

# **The Corporation of the City of Kawartha Lakes**

## **Agenda**

### **Committee of the Whole Meeting**

**COW2020-07**

**Tuesday, November 3, 2020**

**Open Session Commencing at 1:00 p.m. - Electronic Public Participation**

**Council Chambers**

**City Hall**

**26 Francis Street, Lindsay, Ontario K9V 5R8**

#### **Members:**

**Mayor Andy Letham**

**Deputy Mayor Patrick O'Reilly**

**Councillor Ron Ashmore**

**Councillor Pat Dunn**

**Councillor Doug Elmslie**

**Councillor Tracy Richardson**

**Councillor Kathleen Seymour-Fagan**

**Councillor Andrew Veale**

**Councillor Emmett Yeo**

**Note: This will be an electronic participation meeting and public access to Council Chambers will not be available. Please visit the City of Kawartha Lakes YouTube Channel at <https://www.youtube.com/c/CityofKawarthaLakes> to view the proceedings.**

**Accessible formats and communication supports are available upon request. The City of Kawartha Lakes is committed to accessibility for persons with disabilities. Please contact [AgendaItems@kawarthalakes.ca](mailto:AgendaItems@kawarthalakes.ca) if you have an accessible accommodation request.**

		<b>Pages</b>
<b>1.</b>	<b>Call to Order</b>	
<b>2.</b>	<b>Adoption of Agenda</b>	
<b>3.</b>	<b>Disclosure of Pecuniary Interest</b>	
<b>4.</b>	<b>Deputations</b>	
4.1.	COW2020-07.4.1	13 - 15
	<b>Proposed Listing of 100 Front Street East, Bobcaygeon on the Heritage Register (Item 7.3 on the Agenda) Roberto Mangoni</b>	
4.2.	COW2020-07.4.2	16 - 18
	<b>Request for Sidewalks along Commerce Road, Lindsay Betty Giutsos</b>	
4.3.	COW2020-07.4.3	19 - 21
	<b>Resident Efforts to Adjust to the New Normal Under the COVID-19 Pandemic Mike Perry Dennis Geelan</b>	
4.4.	COW2020-07.4.4	22 - 25
	<b>Request for the Creation of a Pedestrian Pathway in Bobcaygeon Richard Fedy John Bush</b>	
<b>5.</b>	<b>Correspondence</b>	
5.1.	COW2020-07.5.1	26 - 44
	<b>Correspondence Regarding a Proposed Growers Retail Store at 566 Frank Hill Road, Kawartha Lakes Simon Fung, Borden Ladner Gervais LLP</b>	



**6. Presentations**

**6.1. COW2020-07.6.1**

**Bee Hero Awards Presentation**

Tracy Richardson, Councillor

Pat Warren, Chair, Kawartha Lakes Environmental Advisory Committee

**6.2. COW2020-07.6.2**

**Economic Recovery Task Force Presentation**

Rebecca Mustard, Manager, Economic Development

John Gillis, President, Innovation Cluster-Peterborough and the  
Kawarthas

**6.2.1. Report ED2020-023**

45 - 57

**Economic Recovery Task Force Recommendations**

Rebecca Mustard, Manager, Economic Development

**That Report ED2020-23, Economic Recovery Task Force Recommendations**, be received;

**That** permit fees for park use, patios and events in 2021 be waived, with forecasted reduced revenue identified in the 2021 budget;

**That** the downtown Fenelon Falls reconstruction project be included as a decision unit in the 2021 capital budget;

**That** an increase in garbage cans and frequency of waste pick up in our downtowns and major parks be costed and included as a decision unit in the 2021 budget;

**That** portable washrooms and associated directional signage in our downtowns and parks be costed and included as a decision unit in the 2021 budget;

**That** accelerated investment in our boat launches and trails for improved access and enjoyment be costed and included as a decision unit in the 2021 budget;

**That** Council supports the work of EORN and EOWC for the Eastern Ontario “1 GIG” proposal for increased broadband capacity;

**That** Council directs staff to develop a cultural sector recovery grant program for 2021, which could be applied to operating costs for our arts and culture community, and report back to council on the scope of the program by end of Q1 2021;

**That** Council approves a modified extension to the Kawartha Lakes Innovation Cluster Pilot program until December 31, 2021, through in-kind support to provide specific support for high growth businesses;

**That** Council endorses the Economic Recovery Task Force Action Plan as provided in Appendix A to this report; and

**That** these recommendations be brought forward to Council for consideration at the next Regular Council Meeting.

6.3. COW2020-07.6.3

**Community Pandemic Recovery Task Force Presentation**

Amy Terrill, Co-Chair, Community Pandemic Recovery Task Force

Heather Kirby, Co-Chair, Community Pandemic Recovery Task Force

**Community Pandemic Recovery Task Force Recommendations**

Rod Sutherland, Director, Human Services

**That** Report HS2020-005, **Community Pandemic Recovery Task Force Recommendations**, be received; and

**That** staff be directed to develop a framework for a Kawartha Lakes Community Recovery Fund to support pandemic recovery and relief efforts for non-profit and community service providers in the broader health and human services sector, including the identification of the scope and criteria for the fund; funding levels and source for presentation to Council in the first quarter of 2021; and

**That** the proposed Kawartha Lakes Community Recovery Fund incorporate the 2021 Lindsay Legacy CHEST Fund allocation for eligible proposals within Lindsay; and

**That** staff be directed to proceed with modifying the 2021 and 2022 50/50 Community Project Capital Funding Program application process by waiving the requirement for a matching contribution from applicants; and

**That** staff be directed to identify internal resources and external supports that could be made available for workshops and information sessions to community organizations in support of pandemic response and recovery and develop a 2021 schedule for delivery; and

**That** these recommendations be brought forward to Council for consideration at the next Regular Council Meeting.

## 6.4. COW2020-07.6.4

**Fenelon Falls Second Crossing Environmental Assessment Presentation**

Rory Baksh, Dillon Consulting

Merrilees Willemse, Dillon Consulting

Ian Borsuk, Dillon Consulting

## 6.4.1. ENG2020-023

**Fenelon Falls Second Crossing Environmental Assessment Presentation**

Martin Sadowski, Senior Engineering Technician

Corby Purdy, Supervisor, Infrastructure, Design and Construction

**That** Report ENG2020-023, **Fenelon Falls Second Crossing EA Presentation**, be received; and

**That** this recommendation be brought forward to Council for consideration at the next Regular Council Meeting.

**7. Reports**

7.1. CORP2020-009 93 - 105

**2020 Q2 Capital Close**  
Nicole Esper, Junior Accountant

**That** Report CORP2020-009, **2020 Q2Capital Close**, be received;

**That** the capital projects identified in Attachment A to Report CORP2020-009 be approved to be closed due to completion;

**That** the balances in the table below as per Attachment A be transferred to or from the corresponding reserves;

<b>Reserve</b>	<b>Report Closing Balance</b>
Capital Contingency Reserve	\$316,626.73
Victoria Manor Capital Reserve	\$22,856.17
Public Works Fleet Reserve	\$221,368.81
Police Reserves	\$27,049.68
Sewer Infrastructure Reserve	\$15,851.90

**That** the following projects be granted an extension to December 31, 2020:

- 950151801 - \*\*\*Logie Park
- 950153301 - \*\*\*Shoreline Restoration
- 928171901 - \*\*\*P&R Software
- 932172201 - \*\*\*Coboconk Fire Hall Upgrades
- 983191001 – 2019 Streetlighting
- 983191301 – 2019 Municipal Drains
- 997190201 – 2019 Lindsay Landfill Electricity System
- 928190100 – 2019 IT Systems
- 938190300 – 2019 Paramedic Equipment
- 998190400 – 2019 WWW Study & Special Projects
- 983181400 – 2018 Gravel Road Rehabilitation
- 983190100 – 2019 Bridges
- 983190300 – 2019 Urban/Rural Reconstruction
- 983190400 – 2019 Urban/Rural Resurfacing
- 983190500 – 2019 Rural Resurfacing
- 983190700 – 2019 Road Lifecycle Extension

- 983191100 – 2019 Traffic Systems
- 983191400 – 2019 Parking Lots
- 997190100 – 2019 Landfill Siteworks
- 998190100 – 2019 Water Treatment Program
- 998190200 – 2019 Wastewater Treatment
- 998190300 – 2019 Water Distribution & Wastewater Collection

**That** the following projects be granted an extension to June 30, 2021:

- 987180100 - \*\*\*2018 Airport Siteworks
- 987190100 - \*\*\*2019 Airport Siteworks
- 987190200 - \*\*\*GPS Approach Signals

**That** the following projects be granted an extension to December 31, 2021:

- 928151500 - \*\*\*ERP System
- 987190301 - \*\*\*Airport Capital Plan
- 999190101 – \*\*\*Record Document Management System
- 987200100 - \*\*\*2020 Airport Siteworks

**That** the following projects be reclassified as Multi-year projects:

- 950190201 – Centennial Park Washrooms
- 953180119 – Old Gaol Wall
- 969190101 – Victoria Manor Concept Design

**That** project 953200501 – M/Y City Hall Systems be closed and combined with 953180101 – M/Y City Hall HVAC Systems

**That** this recommendation be brought forward to Council for consideration at the next Regular Council Meeting.

7.2.

CORP2020-016

106 - 108

**Incentives/Relief for Non-Profit Medical Trusts**

Linda Liotti, Manager, Revenue and Taxation

**That** Report CORP2020-016, **Incentives/Relief for Non-Profit Medical Trusts**, be received; and

**That** this recommendation be brought forward to Council for consideration at the next Regular Council Meeting.

7.3. ED2020-022 109 - 174

**Listing Properties on the Heritage Register**

Emily Turner, Economic Development Officer - Heritage Planning

**That** Report ED2020-022, **Listing Properties on the Heritage Register**, be received;

**That** the proposed listing of non-designated properties on the City of Kawartha Lakes Heritage Register included in Appendix A be approved; and

**That** this recommendation be brought forward to Council for consideration at the next Regular Council Meeting.

7.4. ED2020-025 175 - 198

**Proposed Designation of 28 Boyd Street, Bobcaygeon**

Emily Turner, Economic Development Officer - Heritage Planning

**That** Report ED2020-025, **Proposed Designation of 28 Boyd Street, Bobcaygeon**, be received;

**That** the Municipal Heritage Committee's recommendation to designate 28 Boyd Street under Part IV of the Ontario Heritage Act as being of cultural heritage value or interest be endorsed;

**That** staff be authorized to proceed with the process to designate the subject property under Part IV of the Ontario Heritage Act, including the preparation and circulation of a Notice of Intention to Designate, and preparation of the designating by-law;

**That** a designating by-law be brought forward to Council at the next Regular Council Meeting following the end of the notice period; and

**That** this recommendation be brought forward to Council for consideration at the next Regular Council Meeting.

7.5. WM2020-011 199 - 229

**Textile Recycling Pilot Program**

David Kerr, Manager, Environmental Services

**That** Report WM2020-011, **Textile Recycling Pilot Program**, be received;

**That** Staff issue a Request for Proposal to partner with an organization to develop and implement a textile recycling pilot program for 2021;

**That** Staff report the results of the pilot program and future recommendations for textile recycling to Council by June 30, 2022; and

**That** this recommendation be brought forward to Council for consideration at the next Regular Council meeting.

7.6. WWW2020-007 230 - 236

**Sanitary Infrastructure Subsidy and Loan Program**

Robert MacPherson, Water and Wastewater Technician

**That** Report WWW2020-007, **Sanitary Infrastructure Subsidy and Loan Program**, be received; and

**That** this recommendation be brought forward to Council for consideration at the next Regular Council Meeting.

7.7. WWW2020-008 237 - 297

**Drinking Water Quality Management System Review and Endorsement**

Julie Henry, Quality Management and Policy Coordinator



**That Report WWW2020-008, Drinking Water Quality Management System Review and Endorsement**, be received;

**That** the City of Kawartha Lakes Water and Wastewater Quality Management System be endorsed by Council;

**That** the City of Kawartha Lakes Water and Wastewater Quality Management System Policy statements be adopted;

**That** the Ontario Clean Water Agency Quality Management System Policy statements be received and endorsed;

**That** the external surveillance audit report for the Water and Wastewater Division (as the accredited Operating Authority) be received;

**That** the external surveillance audit report for Ontario Clean Water Agency (as the accredited Operating Authority) be received;

**That** the City of Kawartha Lakes Water and Wastewater Division Management Review Summary be received; and

**That** these recommendations be brought forward to Council for consideration at the next Regular Council Meeting.

7.8.

RD2020-001

298 - 404

**Street Sweepings Characterization and Potential for Reuse**

Richard Monaghan, Senior Engineering Technician

**That Report RD2020-001, Street Sweepings Characterization and Potential for Reuse**, be received;

**That** Staff be directed to explore practicality and implement increased diversion of street sweepings from the City's landfills where cost beneficial through use during other road maintenance activities; and

**That** this recommendation be brought forward to Council for consideration at the next Regular Council meeting.

7.9.

LGL2020-011

405 - 415

**Regulation of Nuisance Associated with Cannabis Cultivation and Processing Operations within the City of Kawartha Lakes**

Robyn Carlson, City Solicitor

Aaron Sloan, Manager of Municipal Law Enforcement and Licensing

Jonathan Derworiz, Planner II

**That** Report RS2020-011, **Regulation of Nuisance associated with Cannabis Cultivation and Processing Operations within the City of Kawartha Lakes**, be received;

**That** a by-law to amend the Property Standards By-law in the form attached as Appendix “A” be placed before the Agricultural Development Advisory Committee for review and comment;

**That** an amendment to the Fees and Charges By-law substantially in the form attached as Appendix “B” be forwarded to Council for adoption;

**That** a further report come forward from Development Services, to discuss potential by-law amendments to the various Zoning By-laws in force and effect throughout the municipality, following statutory public consultation; and

**That** these recommendations be forwarded to Council for consideration at the next Regular Council Meeting.

8. **Memorandums**
9. **Closed Session**
10. **Matters from Closed Session**
11. **Adjournment**



# Request to Speak before Council

Request to Make a Deputation/Presentation to  
Council/Committee  
City of Kawartha Lakes  
City Clerk's Office  
26 Francis Street, PO Box 9000  
Lindsay, ON K9V 5R8  
705-324-9411

**Name: \***

ROBERTO MANGONI

**Address: \***

100 FRONT STREET EAST

**City/Town/Village:**

BOBCAYGEON

**Province: \***

ONTARIO

**Postal Code:**

K0M 1A0

**Telephone: \***

[REDACTED]

**Email: \***

[REDACTED]

There can be a maximum of two speakers for each deputation. Please list the name(s) of the individual(s) who will be speaking. The names that are listed here will be included on the Council Meeting Agenda.

**Deputant One:**

ROBERTO MANGONI

**Deputant Two:**

First Name, Last Name

**Please provide details of the matter to which you wish to speak: \***

I Would like to talk about not Identify this property as a potential heritage value.

Please attach any additional supporting documents you wish to provide and submit with this completed form.

**Have you discussed this matter with City Staff?**

☒ Yes

☐ No

**If yes, Which department and staff member(s) have you spoken to?**

**What action are you hoping will result from your presentation/deputation? \***

That you do not make this a heritage site.

By signing this form you are acknowledging that all of the information you are providing on this form is true, and giving the City permission to collect your personal information for the principal purpose of a request to make a deputation to Committee or Council as outlined below.

**Signature:**

ROBERTO MANGONI

**Date:**

9/28/2020



The personal information is being collected by the City of Kawartha Lakes for the principal purpose of a request to make a deputation to Committee or Council pursuant to the City's procedural by-law. This information, including all attachments submitted may be circulated to members of Council, staff, the general public and posted on the City website. Questions about the collection of this information should be directed to the City Clerk or Deputy Clerk at 705 324-9411 ext. 1295 or 1322.

**Do you understand how your information will be used and agree to allow the City to use your personal information provided on this form, including any attachments for the purposes of requesting to make a deputation to Committee or Council? \***

☒ Yes

Please complete this form and return to the City Clerk's Office by submitting it online or:  
Fax: 705-324-8110 Email: [agendaitems@kawarthalakes.ca](mailto:agendaitems@kawarthalakes.ca)



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City of Kawartha Lakes  
City Clerk's Office  
26 Francis Street, PO Box 9000  
Lindsay, ON K9V 5R8  
705-324-9411

**Name: \***

Betty Giutsos

**Address: \***

27 Briarwood Ave.

**City/Town/Village:**

Lindsay

**Province: \***

Ontario

**Postal Code:**

K9V 0M1

**Telephone: \***

[REDACTED]

**Email: \***

[REDACTED]

There can be a maximum of two speakers for each deputation. Please list the name(s) of the individual(s) who will be speaking. The names that are listed here will be included on the Council Meeting Agenda.

**Deputant One:**

Betty Giutsos

**Deputant Two:**

**Please provide details of the matter to which you wish to speak: \***

There are a lot of people living in the Cloverleaf subdivision and the adjoining areas bounded by McLaughlin Rd, Mary St, and Denfield Rd. Many of these people, including lots of seniors, like to take advantage of the closeness of The Mall, Kwartha Bakery, Canadian Tire, and the Food Basics plaza by both walking and driving there.

It is great to be able to walk to the stores but once the sidewalk runs out at Nix Tire, it is very dangerous for pedestrians as they are forced to walk on the road. In order to walk facing traffic, people have to cross the road to where the Kangaroo storage facility is located.

There is a sharp curve along Commerce Rd making it more difficult for vehicles to see people, walking on the road, before they round the corner. It is not even safe to step off the road since there are tall weeds and a ditch right there.

Making this town more pedestrian friendly should be an important goal.

The entire development has since been completed and the COKL has now assumed responsibility.

As many of the local residents (young families with strollers, bicycle riders, motorized scooters, and walkers), we feel it to be unsafe to pedestrians and drivers alike.

We wish to point out that this route is frequently used also by neighbours coming from beyond our development, as far as but not limited to, McLaughlin Rd. on the west and south to Mary St.

This 'inconvenience' becomes even more dangerous during the winter months when we have to negotiate snowy conditions.

We would like to see additional sidewalk laid along Commerce Rd. from Nix Tire to Kent St.

Please attach any additional supporting documents you wish to provide and submit with this completed form.

**Have you discussed this matter with City Staff?**

☒ Yes

☐ No

**If yes, Which department and staff member(s) have you spoken to?**

Shelly Durham-Harrington-Executive Assistant for Public Works

**What action are you hoping will result from your presentation/deputation? \***

We would really like to see this issue addressed with the sidewalk extended all the way along Commerce Rd., from Nix Tire to Kent St.

Looking forward to some positive response and feed back from the COKL in this matter, with many thanks.

By signing this form you are acknowledging that all of the information you are providing on this form is true, and giving the City permission to collect your personal information for the principal purpose of a request to make a deputation to Committee or Council as outlined below.

**Signature:**

Betty Giutsos

**Date:**

Wednesday, September 30, 2020

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**Do you understand how your information will be used and agree to allow the City to use your personal information provided on this form, including any attachments for the purposes of requesting to make a deputation to Committee or Council? \***

☒ Yes

Please complete this form and return to the City Clerk's Office by submitting it online or:  
Fax: 705-324-8110 Email: [agendaitems@kawarthalakes.ca](mailto:agendaitems@kawarthalakes.ca)





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City Clerk's Office  
26 Francis Street, PO Box 9000  
Lindsay, ON K9V 5R8  
705-324-9411

**Name: \***

Mike Perry

**Address: \***

13 Richard Avenue

**City/Town/Village:**

Lindsay

**Province: \***

ON

**Postal Code:**

K9V5H4

**Telephone: \***

7059342704

**Email: \***

mikeperry08@gmail.com

There can be a maximum of two speakers for each deputation. Please list the name(s) of the individual(s) who will be speaking. The names that are listed here will be included on the Council Meeting Agenda.

**Deputant One:**

Dennis Geelan

**Deputant Two:**

Joli Benns

**Please provide details of the matter to which you wish to speak: \***

A presentation to the COVID-19 Economic Recovery Task Force to update on residents' work to develop concrete measures for the "new normal" that are better than the free market model.

Please attach any additional supporting documents you wish to provide and submit with this completed form.

**Have you discussed this matter with City Staff?**

☒ Yes

☐ No

**If yes, Which department and staff member(s) have you spoken to?**

**What action are you hoping will result from your presentation/deputation? \***

Commitment to ongoing engagement and communication.

By signing this form you are acknowledging that all of the information you are providing on this form is true, and giving the City permission to collect your personal information for the principal purpose of a request to make a deputation to Committee or Council as outlined below.

**Signature:**

Mike Perry

**Date:**

8/28/2020



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☒ Yes

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City Clerk's Office  
26 Francis Street, PO Box 9000  
Lindsay, ON K9V 5R8  
705-324-9411

**Name: \***

Richard Fedy

**Address: \***

17 Huntingwood Cres.

**City/Town/Village:**

Bobcaygeon

**Province: \***

Ontario

**Postal Code:**

K0M 1A0

**Telephone: \***

(705) 738-3272

**Email: \***

r\_fedy@hotmail.com

There can be a maximum of two speakers for each deputation. Please list the name(s) of the individual(s) who will be speaking. The names that are listed here will be included on the Council Meeting Agenda.

**Deputant One:**

Richard Fedy

**Deputant Two:**

John Bush

**Please provide details of the matter to which you wish to speak: \***

Bobcaygeon needs a safer alternative to the current pedestrian crossing of CR 36 at Mill Street. This busy intersection usually requires a long wait, often a quick sprint (and frequently both).

The Bobcaygeon Active Transportation Plan, endorsed by City Council, identified a safer alternative... utilizing the pathway beginning at Squires Row and proceeding behind the Bobcaygeon Medical Building (see attached exhibit). Most of this pathway runs along the City's utility corridor. A smaller portion would need to cross both private property of the Medical Building and City property that leads to the traffic lights at CR 36 and King Street.

Lorne Newton, owner of the Medical Building property, is willing to consider a tax receipt for the fair market value of land (donated free of charge to the City) in order to facilitate this safer pedestrian crossing.

W&G Landscaping & Construction, a City preferred contractor, estimates the cost to complete the path at \$8,000 (including grading, stone and culvert).

Please attach any additional supporting documents you wish to provide and submit with this completed form.

**Have you discussed this matter with City Staff?**

☒ Yes

☐ No

**If yes, Which department and staff member(s) have you spoken to?**

**What action are you hoping will result from your presentation/deputation? \***

- . Agreement in principle to provide a tax receipt to the owner of the Bobcaygeon Medical Centre for the fair market value of land donated to the City (for purposes of completing a walking/cycling path from Squires Row to the traffic lights at CR 36 and King Street).
- . Consideration for the inclusion of \$11,000 in the 2021 City budget to complete the donation of land (no cost), property survey (\$1,500), property appraisal (\$1,500) and path construction (\$8,000).
- . Periodic snow removal (perhaps when it's also required along the nearby Mill Street pathway/sidewalk).

By signing this form you are acknowledging that all of the information you are providing on this form is true, and giving the City permission to collect your personal information for the principal purpose of a request to make a deputation to Committee or Council as outlined below.

**Signature:**

Richard Fedy

**Date:**

10/22/2020



The personal information is being collected by the City of Kawartha Lakes for the principal purpose of a request to make a deputation to Committee or Council pursuant to the City's procedural by-law. This information, including all attachments submitted may be circulated to members of Council, staff, the general public and posted on the City website. Questions about the collection of this information should be directed to the City Clerk or Deputy Clerk at 705 324-9411 ext. 1295 or 1322.

**Do you agree to the publication of your name and contact information on the City's website and the City Council agenda? \***

☒ Yes

☐ No

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Fax: 705-324-8110 Email: [agendaitems@kawarthalakes.ca](mailto:agendaitems@kawarthalakes.ca)





King St. E.

Kingsway Dr.

CKL36

MED  
CENTRE

quires Row

ood Cres.

**Piper Morley**  
T: 416-367-6591  
pmorley@blg.com

**Simon Fung**  
T: 416-367-6129  
sfung@blg.com

Borden Ladner Gervais LLP  
Bay Adelaide Centre, East Tower  
22 Adelaide Street West  
Toronto ON M5H 4E3  
Canada  
T 416-367-6000  
F 416-367-6749  
blg.com



October 26, 2020

**DELIVERED VIA EMAIL**  
**[clerks@kawarthalakes.ca]**  
**[rmustard@kawarthalakes.ca]**

Economic Recovery Task Force  
City of Kawartha Lakes  
26 Francis Street  
Lindsay, Ontario K9V 5R8

Dear Members:

**Re: Growers Retail – Huge Shops Ontario Inc.**  
**Proposed Retail Store at 566 Frank Hill Road, Kawartha Lakes, Ontario**

We are the solicitors for Huge Shops Ontario Inc. (“**Huge Shops**”), the operators of Growers Retail cannabis retail chain in Ontario. Growers Retail is one of Ontario’s largest retail providers of cannabis and cannabis-related products, with four licensed locations currently operating, including three in the Greater Toronto Area one in downtown Peterborough. Four additional locations are slated to open before the end of the year.

With the success of Growers Retail, Huge Shops has sought to expand its retail services to the City of Kawartha Lakes (the “**City**”). The City has “opted in” to the Province’s cannabis retail regime and Huge Shops believes that this community would be well suited for its specialized and personal approach to cannabis retailing. To that end, Huge Shops entered into a lease with the property owner of 566 Frank Hill Road, Kawartha Lakes, Ontario (the “**Subject Property**”) with the intent to operate a Growers Retail store at this location (the “**Proposed Store**”).

Unfortunately, despite Huge Shops’ efforts in working with the City’s planning staff, the Proposed Store has not been able to operate. City staff takes the position that a cannabis retail use is not permitted at the Subject Property given that Highway Commercial Zoning applicable to the Subject Property permits some retail, but not retail in general. Huge Shops disagrees with this interpretation – the *Cannabis Licence Act, 2018* prohibits the differentiation between cannabis and non-cannabis uses and hence any retail use should permit the sale of cannabis.

Our client is disappointed by the position taken by City staff, which it believes is overly restrictive and without an appreciation for the economic climate facing the City particularly in respect of retail. Huge Shops feels that they have an opportunity to contribute to the City’s local economy and to be a positive member of the community at this time of need. The purpose of this letter is to engage with the Economic Recovery Task Force (the “**ERTF**”) in order to open a dialogue on potential solutions that would be beneficial to the City, its residents, Huge Shops, and the local economy.



## **Planning Process**

The following is a history of Huge Shops' dealings with the City:

- In October 2019, Huge Shops applied for a building permit to allow fit-up work for the Proposed Store. However, after processing the application, City staff informed Huge Shops that, while other specific retail uses are permitted at the Subject Property pursuant to the zoning by-law, a cannabis retail use was not.
- On October 23, 2019, Huge Shops' solicitors wrote to Mr. Richard Holy, Manager of Planning for the City, objecting to his department's interpretation of the zoning by-law and the *Cannabis Licence Act, 2018*. Attached to this letter is a copy of the October 23, 2019 correspondence.
- On November 6, 2019, Ms. Robyn Carlson, the City's Solicitor, sent a letter to Huge Shops' solicitors disagreeing with their interpretation of the zoning by-law and recommended that Huge Shops seek a costly zoning by-law amendment application. Attached to this letter is a copy of the November 6, 2019 correspondence.
- Due to the City's position, Huge Shops was forced to relocate the store intended for the Subject Property to Peterborough. It is still our client's view, however, that the Subject Property is an appropriate location for a future cannabis retail store.
- In the spirit of cooperation and notwithstanding its position that the use should be permitted as of right, Huge Shops engaged in a pre-consultation meeting commencing March 2020 with the City's planning staff regarding a potential rezoning of the Subject Property to allow for cannabis retail along with other form of specific retail uses.
- While the City's planning staff was conducting its review, Huge Shops engaged in communication with Mayor Andrew Latham and Ward 8 Councillor Tracey Richardson on or about May 14, 2020 regarding the position taken by City staff.
- The City's planning staff issued a pre-consultation report on July 30, 2020 stating that staff would not support the proposal to rezone the Subject Property to allow for a cannabis retail use. The reason provided was that "the proposed use would be better suited in an urbanized environment where it will serve a larger population base". A copy of the report is attached to this letter. Notwithstanding this, the report stated that a development application for such a use would require the following:
  - Zoning By-law amendment
  - Official Plan amendment
  - Site Plan application
  - Road entrance application
  - Planning Justification Report
  - Building floor plans
  - Traffic brief
  - Species at Risk evaluation
  - Agricultural impact brief

The Subject Property was previously used for several years as a retail store for wellness products, jewellery, clothing, and home décor items. The Proposed Store maintains a retail use, but with a different product. As a result, we fail to see why these amendments, applications, and supporting reports are now needed given the nature of the use of the Subject has not changed. For instance, there is no logical reason as to why using the Subject Property to sell cannabis instead of wellness products or jewellery should now require an evaluation of endangered species or require traffic or agricultural studies. The store on the Subject Property is still a store. Distinguishing a retail cannabis use from other retail uses runs counter to the *Cannabis Licence Act, 2018* and general zoning principles.

The pre-consultation report does not disclose a reason for this positioning other than City staff's preference for the Proposed Store to "serve a larger population base". It appears that City staff is weighing in on a business factor rather than a planning one. Whether the store should serve a larger population base is purely a business decision to be made by Huge Shops. As one of Ontario's largest cannabis retailers, it understands the market and is better equipped to determine appropriate retail locations for its business in order to meet the needs of its consumers.

Huge Shops has cooperated extensively with City planning staff to assist with their concerns, including engaging in the pre-consultation meeting, proposing a minor variance for a change of use (although we do not see this as necessary), and providing an appropriate interpretation of the zoning by-law and *Cannabis Licence Act, 2018*. City staff has nevertheless decided to continue to oppose a simple retail store.

### **Local Economy**

The City established the ERTF to focus on stimulating local economic and business recovery. One of its three strategic areas of focus is on planning and development stimulus.

We believe the Proposed Store presents a rare opportunity to stimulate the City's economy during these challenging times.

Cannabis retail is flourishing at a time where the traditional retail sector has experienced a persistent downward trend. It is estimated that the legal recreational cannabis market in Canada has already become a \$4 billion dollar industry since legalization in October 2018 and is expected to continue to grow sharply over the next few years. It was reported that the potential overall economic impact to Canada associated with legal recreational cannabis is more than \$22 billion.

The City has an opportunity to capitalize on this impact and growth at a time its economy desperately needs it. The City's COVID-19 Business Survey results dated May 2020 found that 85% of respondent businesses reported a decrease in activity, with 38.6% reporting a "significant" decrease and 30.1% not currently operating (at that time). With respect to staffing levels, the survey found the following:

- 31.1% of the respondent businesses had to lay off staff
- 38.4% of the respondent businesses had to temporarily close their business
- 23.4% of the respondent businesses had to shorten their hours of operation
- 75.3% of the respondent businesses that reported a decrease in business mentioned that it was "very difficult" or "somewhat difficult" to maintain their current levels of staff

These figures are concerning given that local businesses are a backbone of the City's economy. As the Province enters into the "second wave" of the pandemic, these concerns will likely continue to persist.

The Proposed Store is expected to bring approximately 15 new full-time jobs to the City, with additional employment depending on the season. In fact, Huge Shops received over 400 employment applications for this location alone. This is indicative of not only the excitement for the business, but the need for gainful employment as well. Our client is eager to do its part to alleviate some of the employment concerns confronting this community and is asking for an opportunity to do so. Huge Shops' Peterborough store has enjoyed tremendous success since opening earlier this year, both in terms of local support and staff engagement, and our client strongly believes that similar success can be found here as well.

The Proposed Store is ready to operate. As mentioned, it is supported by the Alcohol and Gaming Corporation of Ontario and meets all of the requirements for a Retail Store Authorization including being in a fully enclosed space, is over 150 metres away from a school (closest is approximately 8 kilometres away), and is equipped with proper safeguards. There has been no public opposition to a cannabis retail store at this location. Further, a lease for the Subject Property has been effected and fit up work can be completed quickly. The store is ready to be staffed with employees at this time and can commence operations immediately.

ERTF's Terms of Reference mentions a focus on "shovel ready" projects. In this case, the Proposed Store is more than "shovel ready". Our client is ready, willing, and eager to get going.

The creation of more than 15 employment opportunities, along with bringing in the City's first cannabis retailer, is the type of stimulus the local economy needs. It will be welcomed news to your residents during these difficult times and would be seen as a success story for the City.

The only thing preventing this from going forward is an overly narrow interpretation of the zoning by-law and the *Cannabis Licence Act, 2018* by the City's planning department. We think this is an unfortunate position that has clear negative effects on the economy and runs counter to the City's and the ERTF's priorities during this time.

We wanted to bring this issue to the ERTF's attention as a result. The ERTF was established to provide advice and recommendations to Council and City staff on particularly this type of situation. Accordingly, we would like to open a dialogue with the ERTF on potential solutions for the Proposed Store that would be beneficial for all parties involved.

We would be happy to discuss further at your convenience. Thank you for your time.

Yours truly,

**BORDEN LADNER GERVAIS LLP**

  
Simon Fung  
Enclosures

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October 23, 2019

**Delivered by Email**

Richard Holy  
Manager of Planning  
Development Services - Planning Division  
Kawartha Lakes  
180 Kent Street West  
Lindsey, ON K9V 2Y6

Email: rholy@kawarthalakes.ca

Dear Mr. Holy:

**Re: Building Permit Application for a *Cannabis Licence Act, 2018* retail cannabis store  
566 Frank Hill Road, Kawartha Lakes (the “Property”)**

We are solicitors for Huge Shops Ontario Inc. (“Huge Shops”). Huge Shops applied for a building permit to allow fit-up work for a retail cannabis store on the Property on October 10, 2019. The Property is located in the C2 zone pursuant to By-law 32-83. We understand that the Municipality of Kawartha Lakes (the “Municipality”) informed our client’s consultant that a cannabis retail facility would not be permitted in the C2 zone.

Respectfully we disagree with that comment on the basis of the *Cannabis Licence Act, 2018* and particularly section 42(2). Section 42(2) of the *Cannabis Licence Act, 2018* provides as follows:

**Planning Act by-laws**

(2) The authority to pass a by-law under section 34, 38 or 41 of the *Planning Act* does not include the authority to pass a by-law that has the effect of distinguishing between a use of land, a building or a structure that includes the sale of cannabis and a use of land, a building or a structure that does not include the sale of cannabis.

This very broad exemption essentially codifies the planning principle that municipalities may zone the use but not the user but goes further to prevent an interpretation of a by-law that would distinguish between cannabis and non-cannabis related uses. Therefore, if retail uses are permitted within a zone, a cannabis retail use would also be permitted within the zone. The Highway

Commercial (C2) Zone permits a number of retail uses, including but not limited to major electrical appliances, art and craft objects and antiques, broadloom and draperies, etc. It is irrelevant what a retail store sells for the purposes of section 42(2) of the *Cannabis Licence Act, 2018*, a retail use is a retail use.

This interpretation is also supported by the fact the Province of Ontario has instituted its own regime with respect to determining the appropriate location of private cannabis retail facilities, for example by requiring separation distances to public and private schools (150m) pursuant to s. 11 of O. Reg. 468/18.

We are happy to discuss the *Cannabis Licence Act, 2018* with you, or any questions you may have about the foregoing.

Aside from the provincial statutory regime, which would permit a retail cannabis facility where retail is permitted; there are also good planning reasons to permit a retail cannabis facility within C2 zone. The C2 zone, and specifically 566 Frank Hill, is an appropriate location for cannabis retail facilities as it provides a significant amount of space to service non-pedestrian retail customers and would not dominate the character of the downtown core. The Property is already occupied by a commercial use and a retail cannabis store would simply be a continuation of the same type of use that is currently present. It is important to note that the C1 zoned lands are more sensitive areas given they are closer in location to schools and other small local retail uses.

Huge Shops is excited to be a positive member of the Kawartha Lakes community. In addition to providing quality products in a safe and welcoming environment, the store will bring upwards of 25 new jobs to the area and tax revenue.

Kawartha Lakes has “opted in” to the Province’s cannabis retail regime and we look forward to working with you to operationalize Council’s direction in a way that respects the character of Kawartha Lakes.

Please feel free to contact me if you have any questions.

Kind Regards,  
BORDEN LADNER GERVAIS LLP

A handwritten signature in blue ink, appearing to read "Piper Morley".

Piper Morley and Stephen Waqué



The Corporation of the  
**City of Kawartha Lakes**

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Lindsay, ON K9V 5R8

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[rcarlson@kawarthalakes.ca](mailto:rcarlson@kawarthalakes.ca)

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**Robyn Carlson, City Solicitor**

*Delivered by email*

November 6, 2019

Borden Ladner Gervais LLP  
Bay Adelaide Centre, East Tower  
22 Adelaide Street West  
Toronto, Ontario  
M5H 4E3

Dear Ms. Morley and Mr. Waque:

Re: Building Permit Application for retail cannabis store – 566 Frank Hill Road

This letter confirms my discussion on Thursday, October 31, 2019 with Ms. Morley and is in reply to your letter to Mr. Holy dated October 23, 2019 and your further email to Mr. Holy and I on November 5, 2019. After consulting with Mr. Holy, Manager of Planning, I must respectfully disagree with your interpretation that a retail store (in this case, a cannabis store) is permitted as of right in the Town of Lindsay's Highway Commercial zoning.

Cannabis retail is permitted in all zones where general retail is permitted, and thus is permitted in the general commercial zone. In the Highway Commercial zone, on the other hand, certain retail uses are permitted. However, this is a finite list and thus the list of permitted uses that you indicate are permitted in the Highway Commercial zone is incorrect; it is too broad in that it adds in retail uses not permitted in the list of permitted uses.

In response to the second page of your October 23, 2019 letter: I cannot comment on the appropriateness of adding general retail at this location, as I am not a planner. However, in consultation with Mr. Holy I understand that adding general retail at this location would require the Planning Department to conduct a planning exercise and may require the submission of a traffic study.

It is regrettable that your client did not consult with the City's Planning Department earlier. In any event, I recommend that your client make a zoning by-law amendment application at its earliest convenience should it wish to pursue a retail use at this location.

Regards,

**Robyn Carlson***City Solicitor*

City of Kawartha Lakes

P.O. Box 9000, 26 Francis St.

Lindsay, ON K9V 5R8

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Fax: (705) 324-5417

RC/rc



**Final preconsultation comments are typically current for six (6) months from the date of the preconsultation meeting. Preconsultation does not imply or suggest any decision whatsoever on behalf of City staff or the Corporation of the City of Kawartha Lakes to support or refuse the application. Comments are considered confidential until such time as a Planning Act application is filed with the City.**

Preconsultation Meeting Date, Time and Location:	Circulated By Email – Friday, June 19, 2020 Comments Due By – Friday, July 3, 2020
File Number:	D38-2020-028
City Departments and Agencies who may have an interest:	Development Services Department Planning Division Building Division Building Division – Part 8 Sewage Systems Economic Development Division Engineering and Corporate Assets Department Otonabee Region Conservation Authority Ministry of Transportation Haliburton, Kawartha, Pine Ridge District Health Unit Ministry of the Environment, Conservation and Parks County of Peterborough Township of Selwyn
Applicant and Consultants Present for Meeting:	Circulation by email only
Owner:	10208957 Canada Corp. Tel:
Applicant:	Borden Ladner Gervais LLP c/o Piper Morley Tel: 416.367.6591 or <a href="mailto:PMorley@blg.com">PMorley@blg.com</a>
Project Description:	The applicant proposes to rezone the property to permit a cannabis retail store to be located in the existing building.
Site Address / Location:	566 Frank Hill Road; 57R-9264 Part 2; Part of Lot 23 Concession 4, Geographic Township of Emily
Roll Number:	165100100117300
Property Identification No.:	632570452
Lot Area:	1.03 ha. (2.54 ac.) of which 457.7 sq. m. (4,927 sq. ft.) are proposed for the development



Method of Servicing:	Private communal well and septic system and ditches
Housing Affordability:	Not Applicable
Road Access:	Provincial – Highway (Highway 7) Municipal – Arterial (Frank Hill Road – CKL Rd 26)
Widening, Easement, Etc.:	Potentially (As directed by MTO for any improvements on Highway 7)
Municipal Drain:	Not Applicable
Heritage Designation:	Not Applicable
Source Water Protection:	Not Applicable
Conservation Authority Jurisdiction:	Otonabee Region Conservation Authority (Otonabee Conservation) – Ontario Regulation 167/06
Other Agencies Who May Have Interest/Jurisdiction:	Otonabee Region Conservation Authority (Otonabee Conservation) – Memorandum Of Understanding (MOU) for Natural Heritage and/or Hazards Curve Lake First Nation – Any First Nation's interests Ministry of Transportation (MTO) – Within 1 km of Hwy 7 Haliburton Kawartha Pine Ridge District Health Unit (Health Unit) – Small Drinking Water System Ministry of the Environment, Conservation and Parks (MECP) – On-site sewage system >10,000L/day; Species at Risk (SAR) County of Peterborough and Township of Selwyn – Within 1 km of proposal
Applicable Provincial Policy and Plan(s):	Provincial Policy Statement, 2020 (PPS, 2020) A Place to Grow: Growth Plan for the Greater Golden Horseshoe, 2019 (2019 Growth Plan)
Provincial Policy and Plan Comments:	On May 1, 2020, the PPS, 2020 came into effect. You may wish to determine what impact, if any, this change has on the proposal.  In accordance with the February 9, 2018 released mapping for the Growth Plan, the entire property is mapped as Candidate Area in the Provincial Agricultural System. You may wish to determine what impact, if any, this mapping has on the proposal.
Growth Management Strategy (GMS):	The proposal is not within the Settlement Boundary Area identified in the City's 2011 Growth Management Strategy

Official Plan Designation:	'Rural' (Schedule 'A-3') with no identified natural features (Schedule 'B-3') in the City of Kawartha Lakes Official Plan (Official Plan)
Official Plan Comments:	The 'Rural' designation only permits commercial uses which are agriculture-related. Existing uses are subject to Section 34.1 of the Official Plan. An Official Plan Amendment may be required, if the proposed use is not in accordance with the policies of Section 34.1.
Zoning:	'Highway Commercial Exception Seven (C2-7) Zone' (Schedule 'D') in the Township of Emily Zoning By-law 1996-30, as amended
Zoning Comments:	The 'C2-7' zone only permits specific retail uses, but does not permit the proposed cannabis retail use. A rezoning is required.
Planning Act Applications required for the proposal to proceed:	Official Plan Amendment Rezoning Site Plan Approval

## Comments:

### Planning Division

Further to the Preconsultation meeting and our review, staff provide the following comments for consideration:

**There is no staff support for this proposal to amend the designation and zoning on the property for the purpose of the proposed cannabis retail use, as the proposed use would be better suited in an urbanized environment where it will serve a larger population base.**

Should the prescribed Official Plan Amendment and Rezoning applications be approved, a **site plan application** will be necessary to approve the development but will be limited to a **Plans Only** approval or **Scoped Site Plan Agreement**. **City staff will provide additional detail for the site plan submission should the Official Plan Amendment and Rezoning be approved.** The owner should request a separate meeting in advance of submission of the site plan application, to discuss the submission requirements in order to deem that application complete. This will assist with deeming the application complete, and facilitate a faster circulation of that application for review and response.

Based on the proposed new use, we advise that there is a requirement for the proponent to **confirm any existing entrance(s) and/or proposed entrance(s)** comply with the City's By-law 2017-151: A By-law to Regulate Access to Municipal Right of Ways. A copy of the By-law can be obtained from the City's website. The purpose of this request is to ensure that if the Planning applications are successful, that the appropriate Access Permit(s) can be granted if any upgrades are required based on the

appropriate (largest) entrance standard for all uses (i.e. Residential, Agricultural, Commercial, Industrial, etc.). The City will review any potential new or revised access to the property.

In order to comply with the above request, the appropriate entrance details shall be included on the drawings, for the City to review and confirm all entrances comply with By-law 2017-151. Alternatively, a completed '**Application for the Review and Authorization of a Road Entrance**' along with the associated application fee shall be submitted to the Building Division or at any Municipal Service Centre. On Page 2 of the application, check off the '**For Review Purposes Only**' checkbox. The application form is available in person at the Building Division or at any Service Centre, or can be found on the City's website under the 'Building Permits' section, within the 'Forms, applications and information sheets' heading:

<https://www.kawarthalakes.ca/en/living-here/my-property.aspx>

Based on Provincial natural heritage mapping, your property has been identified as potentially containing a Species at Risk (SAR). The Ministry of the Environment, Conservation and Parks (MECP) has responsibility for the administration of the Ontario Endangered Species Act, 2007 (ESA), as amended. MECP currently processes any ESA authorizations relating to Species at Risk in Ontario (SARO) listed under Ontario Regulation 230/08 (O. Reg. 230/08), as amended. **To determine if you require an ESA permit or authorization from the MECP, please send an email to [SAROntario@ontario.ca](mailto:SAROntario@ontario.ca) and include 'request for preliminary screening guide' in the subject line.** At a minimum, the confirmation response will be required to be submitted as part of the required studies or plans noted below

**In accordance with the provisions of the Planning Act, the City is required to circulate any Planning Act applications to all municipalities within 1 km of the proposed development.** As such, the development applications will be circulated to the County of Peterborough and the Township of Selwyn.

In addition to the applicable **application form(s)** and associated **processing fee(s)** required, the following studies and/or plans are also required in support of the proposed development. All studies/plans/reports/etc. listed below will also be included in a checklist at the end of this document, indicating the required number of copies. **A copy of this checklist must be submitted with the application(s).** Where multiple requirements are captured in one report, please note that on the submitted checklist:

- **A Planning Justification Report (PJR)** prepared by a qualified Registered Professional Planner (RPP), outlining and justifying the proposal with respect to the Provincial Policy Statement, 2014 (PPS); A Place to Grow: Growth Plan for the Greater Golden Horseshoe, 2019 (2019 Growth Plan); and City of Kawartha Lakes Official Plan (Official Plan). The PJR will also speak to the various reports and plans submitted with the application(s);
  - Staff recommend the applicant prepare a **Draft Official Plan and companion Zoning By-law Amendments** to address the entire site comprehensively. These should be included in the PJR above;

- A **Conceptual Site Plan Layout** is required illustrating any impervious areas (hard surfaces) on the site, including existing and new buildings, entrance(s), parking lot location and number of spaces (gravel or pavement), loading spaces, septic system and associated loading areas, amenity areas and landscaping, prepared by a qualified professional;
- **Preliminary Building Floor Plans** are required, illustrating the proposed units/gross floor area. Necessary to confirm proposed zoning requirements for built form (e.g. parking, etc.);
- A **Traffic Brief** is required, to identify the expected number of employees, confirm the number of vehicles, types of vehicles, traffic patterns, internal site movements, and entrance locations;
- If details are not provided on the appropriate plans, an **Entrance Permit Review Confirmation Letter** is required, to verify the existing or proposed entrance(s) comply with By-law 2017-151;
- A **Species At Risk (SAR) Evaluation** is required, as the subject lands may contain the habitat of a Rare, Threatened or Endangered (RTE) species, in accordance with the comments noted above. This evaluation may include a copy of any correspondence received from the [SAROntario@ontario.ca](mailto:SAROntario@ontario.ca) email, if it demonstrates or provides confirmation that your proposal is not affected by any SAR, and/or that an Endangered Species Act (ESA) authorization is not required;
- An **Agricultural Impact Brief (AIB)** is required (prepared by a Qualified Professional / Practitioner (QP) with established technical and planning expertise with credentials in the fields of Planning and Agriculture, to be appended to the AIB) since the property is designated Rural in the Official Plan and entirely mapped as Candidate Area in the Province's Growth Plan Agricultural System Mapping. The AIB is required to review potential impacts resulting from the proposal on surrounding farming operations.

These comments reflect the understanding of the requirements based on the submission materials. The Planning Division reserves the right to provide additional comments should any updated information become available through processing of an application. Should the proponent have additional detail or information to provide for review prior to the formal submission of any application, we recommend a follow-up meeting to confirm the requirements.

### Engineering and Corporate Assets Department

Further to our review of the Pre-Consultation application for the proposed Official Plan amendment and Rezoning at 566 Frank Hill Road, Emily, we confirm we have no engineering requirements for the proposed cannabis retail store in an existing building.

### Economic Development Division

The Economic Development Division's Manager and Agriculture Development Officer advise the following:

- The Economic Development Division supports the Planning recommendation that this use is better suited to an urban setting. If the applicant is interested in pursuing options within an urban area, please let my team know and we will be happy to assist;
- Although this property is Zoned Highway Commercial, it is designated Rural, and is identified as a Candidate Area by the Province of Ontario within the Agricultural Systems mapping;
- Also, it is adjacent to a farm property. As such, an **Agricultural Impact Brief** is suggested in order to achieve outcomes identified in Agricultural System policies: achieving compatibility and to assess impact to agricultural potential on this property and any impact on adjacent or other nearby properties as well as possible mitigations. Please note that we are requesting only an Agricultural Impact Brief, limited in depth and scope and may be solely a desktop review;
- See this link to the Draft Ontario Agricultural Impact Assessment (AIA) Guidance Document as a reference: [www.omafra.gov.on.ca/english/landuse/aiagd.pdf](http://www.omafra.gov.on.ca/english/landuse/aiagd.pdf).

### **Otonabee Region Conservation Authority (Otonabee Conservation)**

Otonabee Conservation's Planner provides the following:

- The subject property is outside any known floodplain and is was found to be more than 120 metres to the nearest hydrological feature (Fowlers PSW);
- No major exterior construction is proposed to the existing building at this time. However, if the Stormwater Management is required to be updated, Otonabee Conservation would request a copy for review.

### **Building Division**

As the building exists and was a mercantile use, building division has no concerns with the application.

Please note, the Building Division cannot issue any permits until all relevant applicable law approvals have been submitted to accompany building permit applications (including but not limited to zoning approvals, CA permits, etc.). For a full list of potential applicable law approvals please contact the Building Division.

### **Building Division – Part 8 Sewage Systems**

The Part 8 Sewage System Supervisor advised the following:

- An analysis of the total daily sewage flows for the entire property would need to be conducted to determine or confirm jurisdictional authority. Once authority is determined the applicable process for review will be provided.

### **Ministry of Transportation (MTO)**

The Ministry of Transportation's Planner provides the following:

- Depending on the existing and potential traffic volume, there may be a need to look at traffic volume and some turning movements, especially the northbound left turning movement;
- MTO requires a **Traffic Brief** to review the traffic levels generated by the proposal and whether improvements to the road network will be necessary, prepared by an MTO RAQS approved consultant.

### **Ministry of the Environment, Conservation and Parks (MECP)**

The Ministry of the Environment, Conservation and Park's Senior Environmental Officer provides the following:

- If the proposed redevelopment will result in an alteration to the approved sewage works they should contact the Ministry to discuss the proposed changes at the site. Specifically, the Ontario Water Resources act states:
  - 53 (1) Subject to section 47.3 of the Environmental Protection Act, no person shall use, operate, establish, alter, extend or replace new or existing sewage works except under and in accordance with an environmental compliance approval.

### **Haliburton, Kawartha, Pine Ridge District Health Unit (Health Unit)**

The Health Unit may be involved with any development applications, specifically around public drinking water systems. We suggest that you contact the Health Unit directly.

### **County of Peterborough**

No comments provided.

### **Township of Selwyn**

No comments provided.

### **Follow-up:**

If the applicant wishes to pursue this proposal, the applicant must submit official plan amendment and rezoning applications with the necessary supporting documentation outlined below for consideration of the proposed use. Staff would note that the traffic study may be subject to a peer review to be paid for by the applicant.

**Should Council approve these applications, an application for site plan approval must subsequently be submitted for consideration.**

### **Application Fees:**

The application forms, process guides, and application fees are available from the Planning Division counter or on the City website at:

<https://www.kawarthalakes.ca/en/business-growth/development-applications.aspx>

The Conservation Authority fees are found at the end of the Planning Application fee document.

