rodent gate,
quarry stone rip-rap protection around pipe and end of ditch
(Approximately 6m³ quarry stone req'd)

Supply	\$ 600.00
Installation	\$ 1,200.00

Installation of the following concrete field tile, including supply and installation
of geotextile around tile joints (approx. 1250m req'd)

182 meters of 350mm dia. concrete tile	\$ 3,700.00
173 meters of 400mm dia. concrete tile	\$ 3,700.00
471 meters of 450mm dia. concrete tile	\$ 10,500.00

Supply of the above listed tile	\$ 21,400.00
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Strip, stockpile and releve topsoil from tile trench and adjacent working area
(4m wide) specified on drawings (approx. 832m)

\$ 4,100.00

Supply and install three 600mm x 600mm ditch inlet catchbasin, including grates,
berms, ditching, removal and disposal of existing catachbasins

\$ 5,700.00

Exposing and locating existing tile drains and utilities

\$ 1,000.00

Tile connections and contingencies

\$ 2,300.00

Allowances under Sections 29 & 30 of the Drainage Act

\$ 10,060.00

ADMINISTRATION

Interest and Net Harmonized Sales Tax

\$ 1,680.00

Survey, Plan and Final Report

\$ 9,700.00

Expenses

\$ 870.00

Supervision and Final Inspection

\$ 2,490.00

TOTAL ESTIMATED COST

<u>\$ 79,000.00</u>

SCHEDULE 'C' - ASSESSMENT FOR CONSTRUCTION

McCOLL DRAIN WEST

Municipality of West Elgin

Job No. 219092

November 11, 2019

* = Non-agricultural

CON.	LOT	HECTARES AFFECTED	ROLL No. (OWNER)	BENEFIT	OUTLET	TOTAL
MAIN DRAIN						
9	Pt. A	2.0	30-073 (A. Dewild)	\$ 8,620.00	\$ 379.00	\$ 8,999.00
9	NW¼ B	6.1	30-075 (M. McMillian)	14,650.00	4,293.00	18,943.00
9	NE¼ B	7.3	30-076 (R. Hyslop)	18,390.00	10,317.00	28,707.00
9	S½ B	2.0	30-077 (R. Hyslop)		1,551.00	1,551.00
9	NW¼ C	10.1	30-078 (C. & R. Knight)	1,320.00	17,676.00	18,996.00
9	SW¼ C	2.0	30-080 (S. Stankov)		1,804.00	1,804.00
TOTAL ASSESSMENT ON LANDS				\$ 42,980.00	\$ 36,020.00	\$ 79,000.00

TOTAL ASSESSMENT ON THE MAIN DRAIN

\$ 79,000.00

TOTAL ASSESSMENT ON THE McCOLL DRAIN WEST

\$ 79,000.00

SCHEDULE 'D' - ASSESSMENT FOR MAINTENANCE

McCOLL DRAIN WEST**Municipality of West Elgin**

Job No. 219092

November 11, 2019

CON.	LOT	HECTARES AFFECTED	ROLL No. (OWNER)	PERCENTAGE OF MAINTENANCE COST
MAIN DRAIN				
9	Pt. A	2.0	30-073 (A. Dewild)	8.2 %
9	NW¼ B	6.1	30-075 (M. McMillian)	20.2
9	NE¼ B	7.3	30-076 (R. Hyslop)	33.8
9	S½ B	2.0	30-077 (R. Hyslop)	2.7
9	NW¼ C	10.1	30-078 (C. & R. Knight)	31.9
9	SW¼ C	2.0	30-080 (S. Stankov)	3.2
				=====
TOTAL ASSESSMENT ON LANDS				100.0 %
				=====
TOTAL ASSESSMENT FOR MAINTENANCE OF THE MAIN DRAIN				<u>100.0 %</u>

SCHEDULE OF NET ASSESSMENT

McCOLL DRAIN WEST

Municipality of West Elgin

(FOR INFORMATION PURPOSES ONLY)

Job No. 219092

November 11, 2019

* = Non-agricultural

ROLL NUMBER (OWNER)	TOTAL ASSESSMENT	GRANT	ALLOWANCES	APPROX. NET
30-073 (A. Dewild)	\$ 8,999.00	\$ 3,000.00	\$ 2,090.00	\$ 3,909.00
30-075 (M. McMillian)	18,943.00	6,314.00	3,680.00	8,949.00
30-076 (R. Hyslop)	28,707.00	9,569.00	4,220.00	14,918.00
30-077 (R. Hyslop)	1,551.00	517.00		1,034.00
30-078 (C. & R. Knight)	18,996.00	6,332.00	70.00	12,594.00
30-080 (S. Stankov)	1,804.00	601.00		1,203.00
TOTALS	\$ 79,000.00	\$ 26,333.00	\$ 10,060.00	\$ 42,607.00