**Please note, upon submission of the application(s) to the City, an electronic copy of the complete submission is required to accompany the paper reports / studies / plans noted below in the checklist. Please note, electronic submissions will not be accepted through the City's email or online file sharing programs.**

**Applications which are not accompanied by the required materials and/or the electronic copy will be deemed incomplete, and will be returned to the applicant for resubmission.**

**Please provide a copy of the checklist with your submission.**

**Additional Notes:**

1. The above noted comments and attached checklist are based on the proposal as reviewed by the Preconsultation Committee. If significant changes are proposed, the comments and/or reports may require amending, or require a new Preconsultation meeting to review the revised proposal.
2. During the review of the application, it may be determined that additional studies and/or information will be required to be submitted as a result of issues arising during the processing of the application, or subsequent revisions that have been made to an application.
3. The purpose of the above comments is to identify all the relevant information required to be submitted in order to deem these application(s) complete under the Planning Act.
4. The comments are based on the current Provincial Legislation, Regulations, Policies and Plans that are in effect, and the City's official plans and zoning by-laws that existed at the time the Committee considered this matter. While the City has an official plan which came into effect in 2012, there are portions of the plan which remain under appeal. The City has adopted secondary plans which are also under appeal. If decisions are made by the appeal body (Local Planning Appeal Tribunal) regarding these appeals, the documents could change the contents of this report as it relates to the proposal.
5. The City is currently in the process of consolidating the existing zoning by-laws. If passed by Council, these documents could also change the comments above as they relate to this proposal. If passage of these documents is imminent, then this will be noted in the comments.
6. The final preconsultation comments are typically **current for six (6) months** from the date of the preconsultation circulation. You may wish to contact the Development Services – Planning Division office and confirm if any of these above noted documents have been passed by Council or come into effect, prior to submitting your applications.

7. An application submitted without the required information identified in this Preconsultation Report may be recommended for refusal based on insufficient information to properly evaluate the application.
8. Please note that even if a study is mentioned more than once or similar studies are mentioned by various agencies (i.e. Geotechnical Report and Geotechnical Analysis), they may be consolidated into one comprehensive report which addresses all issues.

### Contacts:

<p>Ms. Sherry Rea  Development Planning Supervisor  Planning Division, Development Services  Department  City of Kawartha Lakes  180 Kent Street West  Lindsay, ON K9V 2Y6  Tel: (705) 324-9411 x1331  Fax: (705) 324-4027  srea@kawarthalakes.ca</p>	<p>Ms. Christina Sisson  Supervisor, Development Engineering  Engineering and Corporate Assets  Department  City of Kawartha Lakes  12 Peel Street  Lindsay, ON K9V 3L8  Tel: (705) 324-9411 x1152  Fax: (705) 324-2982  csisson@kawarthalakes.ca</p>
<p>Ms. Susanne Murchison  Chief Building Official  Building Inspection, Development  Services Department  City of Kawartha Lakes  180 Kent Street West  Lindsay, ON K9V 2Y6  Tel: (705) 324-9411 x1200  Fax: (705) 324-5514  smurchison@kawarthalakes.ca</p>	<p>Ms. Anne Elmhirst  Part 8 Sewage Systems Coordinator  Building Inspection, Development  Services Department  City of Kawartha Lakes  180 Kent Street West  Lindsay, ON K9V 2Y6  Tel: (705) 324-9411 x1882  Fax: (705) 324-5514  aelmhirst@kawarthalakes.ca</p>
<p>Ms. Rebecca Mustard  Manager of Economic Development  Economic Development Division,  Development Services Department  City of Kawartha Lakes  180 Kent Street West  Lindsay, ON K9V 2Y6  Tel: (705) 324-9411 x1395  Fax: (705) 324-4965  rmustard@kawarthalakes.ca</p>	<p>Ms. Kelly Maloney  Agriculture Development Officer  Economic Development Division,  Development Services Department  City of Kawartha Lakes  180 Kent Street West  Lindsay, ON K9V 2Y6  Tel: (705) 324-9411 x1208  Fax: (705) 324-4965  kmaloney@kawarthalakes.ca</p>



<p>Mr. Matt Wilkinson  Planner  Otonabee Conservation  250 Milroy Drive  Peterborough, ON K9H 7M9  Tel: (705) 745-5791 x213  Fax: (705) 745-7488  mwilkinson@otonabeeconservation.com</p>	<p>Mr. Parvez Rahman  Public Health Inspector  Haliburton, Kawartha, Pine Ridge District  Health Unit  108 Angeline Street South  Lindsay, ON K9V 3L5  Tel: (866) 888-4577 x2264  Fax: (705) 324-0455  prahman@hkpr.on.ca</p>
<p>Mr. Prabin Sharma  Corridor Management Planner  Ministry of Transportation  Highway Corridor Management Section  1355 John Counter Blvd.  PO Bag 4000  Kingston, ON K7L 5A3  Tel: (613) 544-2220 x4119  Prabin.Sharma@ontario.ca</p>	<p>Mr. Glenn Rutherford  Senior Environmental Officer  Ministry of the Environment, Conservation  and Parks  Robinson Place, South Tower, 2nd Floor  300 Water Street  Peterborough, ON K9J 3C7  Tel: (705) 755-4305  Glenn.Rutherford@ontario.ca</p>
<p>Mr. Iain Mudd  Planner  County of Peterborough  470 Water Street  Peterborough, ON K9H 3M3  Tel: (705) 743-0380  Fax: (705) 876-1730  imudd@ptbocounty.ca</p>	<p>Township of Selwyn  P.O. Box 270  Bridgenorth, ON K0L 1H0  Tel: (705) 292-9507  planning@selwyntownship.ca</p>

**Supporting Reports/Studies/Plans Required to Process and Evaluate the Proposal.**  
**Should you wish to further discuss these requirements, kindly contact Sherry Rea,**  
**Development Planning Supervisor, [srea@kawarthalakes.ca](mailto:srea@kawarthalakes.ca) or 705-324-9411 ext. 1331.**

Required Reports, Studies, Plans & Number of Copies	OPA	ZBA	Subdivision	Condominium	Site Plan	Consent	Other	Copies
<b>Study Requirements for Proposal – Rezone to permit cannabis retail use</b>								
Application Form(s) with Associated Processing Fee(s)	√	√			√			10 OPA 1 ZBA 1 Site Plan
Planning Justification Report (PJR)	√	√						8
Draft Official Plan and Zoning By-law Amendments **Included in PJR above**	√	√						8
Conceptual Site Plan Layout	√	√			√			10 Large 10 Small
Preliminary Building Floor Plans	√	√			√			8
Traffic Brief	√	√			√			8
Entrance Permit Review Confirmation Letter **If details not provided on the drawings**	√	√						2
Species At Risk (SAR) Evaluation **Written response from <a href="mailto:SAROntario@ontario.ca">SAROntario@ontario.ca</a> **	√	√						2
Agricultural Impact Brief (AIB) **Prepared by a Qualified Professional / Practitioner**	√	√						8
Other Development Permits, Approvals and/or Processes that <b>may potentially</b> be required along with or after the Planning Act approvals (please note, this is <b>not</b> an exhaustive list): <ul style="list-style-type: none"> <li>• MTO Building / Land Use Permit</li> <li>• Building / Change of Use / Demolition / Plumbing Permit</li> <li>• Part 8 Septic System Permit</li> <li>• Entrance Permit</li> <li>• Small Drinking Water Systems</li> <li>• MECP Environmental Compliance Approval (ECA) for septic system</li> </ul>								



## Committee of the Whole Report

Report Number ED 2020-023

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**Meeting Date:** November 3, 2020

**Title:** Economic Recovery Task Force Recommendations

**Description:** Action Plan recommendations from the Economic Recovery Task Force

**Author and Title:** Rebecca Mustard, Manager of Economic Development

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### Recommendation(s):

**That** Report ED2020-23, **Economic Recovery Task Force Recommendations**, be received;

**That** permit fees for park use, patios and events in 2021 be waived, with forecasted reduced revenue identified in the 2021 budget;

**That** the downtown Fenelon Falls reconstruction project be included as a decision unit in the 2021 capital budget;

**That** an increase in garbage cans and frequency of waste pick up in our downtowns and major parks be costed and included as a decision unit in the 2021 budget;

**That** portable washrooms and associated directional signage in our downtowns and parks be costed and included as a decision unit in the 2021 budget;

**That** accelerated investment in our boat launches and trails for improved access and enjoyment be costed and included as a decision unit in the 2021 budget;

**That** Council supports the work of EORN and EOWC for the Eastern Ontario “1 GIG” proposal for increased broadband capacity;

**Department Head:**\_\_\_\_\_

**Financial/Legal/HR/Other:**\_\_\_\_\_

**Chief Administrative Officer:**\_\_\_\_\_

**That** Council directs staff to develop a cultural sector recovery grant program for 2021, which could be applied to operating costs for our arts and culture community, and report back to council on the scope of the program by end of Q1 2021;

**That** Council approves a modified extension to the Kawartha Lakes Innovation Cluster Pilot program until December 31, 2021, through in-kind support to provide specific support for high growth businesses;

**That** Council endorses the Economic Recovery Task Force Action Plan as provided in Appendix A to this report; and

**That** these recommendations be brought forward to Council for consideration at the next Regular Council Meeting.

## Background:

At the Council Meeting of May 26, 2020, Council adopted the following resolution:

CR2020-124  
Moved By Councillor Veale  
Seconded By Councillor Dunn

**That** Report ED2020-016, **Economic Recovery Taskforce Terms of Reference**, be received;

**That** the Economic Recovery Terms of Reference as outlined in Appendix A to report ED2020-016, be approved;

**That** Mayor Letham, Deputy Mayor Councillor O'Reilly, Councillor Seymour-Fagan, and Councillor Veale, and the Directors of Development Services and Engineering and Corporate Assets be appointed to the Economic Recovery Taskforce; and

**That** the appointed Task Force members be delegated the authority to appoint the community representatives to the Task Force from the sectors as identified in the Terms of Reference.

Carried

The Economic Recovery Task Force Terms of Reference included the activity to “guide the development of a Kawartha Lakes Economic Recovery Plan”. This report addresses that direction.

## Rationale:

The Task Force was established to provide advice and recommendations to Council and Staff on resources and support to stimulate local economic recovery from the of the COVID-19 pandemic with a focus on three (3) strategic areas;

- i. **Critical infrastructure investments:** Refinement, prioritization and promotion of critical infrastructure projects that will stimulate construction and job creation including; active municipal and 3rd party construction projects; potential upcoming construction work; development driven construction;
- ii. **Planning and Development Stimulus:** Advance a focused approach to a streamlined execution of development policy and approvals for shovel ready planning and development projects to stimulate private sector construction and residential and non-residential growth;

**iii. Business Recovery and Support;** Survey of local businesses to understand the Kawartha Lakes business experience, and identify gaps in current funding and support programs, and propose initiatives to address immediate and future challenges to support business.

Between June and October, 2020, the Task Force met regularly. Input to the Task Force was received from the 502 Kawartha Lakes COVID-19 Business Survey responses, sector based Working Group sessions held in June and September, and the Jump-In online engagement platform. Update memorandums were presented to Council during this time for immediate decision to support economic recovery.

### **The Economic Recovery Task Force Action Plan: Transformational Change**

During the Task Force discussions, and input received from the local business community, it became evident that the directions of existing strategic plans were well positioned to support local economic recovery and required a re-prioritization of identified actions to address the economic realities of the pandemic.

The Economic Recovery Task Force Action Plan (Appendix A) is a strategic, transformational response to support local economic recovery. It proposes to shift the priorities and timelines of existing activities, and in some cases, to accelerate plans for the benefit of economic recovery. The Action Plan maintains a focus on the three strategic focus areas; critical infrastructure investments, planning and development stimulus, and business recovery and support.

Overall, the most important priority is the improvement of broadband across Kawartha Lakes. The City is currently working with the Eastern Ontario Regional Network (EORN) and the Eastern Ontario Warden's Caucus (EOWC) on the Gig Project to deliver ultra-fast internet speeds to homes and businesses.

Another major focus of the Task Force was to look at improving the efficiency and timeliness of the Planning Application process and as a result the customer service to the public. In order to achieve this, a Development Task Force Sub-Committee was established to address these issues. Three initiatives that came out of this Sub-Committee include:

1. Fast tracking a number of "shovel ready" Planning applications to ensure that these developments could get started as quickly as possible. This included 280 apartment units, 178 Townhouses and 300 sq. m. of commercial development;
2. The creation of a planning application spreadsheet that identifies every ongoing application along with the planner that is working on the application and what stage in the process the application is at. This spreadsheet will be an important tool to provide staff, management and the public with more timely responses to inquiries and to schedule applications for upcoming Planning Advisory Committee meetings;

3. Development and implementation of the Kawartha Lakes Development Concierge Pilot Project; a nine (9) month pilot project focused on Site Plan applications. The intent of this project is to use an Economic Development Officer (Emily Turner) to provide additional help to the applicant in going through the steps in a Site Plan application process. This project will not only improve the customer service but reduce some of the time Planning staff need to spend guiding the applicant through the application process. This pilot project will be reviewed with the potential to expand to other planning applications (Appendix B).

Other actions that were implemented over the last 6 months to support an immediate response to the pandemic include;

- Development and execution of Shop Kawartha Lakes and Tourism marketing campaigns. Both campaigns are underway and have been strategically created to respond to the changing travel and health requirements of the pandemic while supporting consumer spending in local businesses;
- Million Dollar Makeover program (Strategic Community Improvement Plan) opened the next application intake in mid-October and is accepting a broader range of grant and loan applications to stimulate private sector investment in property improvements;
- Patio expansions to parking lots and sidewalks were allowed throughout 2020 to help businesses adapt to health and social distancing requirements;
- Fees for the use of parks, patios and events were waived in 2020 to encourage and recognize new ways of doing business and events;
- Three (3) property tax payment due dates were deferred in recognition of the financial challenges caused by the pandemic on all property owners;
- Exemption for payment of industrial and up to 2,500 sq.ft. commercial Development Charges remain in place until 2021 to stimulate new development;
- Support for the digital transformation of local businesses through the Digital Main Street and other affiliated programs.

Actions for Council's 2021 budget deliberations include;

- Increased program support for garbage collection and removal in downtowns and parks to promote community pride and tourism;
- Investing in tourism infrastructure to strengthen Kawartha Lakes' long term position as a destination through the redevelopment/reconstruction of Downtown Fenelon Falls, boat launches and trails for improved access and enjoyment, and increased signage and portable washrooms in downtowns;
- Direct funding support to local cultural organizations to support the acute needs of this sector that is a strategic, long term driver of the local economy.

An extension to the Kawartha Lakes Innovation Cluster pilot project is also requested until December 2021. The pilot project provides specialized support

services to high growth businesses to assist with the development and attraction of innovation companies in Kawartha Lakes. Despite closing the Lindsay incubator space in March, 2020, the Innovation Cluster has been successful in meeting client targets using virtual platforms. The pilot program concludes December 31, 2020, with an opportunity to extend the pilot project. Due to the success of the project to date in difficult pandemic circumstances, the request is to extend the project until December 2021 with in-kind support through the provision of low cost or no cost space.

Longer term actions include;

- Investing in improved broadband in Kawartha Lakes through the EORN “1 Gig” project or, if the project proposal does not go forward, consideration for investing in a ‘made in Kawartha Lakes’ solution;
- Accelerating the timelines to implement a cultural organization funding model identified in the Kawartha Lakes Cultural Master Plan to ensure the sustainability of this sector to stimulate economic growth throughout the community;
- Accelerating the Transit Master Plan actions to support workforce and education needs. This includes both intra-regional and inter-regional transportation solutions that move workforce and students to and from their place of work and study and supports the labour force needs of local businesses;
- Increasing the number, and diversity, of housing stock across the City with an interest in repatriating and attracting residents to build a sustainable and strong local workforce and welcome entrepreneurs;
- Recognizing the importance of post-secondary institutions in shaping the future workforce, with a continued focus on working with Fleming College – Frost Campus and other academic partners to meet the local labour market needs of tomorrow.

All the priorities identified support the direction of existing strategic plans through reshaping and/or organizing actions to position Kawartha Lakes in economic response and recovery.

### **Kawartha Lakes Economic Development Strategy**

The Action Plan addresses a municipal wide response to support economic recovery in the pandemic. The actions support the direction of the Kawartha Lakes Economic Development strategy which is focused on building a strong local economy through collaboration; bringing people and resources together to invest in places, spaces, sectors and people. Since the pandemic, Economic Development goals have remained the same, however Staff have needed to be flexible in working to achieve these goals and will continue to be responsive and forward thinking to support local businesses and the local economic climate.



Going forward, the Kawartha Lakes Economic Development Strategy is scheduled to be renewed in 2022. The timing for this next Economic Development Strategy works well to follow through with implementation of the actions listed above to lay the groundwork for a renewed strategy to support a vibrant and growing economy in a transitioning economic reality.

### **Other Alternatives Considered:**

The Recommendations and Action Plan are considered a strategic and financially sustainable response to supporting economic recovery. Council may choose to adopt the Recommendations in part, however this is not recommended as they are presented to provide Council with a structure to receive more detailed information and support future decision making while maintaining focus on the three strategic areas; critical infrastructure investments, planning and development stimulus, and business recovery and support.

### **Alignment to Strategic Priorities**

The Economic Recovery Task Force Action Plan continues to implement existing strategy plans including the 2020-2023 Kawartha Lakes Strategic Plan with a strong priority on A Vibrant and Growing Economy and the Kawartha Lakes Economic Development Strategy. Maintaining focus on the goals, outcomes and priorities of these strategies is important.

The Action Plan proposes to rethink and reprioritize the actions within these strategic plans to be relevant to the current realities of the pandemic and address the immediate needs and support economic recovery.

### **Financial/Operation Impacts:**

This report does not have a significant financial impact. The Recommendations presented and the Action Plan defer most financial decisions to the 2021 budget process, or provide Staff with direction to accelerate projects to present to Council for decisions at future meetings.

### **Consultations:**

Economic Recovery Task Force

### **Attachments:**

Appendix A – Economic Recovery Task Force Action Plan



20201103ERTFActionPlan.pdf

## Appendix B – Concierge Pilot Program Background



Concierge Pilot  
Program Background

**Department Head E-Mail:** [cmarshall@kawarthalakes.ca](mailto:cmarshall@kawarthalakes.ca)

**Department Head:** Chris Marshall, Director Development Services

## Economic Recovery Task Force Action Plan:

The Economic Recovery Task Force was established to provide advice and recommendations to Council and Staff on resources and support to stimulate local economic recovery from the COVID-19 Pandemic.

With a focus on three strategic areas;

i. **Critical infrastructure investments:** Refinement, prioritization and promotion of critical infrastructure projects that will stimulate construction and job creation including; active municipal and 3rd party construction projects; potential upcoming construction work; development driven construction;

ii. **Planning and Development Stimulus:** Advance a focused approach to a streamlined execution of development policy and approvals for shovel ready planning and development projects to stimulate private sector construction and residential and non-residential growth;

iii. **Business Recovery and Support;** Survey of local businesses to understand the Kawartha Lakes business experience, and identify gaps in current funding and support programs, and propose initiatives to address immediate and future challenges to support business

	<b>Actions</b>	<b>Current Initiatives</b>	<b>2021 Budget considerations</b>	<b>Longer term recommendations</b>	<b>Focus Area</b>
1.1	Opened up the Community Improvement Plan (CIP) for the full utilization of all tools if needed				Development
1.2	Allow patios and restaurants to expand into parking lots or sidewalks if requested				Business support
1.3	Waived fees for parks, patios and events for 2020				Business support
1.4	Deferred 3 property tax payments for 2020				Business support

1.5	Current exemption in place for all Industrial DC charges and up to 2,500 square feet of Commercial DC charges. This exemption is being reviewed by council at end of 2021.				Development
1.6	Tourism and Shop local marketing campaigns				Business support
1.7	Support digital transformation of local businesses through the Digital Main Street program				Business support
2.1	That council consider, from an economic recovery perspective, Downtown Fenelon Falls reconstruction proceed in 2021				Infrastructure
2.2	That Council consider an increase in number of garbage cans and frequency of pick up in our downtowns and parks for 2021				Business support
2.3	That Council consider increased signage and portable washrooms in our downtowns.				Infrastructure
2.4	That Council consider increased investment in our boat launches and trails for improved access and enjoyment.				Infrastructure
2.5	That the Culture Master Plan implementation be accelerated, and that council consider setting up an immediate short term funding program in 2021 for the cultural sector, which could be applied to operating costs for our arts and culture community, and that Staff develop an ongoing cultural organization operating program for consideration in the 2022 budget.				Infrastructure
2.6	Improve timelines and processes in the Development Department. An updated spreadsheet to track applications is being finalized for review and recommendation. This should make it easier to follow and track progress on each file in the planning department. Concierge Pilot Project implemented. updated spreadsheet be brought forward to				Development

	planning committee each month for discussion.				
2.7	The Transit master plan be accelerated with immediate focus on the need for linkage regarding transit between Pontypool and Lindsay, Peterborough and Lindsay, and Lindsay and Bobcaygeon. This immediate focus be based on an employment perspective to assist with the workforce challenges. Timing should include early morning links for work availability and early evening links for return home availability				Infrastructure
2.8	That Council consider an extension to the Kawartha Lakes Innovation Cluster Pilot program to provide specific support for high growth businesses				Business support
3.1	That Council continue to work through EORN and EOWC and support the Eastern Ontario 1 GIG proposal for INCREASED BROADBAND capacity. This is by far, the #1 priority from an economic perspective				Infrastructure
3.2	If the EOWC proposal doesn't play out, that council pursue a 'Made in Kawartha Lakes' solution and work with EORN on a local solution to supplying 1gig data to the home for all businesses and homes in Kawartha Lakes.				Infrastructure
3.3	Increase housing stock across the city to improve and increase the workforce, fill vacancies in employment, and provide options for young working families.				Development
3.4	Work with Fleming College to help fill labor market needs (trades, etc.)				Business support

## Concierge Pilot Program Backgrounder

**Name:** Pilot Concierge Program

**Pilot End Date:** 9 months from commencement to allow for development applications to go through the site plan control process

**Program Criteria:** Applications will qualify for the pilot program if they meet a number of criteria which establish them as ideal candidates for the program.

The pilot will focus on applications in the site plan approval phase. Focussing on applications in the site plan approval process will ensure that projects are viable and allow the Economic Development Officer (EDO) acting as the concierge to focus on getting projects over the line to construction.

Projects should have an identifiable impact on local economic development and growth.

The types of developments which could fulfil this criterion include:

- Local business expansions
- New businesses and/or industrial development which align with the five key local economic development sectors (manufacturing, engineered products, agriculture, arts/culture/heritage, and tourism)
- Large scale residential development
- Other projects which have an identifiable economic impact

The decisions regarding which projects should be included as part of the pilot program should be made together by Planning and Economic Development. Ideally, this will be the EDO acting as the concierge in conjunction with the Development Planning Supervisor with input from the Managers of Planning and Economic Development. Prioritizing projects in this way is supported by the Economic Development Strategy 2017-2022, which outlined as an action item the development of a business pilot program focussing on business expansion and start up. This project, however, focusses only on the development application aspect of business growth.

### **Program Overview:**

The pilot program responds to the direction from the Economic Recovery Task Force aimed at stimulating the local economy in its recovery from the COVID-19 pandemic. One of the areas of focus for stimulus was the development sector and streamlining the approvals process for development applications. The goal of this program is to assist applicants going through the site plan approval process by piloting their application in order to shorten the timeline in which these types of applications are approved.

At the beginning of the pilot, the EDO acting as the concierge and the Development Planning Supervisor will identify existing applications which should be included in the program on the basis of the criteria outlined above. The EDO will reach out to existing applicants in the site plan approval phase to initiate a point of contact and introduce the concierge program. New applicants which are deemed suitable for the program will be provided with the EDO's contact information and information about the role when their application is received.

The EDO will provide a point of contact for the applicant during the site plan approval process. The intention is for the EDO to act as a bridge between the applicant and the planner working on the file and to troubleshoot issues that may be occurring which are delaying the process, either on the City's side or on the applicants.

During the site plan control process, the applicant will be invited to reach out to the EDO if they have questions about the status of their application. The EDO will be able to access the application tracking spreadsheet created by Planning staff and provide updates to the applicant. The EDO will also liaise with Planning staff as necessary. The EDO will also work to encourage the applicant to submit the required documentation in a timely manner so that the application can move forward, if, for example, Planning staff advise that certain reports or studies are missing.

**Evaluation Criteria:**

Teamwork and communications between departments

Customer satisfaction: Measured through survey/follow up with the applicant after approval

Timelines: Measurement of length of time from submission to approval based on similar applications

Number of approved applications



## Committee of the Whole Report

Report Number HS2020-005

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**Meeting Date:** November 3, 2020

**Title:** Community Pandemic Recovery Task Force  
Recommendations

**Author and Title:** Rod Sutherland, Director Human Services

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### Recommendation(s):

**That** Report HS2020-005, **Community Pandemic Recovery Task Force Recommendations**, be received; and

**That** staff be directed to develop a framework for a Kawartha Lakes Community Recovery Fund to support pandemic recovery and relief efforts for non-profit and community service providers in the broader health and human services sector, including the identification of the scope and criteria for the fund; funding levels and source for presentation to Council in the first quarter of 2021; and

**That** the proposed Kawartha Lakes Community Recovery Fund incorporate the 2021 Lindsay Legacy CHEST Fund allocation for eligible proposals within Lindsay; and

**That** staff be directed to proceed with modifying the 2021 and 2022 50/50 Community Project Capital Funding Program application process by waiving the requirement for a matching contribution from applicants; and

**That** staff be directed to identify internal resources and external supports that could be made available for workshops and information sessions to community organizations in support of pandemic response and recovery and develop a 2021 schedule for delivery; and

**Department Head:** \_\_\_\_\_

**Financial/Legal/HR/Other:** \_\_\_\_\_

**Chief Administrative Officer:** \_\_\_\_\_



**That** these recommendations be brought forward to Council for consideration at the next Regular Council Meeting.

## **Background:**

The Community Pandemic Recovery Task Force (CPRTF) was created by Council on May 26, 2020 through Resolution CR2020-122.

**That** Report HS2020-003, **Community Pandemic Recovery Task Force**, be received for information purposes;

**That** the Community Pandemic Recovery Task Force Terms of Reference, appended as Attachment A to Report HS2020-003, be approved;

**That** Councillors Ashmore, Elmslie and Richardson, Fire Chief Mark Pankhurst, and Director Rod Sutherland be appointed to the Community Pandemic Recovery Task Force; and

**That** the appointed Task Force members be delegated the authority to appoint the community representatives to the Task Force from the sectors as identified in the Terms of Reference.

Councillor Dunn was appointed to the Task Force under a separate resolution at the same meeting.

The CPRTF was established to provide advice and recommendations to Council and Staff on resources and support required to ensure community recovery from the COVID-19 Pandemic, including:

- Co-ordination and implementation of recovery and relief efforts to support non-profit and community service providers in the broader health and human services sector
- Compilation of a comprehensive list of community support services
- Identification of funding opportunities and mobilization of appropriate resources to obtain funding
- Recommendations for partnerships and working groups in order to best leverage existing programs and services
- Identification of gaps in service delivery and recommendations to address them
- Recommendations for the City's 2021 Operating Budget

The Task Force established a Gaps Working Group and a Funding Working Group to better understand the challenges and concerns of local agencies and community service providers and to identify potential funding opportunities, including how to support organizations in pursuing them.

On June 23, 2020, Council passed the following resolution:

**That** the Memorandum from Councillor Yeo, **regarding the 2020 Community Partnership Funds**, be received;

**That** the 2020 Community Partnership Fund and other Community Funding Programs be referred to the Community Recovery Task Force with options for the remainder of 2020 and the 2021 program.

Co-chairs Heather Kirby and Amy Terrill presented a summary of the Task Force recommendations at the November 3, 2020 Committee of the Whole meeting. This report provides these recommendations to Council for direction.

### **Rationale:**

The four Task Force recommendations are summarized below followed by a proposed corresponding Council resolution for each. At this stage in the pandemic, the City remains under Stage 3 restrictions. The City remains focused on immediate pandemic response with planning for the recovery stage primarily through this Task Force and the Economic Recovery Task Force.

1. Recommendation: The establishment of a new Kawartha Lakes Community Recovery Fund for the fiscal years of 2021 and 2022.

Proposed Council Resolution: That staff be directed to develop a framework for a Kawartha Lakes Community Recovery Fund to support pandemic recovery and relief efforts for non-profit and community service providers in the broader health and human services sector, including the identification of the scope and criteria for the fund; funding levels and source.

Rationale: The Task Force and its working groups have recommended goals and a structure for the administration of the fund. These will be incorporated within the fund framework to be developed with Council's approval. The overall allocations to the recovery fund will be determined by Council following the presentation of the proposed framework, considering the Community Partnership Funds referenced in the June 23<sup>rd</sup>, 2020 Council resolution, and other potential funding sources.

The framework for the Community Recovery Fund will be presented to Council in the first quarter of 2021.

2. Recommendation: Lindsay Legacy C.H.E.S.T. Fund Committee has suspended their normal program operations for 2021 for the purpose of supporting relief efforts to respond to COVID-19. Funds allocated in 2021 will form part of the Kawartha Lakes Community Recovery Fund, to be considered for eligible proposals within Lindsay. When the committee

returns to normal program operations in 2022, it is requested that COVID-19 related operating expenditures also be included in the mandate.

Proposed Council Resolution: That the proposed Kawartha Lakes Community Fund incorporate the 2021 Lindsay Legacy CHEST Fund allocation for eligible proposals or services within Lindsay.

Rationale: The Fund Committee has made 2021 allocations available for incorporation into the Community Recovery Fund, but as with all funds under the program, they can only be used for Lindsay based services. The framework to be drafted and presented to Council as referenced in recommendation #2 above will incorporate these CHEST funds, maintaining their designation within Lindsay.

Requests have been made to CHEST Fund groups in the City that have remaining funds, Bobcaygeon and Woodville, to determine if a similar approach is agreeable. Early indications are that these will not form part of a new Community Fund; this will be investigated further as part of the development of a recommended framework.

Additionally, a request will be made to the Lindsay Legacy CHEST Fund committee to consider incorporating COVID-19 related operating expenses for consideration in 2022.

3. Recommendation: That the applicant matching component of the 50/50 Community Project Capital Funding Program be removed for 2021 and 2022.

Proposed Council Resolution: That staff be directed to proceed with the 2021 and 2022 50/50 Community Project Capital Funding Program application process waiving the requirement for a matching contribution from applicants.

Rationale: The 50/50 Community Project Capital Funding Program provides capital funds to be used in partnership with local community organizations to provide for the betterment of the City's facilities and parks and requires a matching contribution of 50% from the applicant. To support pandemic recovery of eligible organizations, the recommendation is to remove the matching contribution for 2021 and 2022. Funds for 2020 were previously awarded in January 2020. With the passing of the recommended resolution, Community Services staff will be able to proceed with the application process for 2021.

4. Recommendation: That the City of Kawartha Lakes mobilize internal resources and external support to offer a series of capacity-building workshops including:
  - a. Developing safety protocols for operations during COVID-19;
  - b. Planning events during COVID-19;

- c. Business/strategic planning during COVID-19;
- d. Innovation and adaptation as a response to significant change; and
- e. Technology training to support operations during COVID-19.

Proposed Council Resolution: That staff be directed to identify internal resources and external supports that could be made available for workshops and information sessions to community organizations in support of pandemic response and recovery and develop a schedule for delivery in 2021.

Rationale: The City has internal resources and access to external supports that could be leveraged in support of community organizations. A review of how these could be offered through workshops or information sessions will be completed with a report back to Council in the first quarter of 2021.

### **Other Alternatives Considered:**

The Terms of Reference for the Task Force identified its scope as including “recovery and relief efforts to support non-profit and community service providers in the broader health and human services sector.” Through Task Force discussions and the community surveys, it was identified that the broader sports and recreation sector did not fit within the mandate. There are strong connections between this sector and health, social inclusion and personal well-being that could warrant expansion of the proposed Community Recovery Fund to include sports and recreation organizations, in particular non-profit or charitable organizations.

If Council wishes to consider the inclusion of sports and recreation organizations in a Community Recovery Fund framework, a proposed additional recommendation is:

That the scope of the framework for the Kawartha Lakes Community Recovery Fund include options to incorporate non-profit and charitable sports and recreation sector organizations.

### **Alignment to Strategic Priorities:**

The goals and recommendations of the Task Force directly contribute to the Vision of thriving and growing communities and the following goals within the Exceptional Quality of Life Priority:

- Improve the health and well-being of residents
- Build social infrastructure
- Community Building

### **Financial/Operation Impacts:**

The proposed resolutions do not have a direct financial impact on their own as they result in reports back to council with more specific program recommendations, including financial commitments.

### **Consultations:**

Community Pandemic Recovery Task Force members  
Community Services

**Department Head E-Mail:** [rsutherland@kawarthalakes.ca](mailto:rsutherland@kawarthalakes.ca)

**Department Head:** Rod Sutherland

# Committee of the Whole Report

Report Number ENG2020-023

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**Meeting Date:** November 3, 2020

**Title:** Fenelon Falls Second Crossing EA Presentation

**Author and Title:** Martin Sadowski, Senior Engineering Technician

Corby Purdy, Supervisor Infrastructure, Design and Construction

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## **Recommendation(s):**

**That** Report ENG2020-023, **Fenelon Falls Second Crossing EA Presentation**, be received; and

**That** this recommendation be brought forward to Council at a future Council Meeting.

**Department Head:**\_\_\_\_\_

**Financial/Legal/HR/Other:**\_\_\_\_\_

**Chief Administrative Officer:**\_\_\_\_\_

## **Background:**

At the Council Meeting of January 15, 2019 Council adopted the following resolution:

14.1.6 PUR2019-001

**2018-98-CP Environmental Assessment for Second Fenelon Falls Area Crossing** Linda Lee, Buyer Martin Sadowski, Senior Engineering Technician

**CR2019-018**

**That** Report PUR2019-001, **2018-98-CP – Environmental Assessment for Second Fenelon Falls Area Crossing**, be received;

**That** Dillion Consulting be selected for the award of 2018-98-CP Environmental Assessment for Second Fenelon Falls Area Crossing for the total quoted amount of \$228,369.00 plus HST;

**That** subject to receipt of the required documents, the Mayor and Clerk be authorized to execute the agreements to award the contract; and Regular Council Meeting January 15, 2019 Page 10 of 21

**That** the Procurement Division be authorized to issue a Purchase Order.  
**Carried**

Since award Dillon Consulting has been actively working on the Schedule B EA including consultation with local residents and stakeholders.

PIC #1 was held May 27, 2019 at the FF Community Centre

First Stakeholder meeting was held September 30, 2019 at the FF Community Centre

Pic #2 was held November 6, 2019 at the FF Community Centre

Second Stakeholder meeting was held August 8, 2020.

The following presentation will be led by the Dillon Consulting team working on the EA.

## **Rationale:**

CKL Staff retained Dillon Consulting to conduct an independent 3<sup>rd</sup> party Schedule B project as recommended in the Fenelon Falls Corridor Study. Dillon Consulting identified all reasonable alternatives and analyzed as per the Municipal Class EA Planning and Design Process.

Next steps include finalizing the EA report to align with discussions during Committee of the Whole Meeting. Staff will bring a report to a future council meeting formally requesting endorsement of the preferred solution.

### **Other Alternatives Considered:**

To be presented

### **Alignment to Strategic Priorities**

This Project relates to Goal 2 and Goal 3 by maintaining and improving efficiency of the City's existing infrastructure:

2. An Exceptional Quality of Life
3. A Vibrant and Growing Economy

[Kawartha Lakes Strategic Plan 2020-2023](#)

### **Financial/Operation Impacts:**

Preferred Alternative to be budgeted in alignment with CKL capital budget forecast

### **Servicing Implications:**

N/A

### **Consultations:**

N/A

### **Attachments:**

Appendix A – Fenelon Falls Second Crossing – Final AODA



Fenelon Second  
Crossing EA Commit

**Department Head E-Mail:** jrojas@kawarthalakes.ca

**Department Head:** Juan Rojas





# Fenelon Falls Second Crossing:

Municipal Class Environmental Assessment



Committee of the Whole

November 3, 2020



# Agenda

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## Item

Presentation Part I: EA Findings

Presentation Part II: In-Town Traffic Improvements

Summary of Recommendations

# Purpose Meeting

- Present information on work completed
- Present input from stakeholders and community
- Present preliminary recommendations for discussion
- Address questions

Based on feedback and recommendations from the Committee of the Whole we will bring forward a Council report at a later date.



# Problems and Opportunities

## Key Problems

- Congestion and traffic delays
- Bridge back-up
- Helen and Lindsay Street intersection at capacity by 2031
- Main street experience
- Business impacts and parking
- Traffic and land use, e.g., Tim Hortons, Sobeys

## Key Opportunities

- Reduce delays and traffic congestion
- Improve main street experience
- Improve connectivity
- Support Downtown Revitalization Plan
- Improve relationship between land use and transportation



# Core Issues



- **Traffic volume** during peak periods
  - Increase in vehicles during summer peak periods contributes to congestion along the main corridor
- **Traffic flow** at Helen Street and Lindsay Street intersection
  - Existing configuration and travel demands of intersection creates a bottleneck
- **Limited alternative routes** in the area



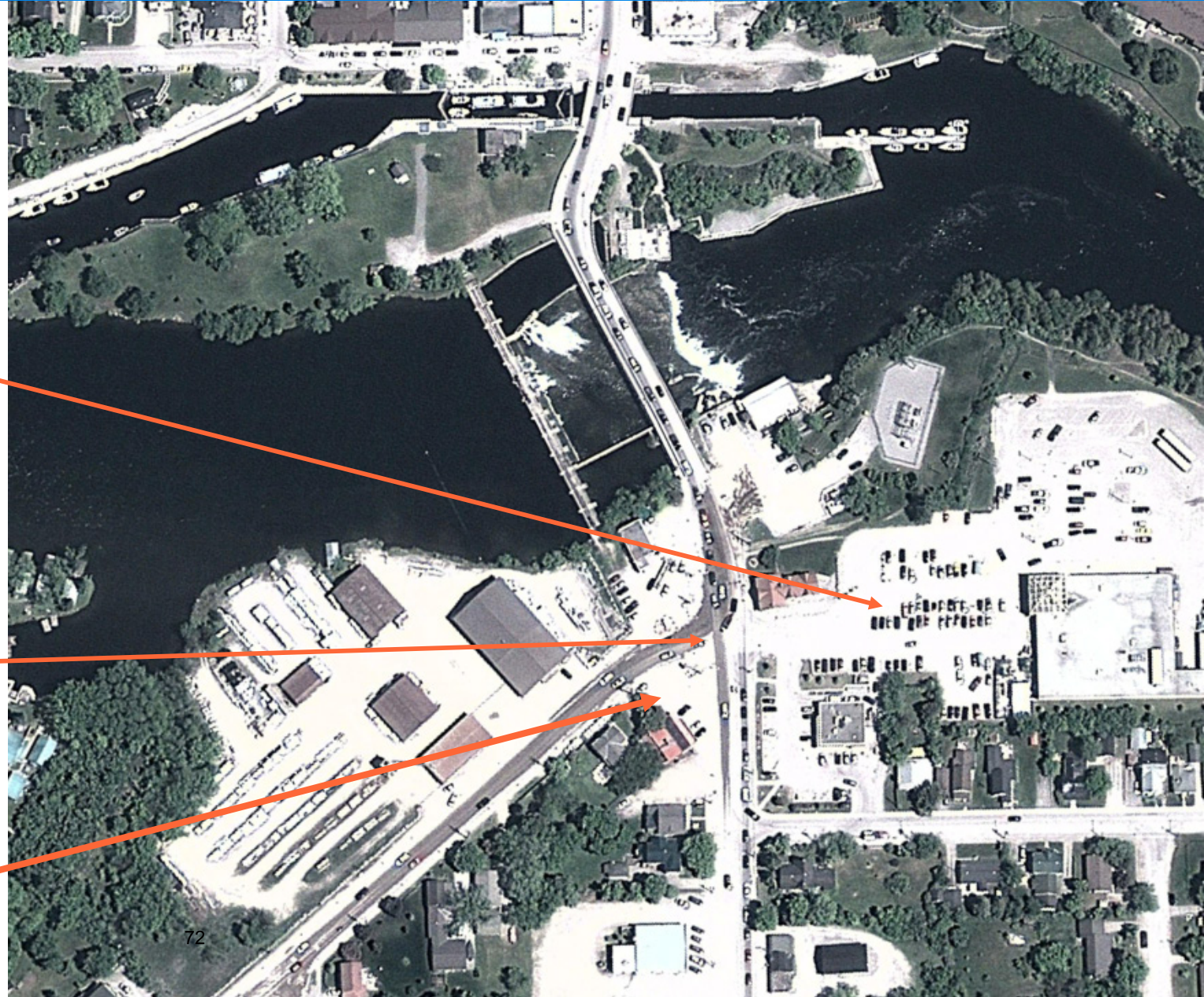
# Intersection Issues

**At capacity:** Downtown Corridor Study shows Helen/Lindsay St intersection will be 'at capacity' by 2031.

**Land use:** the Tim Hortons and Sobeys, and the gas station cause traffic flow issues at the intersection. Largest contributor to traffic issues is the southbound left turn into the Sobeys and Tim's lots.

**Queues:** not enough storage for vehicles waiting to turn = significant queues. Particularly southbound left turn which affects bridge.

**Access Control:** Gas station access on the west side of Lindsay St causes additional delays from northbound left turns.



# What We Have Studied

- **Transportation and Traffic Studies**
  - Updated traffic data analysis – local and regional (Streetlight)
- **Environmental Conditions**
  - Aquatic and terrestrial
- **Socio-Economic Conditions**
  - Properties, people and businesses
- **Cultural Heritage and Archaeology**
- **Technical Design Considerations**
  - Topography, property, utilities, technical constraints



# Options Considered

- Do Nothing
- Improve local traffic operations
- Expand existing bridge
- Build second in-town crossing
- Build a bypass (3<sup>rd</sup> Concession Baddow)

## In-Town Area



## Bypass Area





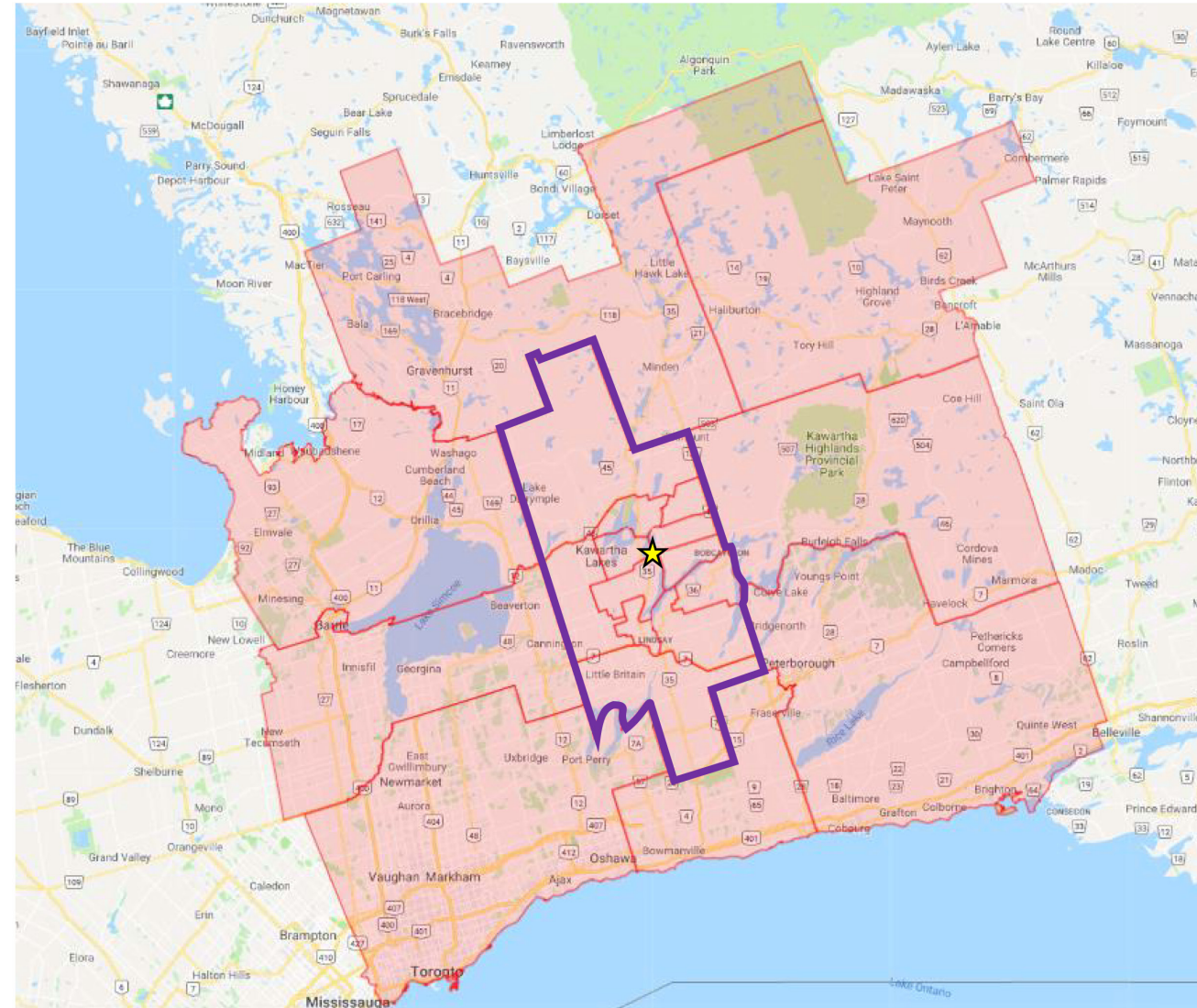
# Updated Traffic Study – Streetlight Data

- We did a traffic study of current traffic in Fenelon Falls using Streetlight Data
  - Looked at traffic all days of the week and during summer peak seasons
- Found that **most vehicle trips that use the bridge originate from within a relatively local area. Around Sturgeon Lake and Cameron Lake.**

# Traffic Data Analysis

## For vehicles crossing the bridge:

- **Majority** of trips (>70%) are within the City of Kawartha Lakes
- **Up to 20%** of trips are between Kawartha Lakes and External Areas
- **35% - 39%** of trips travel from north to south and south to north
- **47% - 51%** of trips are between areas south of the bridge



# Traffic Study Summary

1. Need to address some of the traffic operation issues in-town
2. Support for some in-town improvements with traffic diversion:
  - Approximately **20-30%** of traffic could be diverted around town
  - Approximately **40-50%** of traffic could be diverted on a second bridge crossing.

# Traffic Operation Improvements

The traffic improvement options for the Helen Street and Lindsay Street intersection examined were:

- **Signal Changes**
  - Optimising Signals
  - Provide new left turn signals
- **Access Control**
  - Tim Hortons / Sobeys / Gas Station
- **Additional Capacity**
  - Extend Storage Lanes
- **Restrict Movements**
  - Limit turning movements
- **Potential to explore relocating some land uses** to improve traffic flow and access

**The Consulting Team studied more than 25 options.**

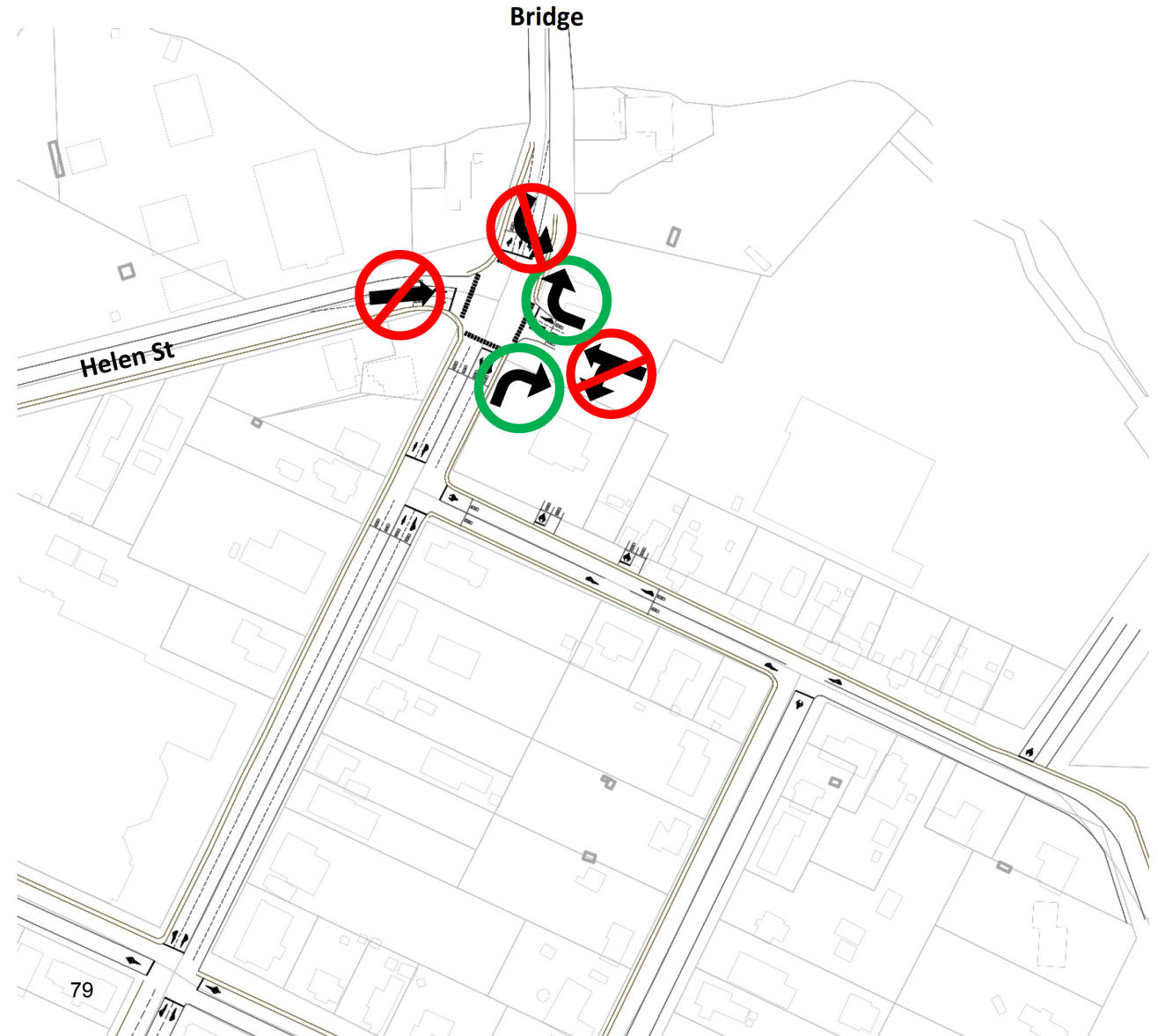




# Recommended In-Town Improvement Option – Step 1

## Step 1:

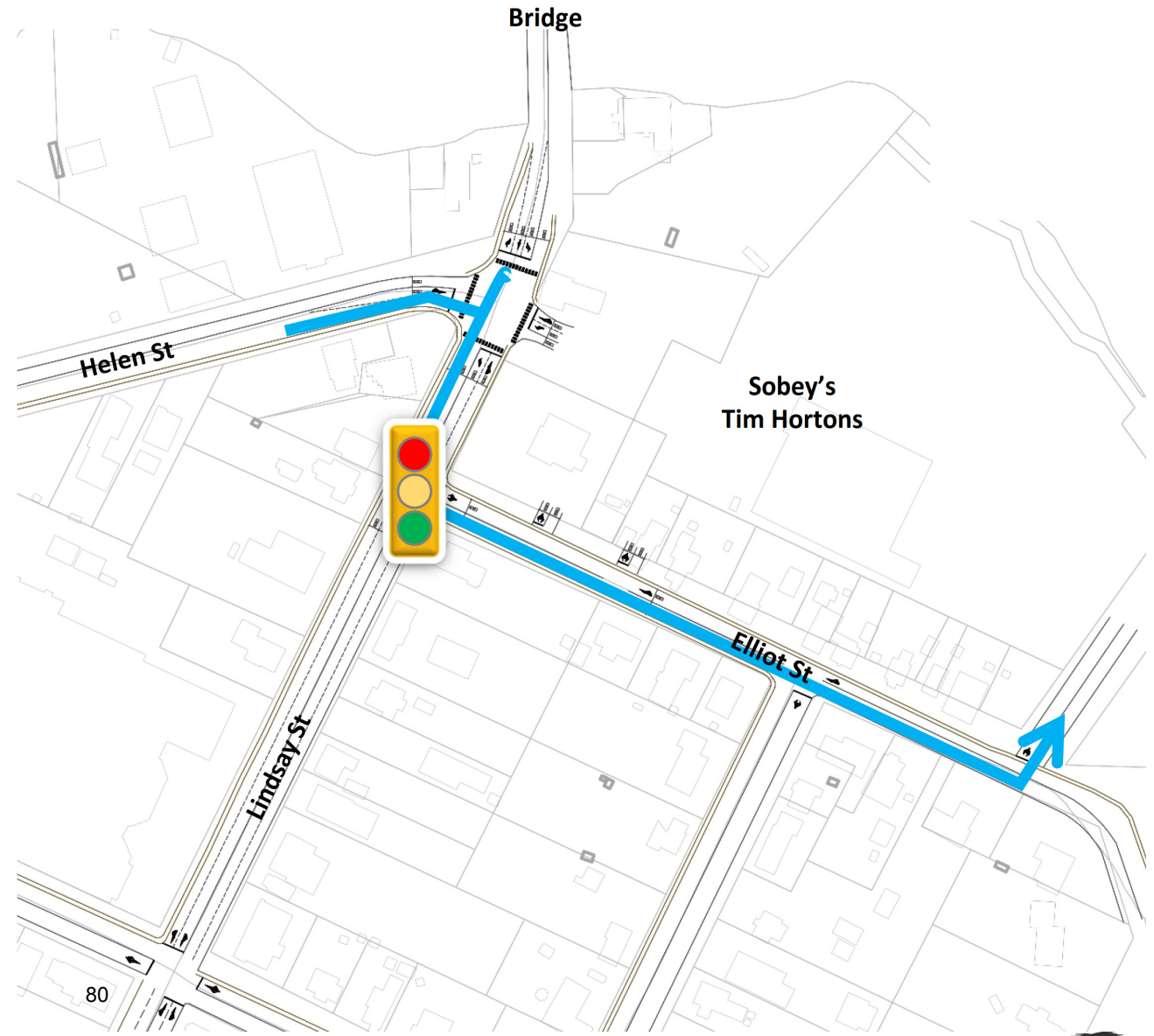
- Change the Sobeys / Tim Hortons access via Lindsay Street to become northbound Right-in and Right-out only.
- Remove the ability for southbound traffic on the bridge to turn left into the Sobeys / Tim Hortons access on Lindsay Street.
- Remove the ability for vehicles to access the Sobeys / Tim Hortons by driving straight through the intersection from Helen Street.
- Remove the ability for traffic to drive straight out of the Sobeys / Tim Hortons access onto Helen Street.
- Remove the ability for traffic to turn left out of the Sobeys / Tim Hortons access onto Lindsay Street.



# Recommended In-Town Improvement Option – Step 2

## Step 2:

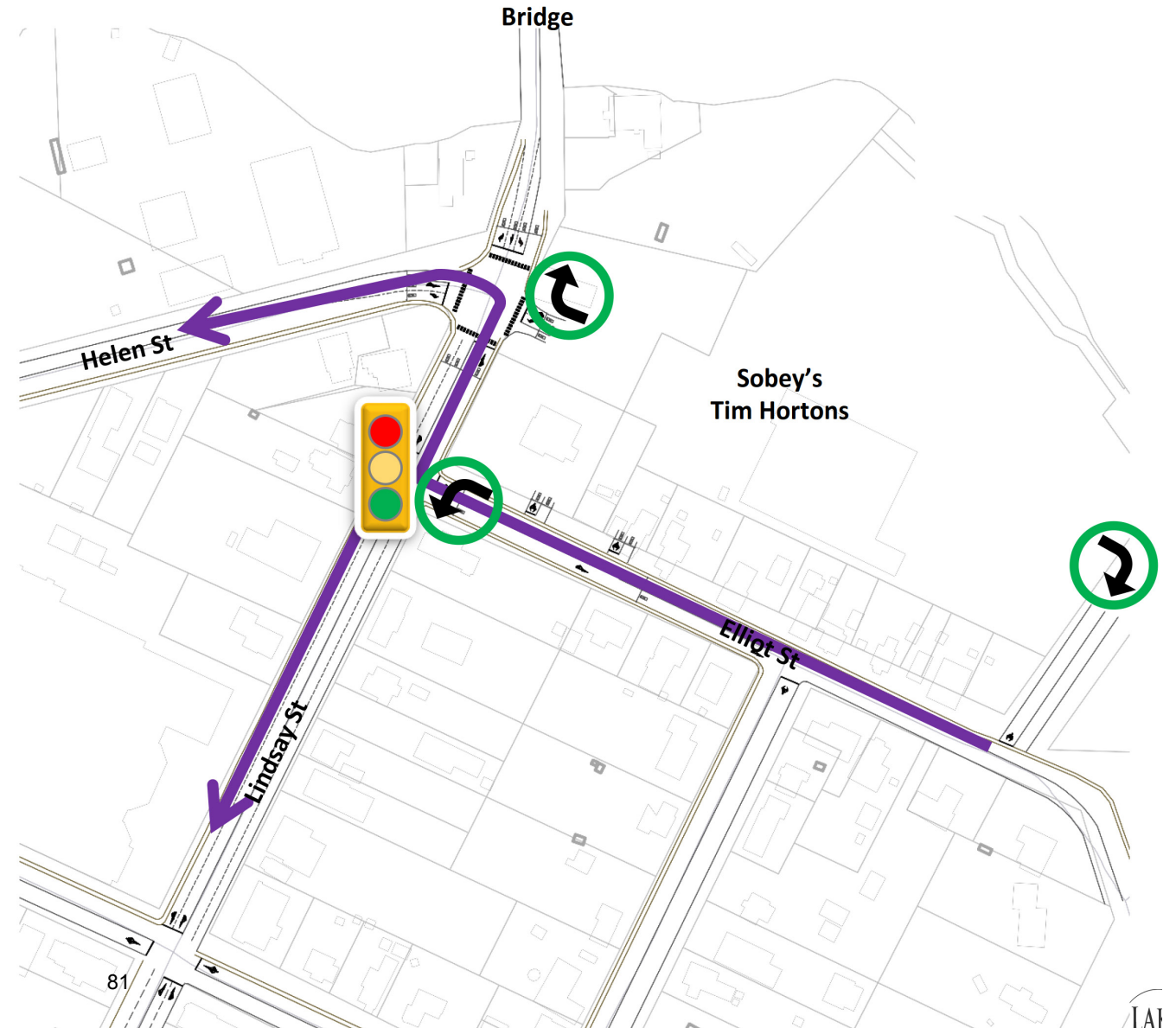
- Put in a new light at Elliot Street.
- Traffic from Helen Street and southbound on the bridge will now use Elliot Street to access the Sobeys / Tim Hortons.
- Lights at Elliot Street and at Helen Street will need to be coordinated for optimal traffic flow



# Recommended In-Town Improvement Option – Step 3

## Step 3:

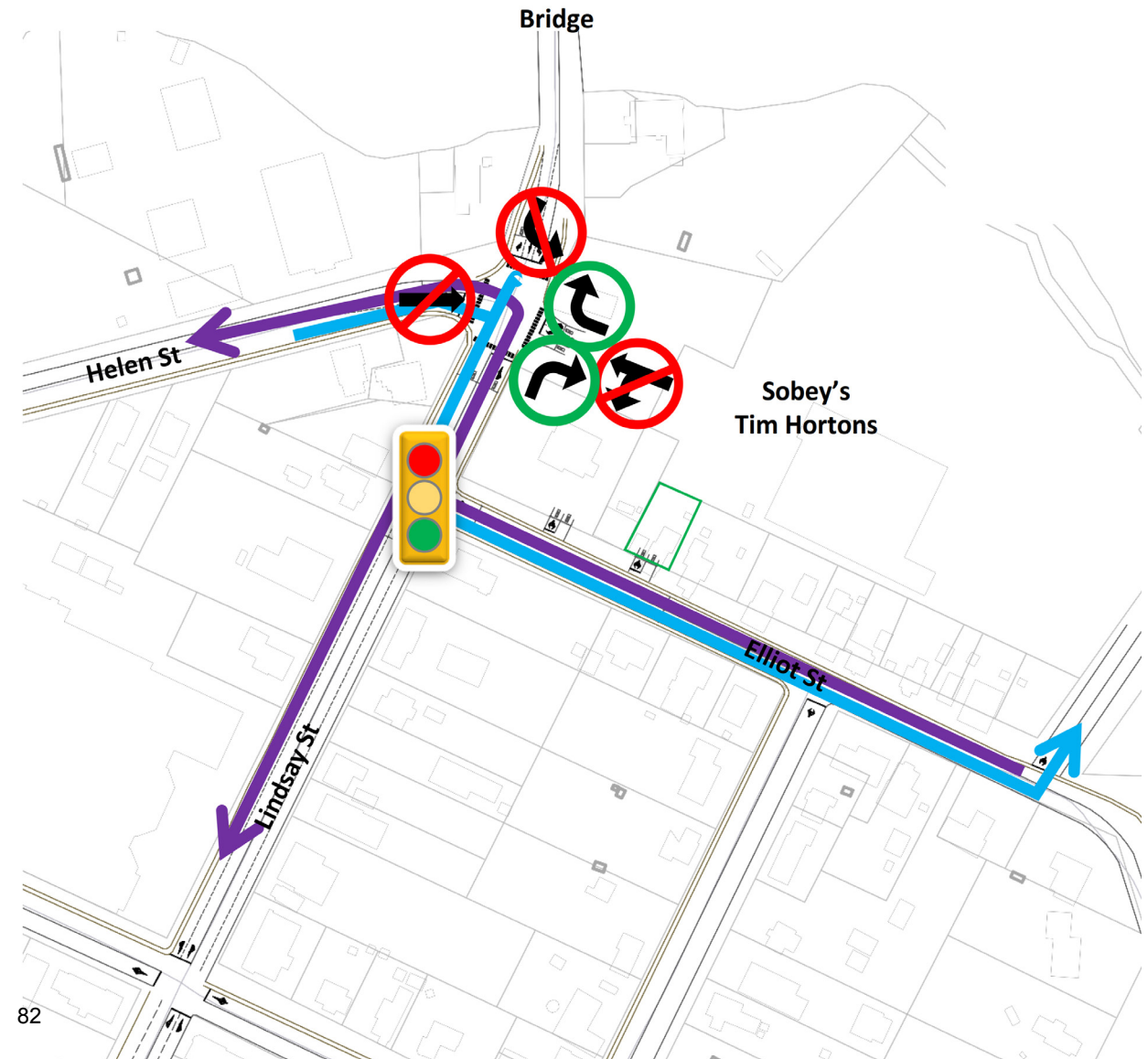
- To exist the Sobeys / Tim Hortons vehicles use:
  - the Lindsay Street exit to go north over the bridge
  - Elliot Street to go west on Helen Street or south on Lindsay Street



## Recommended In-Town Improvement Option

## Traffic Analysis Results

- At the intersection of Helen Street and Lindsay Street there will now be two southbound through lanes that will get vehicles through the intersection with less green-time which allows for more green-time to be given for the eastbound left turns from Helen Street north onto the bridge.
- Southbound left turns are better accommodated at Elliot Street with fewer conflicts (T-intersection) and less impact on other turning movements at Helen Street and Lindsay Street.
- Requires improvements to Elliot Street
- Additional improvements to this would be for Tim Hortons and/or Sobeys to acquire additional adjacent property for a new entrance on Elliot Street.





# Improvements to Elliot Street

- Elliot is already being planned for reconstruction
- Includes improving design to allow more through traffic past the Tim Hortons entrance
- Recommend improving the design to allow for a centre turn lane
- Could use the majority of the centre lane (approximately 30m length) for a left queue lane to Tim Hortons. Or split with the left turn to Lindsay Street. To be confirmed in next steps.





# Bridge Widening

Expanding existing bridge will not solve the traffic issues:

- Adding more southbound left queuing space **does not** improve traffic flow, the queue continues to grow.
- Complications for design of Colborne Street and tie-ins with Colborne and Lindsay
- Expanding the bridge for auto traffic is not recommended
- The existing pedestrian connection does require improvement and could be relocated to the east side of the bridge



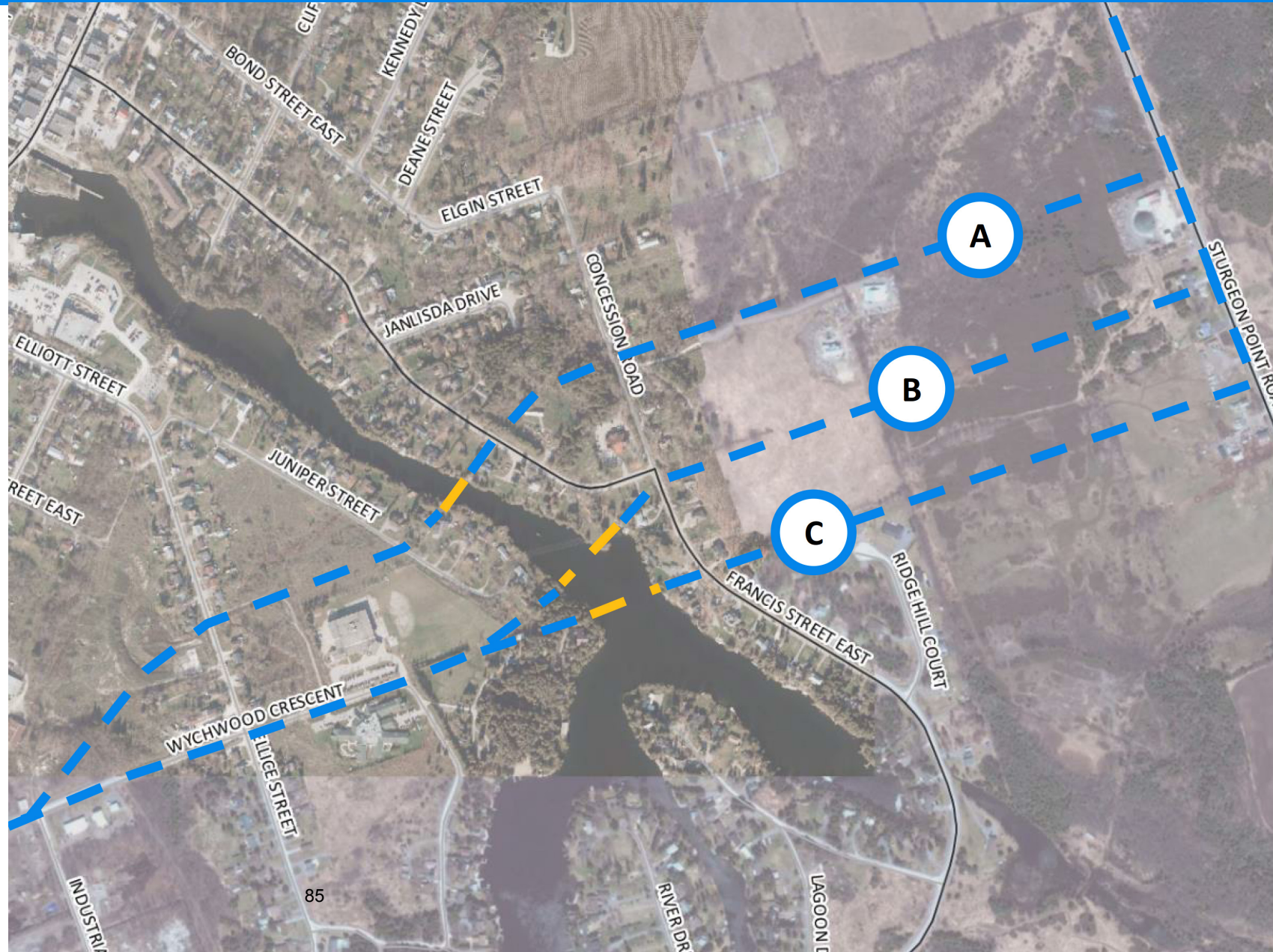


# In-Town Bridge Crossing

A new in-town bridge crossing would:

- Require new road connections on both sides of the waterway
- Have significant impacts to properties, environment and existing communities
- Be the highest cost of all the options (\$15-\$20M estimate)
- Provide the greatest relief to existing traffic concerns

Not recommended as the need does not justify the scale of the solution.

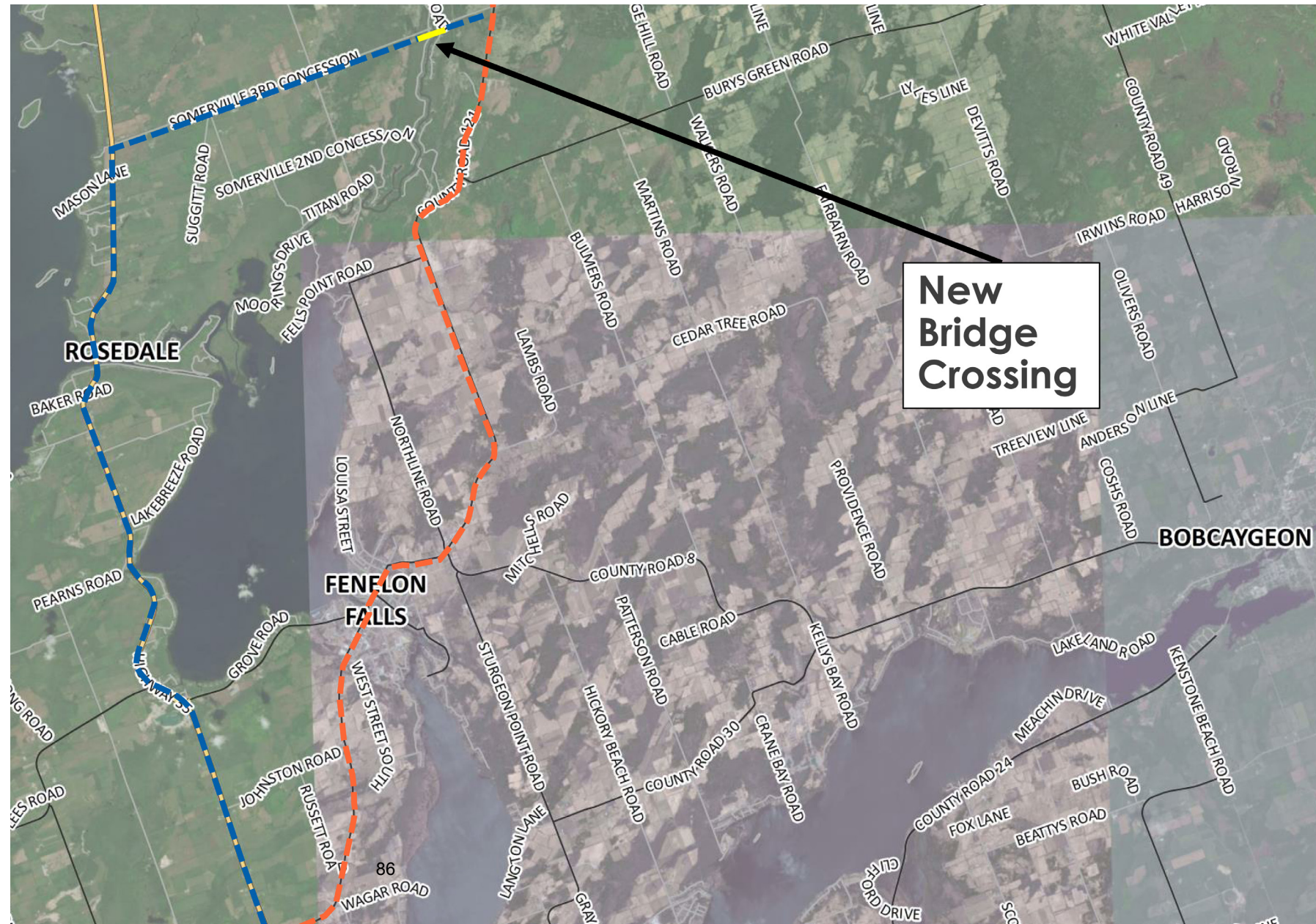




# Bypass Crossing

## Summary:

- Less impacts to properties, environment and existing communities
- Upgrade existing roads
- Design within flood plain
- Moderate cost (\$6-9M estimate)
- Reasonable relief to existing traffic concerns
- Redirect 20% of traffic through town





# Issues to Address with Bypass

There is no low impact option. The bypass has the least impact but still has issues to address, including:

**Property Impacts:** private property, boat launch

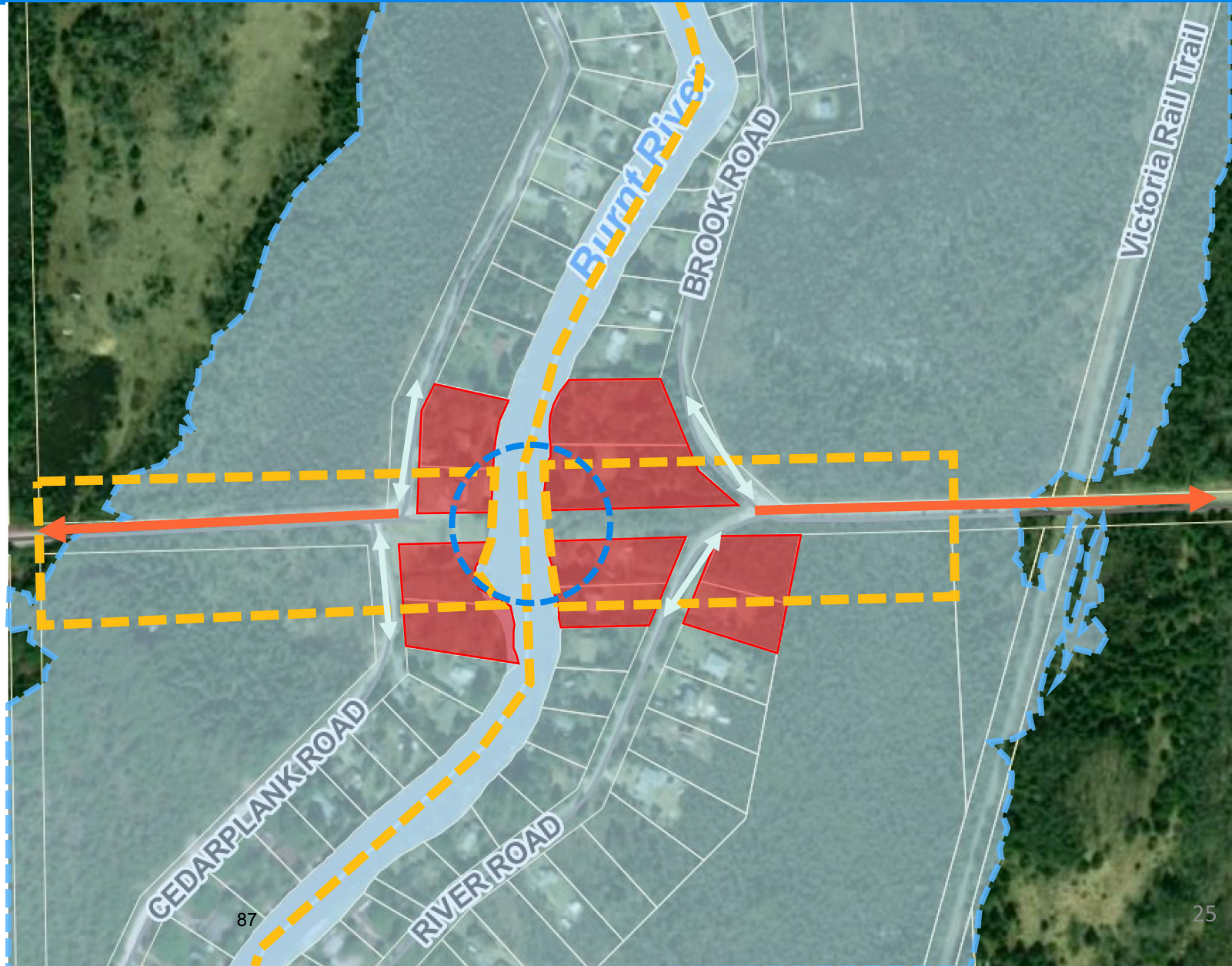
**Natural Environment:** Burnt River, wildlife habitat (terrestrial, aquatic)

**Noise / Air Quality:** Entirety of 3rd Concession

**Boating:** Navigable water clearances

**Road Connections:** Maintaining access and connecting routes

**Flood Plain:** Minimizing impact



# High Level Cost Comparison

- **In-Town: Most Expensive option** (1.5 – 2 times more expensive than by-pass. Tens of millions.)
  - Road reconstruction, bridge construction, property easements (25-30) and property acquisition (9-10).
  - Significant property costs.
- **Bypass: Less Expensive than In-Town crossings**
  - Road reconstruction, bridge construction, property easements (30-35) and property acquisition (4-6)
- **Traffic Improvements: Least Expensive option** (range of relatively low cost improvements)

# What We've Heard

Consultation included:

- Two Public Information Centres (May 27, 2019 & November 6, 2019)
- Two Stakeholder Meetings (September 30, 2019, August 5, 2020)

Through consultation we heard:

- Mixed support for solutions
- Concerns with impacts and moving traffic elsewhere
- Concerns with changes to Helen Street and Lindsay Street intersection and increased use of Elliot Street
- Concerns with Tim Hortons traffic
- Desire to see the existing bridge improved

## **Additional Work following Consultation**

- Traffic improvements
  - Detailed background on improvements to Helen Street and Lindsay Street
- Progress Bypass design considerations

# Concerns from Stakeholders

Some critical items of concern from stakeholders and community have been:

- Putting turning movement restrictions in at the Helen and Lindsay Street intersection
  - This is a big ask of people with established patterns traveling in town and there is concern that this could impact local businesses at the intersection
- Tim Hortons drive-through traffic causes issues today that cannot be eliminated with these options
  - Improvements are being made to Elliot Street to allow for a proper turning lane at Tim Hortons and to improve through traffic on Elliot Street
- Concerns with more traffic on Elliot Street
- Economic benefits of a second in-town bridge crossing should be examined – economic opportunities are a reflection of more than traffic and would require more study
- EMS response issues – these have not identified by the providers themselves, more a community perspective and concern
- Move quickly with the design for the bypass solution

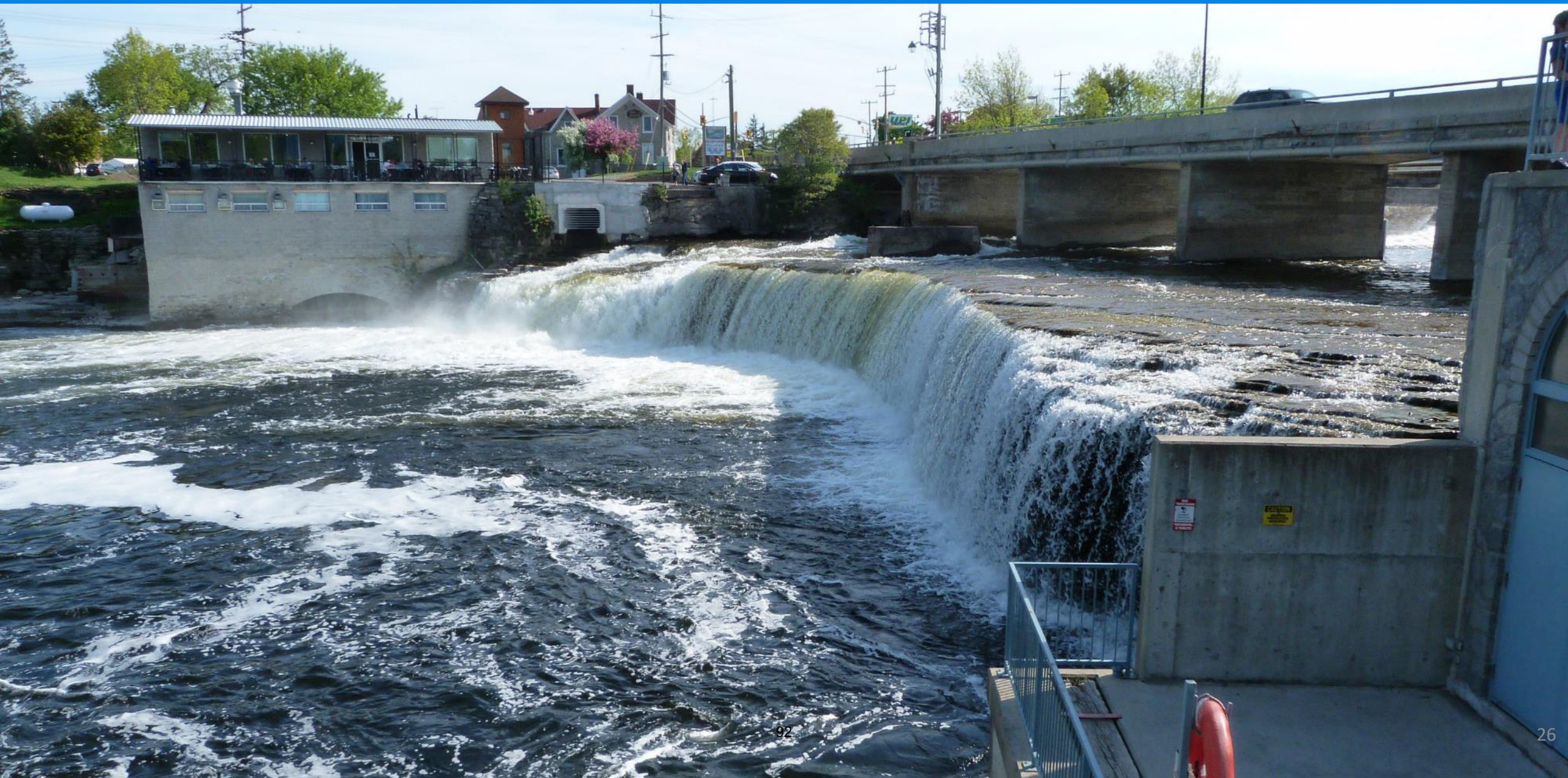


# Recommendations

- Progress the **Bypass Solution** and implement as quickly as possible.
- Implement traffic improvements for **Helen Street, Lindsay Street and Elliot Street**.
- Future bridge rehabilitation should consider moving the sidewalk to the other side of the bridge and improving the condition.
- Schedule C work needs to be completed for the bypass to address the key issues
- Work with Tim Hortons regarding drive-through traffic issues and potential options for on-site improvements or relocation.
- Continue to monitor growth in Fenelon Falls that would support the need for a second crossing in-town.



# Thank You





# The Corporation of the City of Kawartha Lakes

## Committee of the Whole Report

Report Number CORP2020-009

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**Date:** November 5, 2020

**Time:** 1:00 p.m.

**Place:** Council Chambers

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**Ward Community Identifier:** All

**Title:** 2020 Q2 Capital Close

**Author and Title:** Nicole Esper, Junior Accountant

---

### Recommendation(s):

**That** Report CORP2020-009, **2020 Q2Capital Close**, be received;

**That** the capital projects identified in Attachment A to Report CORP2020-009 be approved to be closed due to completion;

**That** the balances in the table below as per Attachment A be transferred to or from the corresponding reserves;

Reserve	Report Closing Balance
Capital Contingency Reserve	\$316,626.73
Victoria Manor Capital Reserve	\$22,856.17
Public Works Fleet Reserve	\$221,368.81
Police Reserves	\$27,049.68
Sewer Infrastructure Reserve	\$15,851.90

**That** the following projects be granted an extension to December 31, 2020:

- 950151801 - \*\*\*Logie Park
- 950153301 - \*\*\*Shoreline Restoration
- 928171901 - \*\*\*P&R Software
- 932172201 - \*\*\*Coboconk Fire Hall Upgrades
- 983191001 – 2019 Streetlighting

**Department Head:**\_\_\_\_\_

**Financial/Legal/HR/Other:**\_\_\_\_\_

**Chief Administrative Officer:**\_\_\_\_\_

- 983191301 – 2019 Municipal Drains
- 997190201 – 2019 Lindsay Landfill Electricity System
- 928190100 – 2019 IT Systems
- 938190300 – 2019 Paramedic Equipment
- 998190400 – 2019 WWW Study & Special Projects
- 983181400 – 2018 Gravel Road Rehabilitation
- 983190100 – 2019 Bridges
- 983190300 – 2019 Urban/Rural Reconstruction
- 983190400 – 2019 Urban/Rural Resurfacing
- 983190500 – 2019 Rural Resurfacing
- 983190700 – 2019 Road Lifecycle Extension
- 983191100 – 2019 Traffic Systems
- 983191400 – 2019 Parking Lots
- 997190100 – 2019 Landfill Siteworks
- 998190100 – 2019 Water Treatment Program
- 998190200 – 2019 Wastewater Treatment
- 998190300 – 2019 Water Distribution & Wastewater Collection

**That** the following projects be granted an extension to June 30, 2021:

- 987180100 - \*\*\*2018 Airport Siteworks
- 987190100 - \*\*\*2019 Airport Siteworks
- 987190200 - \*\*\*GPS Approach Signals

**That** the following projects be granted an extension to December 31, 2021:

- 928151500 - \*\*\*ERP System
- 987190301 - \*\*\*Airport Capital Plan
- 999190101 – \*\*\*Record Document Management System
- 987200100 - \*\*\*2020 Airport Siteworks

**That** the following projects be reclassified as Multi-year projects:

- 950190201 – Centennial Park Washrooms
- 953180119 – Old Gaol Wall
- 969190101 – Victoria Manor Concept Design

**That** project 953200501 – M/Y City Hall Systems be closed and combined with 953180101 – M/Y City Hall HVAC Systems

**That** this recommendation be brought forward to Council for consideration at the next Regular Council Meeting.

## **Background:**

This report is provided to advise Council on each capital project's actual costs versus its approved budget and to close projects that are complete as of June 30, 2020 in accordance with the Capital Close and Administration Policy.

## **Rationale:**

The expectation of a capital close report is to bring completed capital projects to a zero balance by recommending provisions for any shortfalls and disposition of surplus amounts. When projects are closed with a surplus, the surplus is typically transferred to the Capital Projects Reserve. There are some exceptions to this practice. If the project being closed was funded from a source other than the general tax levy then the surplus is returned to that source of funding.

Please see below a list of attachments:

Attachment A - Lists all projects completed and recommended to be closed identifying the amount that will be returned to the reserves listed. There are projects that are closing with a zero balance as the funding has been returned to the original funding source and does not require Council approval to do so.

Attachment B – Lists all projects that will be complete as of December 31, 2020 or are on target to be completed by their current completion date. The project numbers with three asterisks (\*\*\*) are multi-year projects that will have additional funding over multiple years and will be using the same project number until the project is completed.

Attachment C – Lists the active projects that are seeking Council Resolution to extend the current completion date.

Remaining open projects total \$204 Million in budget. The spending to date is approximately \$85 Million. There is currently \$119 Million of capital spending still to be incurred and of that total, 77% of the projects are on track and have the capacity and resources to be completed on schedule. The remaining 21% of projects have been delayed for various reasons and are requesting extensions.

## **Other Alternatives Considered:**

Council may choose an alternative direction with respect to where the over and under expenditures should be transferred. Staff's recommendations are in accordance with the Capital Close and Administration Policy C 187 FIN 018.

## Financial/Operation Impacts:

The status of each project has been reviewed by Directors and appropriate management staff. The below detailed tables show the balances to the affected Reserves and Deferred Revenue, of the projects being closed.

### Attachment A: Completed Projects

#### Reserve Funds

The table below is a listing of the reserves that require Council approval to transfer funds to and from.

<b>Reserve</b>	<b>Report Closing Balance</b>
Capital Contingency Reserve	\$316,626.73
Victoria Manor Capital Reserve	\$22,856.17
Public Works Fleet Reserve	\$221,368.81
Police Reserves	\$27,049.68
Sewer Infrastructure Reserve	\$15,851.90

#### Obligatory Funds

Below is a table listing the obligatory funds for which the return of funding does not require Council approval, any deficits require Council approval and are included in the Council resolutions.

<b>Obligatory Reserves and Development Charge Reserve</b>	<b>Report Closing Balance</b>
Gas Tax Reserve – Transit	\$42,280.78
Provincial Grants Receivables	\$42,047.21
Federal Grants Receivables	\$55,121.39
Development Charges	\$326,572.65

#### Debenture Proceeds

The debenture debt will be decreased by \$506,115.08 due to the closure of various capital projects that already had debenture funding from previous capital budgets.

Debenture Proceeds	Report Closing Balance
998170300 – 2017 Water Distribution & Waste Water Collection	\$184,082.76
983190200 - 2019 Culverts	\$322,032.32

In summary, a total of \$1,575,890.40 is recommended to be closed and returned to the original budget funding sources. There are currently 143 projects and staff recommend closing 18 projects, leaving a remaining 125 projects open at the end of June.

There have been numerous discussions with Council in recent weeks' capital projects carrying forward to 2021. Those discussions related to a forecast of the capital position at year end, whereas this report is reflecting actual results as of June 30.

### Relationship of Recommendation(s) To The 2020-2023 Strategic Plan:

This recommendation matches our Vision, Mission, Guiding Principles and Values. This recommendation assists in achieving the Strategic Priorities; A Vibrant and Growing Economy and Good Government. This Capital Close enables Council and the public to see that the projects that are being done to improve services within our growing community and are being closed within budget and in a timely manner.

### Consultations:

Directors, Managers and Executive Assistants

### Attachments:



Appendix A -  
Closing Projects.xlsx



Attachment B - On  
Target Projects.xlsx



Attachment C -  
Projects Requesting

Attachment A: Completed projects.

Attachment B: Projects on target to be closed by current completion date.

Attachment C: Projects requesting an extension.

**Department Head E-Mail: [jstover@kawarthalakes.ca](mailto:jstover@kawarthalakes.ca)**

**Department Head: Jennifer Stover**



Completed Projects as of June 30, 2020

Project Number	Description	Budget Year	Total Budget	Capital Contingency Reserve	Victoria Manor Capital Reserves	Fleet Reserves	Police Reserves	Sewer Infrastructure Reserve	Provincial Gas Tax	Development Charges	Federal & Provincial Grants	Debenture	Total funds to be returned
998151801	Ridout SPS	2015	100,000.00					18,968.89					18,968.89
998161701	Lindsay WPCP	2016	315,000.00					(3,116.99)		(3,851.74)			(6,968.73)
932170201	Bethany Fire Hall Replacement	2017	1,098,309.00	5,173.68						2,910.20			8,083.88
998170300	2017 Water Distribution & WW Collection	2017	3,204,206.00								97,168.60	184,082.76	281,251.36
953180100	2018 B&P Facilities	2018	1,202,362.61	(23,421.56)									(23,421.56)
983190600	2019 Gravel Resurfacing	2019	1,403,689.00	56,998.84									56,998.84
983190900	2019 Sidewalks	2019	342,586.00	(5,666.89)									(5,666.89)
994190101	2019 Transit Shelters & Pads	2019	75,000.00						42,280.78				42,280.78
938190101	Bobcaygeon Paramedic Station Generator	2019	20,000.00	8,501.11									8,501.11
938190200	2019 Paramedic Fleet	2019	750,000.00	8,893.67						5,481.87			14,375.54
942190101	2019 KLPS Computers	2019	44,500.00				15,015.04						15,015.04
942190501	2019 KLPS Radio System Upgrade	2019	76,500.00				20,497.14						20,497.14
942190601	2019 KLPS MDT Upgrade/Backup	2019	11,000.00				(8,462.50)						(8,462.50)
950190200	2019 Parkland Facilities	2019	450,300.00	131,069.94									131,069.94
969190100	2019 Victoria Manor Projects	2019	151,476.00		22,856.17								22,856.17
994190300	2019 Fleet	2019	3,984,535.00			221,368.81							221,368.81
983190200	2019 Culverts	2019	940,250.00	157,032.68						322,032.32		322,032.32	801,097.32
991200201	Emergency Culvert Repair - St Luke's Road	2020	-	(21,954.74)									(21,954.74)
													-
	<b>Total</b>		<b>14,069,713.61</b>	<b>316,626.73</b>	<b>22,856.17</b>	<b>221,368.81</b>	<b>27,049.68</b>	<b>15,851.90</b>	<b>42,280.78</b>	<b>326,572.65</b>	<b>97,168.60</b>	<b>506,115.08</b>	<b>1,575,890.40</b>

Capital Projects on Target to be Closed by Current Completion Dates as of June 30, 2020									
*** Indicates a Multi-year Project									
Job	Description	Budget Year	Total Approved Budget June 30, 2020	Total Spending June 30, 2020	Remaining Budget June 30, 2020	Closing Date	Initials	% Complete	Comments
998110101	Omeme WPCP	2011	2,450,000.00	2,504,556.75	(54,556.75)	June 30, 2021	LP	80%	Pending final contract adjustments and clearances
932130701	***Central Training Facility	2013	75,000.00	426.80	74,573.20	December 31, 2021	VK	0%	Multi year project requiring additional funding. Funding expected in 2021 Capital Budget, extend to 2021.
997130801	2013 Eldon Landfill	2013	292,000.00	185,597.64	106,402.36	December 31, 2020	LP	95%	Awaiting Certificate of Requirement and final payment of legal fees
998151701	Colborne St SPS	2015	5,675,000.00	9,574,452.30	(3,899,452.30)	December 31, 2020	LP	75%	This project is being done in conjunction with 998170502
983160600	2016 Urban/Rural Reconstruction	2016	4,851,494.00	3,303,543.42	1,547,950.58	December 31, 2020	LP	60%	Ellice St, Mary St, and Elliot St final approvals and permits needed
997166101	2016 Pump Chamber Construction	2016	250,000.00	169,929.67	80,070.33	December 31, 2020	TK	50%	Project Ongoing. Waiting on special order piping. This project is being done in conjunction with 997190103
998160201	Water Operations Monitoring System	2016	150,000.00	78,693.74	71,306.26	December 31, 2020	LP	75%	OCWA Bobcaygeon Pilot project remaining to be completed
998160501	Pinewood Production Well	2016	254,456.45	213,016.23	41,440.22	December 31, 2020	LP	95%	Source Protection Plan amendment outstanding
998160800	2019 Watermain Replacement	2016	64,400.00	59,956.77	4,443.23	December 31, 2020	LP	80%	Ellice St, Mary St, and Elliot St final approvals and permits needed
998161101	Peel St WWW Design	2016	50,000.00	64,471.66	(14,471.66)	December 31, 2020	LP	80%	Downtown Reconstruction project remaining to be completed
998161501	WW Operating Monitoring System	2016	150,000.00	63,499.69	86,500.31	December 31, 2020	LP	80%	OCWA Bobcaygeon Pilot project remaining to be completed
932171001	***SCBA Equipment	2017	1,750,000.00	-	1,750,000.00	June 30, 2021	VK	0%	RFP Evaluation in Progress
953170501	***Development 68 Lindsay St N	2017	12,700,000.00	13,315,839.42	(615,839.42)	December 31, 2020	RS	95%	Final Invoicing to be completed
983170100	2017 Bridges	2017	3,006,214.00	2,630,617.52	375,596.48	December 31, 2020	LP	75%	Mill Pond Bridge "B" EA complete. Detailed design ongoing.
983170300	2017 Urban/Rural Reconstruction	2017	6,259,100.00	5,701,502.03	557,597.97	December 31, 2020	LP	80%	Downtown Reconstruction project remaining to be completed
983170800	2017 Road Restoration WWW Projects	2017	400,775.00	242,254.77	158,520.23	December 31, 2020	LP	50%	Pending final contract adjustments and clearances
997170201	2017 Lindsay Landfill	2017	875,000.00	694,594.12	180,405.88	December 31, 2020	TK	95%	Project Ongoing
998170100	2017 Watermain Replacement	2017	767,714.00	521,532.94	246,181.06	December 31, 2020	LP	75%	Canal design ongoing, land needed, TSW coordination

Job	Description	Budget Year	Total Approved Budget June 30, 2020	Total Spending June 30, 2020	Remaining Budget June 30, 2020	Closing Date	Initials	% Complete	Comments
998170500	2017 Wastewater Treatment	2017	6,500,561.00	2,007,757.81	4,492,803.19	December 31, 2020	LP	75%	This project is being done in conjunction with 998151701
932180100	2018 Fire Facilities	2018	356,000.00	323,380.01	32,619.99	December 31, 2020	VK	95%	Most project complete, others in progress
932180300	2018 Fire Equipment	2018	230,000.00	231,372.05	(1,372.05)	December 31, 2020	VK	90%	Most project complete, others in progress
953180100	2018 Parkland Siteworks	2018	2,267,698.80	1,841,048.33	426,650.47	December 31, 2020	LD	70%	Projects are in progress and on target
953180200	2018 Parkland Facilities	2018	319,872.00	265,518.29	54,353.71	December 31, 2020	LD	70%	Projects are in progress and on target
950180500	2018 Recreation Facilities	2018	3,317,000.00	3,055,420.98	261,579.02	December 31, 2020	LD	90%	Projects are in progress and on target
950180600	2018 Community Centres	2018	73,000.00	3,358.08	69,641.92	December 31, 2020	LD	72%	Projects are in progress and on target
953180101	***City Hall HVAC	2018	1,090,000.00	255,217.27	834,782.73	June 30, 2022	LD	20%	Project is in progress
983180100	2018 Bridges	2018	3,152,320.00	2,891,036.54	261,283.46	December 31, 2020	LP	75%	Fenelon Falls EA ongoing
983180300	2018 Urban/Rural Reconstruction	2018	6,895,615.00	5,627,897.17	1,267,717.83	December 31, 2020	LP	80%	Construction complete. Design ongoing for Fenelon Falls, Downtown - Angeline, Kent Street, Colborne Schedule B EA ongoing
983180700	2018 Road Lifecycle Extension	2018	1,219,800.00	555,739.44	664,060.56	December 31, 2020	LP	75%	2019 carry over projects remaining to be completed
983181100	2018 Traffic Systems	2018	100,000.00	32,626.38	67,373.62	December 31, 2020	LP	90%	Kent Street West design project outstanding
983181200	2018 Parking	2018	171,000.00	116,892.29	54,107.71	December 31, 2020	LP	85%	Downtown Parking Strategy as per PAR2018-057 underway
987180300	***Airport Capital Plan	2018	35,000.00	31,929.60	3,070.40	June 30, 2021	LP	95%	All projects are being done in conjunction with one another. Estimated completion Q2 2021
998180300	2018 Water Distribution & Waste Water Collection	2018	5,197,800.00	3,877,028.13	1,320,771.87	December 31, 2020	LP	75%	Schedule B Class EA ongoing
998180400	2018 Water Treatment Program	2018	502,000.00	348,776.44	153,223.56	December 31, 2020	LP	75%	Canadiana Shores Source Protection Plan outstanding
998180500	2018 Wastewater Treatment	2018	784,000.00	653,402.52	130,597.48	December 31, 2020	LP	75%	Product ordered was not sufficient, new product on order. Once received installation is required.
928190104	***M/Y Disaster Recovery M/Y 2019-20	2019	150,000.00	91,439.86	58,560.14	June 30, 2021	JC	25%	Project ongoing
932190100	2019 Fire Facilities	2019	270,000.00	221,177.48	48,822.52	December 31, 2020	VK	75%	Projects underway
932190104	***Mariposa Fire Station	2019	1,960,000.00	123,213.89	1,836,786.11	June 30, 2021	VK	10%	Tender complete, project in progress
932190303	2019 Fire Equipment	2019	255,000.00	172,172.20	82,827.80	December 31, 2020	VK	50%	PO's issued and most projects are in progress
950190100	2019 Parkland Siteworks	2019	1,308,145.50	887,501.81	420,643.69	December 31, 2020	LD	60%	Projects are in progress and on target
950190103	***Bobcaygeon Beach Park	2019	6,000,000.00	299,951.92	5,700,048.08	June 30, 2021	LD	10%	Projects are in progress and on target
950190301	***Ops Arena	2019	250,000.00	112,140.00	137,860.00	June 30, 2022	LD	50%	Projects are in progress and on target

Job	Description	Budget Year	Total Approved Budget June 30, 2020	Total Spending June 30, 2020	Remaining Budget June 30, 2020	Closing Date	Initials	% Complete	Comments
950190300	2019 Recreation Facilities	2019	2,391,000.00	1,862,428.96	528,571.04	December 31, 2020	LD	70%	Projects are in progress and on target
950190400	2019 P&R Equipment	2019	115,000.00	67,942.06	47,057.94	December 31, 2020	LD	80%	Projects are in progress and on target
950190500	2019 Cemeteries	2019	100,000.00	98,698.17	1,301.83	December 31, 2020	LD	60%	Projects are in progress and on target
953190100	2019 B&P Facilities	2019	1,012,000.00	400,582.41	611,417.59	December 31, 2020	LD	50%	Project is in progress
953190200	2019 B&P Furniture	2019	456,000.00	584,474.97	(128,474.97)	June 30, 2021	LD	50%	Project is in progress
928200101	2020 IT Systems	2020	396,000.00	58,015.48	337,984.52	June 30, 2021	JC	50%	Projects are underway
932200100	2020 Fire Facilities	2020	96,000.00	-	96,000.00	June 30, 2021	VK	0%	Deferred, to begin in the fall
932200200	2020 Fire Fleet	2020	1,100,000.00	-	1,100,000.00	June 30, 2021	VK	0%	Deferred, to begin in the fall
932200300	2020 Fire Equipment	2020	305,000.00	30,304.15	274,695.85	June 30, 2021	VK	0%	Deferred, to begin in the fall
938200201	2020 Ambulance Remount	2020	330,000.00	-	330,000.00	June 30, 2021	AR	0%	Deferred, to begin in the fall
938200300	2020 Paramedic Equipment	2020	315,000.00	46,754.68	268,245.32	June 30, 2021	AR	25%	Deferred, to begin in the fall
942200101	2020 KLPS Computers	2020	46,200.00	38,382.81	7,817.19	June 30, 2021	AS	80%	Projects are underway and on target
942200201	2020 KLPS Printers	2020	3,500.00	273.18	3,226.82	June 30, 2021	AS	20%	Projects are underway and on target
942200401	2020 KLPS Vehicles	2020	82,707.00	31,316.72	51,390.28	June 30, 2021	AS	75%	Projects are underway and on target
942200501	2020 KLPS Radio System Upgrades	2020	89,150.00	-	89,150.00	June 30, 2021	AS	5%	Projects are underway and on target
942200601	2020 KLPS MDT Upgrade/Backup	2020	14,000.00	-	14,000.00	June 30, 2021	AS	5%	Projects are underway and on target
942200701	2020 KLPS CEW's (Taser)	2020	9,125.00	-	9,125.00	June 30, 2021	AS	5%	Projects are underway and on target
942200801	2020 KSPS Switches	2020	5,000.00	1,421.95	3,578.05	June 30, 2021	AS	75%	Projects are underway and on target
942200901	2020 KLPS Impaired Driving Simulator	2020	44,635.00	40,195.23	4,439.77	June 30, 2021	AS	90%	Projects are underway and on target
942201001	2020 KLSP License Plate Recorder	2020	33,698.00	30,766.25	2,931.75	June 30, 2021	AS	95%	Projects are underway and on target
950200100	2020 Parkland Siteworks	2020	472,000.00	72,383.43	399,616.57	June 30, 2021	LD	20%	Projects deferred, to begin work in the fall
950200200	2020 Parkland Facilities	2020	490,000.00	-	490,000.00	June 30, 2021	LD	0%	Projects deferred, to begin work in the fall
950200300	2020 Recreation Facilities	2020	1,175,000.00	82,791.51	1,092,208.49	June 30, 2021	LD	15%	Projects deferred, to begin work in the fall
950200400	2020 P&R Equipment	2020	150,000.00	31,109.00	118,891.00	June 30, 2021	LD	70%	Projects deferred, to begin work in the fall
950200500	2020 Cemeteries	2020	70,000.00	1,261.82	68,738.18	June 30, 2021	LD	5%	Projects deferred, to begin work in the fall
950200600	***2020 Ops Areana & Community Centre	2020	7,250,000.00	-	7,250,000.00	June 30,, 2023	LD	0%	Project on hold, grant funding denied
953200100	2020 B&P Facilities	2020	202,000.00	12,250.29	189,749.71	June 30, 2021	LD	40%	Project is in progress
953200200	2020 B&P Furniture	2020	53,000.00	3,013.56	49,986.44	June 30,, 2021	LD	20%	Project is in progress
953200301	Bobcaygeon Library	2020	1,000,000.00	-	1,000,000.00	June 30, 2022	LD	10%	Project is in beginning stages
953200401	***CKL Rooftops	2020	70,000.00	-	70,000.00	June 30, 2022	LD	10%	Project is in beginning stages
953200601	***Fenelon Falls Museum	2020	100,000.00	-	100,000.00	June 30, 2022	LD	15%	Project is in beginning stages
969200100	2020 Victoria Manor Projects	2020	150,000.00	-	150,000.00	June 30, 2022	PK	20%	Projects deferred, to begin work in the fall
991200100	2020 PW Facilities	2020	680,000.00	2,544.00	677,456.00	June 30, 2021	RM	10%	Projects are in progress
994200100	2020 Transit Stops & Shelters	2020	30,000.00	-	30,000.00	June 30, 2021	TB	10%	Projects deferred, to begin work in the fall
994200200	2020 Fleet	2020	4,148,177.00	364,315.17	3,783,861.83	June 30, 2021	TB	40%	Projects are in progress
983200100	2020 Bridges	2020	802,000.00	5,934.71	796,065.29	June 30, 2021	LP	15%	Estimated completion 2021