SCHEDULE 'C' - ASSESSMENT FOR CONSTRUCTION

McCOLL DRAIN WEST**Municipality of West Elgin**

Job No. 219092

November 11, 2019

Revised February 21, 2020

* = Non-agricultural

CON.	LOT	HECTARES AFFECTED	ROLL No. (OWNER)	BENEFIT	OUTLET	TOTAL
MAIN DRAIN						
9	Pt. A	2.0	30-073 (A. Dewild)	\$ 8,620.00	\$ 512.00	\$ 9,132.00
9	NW¼ B	6.1	30-075 (M. McMillian)	14,650.00	5,215.00	19,865.00
9	NE¼ B	7.3	30-076 (R. Hyslop)	18,390.00	13,404.00	31,794.00
9	S½ B	2.0	30-077 (R. Hyslop)		2,145.00	2,145.00
9	NW¼ C	10.1	30-078 (C. & R. Knight)	1,320.00	12,307.00	13,627.00
9	SW¼ C	2.0	30-080 (S. Stankov)		2,437.00	2,437.00
TOTAL ASSESSMENT ON LANDS				\$ 42,980.00	\$ 36,020.00	\$ 79,000.00

TOTAL ASSESSMENT ON THE MAIN DRAIN**\$ 79,000.00****TOTAL ASSESSMENT ON THE McCOLL DRAIN WEST****\$ 79,000.00**

SCHEDULE 'D' - ASSESSMENT FOR MAINTENANCE

McCOLL DRAIN WEST

Municipality of West Elgin

Job No. 219092

November 11, 2019

Revised February 21, 2020

CON.	LOT	HECTARES AFFECTED	ROLL No. (OWNER)	PERCENTAGE OF MAINTENANCE COST
MAIN DRAIN				
9	Pt. A	2.0	30-073 (A. Dewild)	8.4 %
9	NW¼ B	6.1	30-075 (M. McMillian)	21.8
9	NE¼ B	7.3	30-076 (R. Hyslop)	39.3
9	S½ B	2.0	30-077 (R. Hyslop)	3.7
9	NW¼ C	10.1	30-078 (C. & R. Knight)	22.5
9	SW¼ C	2.0	30-080 (S. Stankov)	4.3
				=====
TOTAL ASSESSMENT ON LANDS				100.0 %
				=====
TOTAL ASSESSMENT FOR MAINTENANCE OF THE MAIN DRAIN				<u>100.0 %</u>

SCHEDULE OF NET ASSESSMENT

McCOLL DRAIN WEST

Municipality of West Elgin

(FOR INFORMATION PURPOSES ONLY)

Job No. 219092

November 11, 2019
Revised February 21, 2020

* = Non-agricultural

ROLL NUMBER (OWNER)	TOTAL ASSESSMENT	GRANT	ALLOWANCES	APPROX. NET
30-073 (A. Dewild)	\$ 9,132.00	\$ 3,044.00	\$ 2,090.00	\$ 3,998.00
30-075 (M. McMillian)	19,865.00	6,622.00	3,680.00	9,563.00
30-076 (R. Hyslop)	31,794.00	10,598.00	4,220.00	16,976.00
30-077 (R. Hyslop)	2,145.00	715.00		1,430.00
30-078 (C. & R. Knight)	13,627.00	4,542.00	70.00	9,015.00
30-080 (S. Stankov)	2,437.00	812.00		1,625.00
TOTALS	\$ 79,000.00	\$ 26,333.00	\$ 10,060.00	\$ 42,607.00



MUNICIPALITY OF **West Elgin**

The Corporation Of The Municipality Of West Elgin

By-Law No. 2020-62

Being a By-Law to confirm the proceedings of the Regular Meeting of Council held on August 27, 2020.

Whereas Section 5(1) of the Municipal Act, 2001, S.O. 2001, c.25, as amended, the powers of a municipality shall be exercised by council; and

Whereas Section 5(3) of the Municipal Act, the powers of Council shall be exercised by by-law; and

Whereas it is deemed expedient that proceedings of Council of the Corporation of the Municipality of West Elgin as herein set forth be confirmed and adopted by by-law;

Now therefore the Council of the Municipality of West Elgin enacts as follows:

1. That the actions of the meeting of Council held on August 27, 2020, in respect of each recommendation, motion and resolution and other action taken by the Council at this meeting, is hereby adopted and confirmed as if all such proceedings were expressly embodied in this by-law.
2. The Mayor and proper officials of the Corporation of the Municipality of West Elgin are hereby authorized and directed to do all things necessary to give effect to the action of the Council referred to in the preceding section hereof.
3. The Mayor and Clerk are hereby authorized and directed to execute all documents necessary in that behalf and to affix the Seal of the Corporation of the Municipality of West Elgin.

Read a first, second, and third time and finally passed this 27th day of August, 2020.

Duncan McPhail
Mayor

Jana Nethercott
Clerk