Capital Projects Requesting an Extension										
Project	Description	Budget Year	Total Approved Budget June 30, 2020	Total Spending June 30, 2020	Remaining Budget June 30, 2020	Closing Date	Extension Date Requested	Initials	% Complete	Comments
<b>Multi-year projects requesting an Extension</b>										
928151500	***ERP System	2015	3,200,218.00	3,066,806.43	133,411.57	June 30, 2020	December 31, 2021	JC	90%	Extension required to Dec 31, 2021. Implementation and Enhancements ongoing
950151801	***Logie Park	2015	4,551,002.22	3,778,027.97	772,974.25	June 30, 2020	December 31, 2020	LD	95%	Awaiting invoices
950153301	***Shoreline Restoration	2015	685,184.00	842,717.99	(157,533.99)	June 30, 2020	December 31, 2020	LD	95%	Awaiting invoices
928171901	***Parks & Recreation Software	2017	180,000.00	149,835.69	30,164.31	June 30, 2020	December 31, 2020	JC	90%	Extension required to Dec 31, 2020
932172201	***Coboconk Fire Hall Upgrades	2017	637,786.00	595,837.26	41,948.74	June 30, 2020	December 31, 2020	VK	90%	Extension required to Dec 31, 2020 to complete projects deferred to the fall
987180100	***2018 Airport Siteworks	2018	211,500.00	318,419.74	(106,919.74)	June 30, 2020	June 30, 2021	LP	95%	Extension required. All projects are being done in conjunction with one another. Estimated completion Q2 2021
987190100	***2019 Airport Siteworks	2019	155,000.00	56,636.34	98,363.66	June 30, 2020	June 30, 2021	LP	50%	Extension required. All projects are being done in conjunction with one another. Estimated completion Q2 2021
987190200	***GPS Approach Signals	2019	38,000.00	25,873.52	12,126.48	June 30, 2020	June 30, 2021	LP	75%	Extension required. All projects are being done in conjunction with one another. Estimated completion Q2 2021
987190301	***Airport Capital Plan	2019	45,000.00	35,618.62	9,381.38	June 30, 2020	December 31, 2021	LP	90%	All projects are being done in conjunction with one another. Estimated completion Q4 2021
999190101	***Record Document Management System	2019	421,000.00	430,086.40	(9,086.40)	June 30, 2020	December 31, 2021	JC	70%	Extension required to Dec 31, 2021. Implementation and Enhancements ongoing
987200100	***2020 Airport Siteworks	2020	100,000.00	-	100,000.00	June 30, 2021	December 31, 2021	LP	50%	All projects are being done in conjunction with one another. Estimated completion Q4 2021
<b>Multi-year Subtotal</b>			<b>10,224,690.22</b>	<b>9,299,859.96</b>	<b>924,830.26</b>					
<b>Projects requesting an extension for final invoicing, clearance or certificates</b>										
983191001	2019 Streetlighting	2019	517,000.00	496,171.07	20,828.93	June 30, 2020	December 31, 2020	LP	95%	Extension required. Pending final invoices
983191301	2019 Municipal Drains	2019	46,000.00	35,804.75	(1.12)	June 30, 2020	December 31, 2020	LP	95%	Extension required. Pending final invoices
997190201	2019 Lindsay LF Electricity System	2019	55,000.00	26,270.56	24,093.43	June 30, 2020	December 31, 2020	LP	95%	Project complete. Awaiting final invoice
<b>Invoicing Subtotal</b>			<b>618,000.00</b>	<b>558,246.38</b>	<b>44,921.24</b>					
<b>Projects requesting extensions due to Covid 19 Delays</b>										
928190100	2019 IT Systems	2019	485,000.00	386,583.25	97,419.50	Jun 30 2020	December 31, 2020	JC	75%	Extension required to Dec 31, 2020 to complete projects deferred to the fall
938190300	2019 Paramedic Equipment	2019	155,000.00	149,870.26	5,129.74	Jun 30 2020	December 31, 2020	AR	90%	Extension required to Dec 31, 2020 to complete projects deferred to the fall
998190400	2019 WWW Study & Special Projects	2019	250,000.00	62,902.87	75,265.03	Jun 30 2020	December 31, 2020	LP	70%	Extension required to Q4 2020. 1 project complete. 1 project pending final invoices. Remaining project delayed due to COVID
<b>Covid 19 Delay Subtotal</b>			<b>890,000.00</b>	<b>599,356.38</b>	<b>177,814.27</b>					

Project	Description	Budget Year	Total Approved Budget June 30, 2020	Total Spending June 30, 2020	Remaining Budget June 30, 2020	Closing Date	Extension Date Requested	Initials	% Complete	Comments
Additional Projects Requiring Extensions										
983181400	2018 Gravel Road Rehabilitation	2018	3,487,736.44	2,034,898.53	540,384.68	Jun 30 2021	December 31, 2020	LP	70%	Report to Council Sept 15, 2020 to add additional roads. If approved extension required to Q4 2021
983190100	2019 Bridges	2019	1,539,000.00	1,306,912.02	64,736.43	Jun 30 2020	December 31, 2020	LP	60%	Extension required to Q4 2020. Project underway. Designs nearing completion.
983190300	2019 Urban/Rural Reconstruction	2019	8,370,351.00	6,530,808.40	122,651.51	Jun 30 2020	December 31, 2020	LP	95%	Extension required to Q4 2020. Design work ongoing
983190400	2019 Urban/Arterial Resurfacing	2019	5,114,748.00	4,563,644.20	551,103.80	Jun 30 2020	December 31, 2020	LP	100%	Extension required Q4 2020. Change order pending.
983190500	2019 Rural Resurfacing	2019	3,450,935.00	3,204,572.22	124,879.04	Jun 30 2020	December 31, 2020	LP	95%	Extension required to Q4 2020. Finalizing one road segment (Kennedy Bay). Pending final invoices
983190700	2019 Road Lifecycle Extension	2019	2,019,800.00	1,297,859.49	466,506.37	Jun 30 2020	December 31, 2020	LP	70%	Extension required to Q4 2020. Additional roads added to the Program.
983191100	2019 Traffic Systems	2019	115,000.00	6,375.26	108,624.74	Jun 30 2020	December 31, 2020	LP	25%	Extension required to Q4 2020. Work underway
983191400	2019 Parking Lots	2019	68,000.00	11,091.84	(8,366.08)	Jun 30 2020	December 31, 2020	LP	25%	Extension required. Parking lot currently being constructed. Will be complete Q3 2020.
997190100	2019 Landfill Site works	2019	2,650,000.00	2,193,151.98	456,848.02	Jun 30 2020	December 31, 2020	LP	95%	Project being done in conjunction with 997166101.
998190100	2019 Water Treatment Program	2019	2,359,000.00	1,008,314.59	7,809.93	Jun 30 2020	December 31, 2020	LP	80%	Extension required. Fenelon Falls WTP work ongoing. Estimated completion Q4 2020.
998190200	2019 Wastewater Treatment	2019	328,000.00	48,896.92	258,774.66	Jun 30 2020	December 31, 2020	LP	80%	Extension required. Installation ongoing. Estimated completion Q4 2020.
998190300	2019 Water Distribution & Waste Water Collection	2019	7,031,000.00	5,418,964.80	461,104.77	Jun 30 2020	December 31, 2020	LP	70%	Extension required. Construction is ongoing. Estimated completion Q4 2020.
Extensions Subtotal			36,533,570.44	27,625,490.25	3,155,057.87					
Extensions Grand Total			48,266,260.66	38,082,952.97	4,302,623.64					



## Committee of the Whole Report

Report Number CORP2020-016

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**Meeting Date:** November 3, 2020

**Title:** Incentives/Relief for Non-profit Medical Trusts

**Description:** To investigate any forms of incentive or relief that would assist non-profit medical trusts

**Author and Title:** Linda J. Liotti, Manager, Revenue & Taxation

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### Recommendation(s):

**That** Report CORP2020-016, **Incentives/Relief for Non-profit Medical Trusts**, be received;

and

**That** this recommendation be brought forward to Council for consideration at the next Regular Council Meeting.

**Department Head:**\_\_\_\_\_

**Financial/Legal/HR/Other:**\_\_\_\_\_

**Chief Administrative Officer:**\_\_\_\_\_



## **Background:**

At the Council Meeting of January 28, 2020, Council adopted the following resolution:

### **CW2020-019**

**That** Staff investigate any forms of incentives or relief that would assist non-profit medical trusts within the City of Kawartha Lakes and report back to Council with options by the end of Q2, 2020.

**Carried**

This report addresses that direction.

## **Rationale:**

In the Province of Ontario, the Municipal Property Assessment Corporation (MPAC) has the responsibility to accurately assess and classify all properties in Ontario. This is performed ensuring compliance with the *Assessment Act* (the “Act”) and regulations as set by the Government of Ontario.

Section 3(1) of the Act, provides for properties to be exempt from taxation under certain criteria including “land owned, used and occupied solely by a non-profit philanthropic organizations”.

In discussions with MPAC, it is understood that any Non-profit medical trust operating in the City of Kawartha Lakes may qualify for an exemption of property taxes provided they can provide evidence to support the criteria identified in Section 3(1) of the Act. Staff would therefore recommend any Non-profit medical trust contact MPAC to determine eligibility under this program.

An alternative option that is available to a Non-profit medical trust is to seek relief under the City’s charitable rebate program (By-law 2003-84). This program allows any registered charity within the City to apply to be eligible for a rebate of 40% of the property taxes paid on commercial or industrial property that the charity occupies.

It is important to note that both of these options require effort on the part of the non-profit organization. Both of these programs already exist and are available for any eligible non-profit organization to apply for. The City does not initiate the application for either the exemption or the rebate.

## **Other Alternatives Considered:**

An alternative approach for Council to consider is to direct staff to amend By-law 2003-84 Tax Rebate Program for Eligible Charities to provide greater relief to

non-profit medical trusts. This by-law generally provides for relief of 40%, with the explicit exception of the Sturgeon Lake Sailing Club and the Royal Canadian Legion Branches which each receive a 100% rebate.

If Council wished to proceed with this option, then the following resolution is suggested:

That Council direct staff to amend By-law 2003-84 Tax Rebate Program for Eligible Charities to provide for a rebate of \_\_\_\_ to registered non-profit medical trusts.

Staff are considering this an alternative as there is an ability for an exemption under the Assessment Act as noted earlier in this report. Staff are recommending that this option be exhausted first prior to the City amending its by-law to provide relief. It is understood that, to date, the one known Non-profit medical trust in Omemee has not made an application for relief to MPAC.

## **Alignment to Strategic Priorities**

This report aligns with the Kawartha Lakes 2020-2023 Strategic Plan priority of Good Government.

## **Financial/Operation Impacts:**

Any property tax exemption or charitable rebate results in a decrease in taxation revenue. As an example, should the one known Non-profit Medical Trust property located in Omemee qualify for an exemption, it would result in an annual loss of municipal taxes of approximately \$8,000. If the same property qualified under the Charity rebate program, that would result in a revenue loss of \$3,200.

**Department Head E-Mail:** [jstover@kawarthalakes.ca](mailto:jstover@kawarthalakes.ca)

**Department Head:** Jennifer Stover, Director of Corporate Services



## Committee of the Whole Report

Report Number ED2020-022

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**Meeting Date:** November 3, 2020

**Title:** Listing Properties on the Heritage Register

**Description:** Proposed listing of a number of properties on the heritage register as properties of cultural heritage value or interest

**Author and Title:** Emily Turner, Economic Development Officer – Heritage Planning

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### Recommendation(s):

**That** Report ED2020-022, **Listing Properties on the Heritage Register**, be received;

**That** the proposed listing of non-designated properties on the City of Kawartha Lakes Heritage Register included in Appendix A be approved; and

**That** this recommendation be brought forward to Council for consideration at the next Regular Council Meeting.

**Department Head:**\_\_\_\_\_

**Financial/Legal/HR/Other:**\_\_\_\_\_

**Chief Administrative Officer:**\_\_\_\_\_

## **Background:**

In 2017, Council passed the following resolution to allow the addition of non-designated, or listed properties, on the municipal Heritage Register:

### **CR2017-1051**

**Moved by** Councillor Macklem

**Seconded by** Councillor Miller

**Resolved that** Report ED2017-022, **Adding Listed Properties to the Heritage Register**, be received;

**That** staff be directed to add a Section Two: Properties of Potential Heritage Value or Interest section to the Kawartha Lakes Heritage Property Register;

**That** the Municipal Heritage Committee identify and include properties of potential heritage interest and value in Section Two of the Heritage Register; and

**That** the property owners be notified of inclusion on the list and of the nature of the listing.

## **CARRIED**

In response to this direction, staff and the Municipal Heritage Committee identified and commenced a process of identifying and evaluating properties for potential inclusion on the Register as listed properties. The first listed properties were added to the Register in November 2019. Properties were subsequently added by Council in March 2020.

The process for identifying, researching and recommending properties for inclusion on the register is ongoing. At the Municipal Heritage Committee meeting of August 6, 2020, staff presented a list of potential properties for potential inclusion on the register to the Committee. The Municipal Heritage Committee reviewed and approved the list of properties and requested that an additional property (100 Front Street East in Bobcaygeon) be added. The Committee passed the following motion:

### **KLMHC2020-24**

**Moved By** A. Hart

**Seconded By** A. Adare

**That** Report KLMHC2020-11, **Listing Properties on the Heritage Register**, be received; and

**That** the proposed list of properties for inclusion on the Heritage Register, attached in Appendix A, and including 100 Front Street East, Bobcaygeon be endorsed; and

**That** this recommendation be forwarded to Council for consideration.

**Carried**

This report addresses that direction.

### **Rationale:**

Interim protection for properties of potential heritage value or interest was introduced under the Ontario Heritage Act following changes to the Building Code Act which took effect in 2006. The changes introduced accelerated building permit review timeframes including 10 days for a house and 20 days for a large building. These accelerated timeframes leave little time for municipalities and municipal heritage committees to assess properties facing demolition that are potentially of heritage value to the community. As a result, amendments were subsequently made to Section 27 of the Ontario Heritage Act to enable a municipality to provide interim protection for properties believed to have cultural heritage value or interest. These properties are known as listed properties.

Legislation does not require municipalities to list properties on their register, but the Ontario Heritage Trust recommends it as a best practice for municipalities. Listing properties has a number of important outcomes which contribute to the long term, sustainable, and transparent management of heritage resources in the municipality.

Unlike designation under Parts IV and V of the Act, listing is an administrative, rather than a legal, process. Listed properties are not designated under the Act and do not have the same controls placed on them. Owners are not required to apply for a heritage permit when they undertake alterations to a listed property and there are no legal restrictions registered on the property title.

The primary implication of listing for property owners is that they are required to provide 60 days' notice to the municipality of their intention to demolish or remove a building or structure on the property. Owners are required to submit their plans for the property to allow an assessment to be undertaken based on both the current and potential uses of the property to come to the best solution for its long term management. The 60-day period allows for the municipality to assess the structure in detail for potential designation using provincially legislated processes and criteria and either designate the property to provide long term protection or approve the demolition permit. Alternatively, it also allows the municipality and the owner to develop a solution which both preserves the structure and allows for the proposed project to continue, depending on its scope.

Listing is an effective and important planning tool which inventories heritage assets in a community. It creates a framework for assessment regarding a property's heritage value and a clear process for additional protection through

designation, should it be warranted. It creates a balanced approach between not imposing restrictions on a property owner, beyond the notice period for demolition, while allowing the municipality to monitor and regulate its heritage assets. For a municipality, it allows Council time to receive recommendations from staff and the municipal heritage committee and make a decision based on sound background research, provincial heritage regulations, the intended use of the property, and municipal planning policies and procedures guiding growth and development.

Listing also provides clarity to property owners and developers regarding the heritage value of a property. By identifying properties with potential heritage value through listing on the Heritage Register, the City ensures that review based on the heritage attributes of the property is an understood part of a redevelopment proposal or an application to demolish a listed property. Listing properties prevents heritage concerns from being raised part way through a development proposal for a property by creating a transparent review process that will occur when an application is received. The Heritage Register is a public document available at the Clerk's Office, in Economic Development, in the Building Division, and on the City's website, allowing for owners and potential purchasers to check quickly to see the heritage status of their property.

The Act does not require that property owners are contacted or that their consent is required for inclusion on the Heritage Register. However, many municipalities utilize a process that includes contacting the property owners to inform them of inclusion on the Heritage Register. This is recognized as a best practice that increases transparency in the process and allows property owners to be informed and involved in the conversation about protecting heritage assets in their community.

### **Listing in the City of Kawartha Lakes Context**

The City of Kawartha Lakes first added listed properties to its Heritage Register in 2019 with the understanding that listing properties was an ongoing process. The Municipal Heritage Committee and staff are continuously identifying and researching properties for inclusion on the Register. These properties can include buildings, structures, and landscapes. Properties are evaluated based on their architectural, historical, and contextual merit using criteria established in Regulation 9/06 of the Ontario Heritage Act which is used to determine if a property merits designation under Section 29 of the Act. Although there are no specific criteria in the Act for listing properties, the use of Regulation 9/06 as the benchmark for potential listing ensures consistency and transparency in the City's evaluation of heritage resources.

Under the Act, Council must consult with its Municipal Heritage Committee prior to listing properties on the Heritage Register. The Committee has reviewed and endorsed the appended list of properties and is recommending that Council list them on the Heritage Register. This list is included as Appendix A of this report.

The City follows the recommended best practice of notifying owners prior to their properties being listed on the Heritage Register. Owners of properties on the appended list were notified by mail after the Municipal Heritage Committee endorsed the list and are aware that their properties are being considered by Council for inclusion on the Register. They have been invited to reach out to staff if they have any questions or concerns about the process and have been provided with information about the process and implications for their property.

The properties recommended for inclusion on the Heritage Register as properties of cultural heritage value or interest are:

- 269 Glenarm Road, Argyle (Old Blacksmith Shop)
- 15 Balsam Lake Drive, Bexley Township (St. Thomas' Anglican Church)
- 414 Balsam Lake Road, Bexley Township (Sandebush)
- 90 Bolton Street, Bobcaygeon (Temperance Hotel)
- 20 Front Street East, Bobcaygeon
- 100 Front Street East, Bobcaygeon
- 40 Head Street, Bobcaygeon
- 4 King Street West, Bobcaygeon
- 1 Main Street, Bobcaygeon (Stonyhurst)
- 16 Bolsover Road, Bolsover (Bolsover Community Centre)
- 34 Grandy Road, Coboconk
- 6673 Highway 35, Coboconk (Pattie House)
- 56 North Water Street, Coboconk
- 3560 Victoria Road, Digby Township (Longford Lumber Company)
- 1969 County Road 46, Eldon Township (Georgian Bay and Seaboard Railway Station)
- 1981 Sturgeon Road, Dunsford (Dunsford United Church)
- 945 Frank Hill Road, Emily Township (St. James Anglican Church)
- 39 Colborne Street, Fenelon Falls (Bank of Montreal)
- 123 Colborne Street, Fenelon Falls (Fenelon Falls United Church)
- 7 Dodd Street, Fenelon Falls (Old Rectory)
- 21 Francis Street East, Fenelon Falls
- 41 John Street, Fenelon Falls (St. Aloysius Roman Catholic Church)
- 13 Cluxton Street, Kinmount
- 51 Adelaide Street North, Lindsay
- 60 Albert Street North, Lindsay
- 39 Bond Street West, Lindsay
- 62 Bond Street West, Lindsay (Waverly House)
- 26 Colborne Street West, Lindsay
- 45 Cambridge Street North, Lindsay
- 3 Glenelg Street East, Lindsay
- 13 Glenelg Street East, Lindsay
- 54 Wellington Street, Lindsay



- 1022 Little Britain Road, Little Britain (Little Britain United Church)
- 1117 Fleetwood Road, Manvers Township
- 610 Janetville Road, Manvers Township (Manvers School Section 7)
- 632 Janetville Road, Manvers Township
- 88 Algonquin Road, Mariposa Township (Miller Memorial Church)
- 15261 Simcoe Street, Mariposa Township
- 275 Valentia Road, Mariposa Township (North Valentia Schoolhouse)
- 3740 Highway 7, Omemee (Seven Gables/Woodlawn)
- 5 King Street East, Omemee (Lady Eaton House/Tully Lark)
- 61 King Street East, Omemee (Stephenson House)
- 219 John Street, Pontypool
- 353 Bury's Green Road, Somerville Township (St. John's Chapel, Bury's Green)
- 10987 Simcoe Street, Sonya
- 50 Lake Avenue, Sturgeon Point (Swannanoa)
- 114 Lake Avenue, Sturgeon Point (Corn Cob)
- 1449 County Road 8, Verulam Township (Providence United Church)
- 173 Crane Bay Road, Verulam Township (McAlpine Estate)
- 631 Martins Road, Verulam Township (Old Lamb School)
- 797 Martins Road, Verulam Township (St. Peter's Anglican Church)
- 1821 Victoria Road, Victoria Road
- 1834 Victoria Road, Victoria Road (Victoria Road Railway Station)
- 119 Agnes Street, Woodville
- 60 King Street, Woodville (former Knox Presbyterian Church)
- 88 King Street, Woodville
- 103 King Street, Woodville (Woodville Post Office)

These properties represent a selection of important heritage properties throughout the municipality and a full summary of their significance can be found in Appendix A. They have been evaluated based on Regulation 9/06 of the Act and have been found to have architectural, historical and cultural significance. They are associated with important themes, individuals, and events in the history of the municipality and have architectural significance through their style and craftsmanship. Should a demolition application be received for one of these properties, inclusion on the Register as a listed property would allow Council to fully assess its heritage value to the community and make a decision based on that assessment.

One of the properties, 100 Front Street East in Bobcaygeon, was requested by the Municipal Heritage Committee for addition to the list to be presented to Council at their August 6<sup>th</sup> meeting because of its historic relationship to the Boyd family. Staff have subsequently researched the property, notified the owner, and added it to the appended list of properties.

1981 Sturgeon Road, Dunsford (Dunsford United Church) was originally proposed for listing in March 2020. However, at the time Council reviewed the properties proposed for listing, there was a concern raised that the church had not received notice that their property was being proposed for listing. As a result, the property was not listed pending confirmation of notification. Staff have contacted the church and have confirmed that they received notice, are aware that the church building is proposed for listing, and is included in the appended list of properties.

Two of the properties (16 Bolsover Road and 15 Balsam Lake Drive) are municipally owned and currently used as community facilities. The listing of these properties does not prevent any proposed future change of use or redevelopment.

### **Other Alternatives Considered:**

No other alternatives are recommended.

### **Alignment to Strategic Priorities**

Listing properties on the Heritage Register supports the strategic priority of an Exceptional Quality of Life by supporting and promoting arts, culture and heritage. Listing properties recognizes and promotes heritage resources in the municipality and supports long-term heritage conservation and planning. It is a recognized best practice in heritage resource management and an important part of a proactive municipal heritage planning program.

Listing properties also aligns with the municipality's guiding principle of Open and Transparent because it is a clear and transparent method of identifying and protecting heritage resources. It increases the municipality's management of its heritage resources and provides a provincially-mandated review process for properties that may have heritage value, but are not designated under the Ontario Heritage Act.

### **Financial/Operation Impacts:**

There are no financial or operational impacts resulting from the recommendations of this report.

### **Consultations:**

Municipal Heritage Committee  
Director, Community Services

## Attachments:

Appendix A – Proposed Properties for Listing on the Heritage Register



Appendix A  
Proposed Listed Prop

**Department Head E-Mail:** [cmarshall@kawarthalakes.ca](mailto:cmarshall@kawarthalakes.ca)

**Department Head:** Chris Marshall, Director of Development Services

## **Properties Eligible for Listing on the Heritage Register of the City of Kawartha Lakes**

Under Regulation 9/06 of the Ontario Heritage Act, a property is significant for its cultural heritage value or interest and is eligible for designation if it has physical, historical, associative or contextual value and meets any one of the nine criteria set out below:

The property has design value or physical value because it is

- a) a rare, unique, representative or early example of a style, type, expression, material or construction method,
- b) displays a high degree of craftsmanship or artistic merit, or
- c) demonstrates a high degree of technical or scientific achievement.

The property has historical value or associative value because it,

- a) has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community,
- b) yields, or has the potential to yield, information that contributes to an understanding of a community or culture, or
- c) demonstrates or reflects the work or ideas of an architect, artist, builder, designer or theorist who is significant to a community.

The property has contextual value because it:

- a) is important in defining, maintaining or supporting the character of an area,
- b) is physically, functionally, visually or historically linked to its surroundings, or
- c) is a landmark.

The following properties have been identified as having met at least one of the criteria.

## 269 Glenarm Road, Argyle (Old Blacksmith Shop)



269 Glenarm Road has cultural heritage value as an important vernacular commercial building in Kawartha Lakes. Built at some point in the late nineteenth century after the establishment of the post office in Argyle in 1857, the building served for much of its life as a blacksmith's shop, up until the end of the twentieth century. Architecturally, it representative of many rural vernacular commercial buildings such as smithies and livery stables and those occupied by tradespeople and artisans which were constructed in the second half of the nineteenth century. The architecture is purely utilitarian with little architectural ornamentation. It is particularly notable for the two types of vernacular construction present in the building: the main portion of the building which is of frame constructing covered in weatherboarding, and the rear section which is squared log construction and may be the original building. Few vernacular structures such as this from the nineteenth century survive and it is an important example of one. It is a landmark building in Argyle.



## 15 Balsam Lake Drive, Bexley Township (St. Thomas' Anglican Church)



St. Thomas' Anglican Church, located at 15 Balsam Lake Drive, has cultural heritage value as an excellent example of a Carpenter Gothic church and in its associations with George Laidlaw. Constructed around 1885, it is constructed from wood in the Gothic Revival style and displays the typical features of a small, Anglican church constructed in this style. These features include: a steeply pitched roof; tripartite lancet windows on the nave and chancel; a rounded chancel; and an entrance porch. Although fairly plain, the interior also contains a number of decorative features that were popular in churches of this type including the pointed chancel arch, altar rail, pulpit and decorative altar. The land for the church was donated by George Laidlaw, a Scottish-born businessman who had played a significant role in the development of the railway in Ontario and who owned a large estate and ranch on Balsam Lake. The property has important contextual connections to the former Laidlaw estate.



#### 414 Balsam Lake Drive, Bexley Township (Sandebush)



414 Balsam Lake Drive has cultural heritage value as an excellent example of an early twentieth century cottage. Also known as Sandebush, the building integrates the rustic aesthetic prevalent in cottage architecture during this period which was intended to relate the architecture of recreational dwellings to the surrounding natural landscape. Architectural features related to this style include the wooden board and batten exterior, the exposed beams around the roofline, the large banks of windows and extensive verandah. For cottages of this period, Sandebush is notable for its size; the three-storey height is rare for this type of structure. It is representative of the early cottage development on Balsam Lake beginning around the turn of the twentieth century and yields information regarding the growth of cottaging in the region.

## 90 Bolton Street, Bobcaygeon (Temperance Hotel)



90 Bolton Street is a landmark building in Bobcaygeon and has architectural and historic significance. Constructed in 1871 from limestone quarried from the Big Bob River, it was constructed by Scottish masons for local merchant and Scottish immigrant Alexander Orr. Orr ran a dry good store from the south end of the building and the other half housed the Orr Commercial Temperance Hotel, a dry establishment. Architecturally, it is the largest limestone building in Bobcaygeon and a unique example of a stone commercial building in Kawartha Lakes. It is built using block coursed ashlar and is notable for its three gables on the Bolton Street façade, a rare use of this feature in commercial architecture.



## 20 Front Street East, Bobcaygeon



20 Front Street East has cultural heritage value as a good example of an Italianate-style dwelling in Bobcaygeon and for its connection to local lockmaster, Elijah Bottum. Constructed around 1875, the house demonstrates some of the key characteristics of the Italianate style including: wide eaves with brackets, a hipped roof; rusticated stone and brickwork and buff brick quoins and window hoods. The property is particularly notable for its two front two-storey bays. The property was originally owned by the Bottum family. Elijah Bottum was the lockmaster on the Trent Severn Waterway in Bobcaygeon, as well as the Reeve of Bobcaygeon and Warden of Victoria County in the early 1890s. he was also closely associated with attempts to develop a local railway in concert with Mossom Boyd. The house is a contributing property to the historic landscape of Front Street and the Trent Severn Waterway.

## 100 Front Street East, Bobcaygeon



100 Front Street East in Bobcaygeon has cultural heritage value as a good example of an Ontario Gothic cottage as well as in its connection with the Boyd family. Believed to be constructed in the late nineteenth century, the house is a very good example of an Ontario Gothic cottage, displaying the typical symmetrical front elevation with a central entrance and gable and a verandah across the front of the house. Architecturally, the house is notable for its front entrance which includes sidelights and transoms with decorative woodwork and panels. The house has historical importance as the home of Winnett Warnibe Boyd, the grandson of Mossom Boyd, and his wife, Marjorie Sterne St. George. The house belonged to Marjorie's father, and the couple lived there after their marriage in 1913. Their son, Winnett Boyd, was a notable engineer who made significant contributions to jet engine and nuclear reaction design in Canada in the mid-twentieth century. The house is an important historic property and contributes to the historic character of the Bobcaygeon waterfront.



## 40 Head Street, Bobcaygeon



40 Head Street has cultural heritage value as a good example of a stone cottage in Bobcaygeon. Believed to be constructed around 1880, the house is one of a number of small late nineteenth century stone homes in the village. It is said to have been built and occupied by a local mason who worked on many of the stone buildings in the community. It is unique among local residences from this period for its early Arts and Crafts styling, particularly in its interior, and its gambrel roof which was typical of the Dutch Colonial Revival, a style which did not gain popularity in Ontario for another twenty years. Its coursed limestone construction demonstrated a high degree of craftsmanship and skill from its original builder. The house is a contributing property to the historic residential landscape of Bobcaygeon.

#### 4 King Street West, Bobcaygeon



4 King Street West has architectural and historical significance in the village of Bobcaygeon. Constructed in the late nineteenth century, the property was originally owned by Ignatius Stewart, a local printer whose son Charles owned and published Bobcaygeon's first newspaper, *The Independent*. Around the turn of the century, the home also served as the ticket office for the Cunard line, allowing local people to purchase ship tickets in Bobcaygeon. Architecturally, it is a good example of an Ontario Gothic cottage constructed in wood. It displays the typical characteristics of this style of house including board and batten, symmetrical massing, a projecting front gable with a rounded central window, finials and gingerbread details. It is a contributing property to the historic residential landscape of Bobcaygeon.



## 1 Main Street, Bobcaygeon (Stonyhurst)



1 Main Street has historical significance in Bobcaygeon because of its important role in the early development of the town's tourist industry. The property, known as Stonyhurst Inn, began operation as a tourist resort and boat rental in the 1880s and catered primarily to tourists coming to the area for fishing. It was originally operated by Sarah Ann McIntyre whose husband Archie operated the blacksmith's shop located across the road from the hotel. The McIntyre family also lived on the premises and the early history of this site reflects a significant segment of the tourist economy in the late nineteenth and early twentieth centuries where many inns and lodges were operated out of private homes. The addition of housekeeping cottages in the mid-twentieth century was typical of the shift in the industry around this time period and the growth of housekeeping cottages as a desirable sector of the tourist economy.

## 16 Bolsover Road, Bolsover (Bolsover Community Centre)



16 Bolsover Road has architectural and historical significance in the community of Bolsover. Constructed in 1901, the former school was the third to serve Eldon School Section No. 5 and the second on this site. The present building was constructed to replace an older frame school located here and is an excellent example of a turn of the century rural school house constructed in brick. The building displays a high degree of craftsmanship through its architectural details including the contrasting buff brick pilasters and window hoods, its oculus window, and small belfry with wooden lattice work. It is an important institutional building in Bolsover, operating as a school until 1973. It now functions as the Bolsover Community Centre.



### 34 Grandy Road, Coboconk



34 Grandy Road in Coboconk has cultural heritage value as an excellent, intact example of a vernacular log cabin. Likely constructed in the mid-nineteenth century after the establishment of the local sawmill in 1851, the structure is a typical example of an early log home, which would have been the original home of most of the settlers in the county in the mid-nineteenth century. Once numerous throughout the region, many of these buildings are no longer extant because they were often replaced as families became more settled with new frame or brick homes. Although the exact origins of this home are not known, it is a representative example of this early type of home and displays key features of this structural type including dovetailed corners, squared timbers, a rectangular massing with a gable roof.

## 6673 Highway 35, Coboconk (The Pattie House)



6673 Highway 35, known locally as the Pattie House, has significant cultural heritage value in the community of Coboconk as a longstanding hotel and restaurant. The Pattie House has been in operation since 1873 when it first opened as Keys Hotel, under the ownership of John and his wife Sarah Ann and offered both food and lodgings primarily aimed at arrivals from the newly constructed Toronto and Nipissing Railway which reached Coboconk in the same year. After John's death in 1879, Sarah remarried John Pattie who took over the ownership and management of the hotel, changing the name to Pattie's Hotel at some time after 1880. Now renamed the Pattie House, the restaurant continues to operate and is a well-known local landmark and a significant contributing property to the character of downtown Coboconk.



## 56 North Water Street, Coboconk



56 North Water Street in Coboconk has cultural heritage value because of its architectural significance. Constructed in the late nineteenth century, it is an excellent example of Queen Anne Revival style domestic architecture, integrating key features of this style into the design including the asymmetrical massing, bay windows, verandahs and extremely ornate woodwork which displays a high degree of craftsmanship. In particular, the house is typical of the version of Queen Anne Revival architecture constructed in many Canadian and American resort towns during this period which featured large verandahs on both upper and lower storeys. The upper balconies in these types of homes were explicitly intended to provide views to the water, which is likely also the case at 56 North Water Street. It is a unique property in Coboconk because of its architectural style and merit.



### 3560 Victoria Road, Digby Township (Longford Lumber Company)



3560 Victoria Road in Uphill has historical significance as part of the development of Digby and Longford Townships in the late nineteenth century. The building was constructed in 1875 by John Thompson of the Longford Lumber Company and served as a supply depot, office and boarding house to serve the company operations which were primarily based in Longford Township. Thompson had purchased the rights for logging 1867 from the Canada Land and Emigration Company and, in 1871, the entire township. Lumbering was the key economic driver this part of Kawartha Lakes in the second half of the nineteenth century and Uphill was an important point of contact for the lumber camps with the outside world. The depot building was highly important to the company's operations and is a significant remaining built heritage resources from this period of development.

## 1981 Sturgeon Road, Dunsford (Dunsford United Church)



Dunsford United Church has architectural and historical significance as a historic place of worship within the community of Dunsford. Constructed in 1886 to replace an older frame church, it is an excellent example of a rural Methodist church constructed in the late nineteenth century. The church, which became the United Church after the merging of the Dunsford Methodist and Presbyterian congregations in 1925, retains important architectural features from the Gothic Revival style as adopted by Protestant Christian congregations, including lancet windows, a steeply pitched gable roof and an entrance porch. The primary decorative elements include the buff brick pilasters and window hoods and the quatrefoil lancet above the entrance. The building has historical significance as part of the historic development of Dunsford whose first Methodist congregation met in the early 1830s in a private home before the construction of their first frame church between 1860 and 1863. It is a landmark property in Dunsford.



## 1969 County Road 46, Eldon Township (Georgian Bay and Seaboard Railway Station)



1969 County Road 46 in Eldon Township has cultural heritage value as an extant rural railway station. The station, which has been converted into a private residence, was constructed in 1912 for the new Georgian Bay and Seaboard Railway, an offshoot of the CPR line intended primarily to ship grain to Port McNicholl on Georgian Bay. The line was abandoned in the 1930s and the station ceased to operate. The building itself retains its architectural form which denotes it as a railway station, including the bay window on the former trackside of the building, and its wide eaves with brackets. The property is an important part of local railway history and yields information about the development of local and provincial transport networks in the late nineteenth and early twentieth centuries.

## 945 Frank Hill Road, Emily Township (St. James' Anglican Church)



945 Frank Hill Road, St. James Anglican Church, is an important ecclesiastical building in Emily Township and has both architectural and historical significance. The church was constructed in 1900 and designed by Peterborough architect John Belcher to replace an older frame church that dated to 1845. Belcher was the most prominent ecclesiastical architect in the area during this period, having immigrated from Ireland in the late 1850s and beginning to design churches for local congregations after settling in Peterborough. The church is an excellent example of a Gothic Revival church constructed during this period and retains important examples of the style including its gable roof, entrance porch, belfry and tripartite windows which are notable for their detailed moulding. The building is an important institutional building in this part of Emily Township and is a recognized feature of the landscape at the intersection of Frank Hill Road and Valley Road.



### 39 Colborne Street, Fenelon Falls (Bank of Montreal)



39 Colborne Street has architectural and historical significance in downtown Fenelon Falls. The building, which is now the Bank of Montreal, is an excellent example of a late nineteenth century downtown commercial building constructed in the Italianate style and forms part of a cohesive historic block on the northwest side of Colborne Street. It is notable for its decorative brick work below the cornice line, in its moulded window hoods, and dogs-tooth coursing. It has historical significance as a longstanding banking location, having been home to the Bank of North America beginning in 1902 and then the Bank of Montreal in 1918 when the two banks merged. It remains the home of the Bank of Montreal in Fenelon Falls. It is an important contributing property to Fenelon Falls' historic commercial core.



## 123 Colborne Street, Fenelon Falls (Fenelon Falls United Church)



123 Colborne Street, Fenelon Falls United Church, was constructed in 1911 and has architectural and historical significance in Fenelon Falls. Architecturally, the building is an excellent example of an early twentieth century Gothic Revival church and integrates and retains a number of important elements that were popular in church design at this time. These elements include: flanking towers on the front of the building; a central entrance; a rusticated foundation; rusticated voussoirs on the windows and doors; windows with tracery; and asymmetrical massing. The church was constructed as a new Methodist church, to replace an older building which dated back to the mid-nineteenth century and reflects the long history of the Methodist congregation in Fenelon Falls. It is a recognized landmark building along Colborne Street and contributes to the historic, small town character of the area.

## 7 Dodd Street, Fenelon Falls



7 Dodd Street has architectural and historical significance in Fenelon Falls. The building was constructed in 1882 as the rectory for St. Aloysius Roman Catholic Church. The building was occupied by the local priest until 1901 when it became a private home, not associated with the church. Architecturally, the house is an excellent example of a late Victorian home, and retains many of its important architectural elements. These include the buff brick rusticated quoins, voussoirs, and moulded window hoods, finials, central entrance with transom and sidelights, and multiple gables on both the main body of the house and its rear extension. Its most notable architectural feature is the two-storey verandah on the front of the house, which faces Louisa Street. The property also has contextual value because of its historic relationship with St. Aloysius Roman Catholic Church, located nearby at the corner of John and Louisa Street.



## 21 Francis Street East, Fenelon Falls



21 Francis Street East in Fenelon Falls has cultural heritage value as a good example of a late Victorian house and in its associations with local businessman, Foster Kelly. The house, which was constructed from wood in the late nineteenth century and later clad in brick, exhibits the key features of a vernacular Victorian home, including its wide verandah, gable roof, and decorative bargeboard in the gable. One of its earliest occupants was local businessman Foster Kelly who, in the late nineteenth and early twentieth century, operated a garage, Massey Harris dealership, and heating and plumbing business in a building across the road from the house. The house was one of the first in Fenelon Falls to have indoor plumbing, likely due to Kelly's business interests. The house is a contributing property to the historic landscape of Fenelon Falls and Francis Street East.

#### 41 John Street, Fenelon Falls (St. Aloysius Roman Catholic Church)



41 John Street, St. Aloysius Roman Catholic Church, has cultural heritage value in its architecture and history in the community. The church was constructed in 1871 on what was then known as Fiddler's Hill for the community's Catholic population. It is an very good example of a late nineteenth-century small town church with a symmetrical profile and minimal ornamentation. It does however, has a number of notable decorative features which are primarily in buff brick, including pilasters, moulded windows woods and decorative brickwork in the gable ends. The church also has significance on a provincial level because of its associated with Archbishop Fergus McEvay. McEvay, who was born in Lindsay and became Archbishop of Toronto in 1908, had a significant impact in the development of the separate school system in Ontario as well as the extension of Catholic home missions throughout Canada as the founder of the Catholic Church Extension Society. St. Aloysius was the church where he was first appointed pastor after his ordination in 1882.



### 13 Cluxton Street, Kinmount



13 Cluxton Street has cultural heritage value as a good example of an Ontario Gothic cottage in the village of Kinmount. Constructed in 1898 as the manse for the adjacent Presbyterian, now United, Church, it displays the typical form of the Ontario Gothic cottage, one of the most popular residential types in Ontario in the mid- to late nineteenth century including its symmetrical layout, verandah, central gable with rounded window and one-storey rear addition. While relatively plain, the house is decorated by its buff brick voussoirs and quoins, which were often used on small houses of this type. It is a contributing property to the historic landscape of Kinmount and has contextual associations to the adjacent church.



## 51 Adelaide Street North, Lindsay



51 Adelaide Street North in Lindsay has cultural heritage value as a good example of a late Victorian residence and because of its first owners, Daniel and Angie Houghton. The house was likely constructed in the early 1880s, following the Houghton's purchase of the lot in 1877. It is a unique example of a late Victorian house in Lindsay which takes its architectural inspiration from the Gothic Revival movement. Its most notable features are the two large gables with rounded windows on the front of the house and the projecting gable bay with a rounded, traceried stained glass window. It also retains a wide front verandah constructed in the late nineteenth century Classical style, with an entablature and square columns. It has historical significance through its first inhabitant, Daniel Houghton, a local businessman and inventor who, in the 1880s, was advertising himself as the inventor and manufacturer of a type of wringer machine as well as a combined fruit and clothes dryer which was available for purchase in the town.

## 60 Albert Street North, Lindsay



60 Albert Street North in Lindsay has cultural heritage value because it is an excellent example of a Tudor Revival house constructed in the 1930s. Built in 1935, the house displays key characteristics of the Tudor Revival style, including asymmetrical massing, wide chimney, leaded glass windows and jettied second storey. Although the architect of this house is not definitively known, it was likely designed by Peterborough architect W.R.L. Blackwell who designed an identical house in Peterborough in 1932 for himself and his family; this property was featured in the *Journal of the Royal Architectural Institute of Canada* in October 1933. It is a contributing property to the historic neighbourhood in this area of Lindsay which is primarily made of stately late nineteenth and early twentieth century homes.



### 39 Bond Street West, Lindsay



39 Bond Street West has both architectural and historical significance in the town of Lindsay. Constructed around 1890, the house was first owned by the Rev. Isaac Weldon and his wife Eliza, who lived there with their children include I.E. Weldon, who later became the well-known local solicitor after whom I.E. Weldon Secondary School is named. Architecturally, the house is an excellent example of a late nineteenth century Italianate estate house and it retains many of its exterior features which typify this style. These include: the hipped roof; wide eaves with decorative brackets and cornice; the two two-storey bays; and the verandahs with Classical details including columns, an entablature, and a pediment. It is an important contributing property to the historic residential landscape of Bond Street West.

## 62 Bond Street West, Lindsay (Waverly House)



62 Bond Street West in Lindsay has cultural heritage value as a good example of a mid-nineteenth century Georgian-style residence and because of its connections to the early development of Lindsay. Constructed in 1865, the house was originally occupied by Neil McDougall, the first sheriff of Victoria County who named it Waverly House, because of its location at the corner of Albert Street and Waverly Street, which has been renamed as Bond Street West. Architecturally, the house is an excellent example of a Georgian-style house from the mid-nineteenth century, which used the standard centre hall layout, hipped roof and symmetrical massing typical of residences of this style but integrated decorative elements that were becoming fashionable at this time, such as the raised buff brick window hoods and rusticated quoins. The house is a contributing property to the historic landscape of Bond Street West, a neighbourhood with a high concentration of stately historic homes on large lots with significant setbacks.



## 45 Cambridge Street North, Lindsay



45 Cambridge Street has cultural heritage value as an excellent and unique example of an Italianate home in Lindsay. Constructed around 1865, it was occupied by local coroner Dr. A.W.J. DeGrassie from 1887. Architecturally, the house is built on one of the plans for Italianate residences published in *The Canadian Farmer* in 1865 on a symmetrical square plan with a projecting frontispiece. It includes other features typical of the Italianate style includes ornate window hoods, a hipped roof and entrance with transom. The house is particularly notable for its ornate verandah which features decorative brackets and woodwork. The property is a contributing feature to the historic landscape of Cambridge Street North.



## 26 Colborne Street West, Lindsay



26 Colborne Street West has architectural and historical significance in the town of Lindsay. Constructed in 1864 by Thomas Keenan, it was purchased and expanded in 1896 by William Flavelle and, as such, displays architectural elements prevalent in both the mid-nineteenth century Gothic and late nineteenth century Classical Revival styles. Notable elements include the decorative bargeboard, entrance with transom and sidelights and its distinct Classical wraparound verandah with a bandshell corner, Ionic columns and an entablature with dentils. It is important historically because of its associations with William McElroy Flavelle, its owner from 1896. Flavelle was an important businessman in Lindsay at the turn of the century as the president of Dundas and Flavelle, later Flavelle Limited. It is an important contributing property to the historic landscape of this area of Lindsay.



### 3 Glenelg Street West, Lindsay



3 Glenelg Street West has cultural heritage value as a good example of an Italianate home in the town of Lindsay. Likely constructed in the early 1870s, the house appears in the 1875 Bird's Eye View map of Lindsay with a wrap around porch and a variety of outbuildings around the rear. Architecturally, the house is constructed on a centre hall plan with a projecting front gable and entrance which was popularized in the mid-1860s by a design for a house with these features appearing in *Canadian Farmer*. It is particularly notable for its decorative features which include its central pediment, buff brick quoins, rounded windows and associated surrounds and a Classically-inspired front porch with a shingled pediment, entablature, and square columns.



### 13 Glenelg Street West, Lindsay



13 Glenelg Street West has architectural significance in Lindsay. Constructed around 1865 by contractor William McBurney, the house is a good example of a mid-nineteenth century vernacular house from this period and retains much of its nineteenth century architectural character. In particular, the house is notable for its ornate verandah with surviving Eastlake-style woodwork which displays a high degree of craftsmanship in its execution. On the exterior, the house also retains its wide eaves, brackets, stone foundation and entrance surround. Its interior also includes a range of retained historic features including inlaid flooring, original curved staircase, decorative moulding and trim, and a tin ceiling in the kitchen.

## 54 Wellington Street, Lindsay



54 Wellington Street has cultural heritage value due its architectural significance. Constructed in the early 1920s, the house is an excellent example of a 1920s Craftsman bungalow in Lindsay. Constructed of red brick, this one-and-a-half storey house displays the typical features of this house type which emerged from the Arts and Crafts movement of the early twentieth century including the gable roof, verandah, offset entrance, tripartite front window, and central dormer. This house is particularly notable for the use of rubble stone in its verandah piers, chimney and foundation which exemplify the rustic aesthetic prevalent in the Arts and Crafts movement, and its offshoots, at this time. In the 1920s, the house was occupied by Stuart Flavelle, one of the Flavelle family which had a significant impact on the manufacturing and business development in Lindsay in the late nineteenth and early twentieth centuries.



## 1022 Little Britain Road, Little Britain – Little Britain United Church



1022 Little Britain Road in Little Britain has cultural heritage value as an excellent example of a late nineteenth century, rural Bible Christian church. Constructed in 1871 as Siloam Bible Christian Church, it became the Little Britain Methodist Church in 1884 with the merger of the Wesleyan and Bible Christian churches and then, in 1925, the Little Britain United Church with the mergers of the Methodist, Congregationalist and portions of the Presbyterian churches. Architecturally, the church is a good example of a Bible Christian church from this period, using a simplified Gothic Revival style with lancet windows, and polychromatic brickwork that reflected the standard approach to architecture of the sub-denominations of Methodism in the late nineteenth century. The church yields information about the religious history of Mariposa Township and particularly the history of the Bible Christian Church which had a significant presence in this area, dating back to the late 1830s.

## 1117 Fleetwood Road, Manvers Township



1117 Fleetwood Road has cultural heritage value as an excellent example of a Victorian house in Manvers Township and as a remaining building from the former hamlet of Fleetwood. Constructed in the second half of the nineteenth century, the house is built on a cross gable plan in red brick with decorative buff brick quoins and window hoods. It is notable for its decorative bargeboard and finials. The house yields information about the former hamlet of Fleetwood, which was established in the 1860s as the local centre for the surrounding farming community. At one point, the community had two general stores, a post office, several mills, a church and a school, along with a cluster of houses, although few buildings remain extant.



## 610 Janetville Road, Manvers Township (Manvers School Section 7)



610 Janetville Road has cultural heritage value as a unique example of a rural schoolhouse in Manvers Township. Located just south of Janetville, the current schoolhouse was constructed in 1909 for Manvers School Section 7 and replaced an earlier building on this site; the original building for this school section was located south and west of the current location. The 1909 building is an excellent example of the use of Classical trends in Edwardian architecture and includes a number of unique features such as rusticated pilasters on the façade, large rounded windows, and a central entrance with a fanlight. The school is an important example of a rural education facility from the early twentieth century and yields information on development of education in Manvers Township during this period.



## 632 Janetville Road, Manvers Township



632 Janetville Road has cultural heritage value as an excellent example of a stone Gothic farmhouse constructed in Manvers Township in the mid-nineteenth century. The house was constructed on property owned by William Magill, an Irish immigrant who purchased a portion of Lot 6 Concession 12 where the house is located in 1839, adding to his property in 1850. The current stone house was constructed in 1865 and is typical of stone farmhouses constructed in the Ontario Gothic style, with a central gable, lancet window, and entrance with transom. The house is squared coursed rough ashlar with a distinctive coursing pattern and demonstrates a high degree of craftsmanship in its construction and design. The house yields information about the historic development of rural Manvers and contributes to the historic agricultural landscape of the local area.



## 88 Algonquin Road, Mariposa Township (Miller Memorial Church)



Miller Memorial Church, located at 88 Algonquin Road, has cultural heritage value as a rural Methodist church in Mariposa Township. Constructed in 1877 by Hiram Brown, a builder from Little Britain, the church was built to serve a Methodist congregation which had begun in the area known as Pleasant Point in the 1850s. The church was constructed next to a cemetery which was established around 1840. Architecturally, the church is typical of many small rural churches built during this period which integrates features of the Gothic Revival style into a modest and simple floor plan. The church, which is rectangular with a gable roof, is embellished with lancet windows, a central entrance with a lancet transom, and raised buff brick detailing. Contextually, it is an important institutional building in the history of rural Mariposa Township and yields information regarding the development of Pleasant Point in the late nineteenth century.



## 15261 Simcoe Street, Mariposa Township



15261 Simcoe Street is an important example of an early stone farmhouse in Mariposa Township. It was likely constructed around the mid to late 1860s and, as with many other homes throughout the county, likely replaced an older log or frame home that was the original house on the property. Architecturally, the house is an excellent example of an Ontario Gothic cottage and one of a few notable and similar examples constructed in stone around the same period in the southwest corner of Mariposa Township, including two virtually identical to this one on Ramsey Road which were likely built by the same person. Built using block coursed ashlar, the house features the typical central gable of this style. It retains its central lancet window, decorative bargeboard and central entrance with transom and sidelight which are characteristic of houses of this type. It is an important early farmstead in Mariposa Township.



## 275 Valentia Road, Mariposa Township (North Valentia School House)



275 Valentia Road has architectural and historical value as a late nineteenth century rural schoolhouse in Mariposa Township. Constructed in 1897, it is the fourth building to serve Mariposa School Section 14, with the first wooden schoolhouse constructed in 1854, then replaced again in 1871, 1881, and finally in 1897. The current building operated as a school until 1972 and has now been converted into a private home. Architecturally, it is an excellent example of a late nineteenth century schoolhouse, displaying the characteristic layout and massing of this structural type. Importantly, it retains many of its original decorative features including: windows with transoms; radiating voussoirs; decorative bargeboard; and its unique rounded window above the entrance. It is an important example of a rural school house and yields information about the educational history of Mariposa Township in the late nineteenth and early twentieth centuries.



### 3740 Highway 7, Omemee (Seven Gables/Woodlawn)



3740 Highway 7 in Omemee has both historic and architectural importance in the local area. The house, which is believed to have been constructed around 1865 and is known locally as both Seven Gables and Woodlawn, is an excellent example of a Victorian house and retains many of its important architectural and decorative elements including its gables roof, decorative gingerbread, and original front entrance with sidelights and transom. Historically, the house was likely constructed by William Cottingham who purchased the property in 1844. Cottingham constructed the mill in Omemee in 1825 and is widely regarded as one of the founders of the village. The property was later purchased by Arthur McQuade who immigrated to Emily Township from Ireland, eventually serving as deputy reeve and reeve and, between 1874 and 1882, the Conservative MP for Victoria South. The house is a recognized local landmark.



## 5 King Street East, Omemee (Lady Eaton House/Tully Lark)



5 King Street East has architectural and historical value in the village of Omemee. Constructed after 1891, the house is an excellent and unique example of late nineteenth century domestic architecture and is notable for both its two-storey bay with decorative brickwork and coursing and its flat roof, which is unusual in domestic architecture form this period. In the early twentieth century, the house also featured a large, two-storey sunroom on the front elevation, although this has since been removed. Also known as Tully Lark, it was the childhood home of Flora McCrae who became Lady Eaton after her marriage to Sir John Craig Eaton in 1901. Lady Eaton had a significant impact on the development of Omemee in the early twentieth century, funding several important local construction projects including Coronation Hall and the United Church Rectory.

## 61 King Street East, Omemee (Stephenson House)



61 King Street in Omemee has cultural heritage value both architecturally and historically. From an architectural perspective, the house is a good example of a mid-nineteenth century Italianate home and, within the context of Omemee, a particularly ornate one. Constructed in 1860, this red brick home is constructed on a centre hall plan with a central entrance and symmetrical massing. It is notable for its decorative elements, namely its buff brick quoins, moulded windows goods and coursing as well as its projecting central bay which features a trefoil window in the gable. This house used to feature a two-storey enclosed porch and a wraparound verandah, but these have been removed. The property also has historical significance as the home of Thomas Stephenson who purchased the mill in Omemee in 1878, an important local industry.



## 219 John Street, Pontypool



219 John Street has cultural heritage value in Pontypool, both architecturally and historically. Constructed in the 1890s, the house is an excellent example of a late nineteenth century Italianate home. Constructed on a centre hall plan, it displays many of the key characteristics of this domestic architectural style including: a hipped roof with wide eaves; ornamental brackets; decorative windows hoods in buff brick; and a wide verandah with square columns and an entablature. Historically, the property has significance as the doctor's house and office in Pontypool beginning in the late nineteenth century. First occupied by Dr. Levi Lapp, the first resident doctor in the village, and his wife Rebecca beginning in the 1890s, it was subsequently occupied by Dr. Wesley Clark between 1912 and 1923 and Dr. George McNeil between 1923 and his death in 1954. McNeil was the last resident doctor in Pontypool.

**353 Bury's Green Road, Somerville Township (St. John's Chapel Bury's Green)**



St. John's Chapel in Somerville Township, located at 353 Bury's Green Road, has historical and architectural significance in the former settlement of Bury's Green. Established in 1867, the church was one of two that served Bury's Green, a scattered settlement along the Somerville-Verulam boundary that was founded around 1840 by John Fell. The church, which originally served the local Presbyterian congregation before joining the United Church of Canada in 1925, was located on the Fell property. Architecturally, the property is a good example of a mid-nineteenth century country church with both Gothic and Georgian influences, which was common amongst Presbyterian congregations at this time. It includes some notable features includes return eaves, a central entrance, large, wide lancet windows along the nave and limited ornamentation.



## 10987 Simcoe Street, Sonya



10987 Simcoe Street has cultural heritage value as a unique and excellent example of a Victoria residence in the hamlet of Sonya. The two storey house was likely constructed in the mid- to late nineteenth century and integrates features from a number of different styles popular during that period including the Italianate and Queen Anne. The house is basic in its rectangular form with a hipped roof and wide eaves which are typical of Italianate construction. Its decorative features, meanwhile, are more indicative of the Queen Anne style, including its ornate two-storey verandah with Eastlake style spindlework and iron cresting on the roof. It is a contributing property to the historic landscape of the hamlet of Sonya, particularly along Simcoe Street.

## 50 Lake Avenue, Sturgeon Point (Swannanoa)



50 Lake Avenue has architectural and historical significance, both in Kawartha Lakes and provincially. This Edwardian cottage, known as Swannanoa, was constructed in 1907 as a summer retreat for Canadian industrialist Sir Joseph Flavelle. Flavelle, who was born in Peterborough and whose brothers ran successful businesses in Lindsay, was a prominent member of the Toronto elite around the turn of the century and was involved in a range of businesses that made him one of Canada's richest men at this time. Beyond his business activities, he was recognized nationally as a philanthropist and public servant for his charitable work, and received a baronetcy from George V in 1917, the last Canadian citizen living in Canada to receive a hereditary title. The summer house he constructed in Sturgeon Point reflects his prominence and wealth, particularly in its size. Architecturally, it is an excellent example of an Edwardian summer cottage, reflecting the rustic aesthetic of cottage architecture prevalent during this time and integrating features such as wide verandahs, rubble stone chimneys and large banks of windows to integrate the building with the natural environment.



## 114 Lake Avenue, Sturgeon Point (Corn Cob)



114 Lake Avenue has cultural heritage value as an excellent example of an Edwardian cottage in the village of Sturgeon Point. Constructed in the late nineteenth century and known locally as Corn Cob, it includes and retains many of the important features which were included in recreational cottages during this period, specifically the wide, two-storey verandahs across the front of the cottage which were intended to provide outdoor space and views of nature, including of Sturgeon Lake. It also includes a number of decorative features typical of cottage architecture at this time including the decorative bargeboard and Doric columns on the porch. The property has important historical associations with Gertrude (Trudy) Mackenzie, the daughter of Sir William Mackenzie, who, along with her husband Arthur Grantham, occupied the property in the late nineteenth and early twentieth century. The cottage is an important contributing feature to the historic landscape of Sturgeon Point.

### 1449 County Road 8, Verulam Township (Providence United Church)



1449 County Road 8 in Verulam Township has cultural heritage value as a good example of a rural Methodist church constructed in the late nineteenth century. The church was built in 1890 as part of the Bobcaygeon Methodist circuit to serve the community around the Red Rock post office, and later the local United Church. In the late nineteenth century, it was one of four Methodist churches in north Verulam Township that formed part of the Bobcaygeon circuit, and yields information about the size of the Methodist community in this area during this period. Architecturally, it is an excellent example of a rural Methodist church constructed at this time, using simplified Gothic forms, such as lancet windows, a steeply pitched gable roof, and small bellcote, on a basic rectangular form.



## 173 Crane Bay Road, Verulam Township (McAlpine Estate)



173 Crane Bay Road has both historical and architectural value in Verulam Township. The house was constructed in the mid-1930s by Colonel Cyril McAlpine, the son of Lindsay doctor John McAlpine. The younger McAlpine served in the First World War and later became the president of Dominion Explorers, a Toronto mining company. McAlpine is most well known as the leader of a 1929 prospecting expedition in the Canadian Arctic which was lost for several months, but eventually recovered with the assistance of local Inuit who assisted them in reaching Cambridge Bay. Architecturally, the house is an excellent and rare example of a French Colonial Revival residence in Kawartha Lakes. The style of the house draws from seventeenth and eighteenth century Quebecois architecture including the symmetrical layout of the residence, the heavy chimneys at the gable ends, the multi-pane sash windows and doors, the small dormers on the side wings, and the rubble stone construction. There are very few examples of this architectural style in the municipality. It is a landmark building on Sturgeon Lake.

### 631 Martins Road, Verulam Township (Old Lamb School)



631 Martins Road in Verulam Township has significance as an early twentieth century rural schoolhouse. Constructed in 1921 to serve Verulam School Section No. 7, the building, known as the Old Lamb School, is the third schoolhouse on this location with a log school first constructed in 1865 then replaced by a brick building in 1877. The current school was constructed after the 1877 building was lost to a fire and integrated many of the typical architectural elements used in rural schoolhouses during this period. These features include the rusticated foundation, prominent lintels and sills, return eaves in the gable front and a small belfry. It is notable for its unique recessed entrance with a rounded arch and flanking rounded windows. It is an important part of the rural landscape and a landmark building in the area, serving local children as a schoolhouse until 1969.



## 797 Martins Road, Verulam Township (St. Peter's Anglican Church)



St. Peter's Anglican Church, located at 797 Martins Road, has architectural and historical significance in Verulam Township as one of two churches serving the small community of Bury's Green. Bury's Green was established around 1840 and grew throughout the late nineteenth century, particularly with the nearby expansion of the Victoria Railway. The church was constructed in 1876 to serve the community's Anglican population and is an excellent example of a nineteenth century Gothic Revival chapel. It demonstrates many features which are important to this style of church including a steeply pitched roof, moulded window hoods and the group of three lancet windows on the church's east elevation.

## 1821 Victoria Road, Victoria Road



1821 Victoria Road has cultural heritage value as an excellent and unique example of a Victorian commercial building in the hamlet of Victoria Road. Constructed in the late nineteenth century, the building is demonstrative of the significant growth and importance of Victoria Road in the late nineteenth century after the arrival of the railway in 1872; at one point, Victoria Road was larger than both Kirkfield and Coboconk and the architecture constructed there in the late nineteenth century, including 1821 Victoria Road, is demonstrative of its prosperity as the primarily commercial centre in the local area. Architecturally, the property is unique for its false stepped gable on the front façade and its rows of gables along the two side elevations. Its unique upper storey sunroom and covered entrance was likely a later addition, probably dating to the 1920s, but still displays a high degree of craftsmanship that contributes to this historic property. It is an important historic building in of Victoria Road and contributes to the community's historic landscape.



## 1834 Victoria Road, Victoria Road (Victoria Road Railway Station)



1834 Victoria Road has cultural heritage value because of its historical significance in the hamlet of Victoria Road. The building was constructed around 1872 and is the former railway station for the Toronto and Nipissing Railway which established the stop in that year at the point where the track crossed the Victoria Colonization Road. The hamlet, which now known as Victoria Road, grew up around the station throughout the late nineteenth century. Architecturally, the building, which has been converted into a private dwelling, is one of only a few stations from this early period of railway growth still remaining in Kawartha Lakes, as many, including the terminal station on this line at Coboconk, were replaced with newer buildings around the turn of the twentieth century. It retains its original form and massing and, notably, its wide awning with curved brackets that originally covered the platform.

## 119 Agnes Street, Woodville



119 Agnes Street in Woodville has cultural heritage value as a unique Italianate residence in the community. Constructed in the mid- to late-nineteenth century, this red brick house is unique in Woodville for its highly decorative brickwork and flat roof. Important decorative features include: rusticated quoins; raised window hoods with key stones; a decorative brick cornice; and an elaborate one-storey bay with brackets and decorative brickwork. It is a contributing property to the historic landscape of the village of Woodville.



**60 King Street, Woodville (former Knox/Woodville Community Presbyterian Church)**



The former Knox Presbyterian Church, located at 60 King Street in Woodville, has cultural heritage value as a good example of an early twentieth century Gothic Revival church and for its historical associations. Constructed between 1920 and 1922 to replace an older church that burnt in a fire, the building was designed by noted Toronto architect George Martell Miller and is typical of many churches constructed in the Gothic Revival style during this period, which had a tendency to feature heavier massing and more subdued decorative details than their nineteenth century predecessors. The church is also important because of its associations with Walter Bryden, the minister of the church from 1912 to 1921 and again from 1925 to 1926. Bryden, who would eventually become the sixth president of Knox College in Toronto, is today viewed as one of the most important Calvinist theologians in Canada because of his significant influence on Canadian Protestantism in the twentieth century and the theological growth of the Presbyterian Church after the establishment of the United Church in 1925.

## 88 King Street, Woodville



88 King Street in Woodville has architectural significance as a unique example of an Italianate villa in Kawartha Lakes. While Italianate villas became popular throughout Canada in the mid-nineteenth century, they were more commonly found in larger towns and there are few examples in the municipality. The Woodville example is a more simplified version of this style than many examples but displays the characteristic asymmetrical massing and L-shaped plan that characterized many Italianate villas in Ontario. It is locally identifiable by its three-storey corner tower, a common feature in houses of this type. It contributes to the historic character of King Street in Woodville.



## 103 King Street, Woodville (Woodville Post Office)



103 King Street has architectural and historical importance in Woodville. The building, constructed as the Woodville Post Office, was designed by federal Chief Architect Charles Devlin Sutherland who oversaw a period of prolific post office design across Canada in the 1930s and 1940s. Like most of Sutherland's post offices, the Woodville Post Office was constructed in the Art Moderne style and is one of only a few Art Moderne buildings in Kawartha Lakes. It is an excellent example of a small building constructed in this style with its lack of ornamentation, use of concrete, flat roof, and simplified forms. It is notable for its concrete entrance which features the streamlined lines and modernist aesthetic. It is an important and unique building in downtown Woodville.



## Committee of the Whole Report

Report Number ED2020-025

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**Meeting Date:** November 3, 2020

**Title:** Proposed Designation of 28 Boyd Street, Bobcaygeon

**Description:** Proposed designation of the dry stone wall located at 28 Boyd Street, Bobcaygeon

**Author and Title:** Emily Turner, Economic Development Officer – Heritage Planning

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### Recommendation(s):

**That** Report ED2020-025, **Proposed Designation of 28 Boyd Street, Bobcaygeon**, be received;

**That** the Municipal Heritage Committee's recommendation to designate 28 Boyd Street under Part IV of the Ontario Heritage Act as being of cultural heritage value or interest be endorsed;

**That** staff be authorized to proceed with the process to designate the subject property under Part IV of the Ontario Heritage Act, including the preparation and circulation of a Notice of Intention to Designate, and preparation of the designating by-law;

**That** a designating by-law be brought forward to Council at the next Regular Council Meeting following the end of the notice period; and

**That** this recommendation be brought forward to Council for consideration at the next Regular Council Meeting.

**Department Head:** \_\_\_\_\_

**Financial/Legal/HR/Other:** \_\_\_\_\_

**Chief Administrative Officer:** \_\_\_\_\_

## **Background:**

At its meeting of September 10, 2020, the Kawartha Lakes Municipal Heritage Committee adopted the following resolution:

### **KLMHC2020-35**

**Moved By** I. McKechnie

**Seconded By** Councillor Ashmore

**That** Report KLMHC2020-15, **Designation of 28 Boyd Street, Bobcaygeon**, be received;

**That** the designation of the property known municipally as 28 Boyd Street, Bobcaygeon be endorsed; and

**That** the recommendation to designate the subject property be forwarded to Council for approval.

**Carried**

This report addresses that direction.

28 Boyd Street is located in Bobcaygeon at the intersection of Boyd Street and County Road 36. The property currently contains a modern long term care facility (Case Manor Care Community) and a nineteenth century dry-stone wall which was constructed as part of the landscaping for Edgewood, the estate home which once stood on the site. The dry stone wall is an important historic structure in Bobcaygeon but, in recent years, has fallen into disrepair due to a lack of maintenance, general aging, and the theft of stones from the wall. Recently, local organization Environmental Action Bobcaygeon (EAB) has spearheaded efforts to restore the wall through securing funding, working with Case Manor Community Care, and bringing the wall to the attention of City staff and the Municipal Heritage Committee. The goal of the organization is to restore the wall to ensure that it remains a local landmark and, as part of that effort, requested that the wall be designated under Part IV of the Ontario Heritage Act. The designation of the wall is intended to ensure its long term preservation after its restoration.

Staff and representatives from EAB have consulted with representatives from Sienna Senior Living, the corporation which owns and operates Case Manor Care Community, regarding the proposed heritage designation and restoration of the wall on the property. Originally, Sienna Senior Living had proposed the demolition of the wall, not as a preferred option, but as the most cost effective one due to the estimates they had received for restoring it. Estimates gathered by EAB from other sources, as well as buy in from community members and local businesses, have significantly decreased the cost of this project and made it feasible to undertake the restoration. Given that this project is now financially



feasible, Sienna Senior Living is supportive of local efforts to restore the wall and of its designation.

While the designation of the property would apply to the entire parcel, the long term care facility itself is a modern building and would not be identified as one of the heritage attributes of the property. The designation of the property would only apply to the dry stone wall itself and would not impact the operations of the modern care facility.

Section 29 of the Ontario Heritage Act provides that, upon consultation with its municipal heritage committee, and after serving a Notice of Intention to Designate pursuant to the requirements of the Act, the Council of a municipality may pass a by-law designating a property within the boundaries of the municipality to be of cultural heritage value or interest if it fulfils the criteria for designation under the Act, as identified in Ontario Regulation 9/06. Both staff and the Kawartha Lakes Municipal Heritage Committee are satisfied that the subject property fulfils the criteria for designation set out under Ontario Regulation 9/06.

### **Rationale:**

Ontario Regulation 9/06 identifies the criteria for determining the cultural heritage value of a property. Under this regulation, a property may be designated under Part IV, s.29 of the Ontario Heritage Act if it meets at least one of the following criteria:

1. The property has design value or physical value because it:
  - a. is a rare, unique, representative or early example of a style, type, expression, material or construction method,
  - b. displays a high degree of craftsmanship or artistic merit, or
  - c. demonstrates a high degree of technical or scientific achievement.
2. The property has historical value or associative value because it:
  - a. has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community,
  - b. yields, or has the potential to yield, information that contributes to an understanding of a community or culture, or
  - c. demonstrates the work of an architect, artist, builder, designer or theorist who is significant to the community.
3. The property has contextual value because it:
  - a. is important in defining, maintaining or supporting the character of the area,
  - b. is physically, functionally, visually or historically linked to its surroundings, or
  - c. is a landmark.

28 Boyd Street fulfils multiple criteria under Ontario Regulation 9/06 and is therefore eligible for designation under Part IV of the Act. A heritage evaluation report has been prepared for this property which outlines its significance and demonstrates which criteria it fulfils. This report is attached as Appendix A. A statement of significance for the property as required by the Act, which summarized the property's cultural heritage value and reasons for designation, can be found below.

### **28 Boyd Street, Bobcaygeon (Boyd Dry Stone Wall) Statement of Significance**

28 Boyd Street has cultural heritage value as an excellent and unique example of a late nineteenth century dry stone wall. Dry stone wall construction, which has been identified by UNESCO as intangible cultural heritage of global value, was used in some areas of Kawartha Lakes to construct farm and retaining walls in the late nineteenth century and the wall at 28 Boyd Street is an excellent, well-known example that still survives in a significant form. It demonstrates a high degree of technical merit through its successful use of this construction method. Constructed around 1890 for W.T.C. Boyd, the son of lumber baron Mossom Boyd, as part of the landscaping of his Edgewood estate which once stood on this location, the property yields information about the Boyds and their influence on the key economic sectors in the village. It also yields information regarding the evolution of landscape design, particularly with regard to estates for wealthy business people, in Canada during this period which often emphasized local landscape elements and the picturesque. It is a landmark structure in Bobcaygeon and is recognized throughout the community as an important historic structure.

### **Other Alternatives Considered:**

There are no recommended alternatives.

### **Alignment to Strategic Priorities**

The designation of property under Part IV of the Ontario Heritage Act supports the following goals from the Council adopted Strategic Plan:

- A Vibrant and Growing Economy
- An Exceptional Quality of Life

The identification and protection of heritage assets in the community through designation promotes and exceptional quality of life by supporting and promoting arts, culture and heritage within the municipality. Designation provides long term protection and management for key heritage resources in the municipality and recognizes their importance to the community.

The protection of heritage resources in the municipality also assists in the growth of the local economy in general by identifying, protecting, and celebrating places

where people want to live, work and visit. It encourages investment in local communities by ensuring and promoting attractive places for residents and businesses to be. It also has a direct impact on developing local tourism through the preservation of sites and landscapes that visitors are interested in experiencing.

### **Financial/Operation Impacts:**

There will be advertising costs associated with the statutory notices required under the Ontario Heritage Act which are covered by the existing Heritage Planning budget.

### **Consultations:**

Municipal Heritage Committee

### **Attachments:**

Appendix A – Heritage Evaluation Report: 28 Boyd Street



Appendix A Heritage  
Evaluation Report 28 |

**Department Head E-Mail:** [cmarshall@kawarthalakes.ca](mailto:cmarshall@kawarthalakes.ca)

**Department Head:** Chris Marshall, Director of Development Services



# Edgewood Dry Stone Wall (28 Boyd Street, Bobcaygeon)

## Heritage Evaluation Report

Bobcaygeon

PLAN 70 LOT 2 TO LOT 5 PT; LOT 1 PT LOT 6

PIN: 631290226

September 2020



## Statement of Cultural Heritage Value or Interest

The subject property has been researched and evaluated in order to determine its cultural heritage significance under Ontario Regulation 9/06 of the Ontario Heritage Act R.S.O. 1990. A property is eligible for designation if it has physical, historical, associative or contextual value and meets any one of the nine criteria set out under Regulation 9/06 of the Act. Staff have determined that 28 Boyd Street, Bobcaygeon has cultural heritage value or interest and merits designation under the Ontario Heritage Act.

### 1. The property has design value or physical value because it:

i. is a rare, unique, representative or early example of a style, type, expression, material, or construction method:

28 Boyd Street is an excellent example of nineteenth-century dry stone wall construction in Ontario. In the nineteenth century, dry stone walls were constructed by early settlers in many areas of the province, but good surviving examples are not common everywhere. The example at 28 Boyd Street is one of two major instances of this wall construction type in Kawartha Lakes which have been well-preserved since the late nineteenth century. It helps place the Edgewood estate within the wider context of landscape design in the nineteenth century in the tradition of the picturesque.

ii. displays a high degree of craftsmanship or artistic merit:

The dry stone wall displays a typical degree of craftsmanship for a structure of this type. However, the degree of craftsmanship in dry stone construction, as whole, must be of a high level in order for the structure to survive.

iii. demonstrates a high degree of technical or scientific achievement:

The dry stone wall demonstrates a high degree of technical achievement through its construction method. The building methods used in the construction of dry stone walls are technically specific and the example at 28 Boyd Street demonstrates this building method well. Dry stone wall construction has been recognized by UNESCO as part of the Representative List of the Intangible Cultural Heritage of Humanity because of both its cultural significance within agricultural and rural landscapes and its technical merit.

### 2. The property has historical or associative value because it:

i. has direct associations with a theme, event, belief, person, activity, organization, or institution that is significant to the community:

28 Boyd Street has direct historical associations with the Boyd family who made significant contribution to the development of Bobcaygeon in the nineteenth and early twentieth centuries. The property was constructed by W.T.C. Boyd, the son of lumber baron Mossom Boyd, who was also a significant figure in the village in the late

nineteenth and early twentieth centuries through his involvement with various business enterprises, the railway, and local government.

ii. yields, or has the potential to yield, information that contributes to an understanding of a community or culture:

The dry stone wall at 28 Boyd Street has the potential to yield information about the role of the Boyds in Bobcaygeon during the late nineteenth and early twentieth century.

iii. demonstrates or reflects the work or ideas of an architect, artist, builder, designer or theorist who is significant to the community:

The designer of the wall, specifically, is unknown, but it forms part of a larger estate plan designed by Peterborough architect John Belcher and at least some of the wall was laid out by his son, Alfred Belcher. Belcher, who also designed the former house, was an influential nineteenth century architect in the Peterborough area but appears to also have influenced the growth of Bobcaygeon throughout the mid to late nineteenth century through his decades long friendship with the Boyds and his design for local buildings, including Christ Church Anglican Church. The wall itself was constructed by a mason brought to Bobcaygeon from Scotland specifically to build the wall. He is known in W.T.C. Boyd's journal as "Old Scott" but his exact identity is not known.

### 3. The property has contextual value because it:

i. is important in defining, maintaining or supporting the character of an area:

The property helps support the historic character of Bobcaygeon as an important landscape architecture element dating from the late nineteenth century.

ii. is physically, functionally, visually, or historically linked to its surroundings:

The dry stone wall is physically linked to its surroundings as part of the wider landscape of Boyd properties in and around Bobcaygeon. These include the Boyd Lumber office on Canal Street East, the remains of the dry stone walls on the adjacent property and the M.M. Boyd barn and house on County Road 36. Together these properties form a cohesive landscape linked to a prominent family from the nineteenth and early twentieth centuries.

iii. is a landmark.

The dry stone wall at 28 Boyd Street is a local landmark in Bobcaygeon. It is a recognized and well-known landscape feature in the community and can also be seen from County Road 36.



## Design and Physical Value

28 Boyd Street in Bobcaygeon has design as physical value as an excellent example of a historic dry stone wall. This is an uncommon construction type in Ontario and many examples of these dry stone walls, most of which were constructed in rural areas, have not survived or have deteriorated significantly. The dry stone wall, as a construction practice, has been recognized by UNESCO as having global importance as intangible cultural heritage. The dry stone wall at 28 Boyd Street is an excellent example of this type of global craftsmanship, although its application in a small town estate house, makes it unique from much other drystone construction primarily found in rural and agricultural areas.

The drystone wall is one of the last remaining two built elements of the former Edgewood Estate, constructed for W.T.C. Boyd, which once stood on this site, and is the only element still located on its original site. The estate, which once included a large late Victorian home on a landscaped lot, was constructed beginning in 1889. The house itself was completed by 1891. The landscape elements were developed simultaneously with the house. The house was demolished in 2005-2006 but a large portion of the dry stone wall along Boyd Street was left effectively intact. The other built element of this site which is still extant is the Boyd Shanty, a replica log shanty constructed by Silas Crowe for W.T.C. Boyd as a curiosity for his guests, particularly those from Europe. The Shanty was relocated to Kawartha Settlers' Village in 2005.

The wall has significant technical merit in its construction methods as an example of a double stack wall, the most common type of dry stone wall. These walls are constructed by creating two sides to the walls with separate flat stones and filling the voids with rubble stone, also known as hearting. The walls are strengthened by larger through stones which run through both sides of the wall and connect the two faces. The wall is capped with copes or capstones which, like the through stones, span the width of the wall and strengthen it.

Dry stone construction is unique from most other types of masonry because it does not use mortar to hold the stones together. In Bobcaygeon, for example, the vast majority of stone structures from the nineteenth century are constructed with typical masonry construction where mortar holds the stones in place. However, dry stone construction required the mason to fit stones together based on their natural shapes such that they will hold in place and keep the wall standing. The construction method of these walls requires a high level of technical skill and expertise, in both selecting the stone and constructing the wall. In this case, it is believed, but has not been confirmed, that at least the stone was from the construction of the Trent Severn Canal; it is also believed that the Boyds paid local farmers \$1 per load that they brought to the site. However, each stone would still have to be carefully selected by the mason to fit in the wall and hold the structure in place. While the wall at Edgewood is deteriorating in some



sections, it is still extremely well preserved for a wall of this age and demonstrates that the builder had an excellent grasp on the techniques required to build a dry stone wall.

In 2018, the art of dry stone wall construction was added by UNESCO to its Representative List of the Intangible Cultural Heritage of Humanity. This list, which includes many different intangible cultural practices from across the world, is intended to recognize and safeguard important intangible cultural heritage and to ensure their long-term viability as a practices which have shaped and continue to shape the human environment and experience. This includes traditional craftsmanship, such as the construction of dry stone walls. UNESCO identifies the importance of dry stone wall construction as follows:

The art of dry stone walling concerns the knowhow related to making stone constructions by stacking stones upon each other, without using any other materials except sometimes dry soil. Dry stone structures are spread across most rural areas – mainly in steep terrains – both inside and outside inhabited spaces, though they are not unknown in urban areas.

The stability of the structures is ensured through the careful selection and placement of the stones, and dry stone structures have shaped numerous, diverse landscapes, forming various modes of dwelling, farming and husbandry. Such structures testify to the methods and practices used by people from prehistory to today to organize their living and working space by optimising local natural and human resources.

They play a vital role in preventing landslides, floods and avalanches, and in combating erosion and desertification of the land, enhancing biodiversity and creating adequate microclimate conditions for agriculture. The bearers and practitioners include the rural communities where the element is deeply rooted, as well as professionals in the construction business

Dry stone wall structures are always made in perfect harmony with the environment and the technique exemplifies a harmonious relationship between human beings and nature. The practice is passed down primarily through practice application adapted to the particular conditions of each place.

The dry stone structures considered by UNESCO as part of the evaluation of dry stone wall construction as an important aspect of global intangible cultural heritage are all located in

Europe. However, there are many examples throughout the world in diverse designs and for a multitude of uses. This skill was brought to North America during various waves of settlements in the early modern period and also became an important landscape form in the North American rural environment.

In many rural areas, dry stone walls were used for very practical purposes. As settlers cleared their land for farming, the stones they pulled out of the soil were used for solid fences along fields to keep livestock in or out, and to demarcate property boundaries. In these situations, the constructed of dry stone walls used a material in abundance to fulfil a very practical need. Many settlers would also be familiar with this structural type which had been widely practiced in Europe for centuries. Particular for those from Britain and Ireland where many of the early settlers originated, the use of dry stone walls as a major part of agricultural practice would have been extremely familiar.

The wall at the Boyd property was different from many of its contemporary walls because it was aesthetic, as opposed to practical, beyond its use the demarcate the edge of the estate. While the dry stone walls at the George Laidlaw estate on Balsam Lake, the most significant concentration of dry stone walls in Kawartha Lakes, were explicitly constructed as integral parts of an active ranching operation, this wall was constructed to surround an estate house in town as part of the overall scheme of its landscape design. This was also the case at Mossom Boyd's adjacent estate where dry stone walls were incorporated as part of the overall landscape design of a home in a village, as opposed to its more usual application in a farming area.

The use of a design element more typically found in rural areas with a specific, highly functional purpose in an estate house of this type reflects some of the wider trends in landscape design in the late nineteenth century. The late nineteenth century was a time in Canada when many of the newly rich who had made their fortunes from resource and transport-related activities embarked on building programs to construct new estates in aesthetically pleasing and prominent sites, such as along the shores of lakes and rivers. In addition to large homes in up-to-date styles, such as Italianate or Queen Anne, these estates also generally contained expansive landscaped grounds which integrated elements of the picturesque into their design.

The picturesque, as theory of landscape architecture, emerged in the late eighteenth century as a reaction to the more formal gardens and grounds of the Renaissance and Baroque styles. In practical terms, this mean the creation of landscapes, including gardens and parks, which integrated natural and rustic elements and were non-symmetrical in their layout. At its core, the picturesque took its cues from the natural world and rejected formal, ordered symmetry and precision. While the parks and garden designed in the picturesque style varied significantly, from the large naturalistic parks of the nineteenth century to the integration of asymmetrical beds into formal gardens, the influence of the picturesque was significant on the way in which

it introduced the variety, asymmetry, and irregularity of the natural world into landscape design.

For the new estate houses being constructed by Canada's prominent businessmen, including the Boyds, in the nineteenth century, the use of picturesque elements in their landscape design translated into a number of key elements which can be seen at Edgewood. On a broader scale, the design of the landscape often took advantage of the natural features of the site, particularly water bodies; in the case of Edgewood, this was the location of the house on the Bobcaygeon River. With regard to plantings, picturesque design generally moved away from strictly ornamental, and generally non-native, trees and shrubs towards using native plants that could thrive in the local environment in combination with more exotic species. At Edgewood, it is not clear exactly what plantings were used as part of its grounds due to the significant changes that have taken place over the past century, although older photographs of the property do show native tree species near the house. There are also descriptions of the property from the 1920s which allude to this type of landscaping.

The other main element seen at Edgewood is the use of rustic architectural forms to complement the natural attributes of the landscape, an extremely common aspect of picturesque landscape design which often included ruins and follies. The two architectural elements at Edgewood, not including the house and utilitarian outbuildings such as the stables, which fit into this category are the shanty and the dry stone wall. The shanty is clearly intended as an architectural curiosity of this type, taking the rustic and romantic cabin of the lumberman and transplanting it into an estate setting for the interest of visitors unfamiliar with the actual rigours of life in the lumber camp. Like the faux ruins and rustic cottages often incorporated into picturesque gardens in Britain, it was intended to evoke a romanticism for an audience which did not typically venture into the natural world or engage in the hard labour undertaken by the vast majority of the population.

The dry stone wall also falls into this category. Most typically used on agricultural properties, its use evokes the rural landscapes of the surrounding townships and of the Britain while not serving the practical purpose it would on a farm property. Like other elements in the landscape, the use of the wall falls directly with the category of picturesque landscape design through its use of natural local limestone and its rustic aesthetic drawn from rural traditions. The wall is consciously rugged, rough and irregular by virtue of its natural construction material which is not concealed through finishing. It is firmly within the wider picturesque landscape tradition for this reason and help place the Edgewood estate within larger trends in Canada around landscape design and the construction and planning of estate properties for the newly rich of Canada's business class.

Dry stone walls also surrounded the adjacent Mossom Boyd house and lined the edge of the property along the roadway between the house and the canal (now Canal Street). A stone arch which was built as part of the walls on the Mossom Boyd property was moved to in front of the Boyd Lumber Company offices, now the Boyd Heritage Museum and Bobcaygeon Library. The rest of the wall has been left to disintegrate with some portions remaining on the property but they are not intact and structurally sound as those at Edgewood.

Overall, the dry stone wall's architectural significance derives primarily from its technical merit as a UNESCO-recognized form of traditional craftsmanship which has been executed with a high degree of proficiency, as demonstrated by its relatively intact condition 130 years after it was built. However, it also demonstrates wider trends in landscape architecture, namely the picturesque, which were prevalent in the nineteenth century.

### Historical and Associative Value

The drystone wall located at 28 Boyd Street has historical and associative value as part of the former Edgewood estate which one stood on this location. The estate, which was constructed for William Thornton Cust Boyd (W.T.C.) Boyd and his wife Meta Bridgman, is an important part of the development of the Bobcaygeon waterfront in the late nineteenth century and yields information regarding the role of the Boyds in local society during this period. It also has historical associations with prominent Peterborough architect John E. Belcher who designed the former house and likely had a hand in the landscape design for the estate as well. The drystone wall is the only surviving part of the estate which remains in situ and is an important historical feature which forms part of the historic landscape of Bobcaygeon developed by the Boyd family in the late nineteenth century.

The Edgewood estate was constructed for W.T.C. Boyd, a significant figure in Bobcaygeon in the late nineteenth century. W.T.C. Boyd was the son of lumber baron Mossom Boyd by his second wife, Letitia Cust. The elder Boyd, the son of an army officer in India, had immigrated to Canada in 1834 and settled in Verulam Township, befriending other local families with large estates and business connections including the Dunsfords, Langtons and Needs. In 1844, he married Caroline Dunsford, with whom he would have six children, including Mossom Martin Boyd who became a significant local figure and heavily involved in his father's lumber business. After Caroline's death in 1857, Boyd married again, to Letitia Cust, a childhood friend from Ireland who agree to come to Bobcaygeon to take over the running of his household and look after his children. They would have three more children together, two of whom – W.T.C. and Letitia Kathleen – would survive to adulthood.



Mossom Boyd had made his fortune in the lumber business beginning in the late 1840s and was heavily involved in the development of the local community and its industrial activities until his death in 1883. He is the most significant figure in the lumber industry in Kawartha Lakes and his impact on the development of the local economy cannot be underestimated. The sawmill established in Bobcaygeon by Thomas Need in the early 1830s was taken over by Boyd beginning in the late 1830s and was run in conjunction with the lumber business throughout the nineteenth century. At the same time, Boyd was also involved in the transport networks of the region, namely the development of the canal, which he became involved with as an extension of his business in order to get his lumber to market. He was one of the most prominent citizens in Bobcaygeon in the mid-nineteenth century and had a major impact on the development of local business.

Upon Mossom Boyd's death, the lumber business was taken over by his sons, M.M. and W.T.C., who expanded the lumber harvest area north, even as the lumber industry in the Bobcaygeon area began to slow. They continued the business for the next two decades; the sawmill closed in 1903 as the economic drivers of the county shifted away from resource extraction. They also continued their family's heavy involvement in the development of the canal and local transportation networks. The railway finally arrived in Bobcaygeon in 1904, although this was a period of decline in the lumber industry and the Boyds' business.

It was during this period that W.T.C. Boyd occupied Edgewood, the house he had constructed for his family on the shore of the Bobcaygeon River. He, along with his wife Meta and their baby son Thornton, moved into the house in May 1890. There, they would have seven more children. However, by the end of the First World War, only three of their daughters remained; two sons had died serving in the war and a third drowned in Pigeon Lake in 1917. W.T.C. died in 1919 at the age of 60.

As a result, the property passed out of the Boyd family and, in the intervening century, has passed through a number of different owners and uses. In 1926, Edgewood was purchased by J.H. Neville, a young businessman who had lived in Bobcaygeon as a child when his father served as a minister in the community. At the time of his purchase, Neville had amassed a considerable fortune for the time, estimated to be around a million dollars, through various business ventures, but primarily through speculation on the stock market. After several years, however, he lost the property due to a collapse in his finances.

The house served for a time as the Bobcaygeon Yacht Club before being sold in 1968 to Mr. and Mrs. Lorne Case who transformed it into a nursing home known as Case Manor. The nursing home operated out of the estate house until 2005 when the house was torn down to make way for the newer building which occupies the site today. The accessory structures were removed

as well, leaving the wall as the only remaining original built element on the site and the only remaining connection to the Boyds.

The property also has important historical associations with Peterborough architect John E. Belcher who designed the house and likely played a role in its landscape design as well. Belcher was a close friend of the Boyd family, and was also related to them through marriage; Belcher had married Mossom Boyd's niece Clementina and his son, Alfred, would eventually marry Letitia Kathleen Boyd, Mossom Boyd's daughter by his second marriage and W.T.C. Boyd's sister, in 1899. Alfred Belcher is known to at least laid out some of the wall as part of his father's overall work on the property, as it is recorded in W.T.C. Boyd's journal in September 1889 that the younger Belcher came to the property to lay out a curve in the stone wall.

Belcher was born in Ireland in 1834 where he trained as an architect and engineer at Queen's University, Cork (now University College Cork) then articulated under his father Samuel Belcher and Sir John Benson, the engineer for the Cork Harbour Board. He emigrated to Canada in 1858 and settled in Peterborough where he established a successful architecture career, alongside his work as Town Engineer for Peterborough. He is most well-known for his ecclesiastical work, particularly due to his appointment as the diocesan architect for Peterborough in 1885, but also designed many commercial and residential buildings in Peterborough, Victoria, Northumberland, and Haliburton counties. These included a number of buildings in Bobcaygeon such as Christ Church Anglican, the Boyd Building, and the Edgewood estate as well as engineering work on bridges over the canal. It is also believed, that because of Belcher's intimate relationship with the Boyds, he had a significant impact in the physical development of Bobcaygeon in general in the late nineteenth century. Although he lived in Peterborough, Belcher is a significant architect in the history and development of Bobcaygeon because of his strong ties to the community, his relationship with the Boyds, and his influence there.

Belcher himself was not a landscape architect but worked on landscape projects throughout his career, including Jackson Park and Victoria Park in Peterborough. That he would have had a hand in the overall landscape design of the project is highly likely; correspondence and journals shows that Belcher had a hand in nearly every element of the house and designed at least some off the landscape elements, including a gate. His son Alfred, who often worked with his family, is known to have a hand in the design.

The actual builder of the wall is not definitively known. While the younger Belcher certainly had a hand in its design, the labour appears to have been done by someone identified in W.T.C. Boyd's journal as "Old Scott." It is generally believed that a stone mason was brought over from Scotland to construct the wall, as was done at the Laidlaw Estate around 10 years earlier when George Laidlaw commissioned a Scottish stone mason, a Mr. Scott, to construct the walls at his

ranch in Bexley. It is likely that this is the same mason, given the geographic proximity of the two walls.

### Contextual Value

The subject property has contextual value when viewed as part of the historic landscape of Bobcaygeon from the late nineteenth century and as part of the legacy of the Boyd family in shaping the landscape of the village. Although it is the only remaining built feature from the Edgewood estate still left on site, it nevertheless has important contextual connections to its location.

The wall's primary contextual relationship is to the historic Edgewood estate. Unfortunately, the other built elements of the property – namely the house – have been removed and replaced with a modern long term care residence, Case Manor Community Care. However, the wall still retains its relationship to the site itself and the river, the other primary landscape feature around which the estate was planned.

However, there are other extant Boyd properties in and around Bobcaygeon and, taken together, form a wider landscape which speaks to the significant and long lasting influence that the family had on Bobcaygeon and the surrounding region. These properties include the Edgewood dry stone wall, the Boyd Lumber Company Office at 21 Canal Street East, the remains of the dry stone walls on the former Mossom Boyd property adjacent to Edgewood, the M.M. Boyd farm on County Road 36, and several other smaller properties. While these properties, in general, are not contiguous, they still function together contextually because of their historical connections to each other.

On a broader scale, the wall is part of the larger historic landscape of the village of Bobcaygeon. Although the village has changed and evolved over the past two centuries, a wide array of historic built features remain from the nineteenth century in particular. These include elements of the downtown, the Trent Severn Canal, and a range of surviving homes throughout the village. The stone wall serves as one of the first of these historic elements that is seen from County Road 36 when entering the village along Boyd Street as a landmark entryway feature.

## Summary of Reasons for Designation

The short statement of reasons for designation and the description of the heritage attributes of the property, along with all other components of the Heritage Designation Brief, constitute the Reasons for Designation required under the Ontario Heritage Act.

### Short Statement of Reasons for Designation

28 Boyd Street has cultural heritage value as an excellent and unique example of a late nineteenth century dry stone wall. Dry stone wall construction, which has been identified by UNESCO as intangible cultural heritage of global value, was used in some areas of Kawartha Lakes to construct farm and retaining walls in the late nineteenth century and the wall at 28 Boyd Street is an excellent, well-known example that still survives in a significant form. It demonstrates a high degree of technical merit through its successful use of this construction method. Constructed around 1890 for W.T.C. Boyd, the son of lumber baron Mossom Boyd, as part of the landscaping of his Edgewood estate which once stood on this location, the property yields information about the Boyds and their influence on the key economic sectors in the village. It also yields information regarding the evolution of landscape design, particularly with regard to estates for wealthy business people, in Canada during this period which often emphasized local landscape elements and the picturesque. It is a landmark structure in Bobcaygeon and is recognized throughout the community as an important historic structure.

### Summary of Heritage Attributes to be Designated

The Reasons for Designation include the following heritage attributes and apply to all elevations, unless otherwise specified, and the roof including: all façades, entrances, windows, chimneys, and trim, together with construction materials of wood, brick, stone, stucco, concrete, plaster parging, metal, glazing, their related building techniques and landscape features.

- Dry stone construction
- Double wall construction
- Limestone exterior walls
- Cope stones
- Interior hearting
- Relationship to the Edgewood/Case Manor property
- Views to and from the wall along Boyd Street and from County Road 36



## Images



View of the full length of the wall from County Road 36





Intact section of the wall





Cope stones





Western section of the wall





Evidence of double wall construction



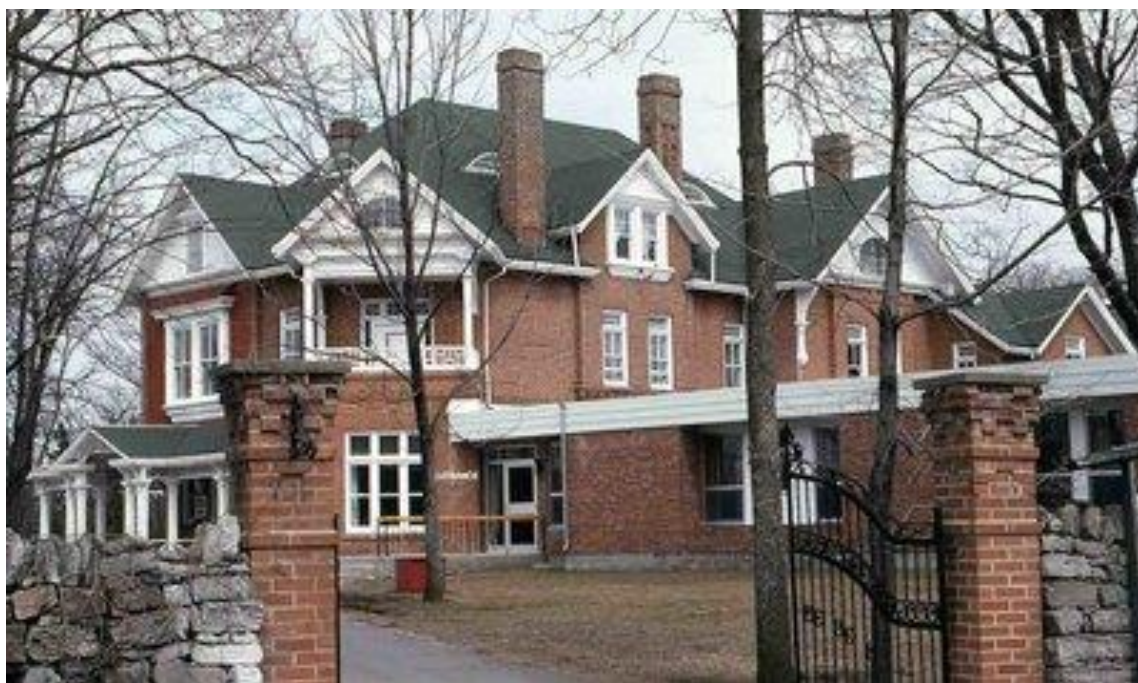


Section of wall requiring repairs





Historic Edgewood estate



Exterior and grounds prior to demolition of the house



## Committee of the Whole Report

Report Number WM2020-011

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**Meeting Date:** November 3, 2020

**Title:** Textile Recycling Pilot Program

**Description:** Recommendations to initiate the process for a textile recycling pilot program

**Author and Title:** David Kerr, Manager Environmental Services

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### Recommendation(s):

**That** Report 2020-011, **Textile Recycling Pilot Program**, be received;

**That** Staff issue a Request for Proposal to partner with an organization to develop and implement a textile recycling pilot program for 2021;

**That** Staff report the results of the pilot program and future recommendations for textile recycling to Council by June 30, 2022; and

**That** this recommendation be brought forward to Council for consideration at the next Regular Council meeting.

**Department Head:**\_\_\_\_\_

**Financial/Legal/HR/Other:**\_\_\_\_\_

**Chief Administrative Officer:**\_\_\_\_\_



## **Background:**

One of the initiatives in the Waste Management Strategy in 2020 is to develop a textile recycling/reuse program in Kawartha Lakes. Textiles include items like clothing, curtains, towels and bed sheets. We would like to provide residents with convenient access to opportunities to keep these items out of the landfill. This could include opportunities for reuse of gently used textiles but also recycling opportunities for soiled or damaged textiles which cannot be reused.

At the Council Meeting of November 19, 2019 Council adopted the following resolution:

CR2019-641

Moved By Councillor Yeo

Seconded By Deputy Mayor Elmslie

**That** Report WM2019-012, Making Waste Matter: Integrated Waste Management Strategy Update, be received;

**That** Council approves the integrated waste management strategy update for implementation with the following accelerated amendments;

**That** an immediate focus be placed on public education;

**That** an immediate enhanced online presence be implemented regarding recycling;

**That** a \$10/ton increase to the tipping fees be implemented in January 2020 and the increase in revenue be used to offset additional operating costs to enhance diversion; and

**That** the by-law for allowable recyclables in waste be amended to reduce the amount from 20% to 10% starting in early 2020.

## **Carried**

This report addresses that direction from Council.

## **Rationale:**

In order to develop and implement a successful program that is convenient for the public we considered different ways to partner with organizations that already operate textile reuse and recycling programs.

To better assess the different types of programs and determine which is best suited to us, we partnered with Fleming College's Sustainable Waste Management program (College) on a research project over the last year. The aim

of the project was to determine the best course of action for implementing a textile program in Kawartha Lakes. Students in the course submitted a report to us with their findings attached as **Appendix A**. The report includes:

- a review and summary of successful textile programs offered by other municipalities,
- information on municipalities which do not have textile programs and why they do not have such a program,
- a review of markets for recycled textiles,
- methods used for collection in other programs,
- a list of companies which are in proximity to Kawartha Lakes that accept textiles for recycling.

In review of the report submitted by the College as well as other background information it is apparent that the most successful programs operate in a collaborative partnership between a municipality and a “not for profit organization”. “Not for profit organizations” listed in the report include the Canadian Diabetes Association (CDA), Salvation Army, Big Brothers/Big Sisters of Canada, and a few smaller local charities.

The majority of municipal programs that were reviewed (10 out of 12) were in partnership with the Canadian Diabetes Association (CDA), either solely or in conjunction with other smaller charities. The CDA has positioned itself as the leading partnership choice, having been successful in developing a program that offers services attractive to local governments at no cost. Predominantly, municipalities rely on the CDA as the primary partner. They appreciate the minimal financial/time commitments they have to make in order to set up this partnership. They also indicate that the monthly report provided by CDA is beneficial in tracking the effectiveness of the program and provides relevant diversion metrics.

A typical partnership involves the municipality coordinating and advertising pick up dates, and the organization completing the curbside collection and/or collection in bins and providing diversion data at no cost to the municipality. The method of collection would be mutually agreed to by the City and the agency chosen to provide the service. The most significant savings is measured in the cost of landfill space.

The report completed by the College also looked at potential organizations in the Kawartha Lakes area and several indicated that they would be interested in partnering with the City. These included Vicky’s Values, CDA, Talize, and the Humane Society.

Staff recognize the recommendations from the college and that there are both not for profit and commercial businesses interested in the potential textile market. It is recommended that the City issue a Request for Proposal to organizations (both profit and not for profit) to develop and implement a textile recycling pilot

program in 2021. Staff will then report back to Council by June 30, 2022 on whether the pilot has been successful and if so what the recommendations are for continuation of the program.

The recommendations in this report are to achieve initiatives set out for 2020 in the Integrated Waste Management Strategy Update approved by council. Textiles are estimated to make up to 5-10% of the residential waste stream so there is opportunity for a significant increase in waste diversion through implementing increased textile reuse/recycling according to the Continuous Improvement Fund. Increased diversion from landfill will save on landfill space and will better position us to realize sustainable savings. The program will not be costly to the City other than our own staff time (which will be minor coordination and administrative work) and any advertising costs if necessary).

An added benefit of the program such as this is that it is the ethical and right thing to do. Being able to recycle or provide re-used clothing fulfils a community and society need.

While many residents are familiar with textile reuse programs and donating clean reusable textiles to charitable organizations, waste staff receive many inquiries from residents inquiring about what to do with soiled or stained textiles which cannot be reused. Many residents are unaware that there are recycling opportunities for these non-reusable textiles and this will be a focus of the advertising for this pilot program.

Staff presented this information in a memo to the Waste Management Advisory Committee at the meeting on September 21, 2020 and received the following resolution:

**Moved By** Councillor Yeo

**Seconded By** Councillor Veale

**That** the Textile Recycling Memo, be received; and

**That** the Waste Management Advisory Committee is supportive of the City going through an RFP process to partner with an organization for a textile recycling pilot program for 2021.

This item was also discussed with the Fenelon Landfill Public Review Committee and Lindsay Ops Landfill Public Review Committee and both committees were supportive of the program.



## **Other Alternatives Considered:**

Council could decide not to pursue a textile recycling program; however, this would not be in line with council's approval of the Integrated Waste Management Strategy. The program will likely come at no cost to the City other than for any advertising of the program and will divert more waste from the landfill.

## **Alignment to Strategic Priorities**

One of the four Strategic Priorities of the Plan is A Healthy Environment and one of the main items under this category is "Increase Waste Reduction and Diversion". This will be achieved through executing the updated Integrated Waste Management Strategy. A textile reuse/recycling program is an initiative from the updated Waste Strategy.

## **Financial/Operation Impacts:**

Through research of municipalities operating well-advertised programs with a similar population to Kawartha Lakes approximately 40 tonnes of textiles are diverted each year with the potential to capture more (up to 1200 tonnes or 10% of curbside waste). The City of Kawartha Lakes' initial goal will be to capture and divert 40 tonnes of textiles per year which aligns with industry success rates. As the program grows and with full public participation, there is significant potential to exceed this target. Since textiles are approximately one third the density of compacted municipal waste that would otherwise take up the landfill space, and landfill space is normally valued at \$150/tonne, the estimated annual space savings for diverting 40 tonnes of textiles is \$18,000. As there will be advertising costs on the order of \$1,500/year the estimated total savings is \$16,500. This estimate assumes the density of used clothing to be 0.25 tonnes per cubic meter which is based on USEPA figures as an average between loose and baled clothing, and the average density of compacted waste is estimated at 0.75 tonnes per cubic meter.

## **Attachments:**

Appendix A: Summary Report from Fleming College



Appendix A.pdf

**Department Head E-Mail:** [brobinson@kawarthalakes.ca](mailto:brobinson@kawarthalakes.ca)

**Department Head:** Bryan Robinson, Director of Public Works

Appendix # A  
to  
Report # WM2020-011

## **A Review of Textile Recovery Approaches for the City of Kawartha Lakes**

**Submitted by – Fleming College's Sustainable Waste  
Management Program (Section 61)**

**March 9, 2020**

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## 1. CKL Textile Recovery Initiative Report

The Sustainable Waste Management students were tasked to assist the City of Kawartha Lakes by providing research with respect to textile recovery for the purposes of waste diversion. The first task was to review and summarize successful textile programs offered by 10 other municipalities in Ontario (at least 2 neighbouring/adjacent municipalities). The areas of interest we were to review are as follows:

- Population of the municipality
- Number of years the program has been in place
- Type of program that is offered (curbside pick-up, depot drop off, partnership with other organizations – profit or not for profit)
- Type of materials accepted in the program
- Method for measuring diversion and participation
- Cost of operating the program
- Overall success/pros and cons

In order to fully understand the textile recovery options available within the province, and to identify any possible barriers to an effective program, students in the Sustainable Waste Management Program at Fleming College have identified twelve municipalities in Ontario that are currently running successful programs. Additional areas of interest and concern were identified, with the help of the City of Kawartha Lakes (CKL), and a list that would serve as the basis of a questionnaire was compiled. The initial research phase was conducted exclusively by way of the internet. Information that was unable to be obtained online was procured by establishing direct contact with the municipalities, either through telephone or by email. The research team focused their research efforts on the following municipalities:

The City of Kitchener

The City of Markham

The City of Oshawa

The City of Peterborough

The City of Stratford

The County of Simcoe

The County of Wellington

The Region of Niagara

The Town of Aurora

The Town of Newmarket

The Township of King

## **1.1 Demographic Comparators**

The populations and population densities of the targeted communities were recorded as the starting point for comparison with CKL. It was determined that the CKL, having a population density of 24.7 people/km<sup>2</sup>, is unique in that it has a relatively high landmass with a relatively low population. The average population density of the comparator municipalities is 920.07 people/km<sup>2</sup>, the smallest being the Township of King with a population density of 73.6 people/km<sup>2</sup>. It was determined that there were not any significant population/population density links between the targeted communities themselves; therefore, it was decided that these statistics could not be relied upon to form the basis of comparison – our investigation would be based on the merits of the individual textile programs alone.

## **1.2 Textiles Recovery Programs**

The municipal recovery programs that we identified range in age from 10 years to 1 year. 50% of the programs that we looked at have been started in the past 3 years. We attribute this to a combination of growing awareness trends in the marketplace and a push from the Canadian Diabetes Association (CDA) to garner market share. All of the municipalities in question run their diversion programs by way of collaborative partnerships, predominantly with the CDA. The Salvation Army, Goodwill, Big Brothers/Big Sisters of Canada and a few small local charities emerged as community partners as well, but their involvement has been limited, and the range of services that they are able to provide is small. We include them in this report in order to point out that such partnerships are available and may be considered as a means of maintaining goodwill relationships with the local charities currently operating in CKL. The CDA has positioned itself as the leading partnership choice, having been successful in developing a program that offers services most attractive to local governments at an attractive price (free). The services they offer will be discussed in further detail later in this report.

## **1.3 Barriers**

Implementation time, program coordination, and getting programs through the Council approval process has been indicated as the largest hurdles to implementing a program. In conversation with a representative from Wellington County, we learned that finding the proper community partner can sometimes be difficult, as there are companies that “are not ethical.” It was indicated by two municipalities that the volume of collections and resident participation rates were barriers to running a regular, monthly curbside collection. These municipalities indicated that the carbon footprint of running such a program was not viable.

## **1.4 Our Findings**

Six main areas of interest have been identified for the purposes of this study. Respondents were asked about to start up and operating budgets, to elaborate on dedicated staff time, their collection methods, if they worked with a community partner, who the partners were and to identify any issues, they may have had working with their partners, diversion rates and their level

of interest/knowledge in the textile end markets. (See Appendix A for a comprehensive table illustrating procured results)

### **Budget**

Six of the municipalities contacted indicated that there was no budget allocated to the inception or the running of these programs; one stated their investment as ‘minimal’; two municipalities did not address the issue with us.

### **Staff**

For those municipalities relying heavily on their community partners to manage these operations, staff time is limited to coordination and monitoring activities and has been identified as minimal. Those municipalities that have placed collection bins at transfer stations indicate that the depot staff maintain the bins as part of their regular duties and time dedicated exclusively to textiles has not been broken down or otherwise identified. Niagara Region ascertained that the program that they run in the multi-residential buildings requires a significant amount of time. Identifying and coordinating with property owners can sometimes be a time-consuming process. Simcoe County dedicates a significant amount of staff hours to their once yearly curbside pick-up campaign, both by way of office staff dedicated to coordination and advertising as well as collection staff and trucks on collection day.

### **Collection Methods**

The operating logistics of the programs being run vary as each municipality is unique. Few have elected to be in direct control of their programs, preferring instead to rely on the community partners.

Two of the municipalities indicated having had a regular curbside collection of textiles; they communicated that they found this method to be inefficient and abandoned them, preferring to provide collection bins and offering a ‘call for pickup’ service through their community partners instead. Simcoe County is the only municipality that offers a curbside collection. There is a specially designed collection bag provided to residents, and the collection is treated as a ‘campaign,’ complete with advertising. They offered it one day per year and indicated to us that it is extremely successful. This collection captures worn out, damaged textiles that the CDA bin collection does not allow. (See Appendix B for a list of textiles accepted by respective municipalities)

### **Partnerships**

The feedback collected indicates that, overall, the participating communities are very pleased with their decision to form partnerships with community partners. Both from a business perspective (considering cost, required manpower and increase in diversion rates) and ease of use and participant satisfaction perspective. Similar to CKL, municipalities had reservations about collection bins being placed in municipal spaces. Concerns about overflow and unsightly mess

being foremost. 100% of communities contacted indicate appreciation that the collection schedule implemented mitigates this and that if there happens to be an anomaly, and a bin is filled early, a phone call placed to the community partner results in a pickup, usually within 24 hours.

Predominantly, communities rely on the CDA as the primary partner and expound on the ease of working with them. They appreciate the minimal financial/time commitments required to set up this partnership. They also indicate that the monthly report provided by CDA is beneficial in tracking the effectiveness of the program and provides relevant diversion metrics.

### **Diversion**

We were not able to identify one municipality that could provide specific textile diversion numbers prior to implementing their program; all programs were started in an effort to increase overall diversion targets.

Every municipality expressed pleasure and pride in the diversion numbers that their respective programs have realized. Six municipalities were able to provide us with diversion numbers. In 2019 alone, they were collectively able to divert 251.47 T of textiles from being landfilled, an average of 41.9 T per community.

### **Textile End Markets**

Only two of the contacted communities identified end markets as a pressing concern to them prior to implementing their programs, indicating that diversion was their primary concern. We were directed to the CDA website to obtain general information on what happens to textiles that have outlived their usefulness.



## **2. Municipalities with no Textile Recovery Programs**

This section of the report will provide background for the City of Kawartha Lakes regarding the municipalities that do not have a textile recycling program and their reasoning for not having one in place. We recognized that providing information regarding the barriers that some municipalities face, while contemplating textile recovery programs, would enable the city to get ideas on the difficulties of implementing a textile recycling program.

### **2.1 Data Collection**

The data was collected from 7 municipalities with no textile recovery programs. The internet was utilized as the first source to identify municipalities that do not have textile recycling programs. This investigation was followed up with phone calls and emails to obtain information not available online. The barriers which restricted the respective municipalities from operating their own textile recovery programs are listed in Table 2.1.

The following municipalities are identified as not having a textile recovery program:

- Lambton Shores
- Haliburton
- Northumberland
- Blue Water
- Brook- Alvinston
- South Dundas
- London

### **2.2 Data Analysis**

Through our research, we found common barriers that impede the municipalities from having a textile program. Apparently, the financial barrier is the most common one which is keeping municipalities from developing a textile recovery program. In fact, lack of budget is indeed a great hindrance in municipalities' path to develop such a program, as they may require collection trucks, processing equipment and recycling facilities to deal with textiles. Some municipalities find it difficult to have service providers like contractors; for example, South Dundas, a municipality in Eastern Ontario, reported having difficulty finding contractors that could be related to the small population and the geographical location of the municipality. For other municipalities, their small population acts as an obstacle for them to develop a textile recovery program. Moreover, for the regions that really want to start up their own textile recovery program, it can be difficult to go through all the protocols of having approvals or permissions from the council to develop their textile recycling program. It is also apparent that small municipalities face more barriers to getting their recycling programs approved by council and sometimes, designated physical space to maintain collection trailers for textiles can be a constraint.

Some municipalities that were not participating in textile recovery dispose of their textiles directly to the landfill. The information that we got about the barriers from the identified municipalities, it was apparent that some of these municipalities had not fully explored the issues of textile recovery yet.

## 2.3 Conclusion

Throughout our research, we analyzed all the barriers that restrict municipalities from having textile recycling programs, and we came to the conclusion that most of those barriers are the same for all municipalities regardless of whether they are geographically large or not. Financial resources and handling of textiles are major issues that they need to look at before considering the implementation of a textile recycling program. Some municipalities overcame their barriers for budget, resources and contractors to develop textile recovery programs through partnering with charities, and this could also be a potential solution for the City of Kawartha Lakes to have a textile recovery program.

Table 2.1: Information Gathered from the Municipalities with no Textile Recovery Program

No.	Region/Municipality	Barriers/ Reasons for no Textile Program
1	Lambton Shores	<ul style="list-style-type: none"> <li>• Financial constraints on introducing the program</li> <li>• Lack of trucks for collection</li> </ul>
2	Northumberland County	<ul style="list-style-type: none"> <li>• Lack of processing equipment and facilities to deal with textiles</li> <li>• Costly process</li> <li>• Find it easy to send textile stuff to the landfill, as compared to any other alternative</li> </ul>
3	Haliburton	<ul style="list-style-type: none"> <li>• Lack of textile recovery facility, a lesser number of trucks and insufficient budget</li> </ul>
4	Bluewater	<ul style="list-style-type: none"> <li>• Council did not give permission because of a small municipality</li> <li>• Financial barriers</li> </ul>
5	Brook-Alvinston	<ul style="list-style-type: none"> <li>• The low population is restricting municipality to have a textile recovery program</li> <li>• Financial Constraints</li> </ul>
6	South Dundas	<ul style="list-style-type: none"> <li>• Small municipality</li> <li>• Financial barriers</li> <li>• Lack of contractors</li> </ul>
7	Municipality of London	<ul style="list-style-type: none"> <li>• Want to develop their textile program</li> <li>• Have not been able to get permission from the council yet</li> </ul>

### **3. Market Review of Textile Recycling**

The production of clothing has increased dramatically with an increase in consumption, making textile one of the most significant growing waste streams in the world. Factors adding to this are consumerism, fast fashion, low clothing cost, style trends and influences. In North America, 12 million tonnes of clothing are landfilled every year. 95% of which could be reused or recycled (Value Village, 2020). The average Canadian disposes of 30-35 kgs of textiles each year, which is an estimated 955,265 tonnes of textiles disposed of by Canadians annually; out of which only 15% are being reused or recycled and 85% ending up in landfill (NACTR, 2019). Fortunately, textiles are nearly 100% recyclable, and the textile recycling industry is one of the oldest and most established recycling industries (Hawley, 2006). Canada has been involved in the reuse and recycling of textiles for more than 100 years. Only recently have municipalities been focusing on diverting textile waste from landfills to save landfill space, as textiles compose 5% - 8% of the total garbage stream and to establish a circular economy (NACTR, 2019). It is critical to understand the textile recycling market when planning to implement a recovery program. There are two distinct markets in the Canadian textile waste industry: Collection and Processing.

#### **3.1 Collection Market**

Conventionally, textiles are collected by for-profit organizations that privately benefit from the collection, processing, grading, thrift and export of textiles and non-profit charities who sell these collected items to charity-affiliated for-profit thrift stores like Value Village, which utilize the revenue generated to fund their missions. Value Village is partners with 21 not for profit organizations, AiMHi, The Arc, Big Brothers Big Sisters, Epilepsy Foundation, Candlelighters, and developmental disability associations to name a few (NACTR, 2019). In Canada, there are over 100 registered non-profit charities involving in the collection, and charitable redistribution of textiles and the annual combined gross revenue from these activities exceeds \$472 million benefiting various areas of the society, including the health industry, animal welfare, etc. (NACTR, 2020). The collection channels usually include donation bins, direct drop-off to thrift stores, curbside offered to every home, residential door pick up delivered to selected homes via phone lobbying or flyer drops, at events with limited time and location and, through retail returns at point of sale (NACTR, 2019).

#### **3.2 Processing Market**

Textiles have a higher re-use value than being recycled into fibre state. The majority of the post-consumer material is reused as second-hand clothes, and only 7% of the total content is used as reprocessing fibre (Yavari, 2019). According to the National Association for Charitable Textile Recycling, textiles travel through well-established re-use and recycling systems. The collected donations are typically delivered to thrift stores and secondary market warehouses with processing facilities where they are sorted and graded. Clothing with the highest quality is selected for reselling in retail, including both for-profit and non-profit organizations or sent to clothing provider charities who distribute them directly to people in need (Metro Vancouver, 2020).

Approximately 40% - 50% of the sorted textiles enter the domestic thrift market. However, a mere 20% - 25% are sold through to have a second life. The remaining 75% - 80% of the clothing which is unsuitable for reuse due to imperfections such as stains, tears, broken zippers, missing buttons etc. and those which did not sell within 4-5 weeks is either compressed into bails or packed into bags and are sold to clothing graders and rag dealers (Metro Vancouver, 2020). These types of used clothing are termed as mixed rags or institutional rags. Second-hand stores dispose of 5% of the donated textiles to the landfills.

Clothing graders consolidate the material collected from different streams and sort them into approximately 400 various categories based on the material type, condition, fibre blend, and other end market-specific criteria (Metro Vancouver, 2020). 50% of the processed textiles enter the global reuse market, primarily sold in countries from Central America, Africa, Asia and, Europe. 20% are cut into wiping rags and sold for use in industrial markets, including automotive, home improvement and manufacturing. The other 20% of the mixed rags are downcycled into fibres through shredding and processing to be used as carpet padding, home insulation, emergency blankets, etc. The remaining 10% is disposed of at landfills due to chemical contamination or water damage (Metro Vancouver, 2020).

**(a) Thrift and Secondary Markets:** There is a significant increase in the secondary market over the last decade by providing a destination for more than 70% of the post-consumer textiles (Yavari, 2019). In 2017, a reported 2.3 billion items were reused, with the most significant category being clothing, shoes and, accessories; these comprise 49% of the \$20 billion resale market (Durif F, 2018). These used textiles, shoes and accessories, deemed to be in excellent condition are also termed as ‘credential clothing’. These types of used quality clothing have a high value and high demand in both developed and developing countries. In Canada, the market has increased by over 27% since 2018 (RAGDAY, 2019).

**(b) Third Market – Graders and Rag Dealers:** There are over 300 companies listed as participants in Canadian used clothing markets with [recyclexchange.com](https://www.recyclexchange.com). It is Canada’s waste recycling marketplace to sell and buy used products. These textile recovery facilities will assign a “grade” based on the quality of the material and resell some of the graded product within Canada and the USA, but mostly in developing countries like Asia, Africa, Europe, Central or South America (SMART - Frequently Asked Questions, 2020). Different markets have different demands. Grade ‘A’ is usually brand-new clothing. For instance, a Nike T-shirt or Prada bags, which generally have a considerable market in North American countries like Mexico and South American countries like Chile, where the public prefers branded clothes that they can obtain for a lesser price. Grade B are borderline quality goods, which are wearable and less expensive, usually preferred by African countries. Typically, graders generate 5% of waste (Recycler, 2020).

**(c) Fourth Market – True Recycling:** This is the deconstruction of textiles into virgin fibres for using them to create recycled textiles. All the materials can be shredded, but the market for shredded material is minimal due to a reduction in quality and fibre length of natural fibre. Most



of the natural and synthetic fibres can be reused as rags. Few synthetic fibres produced in a spinning process can be recycled in a closed loop through re-spinning. Mixing reclaimed natural fibres with virgin fibres can provide quality products. However, in Canada, less than 1% of the post-consumer textile waste is entering this market of true recycling (NACTR, 2019).

### 3.3 Instability in Global Markets

Although the international market for textiles is lucrative for graders and exporters, there is potential instability. First, when the market is flooded, many countries often impose a temporary ban on used clothing to prevent excess clothing pile up. This is when the international exporters are prohibited from selling the second-hand clothing in these countries. Another reason for the ban is political unrest. China sees Africa as a viable market and pressurizes the African government to impose the ban. Secondly, the used clothing affects the cotton industry in countries like Malawi, Tanzania and Kenya and possess a threat to local business owners (The Guardian, 2015) and thirdly, there have been events where excess clothing ends up in the landfills of these developing countries (Recycler, 2020).

### 3.4 List of Textile Recycling Companies

The textile recycling companies include mostly for-profit organizations but also few charitable organizations that process the donated textiles. A detailed table with the information on the companies, including company address, collection method, processing method, partnership with an exporter, end markets and contact details, is added to Appendix C.

Table 3.4 List of Textile Recycling Companies

<b>Non-profit</b>	<b>For-profit (Within Ontario)</b>	<b>For-profit (Outside Ontario)</b>
Diabetes Canada	Eco Canada Textile Recycling	Pacific Clothing Recyclers Inc.
	Value Village	Trans-Continental Textile Recycling Ltd.
	Canadian Textile Recycling Ltd	
	RAGDAY Ltd.	
	Pringle Textile	
	KB Textile International Ltd	
	Textile Waste Diversion Inc.	
	Five Star Rags	

### 3.5 Suggestions and Recommendations

The City of Kawartha Lakes should establish a chain of custody or have a contractual arrangement with the partner organization to guarantee the end market and end-use of the collected textiles in the form of either monthly, quarterly or annual reporting systems.

## 4. Overview of Local Textile Collection Companies

Overall, 16 companies in and around the City of Kawartha Lakes accept textiles for reuse. The list generated comprises of both for-profit and not-for-profit organizations. Information on the type of textiles accepted by these companies has also been included. Out of the 16 companies, only 9 could be successfully contacted to acquire further information on the barriers faced in textile recovery, potential opportunities to collaborate with the municipality and their willingness to working with a municipally sponsored textile recovery program.

Only 3 companies expressed that they face barriers when collecting textiles for reuse. Salvation Army stated that they receive garbage at their donation sites. Vicky's Values experience a shortage of storage space for the textiles they collect. Global Village sometimes gets more textiles than they can store.

About 50% of the companies contacted said they would be willing to work with the City of Kawartha Lakes, but the companies could not identify any specific municipal support that they could benefit from.

### 4.1 Local Companies and Textiles Accepted

Online research related to Kawartha lakes textile recovery led to a broad list of local companies in and around the city. They accept a wide range of different textile materials from the residents. The companies in and around the city of Kawartha Lakes that accept textile for reuse are listed out in Table 4.1:

Table 4.1: Companies Accepting Textiles for Reuse

#	Store Name	Location
1	Salvation Army	30 Peel St, Lindsay, ON K9V 3L8
2	Humane Society	107 McLaughlin Rd, Lindsay, ON K9V 6K5
3	Vicky's Values	50 Marry St. W, Lindsay, ON K9V 2N6
4	Textile Diversion	26 Francis Street, Lindsay, ON, K9V 5R8
5	Diabetes Canada	730 The Kingsway Unit 12, Peterborough, ON K9J6W6
6	Value Village	1101 Lansdowne street West, Peterborough, ON K9J 7M2
7	Buy and Sell Shop	31 Kent street west, Lindsay, ON, K9V 2X9
8	Goodwill Industries	30 Peel St, Lindsay, ON K9V 3L8
9	Talize	1154 Chemong Rd, Peterborough, ON K9H 7J6
10	Recycled Kids	20 Kent St W, Lindsay, ON K9V 2Y6
11	Recycled Gear	96 Queen St, Lindsay, ON K9V 1G6
12	Stretch Thrift Outlet	26602 Highway 48 Georgina, ON L0E 1R0
13	Care and Share Thrift Shop	33 Ringwood Dr, Whitchurch-Stouffville, ON L4A 8C1
14	Resource Thrift Outlet	55 Angeline St N, Lindsay, ON K9V 5B7
15	Global Village	1 William St S suite # 10, Lindsay, ON K9V 3A3
16	Mission Thrift Store	370 Kent St W, Lindsay, ON K9V 6G8

From small textile reuse/resell shops to large textile recovery companies located within the boundary of Kawartha Lakes, these businesses have different approaches and strategies to textile material requirements/acceptance with some companies or organizations accepting only specific materials, according to their individual business needs. Table 4.2 lists the companies in and around the city and includes information on the types of textiles accepted by these companies. For a more comprehensive table with information on collection services and conditions for accepting the textiles please see Appendix D.

Table 4.2: Type of Textiles Accepted by Companies

Store Name	Textiles										
	Clothing & Shoes	Accessories	Bath towels	Sheets	Blankets	Pillows	Curtains	Table cloths	Mattresses	Carpets	Stuffed Furniture toys
Salvation Army	✓	✓		✓	✓	✓	✓	✓			✓
Humane Society			✓	✓	✓	✓					
Vicky's Values	✓	✓	✓	✓	✓	✓	✓	✓		✓	
Textile Diversion	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Diabetes Canada	✓	✓	✓	✓	✓		✓	✓			✓
Value Village	✓	✓	✓	✓	✓	✓	✓	✓			✓
Buy and Sell Shop					✓	✓			✓	✓	✓
Goodwill Industries	✓	✓									
Talize	✓	✓	✓	✓	✓	✓	✓	✓			✓
Recycled Kids	✓	✓									
Recycled Gear	✓										
Stretch Thrift Outlet	✓	✓	✓	✓	✓	✓	✓	✓			✓
Care And Share Thrift Store	✓	✓	✓	✓	✓	✓	✓	✓			✓
Resource Thrift Store	✓										✓
Global Village	✓	✓	✓	✓	✓			✓			
Mission Thrift Store	✓	✓	✓	✓	✓	✓		✓			✓

Salvation Army and Buy and Sell Shop provide collection services depending upon the customers' needs and convenience. Also, during the process of conducting the research, some of the companies and organizations made some specifications and comments in receiving textile material from their customers. For example, Recycled Kids have limited themselves to accepting infants and kids' clothing and accessories only. Recycled Gear only accepts sports accessories and outdoor activities gears. Companies like the Salvation Army do not accept sofa beds from their clients in their furniture department. Value Village only accepts furniture that is relatively small.

## 4.2 Barriers to Textile Recovery

Salvation Army stated that residents sometimes dump garbage at their donation sites (Salvation Army, 2020). This contaminates good, reusable textiles and creates a barrier in the recovery of textiles. Limitations in storage space is a barrier experienced by Vicky's Values (Vicky's Values, 2020). Global Village Thrift Shoppe also expressed similar problems of being overloaded with textiles, which forces them to send the extras and unsold items to Toronto for recycling (Global Village Thrift Shoppe, 2020).

As a rule, the companies only accept textiles that are in good condition for reuse. For-profit companies like Buy and Sell Shop simply refuse the items that residents bring to them if they do not have a market or if they are contaminated, therefore, they do not face any barriers. 70% of the companies contacted do not face any barriers to textile recovery (Diabetes Canada, Value Village, Talize, Humane Society, Recycled Kids, Recycled Gear, Buy and Sell Shop, 2020).

#### **4.3 Opportunities to Collaborate**

As discussed above, there are various local companies and organizations within and around the City of Kawartha Lakes that work with textile collection and reuse. Since Kawartha Lakes wants to improve textile diversion, these local organizations were contacted to find opportunities to collaborate, and to gauge their willingness to work with the City on a municipally sponsored textile recycling program.

Sixteen organizations were looked at that provide textile recovery and reuse options in and around Kawartha Lakes. Nine of them provided information, and there were four positive responses for working with the City on a municipally sponsored textile recycling project, and one response that had an interest in working with the City but required more information. Since there is currently not a municipal textile recycling program in Kawartha Lakes, there was a challenge in explaining and getting responses on opportunities to collaborate.

The organizations that did not seem to have an initial interest in this collaboration were the Salvation Army because they felt they did not need support regarding collection (Salvation Army, 2020), the Buy and Sell Shop because their business is not catered to what this project is working on (Buy and Sell Shop, 2020), Recycled Gear because what they sell is not diverse enough for them to partner with the City (Recycled Gear, 2020), and Recycled Kids (Recycled Kids, 2020). One organization that was interested in this project, but felt they had to talk to the head office about working with the City was Value Village (Value Village, 2020). The organizations that were willing (some with great interest) in collaborating were Vicky's Values, to get more promotion (Vicky's Values, 2020), Diabetes Canada, to also receive help with promotion and education (Diabetes Canada, 2020), Talize to get promotion help and collection help (Talize, 2020), the Humane Society, to work on improving their business (Humane Society, 2020). Global Village Thrift Shoppe (Global Village Thrift Shoppe, 2020) would hope to have the City implement a fair pay scale that would depend on the weight of the textile bag instead of having a standard price so that their business would benefit by receiving a more equal pay. The focus then will be on the organizations wanting to work with CKL.

#### **4.4 Willingness to Work with the Municipality**

Overall, much of the willingness to work with the municipality comes from wanting to receive more help regarding promotion and collection, as well as a fair pay scale for the textile collections. As stated, since there is currently no municipal textile recycling program, much of the conversations were based around what these organizations wanted and how they thought they



could work with the City. By having a more specific and organized structure for Kawartha Lakes and the textile organizations, the opportunities to collaborate come from having a centralized program, where clear rules are set up about what can and cannot be collected, and more resources for local organizations. Also, since the main barrier identified was receiving textiles that were of such poor quality, another area identified for collaboration could be implementing a program in the City that saves those types of poor-quality textiles and reuses them or recycles them for other uses, instead of having them being sent to landfill.

#### **4.5 Suggestions and Recommendations**

The municipality of Kawartha Lakes could set up a meeting with the local companies that accept textiles for reuse because this will help both parties better understand the needs of the other. The local companies might be more willing to talk to city officials than students.

The city could also provide multiple options of municipal support, if possible, for the companies to choose from since the companies contacted for the purpose of this research did not know what kind of municipal support, they could benefit from.

## 5. Collection Systems

Following the three R's waste hierarchy, it is very important to look for alternatives and diversion programs to support diversion strategies to achieve desired results. The fast-fashion retail model is premised on introducing new products to the stores and into the wardrobe as quickly as possible. The world has changed a lot in the past two decades, fashion brands are releasing new clothing each week, things are getting old fashioned very soon, and people do not want to wear old fashioned clothes. Unfortunately, the unused clothing is ending in landfills, and it is very important for municipalities to run a textile program so that they could divert the textiles from landfill and make most out of them. Implementing these methods and verifying public reach is an important aspect to be considered, which identifies the success of a recommended program. We have researched different municipalities and their textile diversion and collection programs.

### 5.1 Types of Collection Systems

#### 1. Curbside Collection

Households are asked to gather their textiles for reuse and leave them for collection at the curb. Some municipalities ask residents to place textiles in a clear bag with a label of 'T' on it. Municipalities will collect these bags on designated days along with their waste and recycling.

The frequency of textile collection varies depending on the population and the municipality. It has been noted that most curbside collection of textiles is done monthly.

#### 2. Collection Bins

In this type of collection system, large designated bins are installed in public spaces such as parking lots of community centers and multi-residential buildings. The bins often display the list of textiles that are accepted by municipalities; some also have the name of their local partners like Diabetes Canada on the bins. These bins are open 24 hours for the convenience of the public.



### **3. Drop Off**

Different types of bins are placed at the landfill site and transfer station for the public to come and drop off their textiles. The municipality for the initial phase keeps one bin for textile drop off. Drop off systems has no limit on frequency for households. They can visit the site during operating hours and can drop the textiles.

### **4. On Request Pick up**

People can request a textile pickup by calling the phone number provided by the municipality. Municipalities make a schedule for home pickups twice or three times per month. Residents can book a pickup by calling and selecting an available date from the provided options.

In St. Catherine's- Niagara (Niagara Falls, Welland) Clothing/Textile Recycling, we found that people are also scheduling the pickup by filling a form. The city will send a reminder to the form fillers through Emails about the collection day (Waste & Resources, 2016).

## **5.2 Municipalities Running Textile Programs**

### **1. The Township of King**

The textile collection started in 2013 by the Township of King. They started the program with a drop off system. The public could drop off textiles at 3 locations. They must place the textiles in a bag and drop it at the desired locations. They did not have a successful start with this, as the public thought that disposing textiles as garbage in bins are the most convenient and low-cost option. They were unwilling to drop off clothes for re-use. Getting this feedback, the Township of King started a public awareness program for textiles and started a private pickup service. In 2016, 54639 pounds of textiles were diverted by Township of King (Township of King, 2016).

### **2. City of Markham**

The City of Markham has new textile donation bins. Conveniently located at selected city facilities and apartment buildings, these bins provide 24/7 access for recycling of all unwanted textiles. Fitted with smart technology such as volume sensors, Markham's textile donation bins send a signal when bins need servicing and make it possible to track diversion data. All donations go to Markham's registered charitable partners to create jobs and support communities in need. Markham is expecting to have 4% increase in its diversion rate with the help of a textile program (Marsales, 2016).

### **3. The Town of Aurora**

Aurora has diverted 46,000 lbs. of material from landfill in June 2016 from 3000 homes. Residents are to place clean and dry items in a clear bag and label each bag with (T) for home pick-up. The bag is to be placed curbside by 8.00 a.m. on the first Monday of each month. For large quantities, a home pickup can be scheduled through Diabetes Canada. The town of Aurora has textile bins

throughout the town, which are placed at public facilities for the collection of clean and dry textiles. The bins are available 24 hours per day and are located at 5 different locations (Persico, 2017) (Textile Waste Diversion, 2016).

#### **4. County of Wellington**

Drop off facility is available at each of Wellington's waste facilities. They have a partnership with the Canadian Diabetes Association Clothesline Program. There is no charge to drop off the old textile. The textiles should be placed in a plastic bag for an easier drop off in the bin. Cloths in good condition will be reused, and damage will be recycled. In 2018, 20.90 tons of textiles were diverted. The diversion rate has increased by 11% from the previous year.

#### **5. City of Oshawa**

The city is partnered with Diabetes Canada and York University for the collection and recycling of textiles. They also provide street bins/bring bank facilities at civic recreation complex, Donovan Recreation Complex, Legends Centre and South Oshawa Community centers for the residents of Oshawa to drop their wasted textiles into those bins. For the convenience of the public, the City has also launched a free online self-scheduling textile collection program, which is like home pickup service (City of Oshawa , 2018).

#### **6. City of Stratford**

Over 7,000 lbs of textile materials have been diverted from landfill since March through a door to door collection in Stratford. During Earth Week, the City of Stratford partnered with Diabetes Canada to offer residents door to door textile pick up. This helps to divert waste from the landfill by donating old textiles. The public can put textiles in a plastic bag and mark it with a "D." Stratford residents can also schedule a free pickup before and after Earth Week, which is done by the Diabetes Canada (Juha, 2018).

#### **7. Niagara Region**

Collection bins are located at all the five landfills in Niagara. Textiles are also acceptable at the reuse depots of Niagara. The public can schedule a pickup by filling out a form requesting a pickup, by making a phone call or by dropping off at the landfill. The municipality provides residents with specific dates for curbside pickup. For curbside collection, the used clothing should be placed in tied plastic bags with a label of "T" on it. 54000lb diverted from landfill in 2019.

#### **8. The County of Simcoe**

In May 2018- Simcoe County started once a year curbside collection program for textiles. Collection bins are also located at each of 8 Waste Management Facility for textile collection. They collect up to 20 kg in weight and materials must be in clear plastic bags, sealed, dry, clean and placed out for collection at 7:00 a.m. The municipality has designed a special bag (made after



their battery collection bags) that residents use to participate in the June event (County of Simcoe , 2018).

#### **9. The Town of Newmarket**

The municipality of New Market has partnered with Diabetes Canada for the textile program. They use the curbside collection as a collection method. Almost 71,500lbs. Textiles diverted in 2019. It helps to control contractual costs and reduction in collection costs. On the other hand, it requires more labour, and in a curbside collection or for all-in-one collection, the numbers for all types of waste can often be inflated by incorporating other technology like waste-to-energy (where garbage is incinerated instead of landfilled) (Market, 2019).

#### **10. City of Kitchener**

The Region of Waterloo provided "land/space" for a trailer to be installed onsite - Residents have free access from Monday to Saturday, 7 am to 6 pm to drop off textiles. (limited information available).

#### **5.3 Benefit for City of Kawartha Lakes**

CKL generates approximately 40,000 tonnes of waste annually, out of which 5% is predicted to be textiles that end up in a landfill. If CKL starts a Textile program, it has the potential to divert up to 2,000 tonnes of textiles from landfill, and at the rate of \$150/tonne, this could save approximately \$300,000.00 of landfill space.

## 5.4 Table of Pros and Cons of Textile Collection Systems

Collection Systems	Pros	Cons
<b>Collection Bins</b>	<ul style="list-style-type: none"> <li>• Low operating cost</li> <li>• Accessible at all hours for public and municipality</li> <li>• Support co-partners with banners.</li> <li>• The printed list on the bin provides the public with what is accepted.</li> <li>• Supports less carbon emissions.</li> </ul>	<ul style="list-style-type: none"> <li>• A good network of banks in a well-managed route is required.</li> <li>• Popular bins will fill up quickly and require frequent emptying. Basic bins will not signal when they are full</li> <li>• Sometimes over dumped and textile flow on roads.</li> <li>• Not convenient for people without cars</li> <li>• Banks could be stolen and damaged</li> <li>• People could get locked inside</li> </ul>
<b>Curbside Collection</b>	<ul style="list-style-type: none"> <li>• Expands the range of materials collected at curbside, capture rates increase.</li> <li>• Will result in the maximum collection and increase diversion and will provide income.</li> <li>• Most convenient and accessible for residents</li> <li>• In some cases, it can be added to the existing collection system.</li> </ul>	<ul style="list-style-type: none"> <li>• The need to consider how it fits the existing curbside recycling provisions.</li> <li>• Odour can be an issue when using the same trucks truck for textile collection</li> <li>• Textiles can be stolen if people keep them out the night before collection day.</li> <li>• It can impact other textile donation centres.</li> </ul>
<b>Drop Off</b>	<ul style="list-style-type: none"> <li>• Benefit for small municipality those don't have a curbside collection.</li> <li>• Convenient for the public to drop waste, recyclables, textiles at one place</li> <li>• Eliminates collection cost</li> </ul>	<ul style="list-style-type: none"> <li>• Contamination depends upon the way textiles are brought to the site.</li> </ul>
<b>Call for Pickup</b>	<ul style="list-style-type: none"> <li>• Accessible for all residents</li> <li>• Less contamination, especially calling for pickup service, will affect the way people usually perform.</li> </ul>	<ul style="list-style-type: none"> <li>• Will not benefit if on collection day only a few booked the pickup</li> <li>• The public can forget the day of collection and will not keep it curbside</li> </ul>

APPENDIX A

Action Item	Markham	Aurora	Oakville	Niagara	Stouffville	Kitchener	Simcoe	Halton	County of Wellington	County of King	Region of Durham	City of Peterborough
<b>Programs</b>	2013 No difficulty identified at inception. Identified fraudulent bins as a concern. Initially had issues with contamination in bags at curbside, clear bags has solved that problem.	2015 Locations were said to be the early binage to implement the program. It was difficult to identify spots that did not impede traffic flow or take up valuable parking spaces.	2017 No issue to establish contact here	2018 On orientation took two (2) to having: Council	2018 Low participation at the curbside level made the entire footprint too large to justify continuing. Low household participation	2018 Low participation at the curbside level made the entire footprint too large to justify continuing. Low household participation	2018 No difficulty identified at inception. Identified fraudulent bins as a concern. Initially had issues with contamination in bags at curbside, clear bags has solved that problem.	2018 No difficulty identified at inception. Identified fraudulent bins as a concern. Initially had issues with contamination in bags at curbside, clear bags has solved that problem.	2018 No difficulty identified at inception. Identified fraudulent bins as a concern. Initially had issues with contamination in bags at curbside, clear bags has solved that problem.	2018 No difficulty identified at inception. Identified fraudulent bins as a concern. Initially had issues with contamination in bags at curbside, clear bags has solved that problem.	2018 No difficulty identified at inception. Identified fraudulent bins as a concern. Initially had issues with contamination in bags at curbside, clear bags has solved that problem.	2018 No difficulty identified at inception. Identified fraudulent bins as a concern. Initially had issues with contamination in bags at curbside, clear bags has solved that problem.
<b>Start-up Budget</b>	No budget details provided	No cost to the Municipality	N/A	No cost to the Municipality	No cost to the Municipality	No cost to the Municipality	Budget numbers were not supplied	No cost to the Municipality	Minimal	No cost to the Municipality	Minimal Budget Requirements	No cost to the Municipality
<b>Operating Budget</b>	N/A	N/A	N/A	No cost to the Municipality	No cost to the Municipality	No cost to the Municipality	Budget numbers were not supplied	None - site that the program is run through a "pay-by-view" agreement with Aurora	A portion of transfer station staff time attributed to maintaining the bins; occasionally have to put excess donations into storage	No cost to the Municipality	Minimal Budget Requirements	No cost to the Municipality
<b>Dedicated Staff?</b>	Staff's responsible for facilitating the program.	No Municipal staff involved	N/A	Staff time is required to the program; building owners and obtain permission to prepare promotional paper, print 2 posters, apartment door hangers, occasional meetings of residents municipality and residents. Beyond that is minimal	Discontinued curbside because it was too laborious intensive. Replaced with a Depot and/or demand collection	None Required	Facility staff monitor bins as part of their regular duties; municipality has its own fleet that is employed to collect textiles during the June event	Minimal - have seen incidents of people looking to bin too overnight is required, social media updates do require some staff time	A staff member is required to coordinate with the Canadian Diabetes Association	Minimal staff requirements - minor maintenance issues - someone to get Diabetes Canada when needed	One staff member assumes responsibility for this program as part of their regular duties	One staff member assumes responsibility for this program as part of their regular duties
<b>Collection Methods</b>	Curbside and donation bins	Original program was run as follows: Place items in a plastic bag (clear bags preferred) bag to be identified with a "T". One collection day/month. They found that the curbside footprint was too high to continue because not every household participated every month. Now have bins on municipal properties and residents can call CDA to arrange for pickup. Local Collection Bins identified by City and CDA	Schedule Pick-up: 1 curbside donation bin installed at recreation facilities, identified by City and CDA	Drop-off at facilities and curbside. Residents place items in a plastic bag (clear bags preferred) bag to be identified with a "T". One collection day/month. They found that the curbside footprint was too high to continue because not every household participated every month. Now have bins on municipal properties and residents can call CDA to arrange for pickup. Local Collection Bins identified by City and CDA	Drop-off at facilities and curbside. Residents place items in a plastic bag (clear bags preferred) bag to be identified with a "T". One collection day/month. They found that the curbside footprint was too high to continue because not every household participated every month. Now have bins on municipal properties and residents can call CDA to arrange for pickup. Local Collection Bins identified by City and CDA	The Region of Waterloo provided "hand/paper" for a bin to be installed. Residents place items in a plastic bag (clear bags preferred) bag to be identified with a "T". One collection day/month. They found that the curbside footprint was too high to continue because not every household participated every month. Now have bins on municipal properties and residents can call CDA to arrange for pickup. Local Collection Bins identified by City and CDA	Drop bins method. Bins located at transfer stations. Once yearly curbside pickup service is provided. Residents place items in a plastic bag (clear bags preferred) bag to be identified with a "T". One collection day/month. They found that the curbside footprint was too high to continue because not every household participated every month. Now have bins on municipal properties and residents can call CDA to arrange for pickup. Local Collection Bins identified by City and CDA	A strategically placed collection bin, housed at pickup site	Drop-off depot	Curbside collection, bins are to be placed beside blue bins. Drop off depot	The Region promotes and encourages residents to donate textiles. Residents place items in a plastic bag (clear bags preferred) bag to be identified with a "T". One collection day/month. They found that the curbside footprint was too high to continue because not every household participated every month. Now have bins on municipal properties and residents can call CDA to arrange for pickup. Local Collection Bins identified by City and CDA	They have chosen to form a partnership with CDA. Bins placed throughout the City. Peterborough is working on expanding the program. Residents place items in a plastic bag (clear bags preferred) bag to be identified with a "T". One collection day/month. They found that the curbside footprint was too high to continue because not every household participated every month. Now have bins on municipal properties and residents can call CDA to arrange for pickup. Local Collection Bins identified by City and CDA
<b>Partnerships</b>	Salvation Army, Canadian Diabetes Association, Community to Recovery, Ontario Federation of Cerebral Palsy, 2nd Brn Canada, no issues in dealing with community partners	Partnership with the Regional Municipality of York, Canadian Diabetes Association	Canadian Diabetes Association	Canadian Diabetes Association, Goodwill Niagara and Big Brothers Big Sisters (located on HWY 7); assisted who provided. Find that services offered by Canadian Diabetes Association to be the most valuable	Canadian Diabetes Association	Goodwill Industries	Canadian Diabetes Association, Utilize the services of an undisclosed processor in the GTA to process textiles collected in June	Canadian Diabetes Association, Value Village - Partners run the program; municipality assumes more of a "support position"	Canadian Diabetes Association	Canadian Diabetes Association	N/A	Canadian Diabetes Association
<b>Disposal Rates</b>	Markham is projecting an 85% diversion rate, up from 81% after textile program. Report an average of 33 lbs/household/year	Overhead is recorded monthly. 2019 total: 138,800 lbs	N/A	No preliminary diversion rate recorded, report from Diabetes Canada indicates 14,000 lbs diverted from landfill	No starting diversion rate recorded, 2019 - diverted 37,22 tonnes	N/A	Unpublished - stated that year 2 has a significant increase over year 1	It was estimated that textile diversion rate comprises approximately 2.5% of the country's total residential waste stream. Present diversion rate is 38% report from Diabetes Canada (2019: 33,000 lbs. diverted in 2019)	Statistics gathered from transfer station records, local weights or bag #s have been attributed to bags 2010 - 2011, 2011 - 2017 averaged ~19.25 /year, 2018 - 21 /year, 2018 - 21 /year	Preliminary rates not disclosed - 155,000 lbs. diverted in 2017	They are currently recording 50 tonnes/year of textile diversion.	2018 - 33,772 lbs January 2020 - 34,676 lbs
<b>Staff/What Agencies</b>	N/A	N/A	N/A	Provided with this information through Diabetes Canada reporting system (DC who provide bins, materials online) - unrealistic to expect 100% diversion from landfill	No comment was given on this topic	Was not indicated to be of concern to the Municipality - left in the hands of community partner	Based on an area of interest when seeking partnerships. Collection at facilities for CDA must be in good condition; for better, some collection items go through processor who sells some in local markets, much overruns and recycles remains via trading or their recollection. Estimated that "80% is recovered 2% landfill/incinerated"	Identified an area of interest when seeking partnerships. Collection at facilities for CDA must be in good condition; for better, some collection items go through processor who sells some in local markets, much overruns and recycles remains via trading or their recollection. Estimated that "80% is recovered 2% landfill/incinerated"	Try to do not receive monthly reports from CDA however the information is provided upon request. Related to the Canadian Diabetes Association website, where the general information/statistics can be found	Not all comments to King referred to the (Diabetes Canada) website	No comment was given on this topic	No comment was given on this topic
<b>Noise/H Response</b>	Response has been positive, no negative comments recorded	The program has been very well received, however there is some residual push back from the curbside pickup being cancelled.	N/A	N/A	Very well received	N/A	Very well received	Very well received	Very well received	Very well received	Very well received	Very well received
<b>By Laws Governing?</b>	Not specifically for textiles	Not specifically for textiles	Not specifically for textiles	Not specifically for textiles	Not specifically for textiles	Not specifically for textiles	Not specifically for textiles	Not specifically for textiles	Not specifically for textiles	Not specifically for textiles	N/A	N/A
<b>Contact Info</b>	Not specifically for textiles	Not specifically for textiles	Not specifically for textiles	Not specifically for textiles	Not specifically for textiles	Not specifically for textiles	Not specifically for textiles	Not specifically for textiles	Not specifically for textiles	Not specifically for textiles	N/A	N/A
<b>Population</b>	139,000	33,445	139,418	244,888	31,011	211,222	507,100	85,000	210,400	24,310	513,801	84,220
<b>Population Density</b>	1,013.5/km <sup>2</sup>	1,112.5/km <sup>2</sup>	1,027.0/km <sup>2</sup>	1,412.5/km <sup>2</sup>	1,412.5/km <sup>2</sup>	1,412.5/km <sup>2</sup>	1,412.5/km <sup>2</sup>	1,412.5/km <sup>2</sup>	1,412.5/km <sup>2</sup>	1,412.5/km <sup>2</sup>	1,412.5/km <sup>2</sup>	1,412.5/km <sup>2</sup>
<b>Advice/ Notes for CCL</b>	The municipality received a \$9,000 grant through the Green Municipal Fund to start the program	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Notes</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

APPENDIX B

Acceptable Items:	Markham	Aurora	Oshawa	Niagara	Stratford	Kitchener	Simcoe	Newmarket	Wellington	King	Durham	Peterborough
Active wear			X					X			X	
Aprons	X		X					X				
Athletic shoes			X					X			X	
Backpacks				X			X		X		X	
Bags				X			X	X	X	X	X	
Bathing Suits			X					X			X	
Bathrobes			X					X			X	
Bedding		X	X	X	X			X	X	X	X	X
Belts		X	X	X				X	X	X	X	
Bibs	X	X	X					X	X	X	X	
Blankets	X	X	X	X				X	X	X	X	X
Boots			X					X	X	X	X	
Cleats			X					X	X	X	X	
Clothing		X		X	X	X		X	X	X	X	X
Coats	X		X					X			X	
Comforters	X		X					X			X	X
Curtains, Drapes	X	X	X	X	X			X	X	X	X	X
Cushions			X					X			X	
Dress shoes			X					X			X	X
Dresses			X					X			X	X
Fabric scraps	X		X			X		X	X	X		
Footwear		X		X	X						X	
Gloves			X					X			X	
Hats, Toques		X	X	X				X	X	X	X	
High heels			X					X			X	
Jackets		X					X				X	X
Jeans			X					X			X	X
Jewellery		X						X			X	X
Linen												X
Loafers			X									
Mats	X		X					X			X	
Mittens			X					X			X	
Old rags	X		X					X			X	
Oven mitts			X					X			X	
Outerwear					X			X			X	X
Pants			X				X	X			X	X
Parkas			X					X			X	
Pet clothing and beds			X					X			X	
Pillows	X	X	X						X	X	X	
Purses		X	X				X	X	X	X	X	X
Reading Glasses		X										
Running shoes				X				X			X	
Sandals				X							X	
Scarves, Ties			X					X			X	
Sheets		X						X			X	X
Shirts			X				X	X			X	X
Shoes							X	X	X	X	X	X
Skirts			X					X			X	X
Sleeping bags	X	X	X					X	X	X	X	
Slip-ons			X								X	
Slippers			X					X			X	
Small Appliances					X							
Sneakers			X	X							X	
Socks (single or pairs)			X				X	X			X	X
Sports Equipment		X										
Stuffed toys	X	X	X					X	X	X	X	
Sweaters			X					X			X	
Textiles				X		X					X	
Ties		X						X	X	X	X	
Towels	X	X	X	X	X			X			X	X
Toys		X			X			X			X	X
T-Shirts			X					X			X	X
Undergarments			X		X			X			X	X
Uniforms								X			X	X
Wash cloths	X	X	X					X			X	X



## APPENDIX C

List of Recycling/Processing Companies									
S No.	Name	Address	Collection Method	Processing Method	Partnership with Exporters	End Markets	Phone number	Email	Reference
1	Diabetes Canada	Toronto	Dontion Bins, Household pickup services	25% is sold at retail in Canada, 30% is sold through retail channels in international markets, 25% is upcycled/downcycled into other textile products, eg. bags, 15% is turned into new products, eg. insulation, and 5% is sent to landfills.	Yes	Canadian Retail and international market through retail chains	Simon Langer: 9057516889	<a href="mailto:simon.langer@diabetesclothesline.ca">simon.langer@diabetesclothesline.ca</a>	<a href="file:///C:/Users/HP/Downloads/Agri-Decluster_Goods_Program_InfoGraphic_new%20July2018%20(1).pdf">file:///C:/Users/HP/Downloads/Agri-Decluster_Goods_Program_InfoGraphic_new%20July2018%20(1).pdf</a>
2	Value Village	All around Canada	Value Village thrift stores in partnership with local non-profits	Reusable clothing are resold at a valued price, unsold items are recycled into rags, fiber, car insulation etc. or sold to resellers in developing countries	Yes	International markets		N/A	<a href="https://www.valuevillage.com/about-us">https://www.valuevillage.com/about-us</a>
3	Ragday Limited	2967 Dundas St W, Toronto, ON M601Z2	Collection from thrift stores and charities	Buying and Selling of credential and mixed rag clothing	No	International markets	2897272035		<a href="https://www.ragday.com/">https://www.ragday.com/</a>
4	Eco Canada textile recycling	1420 Bayly St, Pickering, ON L1W 3R3	Household pickups for the municipalities	N/A	N/A	N/A	9058314040	N/A	
5	Canadian Textile Recycling Ltd	5385 Monroe Crt, Burlington, ON L7L 5N7	Partnerships with Clothing for Charity Ltd. for curbside collection	Sorting and grading of Credential Clothing and Mixed rags	No	Serving over 25 countries with clothing and shoes	9056321464	<a href="mailto:cdntextilerecycling@ecogeco.net">cdntextilerecycling@ecogeco.net</a>	
6	Pringle Textile	2390 Drew Rd, Mississauga, ON L5S 1B8	N/A	Sorting of mixed rags into 19 different items namely shirts, pants, skirts etc. and grading them into different categories based on the quality of the clothing.	No	N/A	905-405-8139	<a href="mailto:contact@pringletextile.com">contact@pringletextile.com</a>	<a href="http://pringletextile.com/index.html">http://pringletextile.com/index.html</a>
7	KB textile international limited	186 Bartley Dr unit 4, North York, ON M4A 1E1	Clothing donation bins in partnership with Jewish Russian Community used clothing donation program (JRCC) at sites like retail shopping centers	Collection and seeling of used clothing	No	Local retail chains like Value Village, Goodwill thrift stores, small vintage boutiques and wholesalers all over the world.	6478857942/4163852300	<a href="mailto:mbulman@kbtexile.com">mbulman@kbtexile.com</a>	<a href="http://www.kbtexiles.com/index.html">http://www.kbtexiles.com/index.html</a>
8	Textile Waste Diversion Inc.	Etobicoke	Clothing Donation bins in partnership with Canadian Community Support Foundation (CCSF) at municipal spaces	Collection and Processing.	N/A	N/A	6477958674/8889808756	N/A	
9	Five Star Rags	7500 Kimbel St, Mississauga, ON L5S1A2	Collection from non-profit charity thrift stores and factories	Sorting and grading for clothing into used clothing, vintage and wipers, packaging and dispatch of ballers	No	Africa, South America, Eastern Europe, and Asia	9054058365	<a href="mailto:info@fivestarrags.com">info@fivestarrags.com</a>	<a href="http://www.fivestarrags.com/index.php">http://www.fivestarrags.com/index.php</a>
10	Pacific Clothing Recyclers Inc.	9710 187 St, Surrey, BC V4N 3N6	Collection from non-profit charities and suppliers	Sorting, grading, packaging and dispatching of textiles.	No	International markets	6043657860/ office number: 6048887861	<a href="mailto:info@pacificclothing.ca">info@pacificclothing.ca</a>	
11	Trans-Continental Textile Recycling Ltd	13120 78a Ave, Surrey, BC V3W 1P4	Clothing bank programs in partnership with organisations and charities and through tamperproof collection bins	Collection and Processing. Usable clothing is sorted out and shipped to international market. unwearable cotton and cotton blend clothing is sorted and cut into wiping rags for industries. materials like knitted clothing such as wool, acrylics and wovens materials are recycled through a process called "pulling" and are remade into threads to and reused to make new clothing.	No	Usable clothing: Shipped to Africa, wiping rags: Industries, textile recycling: used for stuffing, insulation and soundproofing in furnitures, car, houses and even in clothing.	6045922845	<a href="mailto:info@transtextile.com">info@transtextile.com</a>	<a href="http://www.transtextile.com/index.html">http://www.transtextile.com/index.html</a>
12	Green City Recycler	2817 Berry Rd, Houston, TX 77093, United States	Local Thrift Stores and municipalities	Collection and Processing. Sort the textiles into credential and institutional mixed rags	Yes	South American Market: Mexico, Chile, Colombia and more South African Market: Malawi, Kenya, and others	7136948483	N/A	

# APPENDIX D

COMPANIE NAME	TYPES OF TEXTILES													Co S
	Clothing & Shoes	Accessories	Bed & bath towles	Sheets	Blankets	Pillows	Curtains	Table cloths	Mattress	Carpets	Furniture	Stuffed toys	Notes	
Salvation Army	X	X		X	X	X	X	X			X(No sofa-beds)	X		
Humane Society	X		X	X	X	X								
Vicky's Value	X	X	X	X	X	X	X	X		X			Don't accept yard sale items	
Textile Diversion	X	X	X	X	X	X	X	X	X	X				
Diabetes Canada	X	X	X	X	X		X	X				X		
Value Village	X	X	X	X	X	X	X	X			X(Small)	X		
Buy and Sell Shop					X	X			X	X	X		Unused condition only	X iter
Goodwill Industries	X	X		X	X		X				X(no box-springs)	X	Working, free of stains, contains all parts)	
Talize	X	X	X	X	X	X	X	X				X	Good and clean only	
Recycled kids	X(Kids)	X(Kids)											Good and clean only	
Recycled Gear	X(Sports & outdoor) activities)													
Stretch Thrift Outlet	X	X	X	X	X	X	X	X			X			
Care and Share Thrift Store	X	X	X	X	X	X	X	X				X		
Resource Thrift Store	X										X	X		
Global Village	X	X	X	X	X			X						
Mission Thrift	X	X	X	X	X	X		X			X	X		

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## Committee of the Whole Report

Report Number WWW2020-007

---

**Meeting Date:** November 3, 2020

**Title:** Sanitary Infrastructure Subsidy and Loan Program

**Description:** **A review on implementing a flood prevention subsidy and/or loan program for residents that have experienced property damage due to flooding and sanitary lateral back-ups**

**Author and Title:** Robert MacPherson, Water and Wastewater Technician

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### Recommendation(s):

**That** Report WWW2020-007, **Sanitary Infrastructure Subsidy and Loan Program**, be received; and

**That** this recommendation be brought forward to Council for consideration at the next Regular Council Meeting.

**Department Head:**\_\_\_\_\_

**Financial/Legal/HR/Other:**\_\_\_\_\_

**Chief Administrative Officer:**\_\_\_\_\_

## **Background:**

With climate change on the rise, frequent and severe weather events are becoming increasingly common. An example of this was seen on January 11, 2020 when the City of Kawartha Lakes (CKL) experienced an inordinate amount of rainfall. Approximately 60 mm fell in a short amount of time. In addition to significant amounts of rainfall, warmer than seasonal temperatures also caused significant snow melt to occur. There were reports of flooding and property damage in multiple locations due to the excessive rain and snow melt.

Due to this event, and as a proactive measure, Council directed staff to review the feasibility of implementing a Sanitary Infrastructure Subsidy Program, as well as a loan option. The intent of this program would be to aid residents in the costs associated with installing a backwater valve (BWV) on their sanitary lateral.

A backwater valve is meant to prevent sewer back-ups from occurring, including those that may be caused by extreme weather events surcharging the City's sanitary sewer systems. They can also provide insurance to a homeowner for back-ups caused by other sources, such as roots and flushing of non-flushable items such as wipes.

At the Council Meeting of July 28, 2020 Council adopted the following resolution

CR2020-187

Moved By Councillor Dunn

Seconded By Councillor Elmslie

**That** Staff present a program for sewer backup subsidy that meets the needs of residents, including financial constraints, to Council for consideration by the end of Q4, 2020; and

**That** the report back includes a Flood Prevention Loan option for consideration.

Carried

This report addresses that direction.

## **Rationale:**

The City of Kawartha Lakes proactively works to ensure that the sanitary sewer systems under its control are properly constructed, maintained, and functioning. Although the City designs systems in accordance with provincial standards and performs regular maintenance and flushing of the sanitary mains, extreme events can cause sewer back-ups. One strategy to reduce the risk of sewer back-ups from occurring would be to have property owners install BWV on their sanitary lines. This valve can prevent basements from flooding caused by surcharged

sewers during severe weather events. The average cost to install a BWV device is \$1500 but could cost substantially more depending on access and location of the sewer pipe. Council has requested Staff present a subsidy program for consideration to aid residents in paying for the modification of their sanitary infrastructure to include flood reduction initiatives. The program would be considered voluntary as previous enforceable programs such as the Mandatory Connect Program have been met with public discontent.

A Sanitary Infrastructure Subsidy Program for CKL residents could be carried out through the process identified below. Costing for the process is presented within the financial section of the report:

- Initial contact – Resident to contact City if they become aware of non-conforming sanitary connections on their property or if they have had a sewer back up in their basement.
- Application submission – Property owner to complete and submit an application form, with at least two quotations to perform the installation work as well as any additional documentation required. The City to contact the owner informing them of application status, if the device is approved, and if the contractor(s) are eligible to perform work on City infrastructure (if required).
- Installation – Once quotations and application have been approved, the necessary Building Permits from the Building Division would need to be obtained. Once approved the work must be completed within one (1) year from time of approval.
- End of work inspection – Follow up inspection with the City to verify completion of work.
- Rebate process – property owner will submit all required documents such as proof of payment and building permits for City review. Once approved the owner will be notified that a rebate has been processed.

In order for a property to be enrolled in the program certain conditions would also need to be met:

- The property must be located within the City of Kawartha Lakes.
- The subsidy would only be available to existing properties, not homes in the planning or construction stages.
- The downspouts from the property's eavestrough must be disconnected from the City's sewer system (if applicable) in order to reduce potential inflow and infiltration into the sanitary system.
- Application must be submitted prior to the installation of the BWV.
- Any contractor/sub-contractor(s) who performed the installation of the flood prevention device must possess a valid plumber's license and be approved by the City to complete the installation.

- The property in question must not have any outstanding taxes or debts owed to the City of Kawartha Lakes at the time the application is processed.
- No work can commence prior to application approval.
- Residents who experience basement flooding through direct entry of storm water or overland flows would not be eligible.

One important thing to note is that once the device is installed; it must be inspected by a qualified individual once every 6-12 months, or as per manufacturer's recommendations to ensure they are in working order. This additional maintenance scheduling and cost would be the sole responsibility of the property owner. If the maintenance is not performed, there is no guarantee the device will perform as intended in preventing a sewer back-up.

### **Other Alternatives Considered:**

Staff have been asked to present a program for Council's consideration. This is provided in the Rationale section of this report. Staff are recommending Council receive this report as information at this time and remain status quo based on the comments provided in Option 3 below.

Should Council opt to implement a BWV subsidy program as described in the Rationale Section of the report, the following resolution should be added:

"That Staff be directed to budget for and implement a backwater valve installation subsidy program per the process and criteria identified in Rationale Section of Report WWW2020-007."

#### **Option 2:**

An alternative option considered would be to implement a Sanitary Infrastructure Loan Program but instead of creating a subsidy, operating the program through a municipal loan. The application process would remain similar although in this option the Revenue and Taxation Division would also need to approve of the application before work could commence. Similar to the City's Septic Rehabilitation Loan Program, upon receipt of the approved funds, the property owner will be responsible for making the loan repayments on a schedule approved by the Revenue and Taxation Division. The annual payment will be collected in the same manner as taxes and deemed as taxes. The annual payment will be levied on the final tax bill of the year and collected as taxes for the maximum term of the agreement being 5 years. The loan could be repaid in full at any time without it being subject to additional fees.

As with the Septic Loan Rehabilitation Loan Program, the property will incur a cost to borrow. The Revenue & Taxation Division will use Infrastructure Ontario loan rate for guidance plus an administrative fee. This option would allow property owners to make the necessary modifications to their sanitary piping without adding an additional expense to the City's user rate budget.



Should Council wish to implement Option 2, the following resolution should be added:

“ That Staff be directed to implement a Sanitary Infrastructure Loan Program specific to installation of backwater valves for existing properties as identified in Option 2 in Report WWW2020-007.”

Option 3:

This option reviews remaining status quo with the responsibility for installation, maintenance, and costs to that of the property owner. This is recommended given these events seldom occur due to extreme weather. The vast majority of sewer back-ups are due to unmaintained foundations cracking and leaking, failures in the properties weeping system and issues in the private sanitary lines such as blockages caused by roots, grease, non-flushable items, age of infrastructure and buildup of calcite around cracks and leaks in a pipe.

Over a 3-year period (2016-2019) there were 53 sewer back-up occurrences in CKL (47 in Lindsay, 4 in Fenelon Falls, 2 in Bobcaygeon, and none in the smaller systems); 52 were caused by reasons other than weather causing excessive flooding. Based on these occurrences, a BWV may not have prevented these events. Before the event in January 2020, the last confirmed case of sanitary sewage back-up caused by high flows was in Fenelon Falls in 2015. There is also currently no subsidies or loans offered for new properties (post 2016) that are required by by-law 2016-006 “By-law to Establish the Management and Use of Sanitary Sewers” to install these devices at time of construction.

Given the estimated costs of implementing a subsidy program and the low frequency of back-ups that occur Staff are recommending this option at this time. Accordingly, the report is provided to be received by Council with no further direction.

## **Alignment to Strategic Priorities**

The recommendation to Council is consistent with the Council Adopted Strategic Plan in the following ways:

“Vibrant and Growing Economy” – will be met through the proper servicing and collection of appropriate user fees to fund the maintenance, capacity and growth of the municipal water and wastewater systems.

“Healthy Environment” - will be met through community preparedness by ensuring that the necessary funds are secured in order to sustain water and wastewater infrastructure necessary to protect the health of the environment.

“Good Government” – will be met through increasing the efficiency and effectiveness of service delivery by streamlining rate adjustments within the by-law and ensuring that the municipal assets are well maintained and managed.

## **Financial/Operation Impacts:**

### **Option 1 (presented in Rationale):**

There are approximately 11,600 users in Kawartha Lakes connected to the sanitary systems, with 893 new connections since 2016 (presumably to already have a BWV installed). For the sake of estimating, this would leave approximately 10,000 properties where a BWV device could be requested by residents. At an approximate cost of \$1,500 per BWV installed, this equates to a rough estimate of \$15,000,000 to install BWVs at all remaining properties. A more reasonable estimate to budget annually would be approximately \$150,000 or 100 properties. In order to control costs to the User Rate, the Division would need to put a cap on the number of properties that can enroll every year. The program would be on a first come, first serve basis for application submissions. This cost represents 0.8% of the current Water/Wastewater operating budget. In order to maintain current projections in the budget, an additional expense of \$1.08 would need to be added to the City's monthly Sewer Fixed Rate price of \$29.86, bringing the new monthly cost to \$30.94 for residential users connected with a sanitary system.

Although the average cost to install a backflow prevention device is \$1500 in a residential property, this does not take into account the additional expenses the property owner may incur such as the \$381.00 building permit fee (2020 fee) required to have the work inspected by the Building Division, or any additional restoration work within the house such as concrete work, drywall, etc. is required as part of the installation. Depending on the complexity of the users piping and ease of access, it can potentially cost thousands of more dollars to install a device. This option would generate \$38,100 in revenue per year in inspection fees for the Building Division based on 100 properties per year. Additional costs would include the administration of the program by the Water & Wastewater Division staff, as well as Finance. Additional Staffing resources may be required pending program uptake. If Council chooses to implement the option presented in the rationale resource needs would be reviewed based on uptake of the program.

### **Option 2:**

While this option does provide relief to the user budget rate, there would be a potential loss in revenue generated by having the funds remain in the City's reserves growing interest, by providing loans slightly above the Infrastructure Ontario borrowing rate. As mentioned under Other Alternatives Considered the loan would be treated and collected from the property owner as taxes levied on their final tax bill of the year. It is anticipated there would be a fee by the Revenue and Taxation Department for the time required to process the loan application. There is currently a \$165 application fee for the Septic Rehabilitation Loan Program. If applied to this program, that represents an additional annual revenue of \$16,500 generated by Revenue and Taxation in loan application fees.

This option would also generate \$38,100 in revenue per year in inspection fees for the Building Division.

Option 3:

Maintaining the status quo would not present any additional financial/operational impacts to consider.

### **Consultations:**

Supervisor, Water and Wastewater Operations  
Manager, Revenue and Taxation  
Director, Corporate Services

**Department Head E-Mail: [brobinson@kawarthalakes.ca](mailto:brobinson@kawarthalakes.ca)**

**Department Head: Bryan Robinson**



## Committee of the Whole Report

Report Number WWW2020-008

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**Meeting Date:** November 3, 2020

**Title:** Drinking Water Quality Management System Review and Endorsement

**Description:** Report to request Council's annual required endorsement of the Water and Wastewater Division Drinking Water Quality Management System

**Author and Title:** Julie Henry, Quality Management and Policy Coordinator

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### Recommendation(s):

**That** Report WWW2020-008, Drinking Water Quality Management System Review and Endorsement, be received;

**That** the City of Kawartha Lakes Water and Wastewater Quality Management System be endorsed by Council;

**That** the City of Kawartha Lakes Water and Wastewater Quality Management System Policy statements be adopted;

**That** the Ontario Clean Water Agency Quality Management System Policy statements be received and endorsed;

**That** the external surveillance audit report for the Water and Wastewater Division (as the accredited Operating Authority) be received;

**That** the external surveillance audit report for Ontario Clean Water Agency (as the accredited Operating Authority) be received;

**Department Head:** \_\_\_\_\_

**Financial/Legal/HR/Other:** \_\_\_\_\_

**Chief Administrative Officer:** \_\_\_\_\_



**That** the City of Kawartha Lakes Water and Wastewater Division Management Review Summary be received; and

**That** these recommendations be brought forward to Council for consideration at the November 17, 2020 Regular Council Meeting.

## Background:

The Corporation of the City of Kawartha Lakes owns twenty-one drinking water systems, all of which are licensed under the Ontario Municipal Drinking Water Licensing Program (MDWLP). An Owner cannot legally produce or deliver drinking water without a license. In order to receive a license, the Owner of a municipal drinking water system must have the following:

- An accredited Operating Authority (for the Lindsay Drinking Water System and all twenty-one Distribution Systems the accredited Operating Authority is the Water and Wastewater Division of the City of Kawartha Lakes. For the treatment systems of the remaining twenty drinking water systems, Ontario Clean Water Agency (OCWA) is the contracted accredited Operating Authority.) **Both OCWA and the Water and Wastewater Division were granted accredited operating authority status in 2011 and have since successfully maintained their accreditation and licensed status.**
- A Municipal Drinking Water License.
- A Permit to Take Water.
- An Operational Plan (the written version of the Quality Management System).
- A Financial Plan.

The Drinking Water Quality Management Standard provides the foundation for the operation of municipal residential drinking water systems for accredited operating authorities in the province of Ontario. In order to remain an accredited Operating Authority, an established and successful Quality Management System that meets the requirements of the Ontario Drinking Water Quality Management Standard (DWQMS), must be maintained.

Without this Quality Management System in place, an operating authority cannot be accredited. Without Owner endorsement, a Quality Management System is not considered to have met the requirements of the DWQMS. An owner cannot legally operate a drinking water system without an accredited operating authority in place. Therefore, it is imperative to attain and maintain Owner endorsement and approval for the Water and Wastewater Quality Management System.

Council endorses the Water and Wastewater Division's Quality Management System every year by authorizing the Mayor and CAO to sign the Quality Management System Policy through resolution. This documents the mission statement, or commitment that an accredited operating authority makes in regards to the delivery of safe drinking water. The standard states that "The Operational Plan shall contain a written endorsement of its contents by Top

Management and the Owner.” In response, Council has endorsed the Quality Management System annually since the initial accreditation in 2011.

At the Council Meeting of December 10, 2019, Council adopted the following resolution:

**WWW2019-012**

**Drinking Water Quality Management System Review and Endorsement**

Julie Henry, Quality Management and Policy Coordinator

**CR2019-733**

**That** Report WWW2019-012, **Drinking Water Quality Management System Review and Endorsement**, be received;

**That** the City of Kawartha Lakes Water and Wastewater Quality Management System be endorsed by Council;

**That** the City of Kawartha Lakes Quality Management System Policy statements be adopted;

**That** the Ontario Clean Water Agency Quality Management System Policy statements be received and endorsed;

**That** the external surveillance audit report for the Water and Wastewater Division (as the accredited Operating Authority) be received;

**That** the external surveillance audit report for Ontario Clean Water Agency (as the Accredited Operating Authority) be received; and

**That** the Water and Wastewater Division Management Review summary be received.

**Carried**

**Rationale:**

The DWQMS is mandated through the Safe Drinking Water Act (2002) and the Ministry of Environment, Conservation and Parks.

In order for an Operating Authority to remain in good standing, the Endorsement and support of the Owner (as represented by Council), is required.

The following section provides an overview of the standard that the City and OCWA have followed and the specific activities that were undertaken over the

last year to ensure the Operational Plans and Quality Management System policies for the next year are endorsed and adopted by Council.

The Drinking Water Quality Management Standard is comprised of twenty-one elements, all of which address a different aspect of producing and delivering safe drinking water.

**Element One - Quality Management System** – Introduces the scope of the system.

**Element Two – Quality Management System Policy** – Commitment to the maintenance and continual improvement of the Quality Management System. The policy for the Water and Wastewater division is included in this report as Appendix B. The policy for the Ontario Clean Water Agency is included in this report as Appendix E. Top Management from the Water and Wastewater Division will sign this endorsement once Council has approved the request for endorsement.

**Element Three - Commitment and Endorsement** – Written endorsement of the Quality Management System by Water and Wastewater Top Management.

**Element Four - Quality Management System Representative** – Identification of the Quality Management System Representative and Designate as appointed by Top Management.

**Element Five - Document and Records Control** – Procedure to manage and control important documents and records.

**Element Six - Drinking Water System** – Description of the Drinking Water Systems and water sources.

**Element Seven - Risk Assessment** – Procedure to describe and control the hazards associated with producing and delivering safe drinking water.

**Element Eight - Risk Assessment Outcomes** – Documentation of the Risk Assessment Outcomes.

**Element Nine - Organizational Structure, Roles, Responsibilities and Authorities** – Procedure that identifies the responsibilities of all positions related to the production and delivery of safe drinking water.

**Element Ten - Competencies** – Procedure that documents the competencies required for all employees with positions directly related to the provision of safe drinking water.



**Element Eleven - Personnel Coverage** – Procedure to ensure that sufficient, competent personnel are available at all times.

**Element Twelve - Communications** – Procedure that describes how the QMS is communicated to and between Top Management, the Owner, the Operating Authority, Suppliers/Service Providers and the Public.

**Element Thirteen - Essential Supplies and Services** – Identifies all supplies and services essential for the production and delivery of safe drinking water.

**Element Fourteen - Review and Provision of Infrastructure** – Procedure describing the annual review of drinking water infrastructure.

**Element Fifteen - Infrastructure Maintenance, Rehabilitation and Renewal** – Procedure for infrastructure maintenance, rehabilitation and renewal programs for the drinking water system.

**Element Sixteen - Sampling, Testing and Monitoring** – Procedure for sampling, testing and monitoring activities required for drinking water quality.

**Element Seventeen – Measurement and Recording Equipment Calibration and Maintenance** – Procedure to document the calibration and maintenance of measurement and recording equipment used to produce and deliver safe drinking water.

**Element Eighteen – Emergency Management** – Procedure to document how the Operating Authority maintains a state of emergency preparedness.

**Element Nineteen – Internal Audit** - Procedure to document the process for internal audits.

**Element Twenty – Management Review** – Element describes the topics that must be discussed and reviewed by Top Management during the annual Management Review as well as the intent and goal of said review.

**Element Twenty-One – Continual Improvement** – Element describes the requirement for the Operating Authority to continually improve the effectiveness of its Quality Management System.

All of the elements of the Quality Management Standard are addressed and adhered to within the Water and Wastewater Division's Quality Management System and documented within the Operational Plan.

## **External Audit**

As part of the accreditation process, it is necessary for every Accredited Operating Authority to undergo an annual third-party external audit. The external audits follow a three-year cycle as follows:

The accreditation body will annually audit the QMS of an operating authority with a Certificate of Accreditation (Full Scope – Entire DWQMS), in accordance with the following schedule:

- a) In the first year following the year in which the certificate was issued and every third year thereafter, the accreditation body will undertake a surveillance audit;
- b) In the second year following the year in which the certificate was issued and every third year thereafter, the accreditation body will undertake a surveillance
- c) In the third year following the year in which the certificate was issued and every third year thereafter, the accreditation body will undertake a re-accreditation audit.

Surveillance audits consist of enhanced desktop systems audits with no onsite verification component.

The Water and Wastewater Division and OCWA underwent surveillance audits in 2019. Audit reports for both operating authorities are included in this report as Appendix C and Appendix F.

## **Internal Audits**

In addition to external audits by a third party, the DWQMS requires operating authorities to conduct internal audits on all twenty-one elements of their Quality Management Systems on an annual basis. An auditing team is assigned and staff are questioned on their knowledge of the QMS and on the suitability of the QMS with regards to controlling process and guiding staff on their responsibilities. Internal audits are similar to external audits in that they both identify non-conformances and opportunities for improvement.

The 2020 Internal Audit is scheduled for the week of November 16.

## **Top Management Review**

One of the requirements of the DWQMS is an annual Top Management Review. During this review, the Quality Management Representative presents a report to Water and Wastewater Top Management that summarizes and reviews the Water and Wastewater Quality Management System. Members of Top Management are responsible for reviewing this report and providing feedback to the Quality Management Representative. This feedback is used to improve the

Quality Management System, which conforms to the requirement of Element Twenty-One of the DWQMS, to continually improve their Quality Management System.

The members of Top Management for the Water and Wastewater Division are:

Bryan Robinson – Director, Public Works

Amber Hayter – Supervisor, Water and Wastewater Operations

The Division has recently determined that as of January 2021, the Water Treatment Supervisor/ORO (Nathan Braund), and the Water Distribution and Collection Supervisor/ORO (Terry Farr) will be included as members of Top Management.

A copy of the Management Review Meeting Minutes is included in this report as Appendix D.

At the time of this report, OCWA's Top Management Review for 2020 had not been completed. A summary of this meeting will be requested and reviewed when available.

## **Conclusions and Recommendations:**

Currently, the Quality Management System is in excellent standing. The City of Kawartha Lakes remains committed to providing safe and reliable drinking water and services to all of our residents, businesses and visitors. We continue to meet and surpass applicable regulations and legislation relating to the provision of safe drinking water.

Owner commitment is a crucial component of a successful Quality Management System. Without the authority, direction and support of the system(s) owner, a Quality Management System cannot be successfully maintained. Ultimately, without a successful and approved QMS, an operating authority cannot be accredited and an owner cannot legally produce and/or distribute drinking water. It is therefore recommended that Council accept and re-endorse the Quality Management Systems for the Water and Wastewater Division of the City of Kawartha Lakes and for the Ontario Clean Water Agency and to adopt the QMS Policy Statements for both operating authorities as presented.

## **Other Alternatives Considered:**

There are no other alternatives. The Drinking Water Quality Management Standard as mandated by the *Safe Drinking Water Act, 2002* under the Ministry of the Environment, Conservation and Parks requires the endorsement of an accredited Operating Authority's Quality Management System for the continuation of accreditation. Without owner endorsement, we cannot attain

accreditation and without an accredited Operating Authority, the owner cannot legally produce or supply drinking water to the public.

### **Alignment to Strategic Priorities:**

This system is consistent with the 2020-2023 Kawartha Lakes Strategic plan, especially priorities 1 and 2. A Healthy Environment and An Exceptional Quality of Life include safe water from source to tap. Maintaining an effective and robust Quality Management System ensures that the Water and Wastewater Division of the City of Kawartha Lakes retains the ability to provide clean, safe drinking water while ensuring dedication and commitment to the environment via source water protection. The protection and enhancement of drinking water quality adds to the quality of life and health of City residents.

### **Financial/Operation Impacts:**

There are no financial considerations related to this report.

### **Consultations:**

Director, Public Works  
Supervisor, Water and Wastewater Operations

### **Attachments:**

Appendix A – Drinking Water Quality Management Standard 2017 V2



Ap A DWQMS

Appendix B – Owner Endorsement QMS Policy Statement WWW CKL



Ap B CKL WWW  
Endorsement

Appendix C – SAI Global CKL DWQMS V2 Audit Report



AP C CKL WWW  
Audit

Appendix D – CKL WWW Management Review Items Summary



Ap D CKL WWW  
Mgmt Rev



## Appendix E – OCWA QMS Policy and CKL Endorsement



**Ap E OCWA  
Endorsement**

## Appendix F – SAI Global OCWA DWQMS V2 Audit Report



**Ap F OCWA Audit**

**Department Head E-Mail: [brobinson@kawarthalakes.ca](mailto:brobinson@kawarthalakes.ca)**

**Department Head: Bryan Robinson**

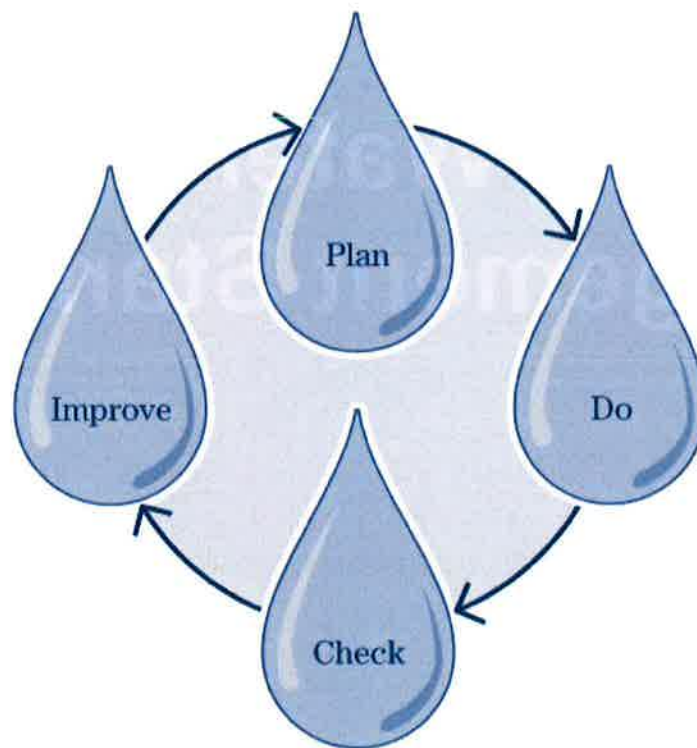
# Drinking Water Quality Management Standard

Final – Version 2.0

February 2017

[ontario.ca/environment](http://ontario.ca/environment)





A copy of this document can be obtained from:

Safe Drinking Water Branch

40 St. Clair Ave W., 2<sup>nd</sup> Floor

Toronto, ON, M4V 1M2

Email: [MDWLP@ontario.ca](mailto:MDWLP@ontario.ca)

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# Introduction

Ontario has established a strong regulatory framework for drinking water systems in the province. This framework under the *Safe Drinking Water Act, 2002* (SDWA or Act) and related regulations focuses on compliance-based results which are verified through the Ministry of the Environment and Climate Change's compliance and abatement programs.

The Drinking Water Quality Management Standard (DWQMS or this Standard) is the Quality Management Standard approved under s. 21 of the SDWA, and complements this legislative and regulatory framework by endorsing a proactive and preventive approach to assuring drinking water quality. This approach includes consideration of elements that are fundamental to ensuring the long-term sustainability of a Drinking Water System including: Management processes employed within the system; the maintenance of infrastructure used to supply drinking water; and, identification of potential risks and risk mitigation strategies for items such as system security, water treatment, and the impacts of climate change.

The SDWA requires Owners and Operating Authorities of Municipal Residential Drinking Water Systems to have an accredited Operating Authority. In order to become accredited, an Operating Authority must establish and maintain a Quality Management System (QMS). Minimum requirements for the QMS are specified in this Standard, the DWQMS. Operating Authorities will be accredited by a third party accreditation body against the requirements of this Standard.

# Operational Plan

The DWQMS requires an Operating Authority to document a Quality Management System for each Subject System that it operates in an Operational Plan which must be accepted by the Ministry of the Environment and Climate Change. The term Subject System is used in the DWQMS to refer to either a Municipal Residential Drinking Water System or an Operational Subsystem, as applicable in the circumstances.

Where an Operating Authority is operating multiple Subject Systems for a single Owner, the Operating Authority may choose to develop QMS components that are common for

all Drinking Water Systems. The Operational Plan for the Subject System would contain these common components or would reference separate documents that would be available to users of the Operational Plan. The common QMS components would need to be implemented both at the Subject System level and at the corporate level, and corporate roles, responsibilities and authorities would need to be documented for each level.

## Roles, Responsibilities and Authorities

The DWQMS requires that roles, responsibilities and authorities be defined. Where the Owner and Operating Authority are the same entity, the Operational Plan should identify a specific person, persons or group of people within the entity and their respective Owner and/or Operating Authority roles, responsibilities and authorities. If the same person, persons or group of people are assigned both Owner and Operating Authority roles, responsibilities and authorities, then the requirement to communicate the QMS between Top Management and the Owner is met by the person, persons or group of people in possession of the information to be communicated.

In cases where the Owner has not assigned Operating Authority roles, responsibilities and authorities to a specific person, persons or group of people within the entity, the Owner will assume all of the roles, responsibilities and authorities of the Operating Authority. If the Owner is not the same entity as the Operating Authority, s.14 of the SDWA specifies that the Owner and the Operating Authority shall enter into an agreement that identifies, among other things, their respective responsibilities. Section 11 of the SDWA provides further information on the duties of Owners and Operating Authorities.

## Director's Direction

The Director's Directions: Minimum Requirements for Operational Plans, issued under s.15 of the SDWA (Director's Directions), provides further direction respecting the minimum content of Operational Plans as well as rules respecting document retention, public disclosure of information and other requirements that the Director considers necessary for the purposes of the Act and its regulations. The Director's Directions may be amended, revoked or replaced by the Director under s.15(3) of the Act and the amendment, revocation or replacement is effective when notice is given on the

Environmental Bill of Rights Registry in accordance with s.15(6). The current version of the Director's Directions is available at [www.ontario.ca/drinkingwater](http://www.ontario.ca/drinkingwater).

## Guidance Document

The Ministry of the Environment and Climate Change has prepared a comprehensive guidance document entitled 'Implementing Quality Management: a Guide for Ontario's Drinking Water Systems' that outlines QMS and DWQMS concepts and provides guidance on the development, implementation, maintenance and continual improvement of a Subject System's Quality Management System. A copy of this document, as it may be amended from time to time, and additional guidance material is available at [www.ontario.ca/drinkingwater](http://www.ontario.ca/drinkingwater).

# Drinking Water Quality Management Standard

## Scope

This Standard specifies minimum requirements for the Quality Management System of an Operating Authority for a Subject System:

- a) to facilitate the Operating Authority's ability to consistently produce and/or deliver drinking water that meets applicable legislative, regulatory and Owner requirements, and
- b) to enhance Consumer protection through the effective application and continual improvement of the Quality Management System.

## Terms and Definitions

In the DWQMS these terms have the following meaning:

**Audit** – a systematic and documented verification process that involves objectively obtaining and evaluating documents and processes to determine whether a Quality Management System conforms to the requirements of this Standard.

**Calendar Year** – A period of one year beginning and ending with the dates conventionally accepted as marking the beginning and end of a year (January 1st to December 31st).

**Consumer** – the drinking water end user.

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

**Critical Control Limit** – the point at which a Critical Control Point response procedure is initiated.

**Critical Control Point** – 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 to reduce it to an acceptable level.



**Document** – has the same meaning as “document” defined in s. 2(1) of the Act.

**Director** – means the director appointed for the purposes of s.15 of the Act.

**Distribution System** – has the same meaning as “distribution system” defined in s. 2(1) of the Act.

**Drinking Water Health Hazard** – has the same meaning as “drinking water health hazard” defined in s. 2(1) of the Act.

**Drinking Water Quality Management Standard (DWQMS or this Standard)** - has the same meaning as Quality Management Standard for Drinking Water Systems approved under s. 21 of the Act.

**Drinking Water System** – has the same meaning as “drinking water system” defined in s. 2(1) of the Act.

**Environmental Bill of Rights Registry** – has the same meaning as “Registry” defined in s.2(1) of the Act.

**Municipal Drinking Water System** – has the same meaning as “municipal drinking water system” defined in s. 2(1) of the Act.

**Municipal Residential Drinking Water System** – has the same meaning as “large municipal residential system” or “small municipal residential system” defined in s. 1(1) of O. Reg. 170/03.

**Operating Authority** – means, in respect of a Subject System, the person or entity that is given responsibility by the Owner for the operation, management, maintenance or alteration of the Subject System.

**Operational Plan** – means, in respect of a Subject System, the Operational Plan required by the Director's Direction.

**Operational Subsystem** – means a part of a Municipal Residential Drinking Water System operated by a single Operating Authority and designated by the Owner as being an Operational Subsystem.

**Owner** – has the same meaning as “owner” defined in s. 2(1) of the Act.

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

**Primary Disinfection** – has the same meaning as “primary disinfection” defined in s. 1(1) of O. Reg. 170/03.

**Public** – Subject System Consumers and stakeholders.

**Quality Management System (QMS)** – a system to:

- a) establish policy and objectives, and to achieve those objectives, and
- b) direct and control an organization with regard to quality.

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

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

**Secondary Disinfection** – has the same meaning as “secondary disinfection” defined in s. 1(1) of O. Reg. 170/03.

**Subject System** – means:

- a) a Municipal Residential Drinking Water System where the system is operated by one Operating Authority, or
- b) an Operational Subsystem where two or more parts of a Municipal Residential Drinking Water System are operated by different Operating Authorities.

**Supplier** – an organization or person that provides a product or service that affects 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.

**Treatment System** – has the same meaning as “treatment system” defined in s. 2(1) of the Act.

# PLAN and DO Elements of the Quality Management Standard

## 1. Quality Management System

**PLAN** – The Operational Plan shall document a Quality Management System that meets the requirements of this Standard.

**DO** – The Operating Authority shall establish and maintain the Quality Management System in accordance with the requirements of this Standard and the policies and procedures documented in the Operational Plan.

## 2. Quality Management System Policy

**PLAN** – The Operational Plan shall document a Quality Management System Policy that provides the foundation for the Quality Management System, and:

- a) includes a commitment to the maintenance and continual improvement of the Quality Management System,
- b) includes a commitment to the Consumer to provide safe drinking water,
- c) includes a commitment to comply with applicable legislation and regulations, and
- d) is in a form that can be communicated to all Operating Authority personnel, the Owner and the Public.

**DO** – The Operating Authority shall establish and maintain a Quality Management System that is consistent with the Quality Management System Policy.

### 3. Commitment and Endorsement

**PLAN** – The Operational Plan shall contain a written endorsement of its contents by Top Management and the Owner.

**DO** – Top Management shall provide evidence of its commitment to an effective Quality Management System by:

- a) ensuring that a Quality Management System is in place that meets the requirements of this Standard,
- b) ensuring that the Operating Authority is aware of all applicable legislative and regulatory requirements,
- c) communicating the Quality Management System according to the procedure for communications,
- d) determining, obtaining or providing the resources needed to maintain and continually improve the Quality Management System.

### 4. Quality Management System Representative

**PLAN** – The Operational Plan shall identify a Quality Management System representative.

**DO** – Top Management shall appoint and authorize a Quality Management System representative who, irrespective of other responsibilities, shall:

- a) administer the Quality Management System by ensuring that processes and procedures needed for the Quality Management System are established and maintained,
- b) report to Top Management on the performance of the Quality Management System and any need for improvement,
- c) ensure that current versions of documents required by the Quality Management System are being used at all times,
- d) ensure that personnel are aware of all applicable legislative and regulatory requirements that pertain to their duties for the operation of the Subject System, and
- e) promote awareness of the Quality Management System throughout the Operating Authority.



## 5. Document and Records Control

**PLAN** – The Operational Plan shall document a procedure for Document and Records control that describes how:

- a) Documents required by the Quality Management System are:
  - i. kept current, legible and readily identifiable
  - ii. retrievable
  - iii. stored, protected, retained and disposed of, and
- b) Records required by the Quality Management System are:
  - i. kept legible, and readily identifiable
  - ii. retrievable
  - iii. stored, protected, retained and disposed of.

**DO** – The Operating Authority shall implement and conform to the procedure for Document and Records control and shall ensure that the Quality Management System documentation for the Subject System includes:

- a) the Operational Plan and its associated policies and procedures,
- b) Documents and Records determined by the Operating Authority as being needed to ensure the effective planning, operation and control of its operations, and
- c) the results of internal and external Audits and management reviews.

## 6. Drinking Water System

**PLAN** – The Operational Plan shall document, as applicable:

- a) for the Subject System:
  - i. the name of the Owner and Operating Authority,
  - ii. if the system includes equipment that provides Primary Disinfection and/or Secondary Disinfection:
    - A. a description of the system including all applicable Treatment System processes and Distribution System components,
    - B. a Treatment System process flow chart,
    - C. a description of the water source, including:
      - I. general characteristics of the raw water supply,
      - II. common event-driven fluctuations, and
      - III. any resulting operational challenges and threats.
  - iii. if the system does not include equipment that provides Primary Disinfection or Secondary Disinfection:
    - A. a description of the system including all Distribution System components, and
    - B. a description of any procedures that are in place to maintain disinfection residuals.
- b) if the Subject System is an Operational Subsystem, a summary description of the Municipal Residential Drinking Water System it is a part of including the name of the Operating Authority(ies) for the other Operational Subsystems.
- c) if the Subject System is connected to one or more other Drinking Water Systems owned by different Owners, a summary description of those systems which:
  - i. indicates whether the Subject System obtains water from or supplies water to those systems,
  - ii. names the Owner and Operating Authority(ies) of those systems, and
  - iii. identifies which, if any, of those systems that the Subject System obtains water from are relied upon to ensure the provision of safe drinking water.

**DO** – The Operating Authority shall ensure that the description of the Drinking Water System is kept current.

## 7. Risk Assessment

**PLAN** – The Operational Plan shall document a risk assessment process that:

- a) Considers potential hazardous events and associated hazards, as identified in the Ministry of the Environment and Climate Change document titled Potential Hazardous Events for Municipal Residential Drinking Water Systems, dated February 2017 as it may be amended. A copy of this document is available at [www.ontario.ca/drinkingwater](http://www.ontario.ca/drinkingwater).
- b) identifies additional potential hazardous events and associated hazards,
- c) assesses the risks associated with the occurrence of hazardous events,
- d) ranks the hazardous events according to the associated risk,
- e) identifies control measures to address the potential hazards and hazardous events,
- f) identifies Critical Control Points,
- g) identifies a method to verify, at least once every calendar year, the currency of the information and the validity of the assumptions used in the risk assessment,
- h) ensures that the risks are assessed at least once every thirty-six months, and
- i) considers the reliability and redundancy of equipment.

**DO** – The Operating Authority shall perform a risk assessment consistent with the documented process.

## 8. Risk Assessment Outcomes

**PLAN** – The Operational Plan shall document:

- a) the identified potential hazardous events and associated hazards,
- b) the assessed risks associated with the occurrence of hazardous events,
- c) the ranked hazardous events,
- d) the identified control measures to address the potential hazards and hazardous events,
- e) the identified Critical Control Points and their respective Critical Control Limits,
- f) procedures and/or processes to monitor the Critical Control Limits,
- g) procedures to respond to deviations from the Critical Control Limits, and
- h) procedures for reporting and recording deviations from the Critical Control Limits.

**DO** – The Operating Authority shall implement and conform to the procedures.

## 9. Organizational Structure, Roles, Responsibilities and Authorities

**PLAN** – The Operational Plan shall:

- a) describe the organizational structure of the Operating Authority including respective roles, responsibilities and authorities,
- b) delineate corporate oversight roles, responsibilities and authorities in the case where the Operating Authority operates multiple Subject Systems,
- c) identify the person, persons or group of people within the management structure of the organization responsible for undertaking the Management Review described in Element 20,
- d) identify the person, persons or group of people, having Top Management responsibilities required by this Standard, along with their responsibilities, and
- e) identify the Owner of the Subject System.

**DO** – The Operating Authority shall keep current the description of the organizational structure including respective roles, responsibilities and authorities, and shall communicate this information to Operating Authority personnel and the Owner.



## 10. Competencies

**PLAN** – The Operational Plan shall document:

- a) competencies required for personnel performing duties directly affecting drinking water quality,
- b) activities to develop and/or maintain competencies for personnel performing duties directly affecting drinking water quality, and
- c) activities to ensure that personnel are aware of the relevance of their duties and how they affect safe drinking water.

**DO** – The Operating Authority shall undertake activities to:

- a) meet and maintain competencies for personnel directly affecting drinking water quality and shall maintain records of these activities, and
- b) ensure that personnel are aware of the relevance of their duties and how they affect safe drinking water, and shall maintain records of these activities.

## 11. Personnel Coverage

**PLAN** – The Operational Plan shall document a procedure to ensure that sufficient personnel meeting identified competencies are available for duties that directly affect drinking water quality.

**DO** – The Operating Authority shall implement and conform to the procedure.

## 12. Communications

**PLAN** – The Operational Plan shall document a procedure for communications that describes how the relevant aspects of the Quality Management System are communicated between Top Management and:

- a) the Owner,
- b) Operating Authority personnel,
- c) Suppliers that have been identified as essential under Plan (a) of Element 13 of this Standard, and
- d) the Public.

**DO** – The Operating Authority shall implement and conform to the procedure.

## 13. Essential Supplies and Services

**PLAN** – The Operational Plan shall:

- a) identify all supplies and services essential for the delivery of safe drinking water and shall state, for each supply or service, the means to ensure its procurement, and
- b) include a procedure by which the Operating Authority ensures the quality of essential supplies and services, in as much as they may affect drinking water quality.

**DO** – The Operating Authority shall implement and conform to the procedure.

## 14. Review and Provision of Infrastructure

**PLAN** – The Operational Plan shall document a procedure for reviewing the adequacy of the infrastructure necessary to operate and maintain the Subject System that:

- a) Considers the outcomes of the risk assessment documented under Element 8, and
- b) Ensures that the adequacy of the infrastructure necessary to operate and maintain the Subject System is reviewed at least once every Calendar Year.

**DO** – The Operating Authority shall implement and conform to the procedure and communicate the findings of the review to the Owner.

## 15. Infrastructure Maintenance, Rehabilitation and Renewal

**PLAN** – The Operational Plan shall document:

- a) a summary of the Operating Authority's infrastructure maintenance, rehabilitation and renewal programs for the Subject System, and
- b) a long term forecast of major infrastructure maintenance, rehabilitation and renewal activities.

**DO** – The Operating Authority shall:

- a) keep the summary of the infrastructure maintenance, rehabilitation and renewal programs current,
- b) ensure that the long term forecast is reviewed at least once every Calendar Year,
- c) communicate the programs to the Owner, and
- d) monitor the effectiveness of the maintenance program.

## 16. Sampling, Testing and Monitoring

**PLAN** – The Operational Plan shall document:

- a) a sampling, testing and monitoring procedure for process control and finished drinking water quality including requirements for sampling, testing and monitoring at the conditions most challenging to the Subject System,
- b) a description of relevant sampling, testing or monitoring activities, if any, that take place upstream of the Subject System, and
- c) a procedure that describes how sampling, testing and monitoring results are recorded and shared between the Operating Authority and the Owner, where applicable.

**DO** – The Operating Authority shall implement and conform to the procedures.

## 17. Measurement and Recording Equipment Calibration and Maintenance

**PLAN** – The Operational Plan shall document a procedure for the calibration and maintenance of measurement and recording equipment.

**DO** – The Operating Authority shall implement and conform to the procedure.

## 18. Emergency Management

**PLAN** – The Operational Plan shall document a procedure to maintain a state of emergency preparedness that includes:

- a) a list of potential emergency situations or service interruptions,
- b) processes for emergency response and recovery,
- c) emergency response training and testing requirements,
- d) Owner and Operating Authority responsibilities during emergency situations,
- e) references to municipal emergency planning measures as appropriate, and
- f) an emergency communication protocol and an up-to-date list of emergency contacts.

**DO** – The Operating Authority shall implement and conform to the procedure.



# CHECK Elements of the Quality Management Standard

## 19. Internal Audits

**PLAN** – The Operational Plan shall document a procedure for internal Audits that:

- a) evaluates conformity of the Quality Management System with the requirements of this Standard,
- b) identifies internal Audit criteria, frequency, scope, methodology and record-keeping requirements,
- c) considers previous internal and external Audit results, and
- d) describes how Quality Management System Corrective Actions are identified and initiated.

**DO** – The Operating Authority shall implement and conform to the procedure and shall ensure that internal Audits are conducted at least once every Calendar Year.

## 20. Management Review

**PLAN** – The Operational Plan shall document a procedure for management review that evaluates the continuing suitability, adequacy and effectiveness of the Quality Management System and that includes consideration of:

- a) incidents of regulatory non-compliance,
- b) incidents of adverse drinking water tests,
- c) deviations from Critical Control Point limits and response actions,
- d) the effectiveness of the risk assessment process,
- e) internal and third-party Audit results,
- f) results of emergency response testing,
- 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 Quality Management System,
- l) Consumer feedback,
- m) the resources needed to maintain the Quality Management System,
- n) the results of the infrastructure review,
- o) Operational Plan currency, content and updates, and
- p) staff suggestions.

**DO** – Top Management shall implement and conform to the procedure and shall:

- a) ensure that a management review is conducted at least once every Calendar Year,
- b) consider the results of the management review and identify deficiencies and actions items to address the deficiencies,
- c) provide a record of any decisions and action items related to the management review including the personnel responsible for delivering the action items and the proposed timelines for their implementation, and
- d) report the results of the management review, the identified deficiencies, decisions and action items to the Owner.

# IMPROVE Element of the Quality Management Standard

## 21. Continual Improvement

**PLAN** – The Operating Authority shall develop a procedure for tracking and measuring continual improvement of its Quality Management System by:

- a) reviewing and considering applicable best management practices, including any published by the Ministry of the Environment and Climate Change and available on [www.ontario.ca/drinkingwater](http://www.ontario.ca/drinkingwater), at least once every thirty-six months;
- b) documenting a process for identification and management of Quality Management System Corrective Actions that includes:
  - i. investigating the cause(s) of an identified non-conformity,
  - ii. documenting the action(s) that will be taken to correct the non-conformity and prevent the non-conformity from re-occurring, and
  - iii. reviewing the action(s) taken to correct the non-conformity, verifying that they are implemented and are effective in correcting and preventing the re-occurrence of the non-conformity.
- c) documenting a process for identifying and implementing Preventive Actions to eliminate the occurrence of potential non-conformities in the Quality Management System that includes:
  - i. reviewing potential non-conformities that are identified to determine if preventive actions may be necessary,
  - ii. documenting the outcome of the review, including the action(s), if any, that will be taken to prevent a non-conformity from occurring, and
  - iii. reviewing the action(s) taken to prevent a non-conformity, verifying that they are implemented and are effective in preventing the occurrence of the non-conformity.


**DO** – The Operating Authority shall strive to continually improve the effectiveness of its Quality Management System by implementing and conforming to the procedure.



Appendix # B

to

Report # WWW2020-008

	<b>Element</b>	<b>QMS E2</b>
	<b>Date: November 18, 2016</b>	<b>Revision: 0</b>
	<b>Approved By:</b> <b>Supervisor, Water and Wastewater Operations</b>	
<b>Quality Management System Policy (2020 Endorsement)</b>		<b>Page 1 of 1</b>

The Corporation of the City of Kawartha Lakes owns twenty-one drinking water systems and six wastewater treatment and collection facilities. The Water and Wastewater Division is the operating authority for the Lindsay Water Treatment Plant, all twenty-one drinking water distribution systems and six wastewater collection systems. We are dedicated to developing a high level of trust, commitment and accountability by consistently delivering high quality and safe drinking water to the consumers in the City of Kawartha Lakes.

The Corporation of the City of Kawartha Lakes is committed to:

- Providing safe and reliable drinking water services to our residents and businesses
- Promoting consumer confidence in municipal drinking water;
- Meeting and surpassing applicable legislation and regulations as related to the provision of safe drinking water; and
- Strive to maintain and continually improve the effectiveness of the Quality Management System in a responsible manner through ongoing review, assessment and action.

  
\_\_\_\_\_  
Mayor

Dec 16/19  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
CAO

December 12/19  
\_\_\_\_\_  
Date

# Audit Report

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S2 Surveillance Audit for

The Corporation of the City of Kawartha Lakes

1631768-02

Audited Address: 12 Peel Street, Lindsay, Ontario, CAN, K9V 3L8

Start Date: Apr 14, 2020 End Date: Apr 15, 2020

Type of audit: Surveillance System Audit

Issue Date: Apr 15, 2020

Revision Level: *Final*

## Audit Report

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### BACKGROUND INFORMATION

SAI Global conducted an audit of The Corporation of the City of Kawartha Lakes beginning on Apr 12, 2020 and ending on Apr 12, 2020 to DRINKING WATER QUALITY MANAGEMENT STANDARD VERSION 2 - 2017.

The purpose of this audit report is to summarise the degree of compliance with relevant criteria, as defined on the cover page of this report, based on the evidence obtained during the audit of your organization. This audit report considers your organization's policies, objectives, and continual improvement processes. Comments may include how suitable the objectives selected by your organization appear to be in regard to maintaining customer satisfaction levels and providing other benefits with respect to policy and other external and internal needs. We may also comment regarding the measurable progress you have made in reaching these targets for improvement.

SAI Global audits are carried out within the requirements of SAI Global procedures that also reflect the requirements and guidance provided in the international standards relating to audit practice such as ISO/IEC 17021-1, ISO 19011 and other normative criteria. SAI Global Auditors are assigned to audits according to industry, standard or technical competencies appropriate to the organization being audited. Details of such experience and competency are maintained in our records.

In addition to the information contained in this audit report, SAI Global maintains files for each client. These files contain details of organization size and personnel as well as evidence collected during preliminary and subsequent audit activities (Documentation Review and Scope) relevant to the application for initial and continuing certification of your organization.

Please take care to advise us of any change that may affect the application/certification or may assist us to keep your contact information up to date, as required by SAI Global Terms and Conditions.

This report has been prepared by SAI Global Limited (SAI Global) in respect of a Client's application for assessment by SAI Global. The purpose of the report is to comment upon evidence of the Client's compliance with the standards or other criteria specified. The content of this report applies only to matters, which were evident to SAI Global at the time of the audit, based on sampling of evidence provided and within the audit scope. SAI Global does not warrant or otherwise comment upon the suitability of the contents of the report or the certificate for any particular purpose or use. SAI Global accepts no liability whatsoever for consequences to, or actions taken by, third parties as a result of or in reliance upon information contained in this report or certificate.

Please note that this report is subject to independent review and approval. Should changes to the outcomes of this report be necessary as a result of the review, a revised report will be issued and will supersede this report.

<b>Standard:</b>	DRINKING WATER QUALITY MANAGEMENT STANDARD VERSION 2 - 2017
<b>Scope of Certification:</b>	Full Scope – Entire DWQMS
<b>Drinking Water System Owner:</b>	The Corporation of the City of Kawartha Lakes
<b>Operating Authority:</b>	The Corporation of the City of Kawartha Lakes
<b>Owner:</b>	The Corporation of the City of Kawartha Lakes
<b>Population Served:</b>	30208
<b>Activities:</b>	Treatment (Lindsay DWS only) and Distribution (all systems) Lindsay Drinking Water System (license # 141-120) Birchpoint Estates Drinking Water System (license # 141-109) Bobcaygeon Drinking Water System (license # 141-105) Canadiana Shores Drinking Water System (license # 141-112) Fenelon Falls Drinking Water System (license # 141-104) Janetville Drinking Water System (license # 141-111) Kings Bay Drinking Water System (license # 141-119) Kinmount Drinking Water System (license # 141-121) Manilla Drinking Water System (license # 141-106) Manorview Drinking Water System (license # 141-118) Mariposa Estates Drinking Water System (license # 141-117) Norland Drinking Water System (license # 141-103) Omeme Drinking Water System (license # 141-108) Pinewood Drinking Water System (license # 141-110) Pleasant Point Drinking Water System (license # 141-113) Sonya Village Subdivision Drinking Water System (license # 141-107) Southview Drinking Water System (license # 141-101) Victoria Place Drinking Water System (license # 141-114) Western Trent/Palmina Drinking Water System (license # 141-102) Woodfield Drinking Water System (license # 141-116) Woodville Drinking Water System (license # 141-115)
<b>Drinking Water Systems</b>	

<b>Total audit duration:</b>	<b>Person(s):</b> 1 <b>Day(s):</b> 1.25
<b>Audit Team Member(s):</b>	Team Leader    Paul Cartlidge

<b>Other Participants:</b>	None
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## Audit Report

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### Definitions and action required with respect to audit findings

#### Major Non-conformance:

Based on objective evidence, the absence of, or a significant failure to implement and/or maintain conformance to requirements of the applicable standard. Such issues may raise significant doubt as to the capability of the management system to achieve its intended outputs (i.e. the absence of or failure to implement a complete Management System clause of the standard); or

A situation which would on the basis of available objective evidence, raise significant doubt as to the capability of the Management System to achieve the stated policy and objectives of the customer.

NOTE: The "applicable Standard" is the Standard which SAI Global are issuing certification against, and may be a Product Standard, a management system Standard, a food safety Standard or another set of documented criteria.

Action required: This category of findings requires SAI Global to issue a formal NCR; to receive and approve client's proposed correction and corrective action plans; and formally verify the effective implementation of planned activities. Correction and corrective action plan should be submitted to SAI Global prior to commencement of follow-up activities as required. Follow-up action by SAI Global must 'close out' the NCR or reduce it to a lesser category within 90 days for initial certification and within 60 days for surveillance or re-certification audits, from the last day of the audit.

If significant risk issues (e.g. safety, environmental, food safety, product legality/quality, etc.) are detected during an audit these shall be reported immediately to the Client and more immediate or instant correction shall be requested. If this is not agreed and cannot be resolved to the satisfaction of SAI Global, immediate suspension shall be recommended.

In the case of initial certification, failure to close out NCR within the time limits means that the Certification Audit may be repeated.

If significant risk issues (e.g. safety, environmental, food safety, product legality/quality, etc.) are detected during an audit these shall be reported immediately to the Client and more immediate or instant correction shall be requested. If this is not agreed and cannot be resolved to the satisfaction of SAI Global, immediate suspension shall be recommended.

In the case of an already certified client, failure to close out NCR within the time limits means that suspension proceedings may be instituted by SAI Global.

Follow-up activities incur additional charges.

#### Minor Non-conformance:

Represents either a management system weakness or minor issue that could lead to a major nonconformance if not addressed. Each minor NC should be considered for potential improvement and to further investigate any system weaknesses for possible inclusion in the corrective action program

Action required: This category of findings requires SAI Global to issue a formal NCR; to receive and approve client's proposed correction and corrective action plans; and formally verify the effective implementation of planned activities at the next scheduled audit.

#### Opportunity for Improvement:

A documented statement, which may identify areas for improvement however shall not make specific recommendation(s).

Action required: Client may develop and implement solutions in order to add value to operations and management systems. SAI Global is not required to follow-up on this category of audit finding.



## **Audit Type and Purpose**

### **Surveillance Audit:**

A systems desktop audit in accordance with the systems audit procedure as it applies to Full Scope accreditation. The audit also included consideration of the results of the most recent audit undertaken in accordance with this Accreditation Protocol and any of the following that have occurred subsequent to that audit including but limited to;

- (a) the results of any audits undertaken in accordance with element 19 of the DWQMS V2;
- (b) historical responses taken to address corrective action requests made by an Accreditation Body;
- (c) the results of any management reviews undertaken in accordance with element 20 of the DWQMS V2; and,
- (d) any changes to the documentation and implementation of the QMS.

### **Audit Objectives**

The objective of the audit was to determine whether the drinking water Quality Management System (QMS) of the subject system conforms to the requirements of the Ontario Ministry of the Environment & Climate Change (MOECC) Drinking Water Quality Management Standard (DWQMS V2).

The audit was also intended to gather the information necessary for SAI Global to assess whether accreditation can continue or be offered or to the operating authority.

## **Audit Report**

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### **Audit Scope**

The facilities and processes associated with the operating authority's QMS were objectively evaluated to obtain audit evidence and to determine a) whether the quality management activities and related results conform with DWQMS V2 requirements, and b) if they have been effectively implemented and/or maintained.

### **Audit Criteria:**

- The Drinking Water Quality Management Standard Version 2
- Current QMS manuals, procedures and records implemented by the Operating Authority
- SAI Global Accreditation Program Handbook

### **Confidentiality and Documentation Requirements**

The SAI Global stores their records and reports to ensure their preservation and confidentiality. Unless required by law, the SAI Global will not disclose audit records to a third party without prior written consent of the applicant. The only exception will be that the SAI Global will provide audit and corrective action reports to the Ontario Ministry of the Environment. For more information, please refer to the SAI Global Accreditation Program Handbook.

As part of the SAI Global Terms, it is necessary for you to notify SAI Global of any changes to your Quality Management System that you believe are significant enough to risk non-conformity with DWQMS V2: For more information, please refer to the SAI Global Accreditation Program Handbook.

### **Review of any changes**

Changes to the Operating Authority since last audit include: none identified

## **EXECUTIVE OVERVIEW**

Based on the results of this surveillance system audit the management system remains effectively implemented and meets the requirements of the standard relative to the scope of certification; therefore, a recommendation for continued certification will be submitted.

## **Recommendation**

Based on the results of this audit it has been determined that the management system is effectively implemented and maintained and meets the requirements of the standard relative to the scope of certification identified in this report; therefore, a recommendation for continued certification will be submitted to SAI Global review team.

## **Opportunities for Improvement:**

The following opportunities for improvement have been identified.

- Element # 8 - Consider including cyberterrorism as part of the hazard identification for Terrorist Threat.
- Element # 8 - Consider adding microcystin test result threshold as part of the CCP for Algae Blooms
- Element # 19 - Consider specifically referencing V2.0 of the Drinking Water Quality Management Standard in the Internal Audit Report Template (also noted in 2019 Systems Audit).

It is suggested that the opportunities for improvement be considered by management to further enhance the Operating Authority's Quality Management System and performance.

### **Management System Documentation**

The management systems operational plan was reviewed and found to be in conformance with the requirements of the standard.

### **Management Review**

Records of the most recent management review meetings were verified and found to meet the requirements of the standard. All inputs were reflected in the records, and appear suitably managed as reflected by resulting actions and decisions.

### **Internal Audits**

Internal audits are being conducted at planned intervals to ensure conformance to planned arrangements, the requirements of the standard and the established management system.

### **Corrective, Preventive Action & Continual Improvement Processes**

The Operating Authority is implementing an effective process for the continual improvement of the management system through the use of the quality policy, quality objectives, audit results, data analysis, the appropriate management of corrective and preventive actions and management review.



**Summary of Findings**

1. Quality Management System	NANC
2. Quality Management System Policy	Conforms
3. Commitment and Endorsement	Conforms
4. Quality Management System Representative	Conforms
5. Document and Records Control	NANC
6. Drinking-Water System	Conforms
7. Risk Assessment	Conforms
8. Risk Assessment Outcomes	OFI x 2
9. Organizational Structure, Roles, Responsibilities and Authorities	NANC
10. Competencies	Conforms
11. Personnel Coverage	Conforms
12. Communications	NANC
13. Essential Supplies and Services	Conforms
14. Review and Provision of Infrastructure	NANC
15. Infrastructure Maintenance, Rehabilitation & Renewal	Conforms
16. Sampling, Testing and Monitoring	Conforms
17. Measurement & Recording Equipment Calibration and Maintenance	NANC
18. Emergency Management	Conforms
19. Internal Audits	OFI
20. Management Review	Conforms
21. Continual Improvement	Conforms
<b>Major NCR #</b>	Major non-conformity. The auditor has determined one of the following: (a) a required element of the DWQMS has not been incorporated into a QMS; (b) a systemic problem with a QMS is evidenced by two or more minor non conformities; or (c) a minor non-conformity identified with a corrective action request has not been remedied.
<b>Minor NCR #</b>	Minor non-conformity. In the opinion of the auditor, part of a required element of the DWQMS has not been incorporated satisfactorily into a QMS.
<b>OFI</b>	Opportunity for improvement. Conforms to requirement, but there is an opportunity for improvement.
<b>Conforms</b>	Conforms to requirement.
<b>NANC</b>	Not applicable/Not Covered during this audit.
<b>****</b>	Additional comment added by auditor in the body of the report.

**PART D. Audit Observations, Findings and Comments**

DWQMS Reference:	2 Quality Management System Policy
Client Reference:	QMS E2 Quality Management System Policy (2019 Endorsement), revision 0, November 18, 2016
Details: Policy Statement describes the goals of the Quality Management System – reviewed and accepted. Policy Statement is endorsed by The Mayor and CAO of the City of Kawartha Lakes in December 2019.	

DWQMS Reference:	3 Commitment and Endorsement
Client Reference:	QMS E3 Commitment and Endorsement, revision 1, November 11, 2017
Details: QMS E3 is signed by the Director, Public Works, Manager, Environmental Services and Supervisor, Water and Wastewater Operations in January 2020. Reviewed and accepted.	

DWQMS Reference:	4 Quality Management System Representative
Client Reference:	QMS E4 QMS Representative, revision 5, April 25, 2018
Details: The role of QMS Representative is appointed through procedure QMS E4 and the letter of appointment for the Quality Management and Policy Coordinator signed April 2015. Designate also identified as the Supervisor of Environmental Services, signed April 2015. Reviewed and accepted.	

DWQMS Reference:	6 Drinking Water System
Client Reference:	QMS E6 Drinking Water System, revision 17, July 11, 2019
<p>Details: Contents of Drinking Water System Descriptions reviewed and accepted for all systems including:</p> <ul style="list-style-type: none"> <li>• Lindsay Drinking Water System (Treatment and Distribution)</li> <li>• Bobcaygeon Drinking Water System (Distribution only)</li> <li>• Canadiana Shores Drinking Water System (Distribution only)</li> <li>• Fenelon Falls Drinking Water System (Distribution only)</li> <li>• Janetville Drinking Water System (Distribution only)</li> <li>• Kings Bay Drinking Water System (Distribution only)</li> <li>• Kinmount Drinking Water System (Distribution only)</li> <li>• Manilla Drinking Water System (Distribution only)</li> <li>• Manorview Drinking Water System (Distribution only)</li> <li>• Mariposa Estates Drinking Water System (Distribution only)</li> <li>• Norland Drinking Water System (Distribution only)</li> <li>• Omemee Drinking Water System (Distribution only)</li> <li>• Pinewood Drinking Water System (Distribution only)</li> <li>• Pleasant Point Drinking Water System (Distribution only)</li> <li>• Southview Drinking Water System (Distribution only)</li> <li>• Victoria Place Drinking Water System (Distribution only)</li> <li>• Woodfield Drinking Water System (Distribution only)</li> <li>• Woodville Drinking Water System (Distribution only)</li> <li>• Sonya Village Subdivision Drinking Water System (Distribution only)</li> <li>• Western Trent/Palmina Drinking Water System (Distribution only)</li> <li>• Birchpoint Estates Drinking Water System (Distribution only)</li> </ul>	

## Audit Report

DWQMS Reference:	7 Risk Assessment
Client Reference:	QMS E7 Risk Assessment, revision 10, February 6, 2020
Details: Procedure E7 reviewed and accepted.	

DWQMS Reference:	8 Risk Assessment Outcomes
Client Reference:	QMS E8 Risk Assessment Outcomes, revision 0, March 6, 2018 QMS E8 Appendix 1 Risk Assessment Rating and Best Management Practices, revision 4, June 25, 2018 QMS-08-T-01 Risk Assessment Tables, revision 0, November 4, 2019 QMS E8 T2 Summary of Critical Control Points, revision 0, November 29, 2019
Details: Risk Assessment Outcomes adequately describes all risk, hazards, hazardous events and critical control limits for the Drinking Water System and covers all required risks as described in the MOECC document "Potential Hazardous Events for Municipal Residential Drinking Water Systems". Risk assessment outcomes are summarized in the Risk Assessment Tables and are current for Lindsay DWS and all Distribution Systems as of November 2019 when the most recent Annual Review was performed. Reviewed and accepted.	
<b>Opportunities for Improvement:</b> <ul style="list-style-type: none"><li>Consider including cyberterrorism as part of the hazard identification for Terrorist Threat.</li><li>Consider adding microcystin test result threshold as part of the CCP for Algae Blooms</li></ul>	

DWQMS Reference:	10 Competencies
Client Reference:	QMS E10 Competencies, revision 15, October 17, 2019 QMS E10 T1 Competencies Table, revision 11, August 13, 2019
Details: Procedure E10 reviewed and accepted.	

DWQMS Reference:	11 Personnel Coverage
Client Reference:	QMS E11 Personnel Coverage, revision 13, February 6, 2020
Details: Procedure E11 reviewed and accepted.	

DWQMS Reference:	13 Essential Supplies and Services
Client Reference:	QMS E13 Essential Supplies and Services, revision 10, November 21, 2016
Details: Procedure E13 reviewed and accepted. List of essential suppliers and contractors is maintained (updated January 2020).	

DWQMS Reference:	15 Infrastructure Maintenance, Rehabilitation and Renewal
Client Reference:	QMS E15 Infrastructure Maintenance, Rehabilitation and Renewal, revision 14, October 18, 2019
Details: Procedure E15 reviewed and accepted. Operational Plan includes a process for maintenance of Infrastructure and includes a requirement to review with the System Owner. Reviewed and accepted.	

## Audit Report

DWQMS Reference:	16 Sampling, Testing and Monitoring
Client Reference:	QMS E16 Sampling, Testing and Monitoring, revision 10, May 30, 2019 QMS E16 T1 DWS Sampling, Testing and Monitoring Table, revision 6, May 30, 2019
Details: Procedure E16 and sampling table reviewed and accepted.	

DWQMS Reference:	18 Emergency Management
Client Reference:	QMS E18 Emergency Management, revision 11, July 11, 2017
Details: Procedure E18 reviewed and accepted. Contingency Plan for Lindsay DWS and an Emergency Contact list are established. Most recent emergency response test performed April 8, 2019.	

DWQMS Reference:	19 Internal Audits
Client Reference:	QMS E19 Internal Audits, revision 8, September 27, 2018
Details: Procedure E19 reviewed and accepted. Internal Audits are performed at least once every calendar year. Most recent internal audit for City of Kawartha Lakes Systems performed November 18-22, 2019. No Non-conformances and 11 Opportunities for Improvement were identified. Follow-up on Opportunities for Improvement were performed on individual OFI forms (see element 21 below). Content of the internal audit reflected DWQMS V2.0 requirements. <b>Opportunity for Improvement</b> – Consider specifically referencing <u>V2.0</u> of the Drinking Water Quality Management Standard in the Internal Audit Report Template (also noted in 2019 Systems Audit).	

DWQMS Reference:	20 Management Review
Client Reference:	QMS E20 Management Review, revision 8, April 26, 2018
Details: Procedure E20 captures all PLAN requirements from section 20 of the DWQMS. Management Reviews are conducted a minimum of once every calendar year. Reviewed and accepted. Most recent Management Review Meeting performed July 22, 2019. Action items are noted in the meeting minutes and on the Action Items Tracking Log. Updates made as action items are completed (e.g. update to risk assessment tables for 2 items with changed risk ratings). Reviewed and accepted.	

DWQMS Reference:	21 Continual Improvement
Client Reference:	QMS E21 Continual Improvement, revision 9, November 12, 2019
Details: Procedure E21 reviewed and accepted. Corrective Actions, Preventive Actions and Best Management Practices reviewed included: <ul style="list-style-type: none"><li>• 11 Opportunities for Improvement from 2019 Internal Audit</li><li>• CAR # 2019-02 for TC count of 21 from a hydrant sample</li><li>• Best Management Practices are reviewed during the Risk Assessment as described in QMS E08 Appendix 1 Risk Assessment Rating and Best Management Practices, revision 4, June 25, 2018</li></ul>	



## **Audit Report**

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Details regarding the personnel interviewed and objective evidence reviewed are maintained on file at SAI Global.

This report was prepared by:


Paul Cartlidge  
SAI Global Management Systems Auditor

The audit report is distributed as follows:

- SAI Global
- Operating Authority
- Owner
- MOECC

## **Notes**


Copies of this report distributed outside the organization must include all pages.

	Form	QMS E20 F3	to
	Date: July 24, 2013	Revision: 1	
	Approved By:		
	QMS Representative/QMS Designate		
Top Management Review Action Items Tracking		Page 1 of 3	

Report # WWW 2020-008

For 2020 Meeting (Reporting period July 4, 2019 (date of last meeting) to July 31, 2020)


Agenda Item	Decision/Action	Responsible	Date Due	Status
a) Incidents of regulatory non-compliance	N/A – MECP inspection score for 2019 was 100%	N/A	N/A	Complete. 2020 inspection expected in Oct/Nov 2020
b) Incidents of adverse drinking water tests	Both adverse sample results during the reporting period were HAA and required no follow up as per the Local Health Unit -Supervisor WWW Operations suggested mentioning that WWW had sampled for lead in spring of 2020. Update added to online Management Review Report.	Julie Henry	ASAP	Complete. Update made to online Management Review Report
c) Deviations from critical control point limits and response actions	Two instances during HAA adverse conditions.	N/A – Health Unit offered no additional actions	N/A	Being monitored
d) Efficacy of the risk assessment process	2019 Risk Review held October 30, 2019. All updates complete. -Supervisor WWW Operations suggested adding new control measures to the hazard "Pandemic" at the 2020 Risk Assessment	Julie Henry, Amber Hayter	September 23, 2020	2020 Risk Review was held September 23, 2020 and additional control measures added to the hazard "Pandemic"
e) Results of audits (internal and external)	N/A – all auditor suggestions (for external audit) and employee suggestions (for internal audit) have been addressed	N/A	N/A	Complete

	Form	QMS E20 F3
	Date: July 24, 2013	Revision: 1
	Approved By: QMS Representative/QMS Designate	
Top Management Review Action Items Tracking		Page 2 of 3

For 2020 Meeting (Reporting period July 4, 2019 (date of last meeting) to July 31, 2020)

Agenda Item	Decision/Action	Responsible	Date Due	Status
f) Results of relevant emergency response testing	N/A – 2019 testing complete and report reviewed. No further decisions or actions required	N/A	N/A	Complete
g) Operational performance	Supervisor, WWW Operations noted the table in this section referred to THM adverse incorrectly. The online Management Review Report has been updated.	Julie Henry	N/A	Complete
h) Raw water supply and drinking water quality trends	All annual reports complete and posted on website for public access. No new action item identified.	N/A	N/A	Complete
i) Follow-up action items from previous management reviews	N/A– all follow up action items from previous management reviews have been addressed	N/A	N/A	Complete
j) Status of management action items identified between reviews	-CKL DWS license renewals – at the last meeting this item was placed on the agenda as an action item. Renewal packages are currently being put together.	Kayla Pantaleo, Julie Henry and Amber Hayter	November 20, 2020	In progress
k) Changes that could affect the QMS	-CKL becoming the Operating Authority for the treatment portions of the Sonya drinking water system and the Manilla drinking water system. The QMS Operational Plan / O&M's, SOPs etc., will all require substantial updates/edits	Julie Henry, Amber Hayter	March 1, 2020	In progress
l) Summary of consumer feedback	N/A – no feedback requiring attention. No decisions/actions required	N/A	N/A	Complete
m) Resources needed to maintain the QMS	N/A – no additional resources required. No decisions/actions required	N/A	N/A	Complete
n) Results of the infrastructure review	N/A – no decisions/actions required	N/A	N/A	Complete

*Uncontrolled document when printed.  
The most recent version is the electronic copy located on SharePoint.*

	Form	QMS E20 F3
	Date: July 24, 2013	Revision: 1
	Approved By: QMS Representative/QMS Designate	
Top Management Review Action Items Tracking		Page 3 of 3


For 2020 Meeting (Reporting period July 4, 2019 (date of last meeting) to July 31, 2020)

Agenda Item	Decision/Action	Responsible	Date Due	Status
o) Operational Plan currency, content and updates	N/A – no decisions/actions required. OP is a living document undergoing regular updates and edits	N/A	N/A	Ongoing
p) Summary of staff suggestions	N/A- no decisions/actions required	N/A	N/A	N/A
q) New Business	-The DWQMS Endorsement and Review Council Report is due for COW Meeting Nov 3 (must be done in SP by October 16) -The Supervisor, ORO's will be added to Top Management	Julie Henry	Report by October 16, 2020	In progress
r) Date of Next Meeting	The next meeting will be held in late Spring/early summer 2021	Julie Henry	Spring/Summer 2021	Complete



to



Report # WW2020-008

 Ontario Clean Water Agency	<b>City of Kawartha Lakes Multi Facility Operational Plan</b>	QEMS Doc: OP-03A Rev Date: 09-Oct-20 Rev No: 5 Pages: 1 of 3
<b>SIGNED COMMITMENT AND ENDORSEMENT</b>		

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 City of Kawartha Lakes (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 City of Kawartha Lakes Drinking Water Systems (CKL DWS) 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**

 _____ Geoff Redden General Manager, Kawartha Hub	<u>Oct 9/2020</u> Date	_____ Amber Hayter Supervisor, Water & Wastewater Operations	Date
 _____ Cindy Spencer Regional Hub Manager, Kawartha Trent	<u>Oct 13, 2020</u> Date	_____ Bryan Robinson Director, Public Works	Date

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

# Audit Report

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S2 Surveillance Audit for

City of Kawartha Lakes

1634181-02

Audited Address: 12 Peel St., Box 9000, Lindsay, Ontario, CAN,  
K9V 5R8

Start Date: Apr 20, 2020 End Date: Apr 21, 2020

Type of audit - Surveillance System Audit

Issue Date: April 21, 2020

Revision Level: *Final*

## Audit Report

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### BACKGROUND INFORMATION

SAI Global conducted an audit of City of Kawartha Lakes beginning on Apr 20, 2020 and ending on Apr 21, 2020 to DRINKING WATER QUALITY MANAGEMENT STANDARD VERSION 2 - 2017.

The purpose of this audit report is to summarise the degree of compliance with relevant criteria, as defined on the cover page of this report, based on the evidence obtained during the audit of your organization. This audit report considers your organization's policies, objectives, and continual improvement processes. Comments may include how suitable the objectives selected by your organization appear to be regarding maintaining customer satisfaction levels and providing other benefits with respect to policy and other external and internal needs. We may also comment regarding the measurable progress you have made in reaching these targets for improvement.

SAI Global audits are carried out within the requirements of SAI Global procedures that also reflect the requirements and guidance provided in the international standards relating to audit practice such as ISO/IEC 17021-1, ISO 19011 and other normative criteria. SAI Global Auditors are assigned to audits according to industry, standard or technical competencies appropriate to the organization being audited. Details of such experience and competency are maintained in our records.

In addition to the information contained in this audit report, SAI Global maintains files for each client. These files contain details of organization size and personnel as well as evidence collected during preliminary and subsequent audit activities (Documentation Review and Scope) relevant to the application for initial and continuing certification of your organization.

Please take care to advise us of any change that may affect the application/certification or may assist us to keep your contact information up to date, as required by SAI Global Terms and Conditions.

This report has been prepared by SAI Global Limited (SAI Global) in respect of a Client's application for assessment by SAI Global. The purpose of the report is to comment upon evidence of the Client's compliance with the standards or other criteria specified. The content of this report applies only to matters, which were evident to SAI Global at the time of the audit, based on sampling of evidence provided and within the audit scope. SAI Global does not warrant or otherwise comment upon the suitability of the contents of the report or the certificate for any purpose or use. SAI Global accepts no liability whatsoever for consequences to, or actions taken by, third parties because of or in reliance upon information contained in this report or certificate.

Please note that this report is subject to independent review and approval. Should changes to the outcomes of this report be necessary because of the review, a revised report will be issued and will supersede this report.

<b>Standard:</b>	DRINKING WATER QUALITY MANAGEMENT STANDARD VERSION 2 - 2017
<b>Scope of Certification:</b>	Drinking Water
<b>Drinking Water System Owner:</b>	City of Kawartha Lakes
<b>Operating Authority:</b>	City of Kawartha Lakes
<b>Owner:</b>	City of Kawartha Lakes
<b>Population Services:</b>	11665
<b>Activities:</b>	<b>Treatment</b> Birchpoint Estates Drinking Water System (license # 141-109) Bobcaygeon Drinking Water System (license # 141-105) Canadiana Shores Drinking Water System (license # 141-112) Fenelon Falls Drinking Water System (license # 141-104) Janetville Drinking Water System (license # 141-111) Kings Bay Drinking Water System (license # 141-119) Kinmount Drinking Water System (license # 141-121) Manorview Drinking Water System (license # 141-118) Mariposa Estates Drinking Water System (license # 141-117) Norland Drinking Water System (license # 141-103) Omeme Drinking Water System (license # 141-108) Pinewood Drinking Water System (license # 141-110) Pleasant Point Drinking Water System (license # 141-113) Sonya Village Subdivision Drinking Water System (license # 141-107) Southview Drinking Water System (license # 141-101) Victoria Place Drinking Water System (license # 141-114) Western Trent/Palmina Drinking Water System (license # 141-102) Woodfield Drinking Water System (license # 141-116) Woods of Manilla Drinking Water System (license # 141-106) Woodville Drinking Water System (license # 141-115)
<b>Drinking Water Systems</b>	
<b>Total audit duration:</b>	Person(s): 1      Day(s): 1.88
<b>Audit Team Member(s):</b>	Team Leader    Glen Findlay
<b>Other Participants:</b>	None

## Audit Report

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### Definitions and action required with respect to audit findings

#### Major Non-conformance:

Based on objective evidence, the absence of, or a significant failure to implement and/or maintain conformance to requirements of the applicable standard. Such issues may raise significant doubt as to the capability of the management system to achieve its intended outputs (i.e. the absence of or failure to implement a complete Management System clause of the standard); or

A situation which would based on available objective evidence, raise significant doubt as to the capability of the Management System to achieve the stated policy and objectives of the customer.

NOTE: The "applicable Standard" is the Standard which SAI Global are issuing certification against, and may be a Product Standard, a management system Standard, a food safety Standard or another set of documented criteria.

Action required: This category of findings requires SAI Global to issue a formal NCR; to receive and approve client's proposed correction and corrective action plans; and formally verify the effective implementation of planned activities. Correction and corrective action plan should be submitted to SAI Global prior to commencement of follow-up activities as required. Follow-up action by SAI Global must 'close out' the NCR or reduce it to a lesser category within 90 days for initial certification and within 60 days for surveillance or recertification audits from the last day of the audit.

If significant risk issues (e.g. safety, environmental, food safety, product legality/quality, etc.) are detected during an audit these shall be reported immediately to the Client and more immediate or instant correction shall be requested. If this is not agreed and cannot be resolved to the satisfaction of SAI Global, immediate suspension shall be recommended.

In the case of initial certification, failure to close out NCR within the time limits means that the Certification Audit may be repeated.

If significant risk issues (e.g. safety, environmental, food safety, product legality/quality, etc.) are detected during an audit these shall be reported immediately to the Client and more immediate or instant correction shall be requested. If this is not agreed and cannot be resolved to the satisfaction of SAI Global, immediate suspension shall be recommended.

In the case of an already certified client, failure to close out NCR within the time limits means that suspension proceedings may be instituted by SAI Global.

Follow-up activities incur additional charges.

#### Minor Non-conformance:

Represents either a management system weakness or minor issue that could lead to a major nonconformance if not addressed. Each minor NC should be considered for potential improvement and to further investigate any system weaknesses for possible inclusion in the corrective action program

Action required: This category of findings requires SAI Global to issue a formal NCR; to receive and approve client's proposed correction and corrective action plans; and formally verify the effective implementation of planned activities at the next scheduled audit.

#### Opportunity for Improvement:

A documented statement, which may identify areas for improvement however shall not make specific recommendation(s).

Action required: Client may develop and implement solutions to add value to operations and management systems. SAI Global is not required to follow-up on this category of audit finding.



### Audit Type and Purpose

#### Surveillance Audit:

A systems desktop audit in accordance with the systems audit procedure as it applies to Full Scope accreditation. The audit also included consideration of the results of the most recent audit undertaken in accordance with this Accreditation Protocol and any of the following that have occurred after that audit including but limited to;

- (a) the results of any audits undertaken in accordance with element 19 of the DWQMS V2;
- (b) historical responses taken to address corrective action requests made by an Accreditation Body;
- (c) the results of any management reviews undertaken in accordance with element 20 of the DWQMS V2; and,
- (d) any changes to the documentation and implementation of the QMS.

#### Audit Objectives

The objective of the audit was to determine whether the drinking water Quality Management System (QMS) of the subject system conforms to the requirements of the Ontario Ministry of the Environment & Climate Change (MOECC) Drinking Water Quality Management Standard (DWQMS V2).

The audit was also intended to gather the information necessary for SAI Global to assess whether accreditation can continue or be offered or to the operating authority.

### Audit Scope

The facilities and processes associated with the operating authority's QMS were objectively evaluated to obtain audit evidence and to determine a) whether the quality management activities and related results conform with DWQMS V2 requirements, and b) if they have been effectively implemented and/or maintained.

### Audit Criteria:

- The Drinking Water Quality Management Standard Version 2
- Current QMS manuals, procedures and records implemented by the Operating Authority
- SAI Global Accreditation Program Handbook

### Confidentiality and Documentation Requirements

The SAI Global stores their records and reports to ensure their preservation and confidentiality. Unless required by law, the SAI Global will not disclose audit records to a third party without prior written consent of the applicant. The only exception will be that the SAI Global will provide audit and corrective action reports to the Ontario Ministry of the Environment. For more information, please refer to the SAI Global Accreditation Program Handbook.

As part of the SAI Global Terms, it is necessary for you to notify SAI Global of any changes to your Quality Management System that you believe are significant enough to risk non-conformity with DWQMS V2: For more information, please refer to the SAI Global Accreditation Program Handbook.

### Review of any changes

Changes to the Operating Authority since last audit include: No changes to Operating Authority since last audit

## EXECUTIVE OVERVIEW

The results of this surveillance system audit indicate that the management system does not fully meet the requirements of the standard based on the area(s) of non-conformance identified during the audit and as documented in the attached Non-conformance Report(s). Failure to address the nonconformances within the 60-day timeframe may lead to suspension of certification.

## **Audit Report**

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### **Recommendation**

The results of this audit indicate that the management system does not fully meet the requirements of the standard based on the area(s) of non-conformance identified during the audit and as documented in the attached Non-conformance Report(s).

A recommendation for (re-)certification to the standard and to the scope of certification identified in this report is on hold pending the receipt, review and acceptance of the corrective action taken.

### **Opportunities for Improvement:**

The following opportunities for improvement have been identified.

- OFI 1 – Clause 8: Consider calculating risk value for hazardous events not a CCP such as structure failure for Mariposa Estates and structure failure for Omemee
- OFI 2 – Clause 6: Consider updating the operational plans for Kinmount and Norland, as they have not been updated since 2018 (In both cases the source water table was not updated for turbidity or microbiological testing since 2017).

It is suggested that the opportunities for improvement be considered by management to further enhance the Operating Authority's Quality Management System and performance.

## **Audit Report**

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### **Management System Documentation**

The management systems operational plan(s) was reviewed and found to be in conformance with the requirements of the standard.

### **Management Review**

Records of the most recent management review meetings were verified and found to meet the requirements of the standard. All inputs were reflected in the records and appear suitably managed as reflected by resulting actions and decisions.

### **Internal Audits**

Internal audits are being conducted at planned intervals to ensure conformance to planned arrangements, the requirements of the standard and the established management system.

### **Corrective, Preventive Action & Continual Improvement Processes**

The Operating Authority is not implementing an effective corrective and preventive action process for the continual improvement of the management system. Details are provided in NCR No. 2020-01.



## Summary of Findings

1. Quality Management System	NANC
2. Quality Management System Policy	NANC
3. Commitment and Endorsement	Conforms
4. Quality Management System Representative	Conforms
5. Document and Records Control	NANC
6. Drinking-Water System	OFI
7. Risk Assessment	Conforms
8. Risk Assessment Outcomes	OFI
9. Organizational Structure, Roles, Responsibilities and Authorities	NANC
10. Competencies	NANC
11. Personnel Coverage	NANC
12. Communications	NANC
13. Essential Supplies and Services	NANC
14. Review and Provision of Infrastructure	NANC
15. Infrastructure Maintenance, Rehabilitation & Renewal	NANC
16. Sampling, Testing and Monitoring	NANC
17. Measurement & Recording Equipment Calibration and Maintenance	NANC
18. Emergency Management	NANC
19. Internal Audits	Conforms
20. Management Review	Conforms
21. Continual Improvement	Minor NCR #2020-01
Major NCR #	Major non-conformity. The auditor has determined one of the following: (a) a required element of the DWQMS has not been incorporated into a QMS; (b) a systemic problem with a QMS is evidenced by two or more minor non-conformities; or (c) a minor non-conformity identified with a corrective action request has not been remedied.
Minor NCR #	Minor non-conformity. In the opinion of the auditor, part of a required element of the DWQMS has not been incorporated satisfactorily into a QMS.
OFI	Opportunity for improvement. Conforms to requirement, but there is an opportunity for improvement.
Conforms	Conforms to requirement.
NANC	Not applicable/Not Covered during this audit.
****	Additional comment added by auditor in the body of the report.

## Audit Report

### PART D. Audit Observations, Findings and Comments

DWQMS Reference:	3 Commitment and Endorsement
Client Reference:	City of Kawartha Lakes Multi Facility Operational Plan OP-03 Commitment and Endorsement, rev. 0, 31-Aug-18
Details: <i>(personnel interviewed, procedures, activities and records observed)</i>  Appendix OP-03A contains written endorsement of Operational Plan signed by OCWA representatives on January 6, 2020 and City of Kawartha Lakes Manager of Environmental Services and Director of Public Works on January 10, 2020.	

DWQMS Reference:	4 Quality Management System Representative
Client Reference:	City of Kawartha Lakes Multi Facility Operational Plan OP-04 Quality & Environmental Management System (QEMS) Representative, rev. 0, 31-Aug-18
Details: <i>(personnel interviewed, procedures, activities and records observed)</i>  The role of QEMS Representative for the CKL DWS is shared between the Kawartha Hub Process and Compliance Technicians (PCT). The Safety, Process and Compliance Manager will act as an alternate QEMS Representative when required. Reviewed and accepted.	

DWQMS Reference:	6 Drinking Water System
Client Reference:	City of Kawartha Lakes Multi Facility Operational Plan OP-06 Drinking Water System, rev. 0, 31-Aug-18 and associated system descriptions
Details: <i>(personnel interviewed, procedures, activities and records observed)</i>  Details: Contents of Drinking Water System Descriptions reviewed and accepted for all systems including:  OP-08A Birchpoint Estates Summary of Risk Assessment Outcomes, revision 6, 16-Apr-20 OP-08B Bobcaygeon Summary of Risk Assessment Outcomes, revision 14, 17-Apr-20 OP-08C Canadiana Shores Summary of Risk Assessment Outcomes, revision 11, 16-Apr-20 OP-08D Fenelon Falls Summary of Risk Assessment Outcomes, revision 10, 16-Apr-20 OP-08E Janetville Summary of Risk Assessment Outcomes, revision 8, 16-Apr-20 OP-08F Kings Bay Summary of Risk Assessment Outcomes, revision 10, 16-Apr-20 OP-08G Kinmount Summary of Risk Assessment Outcomes, revision 11, 16-Apr-20 OP-08H Manorview Summary of Risk Assessment Outcomes, revision 10, 17-Apr-20 OP-08I Mariposa Estates Summary of Risk Assessment Outcomes, revision 10, 17-Apr-20 OP-08J Norland Summary of Risk Assessment Outcomes, revision 10, 16-Apr-20 OP-08K Omemee Summary of Risk Assessment Outcomes, revision 9, 17-Apr-20 OP-08L Pinewood Summary of Risk Assessment Outcomes, revision 9, 17-Apr-20 OP-08M Pleasant Point Summary of Risk Assessment Outcomes, revision 10, 17-Apr-20 OP-08N Sonya Summary of Risk Assessment Outcomes, revision 6, 17-Apr-20 OP-08O Southview Estates Summary of Risk Assessment Outcomes, revision 11, 17-Apr-20 OP-08P Victoria Place Summary of Risk Assessment Outcomes, revision 11, 17-Apr-20 OP-08Q Western Trent/Palmina Summary of Risk Assessment Outcomes, revision 6, 16-Apr-20 OP-08R Woodfield Summary of Risk Assessment Outcomes, revision 7, 17-Apr-20 OP-08S Woods of Manilla Summary of Risk Assessment Outcomes, revision 11, 17-Apr-20 OP-08T Woodville Summary of Risk Assessment Outcomes, revision 12, 17-Apr-20  See OFI2 in body of report	

## Audit Report

DWQMS Reference	7 Risk Assessment
Client Reference:	City of Kawartha Lakes Multi Facility Operational Plan OP-07 Risk Assessment, rev. 9, 31-Aug-18
Details: <i>(personnel interviewed, procedures, activities and records observed)</i>	
Procedure OP-07 Risk Assessment reviewed and accepted.	

DWQMS Reference:	8 Risk Assessment Outcomes
Client Reference:	City of Kawartha Lakes Multi Facility Operational Plan OP-07 Risk Assessment, rev. 9, 31-Aug-18 City of Kawartha Lakes Multi Facility Operational Plan OP-08 Risk Assessment Outcomes, rev. 0, 31-Aug-18
Details: <i>(personnel interviewed, procedures, activities and records observed)</i>	
<p>Risk Assessment Outcomes adequately describes all risk, hazards, hazardous events and critical control limits for the Drinking Water System and covers all required risks as described in the MOECC document "Potential Hazardous Events for Municipal Residential Drinking Water Systems". Risk assessment outcomes are current as of March 2018 when a new 36-month assessment was performed, along with subsequent minor updates. Reviewed and accepted.</p> <p>OP-08A Birchpoint Estates Summary of Risk Assessment Outcomes, revision 6, 16-Apr-20 OP-08B Bobcaygeon Summary of Risk Assessment Outcomes, revision 14, 17-Apr-20 OP-08C Canadiana Shores Summary of Risk Assessment Outcomes, revision 11, 16-Apr-20 OP-08D Fenelon Falls Summary of Risk Assessment Outcomes, revision 10, 16-Apr-20 OP-08E Janetville Summary of Risk Assessment Outcomes, revision 8, 16-Apr-20 OP-08F Kings Bay Summary of Risk Assessment Outcomes, revision 10, 16-Apr-20 OP-08G Kinmount Summary of Risk Assessment Outcomes, revision 11, 16-Apr-20 OP-08H Manorview Summary of Risk Assessment Outcomes, revision 10, 17-Apr-20 OP-08I Mariposa Estates Summary of Risk Assessment Outcomes, revision 10, 17-Apr-20 OP-08J Norland Summary of Risk Assessment Outcomes, revision 10, 16-Apr-20 OP-08K Omemee Summary of Risk Assessment Outcomes, revision 9, 17-Apr-20 OP-08L Pinewood Summary of Risk Assessment Outcomes, revision 9, 17-Apr-20 OP-08M Pleasant Point Summary of Risk Assessment Outcomes, revision 10, 17-Apr-20 OP-08N Sonya Summary of Risk Assessment Outcomes, revision 6, 17-Apr-20 OP-08O Southview Estates Summary of Risk Assessment Outcomes, revision 11, 17-Apr-20 OP-08P Victoria Place Summary of Risk Assessment Outcomes, revision 11, 17-Apr-20 OP-08Q Western Tren/Palmina Summary of Risk Assessment Outcomes, revision 6, 16-Apr-20 OP-08R Woodfield Summary of Risk Assessment Outcomes, revision 7, 17-Apr-20 OP-08S Woods of Manilla Summary of Risk Assessment Outcomes, revision 11, 17-Apr-20 OP-08T Woodville Summary of Risk Assessment Outcomes, revision 12, 17-Apr-20</p> <p>Full Risk Assessments performed for all systems in 2020. Risk Assessment information is also reviewed for currency every calendar year during Management Review. Reviewed and accepted.</p> <p>See OFI1 in body of report.</p>	

DWQMS Reference:	19 Internal Audits
Client Reference:	City of Kawartha Lakes Multi Facility Operational Plan OP-19 Internal QEMS Audits, rev. 5, 27-Mar-19
Details: <i>(personnel interviewed, procedures, activities and records observed)</i>	
<p>Procedure OP-19 reviewed and accepted. Internal Audits are performed at least once every calendar year. Most recent internal audit for City of Kawartha Lakes Systems performed Sept 6-Nov 26, 2019 to V2.0 of the DWQMS. Non-conformances and 11 Opportunities for Improvement were identified. OFIs are managed for follow-up during Management Review.</p>	

## Audit Report

DWQMS Reference:	20 Management Review
Client Reference:	City of Kawartha Lakes Multi Facility Operational Plan OP-20 Management Review, rev. 5, 31-Aug-18
<p>Details: <i>(personnel interviewed, procedures, activities and records observed)</i></p> <p>Procedure OP-20 captures all PLAN requirements from section 20 of the DWQMS. Management Reviews are conducted a minimum of once every calendar year. Reviewed and accepted. Most recent Management Review Meeting performed December 5, 2019. Action items are summarized in the Management Review Implementation Action Plan, items are assigned responsibilities and projected completion dates. Action Plan is updated as items are completed.</p>	

DWQMS Reference:	21 Continual Improvement
Client Reference:	City of Kawartha Lakes Multi Facility Operational Plan OP-21 Continual Improvement, rev. 0, 31-Aug-18
<p>Details: <i>(personnel interviewed, procedures, activities and records observed)</i></p> <p>Procedure OP-21 reviewed and accepted. Corrective Actions, Preventive Actions and Best Management Practices are recorded on the Summary Table of Action Items and investigated for root cause, corrective action plan and verification of effectiveness.</p> <p>See Minor Nonconformity #2020-01</p>	

Details regarding the personnel interviewed and objective evidence reviewed are maintained on file at SAI Global.

This report was prepared by:

Glen Findlay  
SAI Global Management Systems Auditor

The audit report is distributed as follows:

- SAI Global
- Operating Authority
- Owner
- MOECC

## Notes

Copies of this report distributed outside the organization must include all pages.





## Committee of the Whole Report

Report Number RD2020-001

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**Meeting Date:** November 3, 2020

**Title:** Street Sweepings Characterization and Potential for Reuse

**Description:** Summary of annual testing of Spring Sweeping Materials between 2016 to 2020

**Ward Number:** All

**Author and Title:** Richard Monaghan, Senior Engineering Technician

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### Recommendation(s):

**That** Report RD2020-001, **Street Sweepings Characterization and Potential for Reuse**, be received;

**That** Staff be directed to explore practicality and implement increased diversion of street sweepings from the City's landfills where cost beneficial through use during other road maintenance activities; and

**That** this recommendation be brought forward to Council for consideration at the next Regular Council meeting.

**Department Head:**\_\_\_\_\_

**Financial/Legal/HR/Other:**\_\_\_\_\_

**Chief Administrative Officer:**\_\_\_\_\_

## **Background:**

At the Council Meeting of October 13, 2015, Council adopted the following resolution:

### **CR2015-1058**

**Moved by Councillor Strangway, seconded by Councillor Martin, RESOLVED THAT** Report PW2015-006, **Core Services Review: Street Sweeping**, be received;  
**THAT** the street sweeping services be maintained;  
**THAT** staff be directed to develop a Level of Service Policy to capture our existing service provided;  
**THAT** staff review and update the Level of Service Policy every two years; and  
**THAT** staff conduct sampling and testing on Spring Sweeping Materials from various locations throughout the City, as a Pilot Program, on an annual basis commencing in 2016 and completing in 2020.

This report addresses the last direction within the above noted Council Resolution.

## **Rationale:**

The Public Works – Roads Department performs street sweeping activities throughout the year. The main focus for spring sweeping is the collection of deleterious material from roadways. Removal of this material greatly reduces nuisance dust from vehicular traffic and minimizes winter sand and debris ingress into the storm sewer system.

The spring street sweeping program produces varying quantities of sandy material, typically between 1800 and 2200 tonnes per year. This material is then delivered to one of the City's landfills for use as alternative daily cover. This is a mutually beneficial process as it provides Roads with a no cost solution to dispose of the material while providing Solid Waste a no cost material to use for alternative daily cover.

The Waste Management Department began using steel plates to offset the need for alternative daily cover material, but the material is still required in locations where plate use isn't practical.

Between 2016 and 2020, the Public Works – Roads Department commissioned WSP and Cambium to perform physical and chemical testing on Street Sweeping stockpiles from various operating areas to determine possible reuse options to divert some of this material away from landfills.

The sampled street sweepings stockpiles were compared to Table 1 and Table 2 Site Condition Standards (SCS) of the Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (MOE, 2011). Table 1 SCS represent typical background concentrations encountered in Ontario and are the most stringent criteria available for comparison. Such soil is generally considering to be clean fill. Soil that exceeds Table 2 SCS is generally considered contaminated and required to be disposed of at a licensed facility (e.g. landfill).

Results from the annual sampling and testing of street sweepings stockpiles show that the material does not meet Table 1 SCS but does meet Table 2 SCS. This means that the sweeping material cannot be considered clean fill. However, there are still many options to reuse street sweeping material that can divert some material from the City's landfills.

Some practical uses for this material include use as backfill material against exterior building foundations or culverts, as fill material to obtain higher subgrade on roads prior to placement of cover material such as Granular A, and as sand backfill around catch basins and manholes. In addition, after being screened, the material could be mixed into the City's winter sand during stockpiling operations.

By further implementing the reuse of street sweepings, this will reduce the City's reliance on virgin aggregate supplies. This will provide a cost savings to the PW-Roads Department, however will increase how much daily alternative cover the PW- Waste Management Department is required to buy.

### **Other Alternatives Considered:**

No other alternatives have been considered as the recommendations within this report align with the attached Annual Street Sweeping Characterization Reports.

### **Financial/Operation Impacts:**

Cost savings can be realized by reusing street sweepings for other purposes than as alternative daily cover at one of the City's landfills.

Waste Management currently spends an average of \$7.41 / tonne for alternative daily cover. Cost varies by location and is as low as \$5.68 / tonne at the Fenelon Landfill and as high as \$10.00 / tonne at the Somerville Landfill.

The most practical and operationally feasible reuse option is to mix with the City's winter sand stockpiles. The City's currently pays an average of \$11.47 / tonne for Winter Sand. Cost varies by location and is low as \$10.15 / tonne at the Fenelon PW Depot and as high as \$14.90 at the Carden PW Depot.

An average \$4.06 / tonne savings can be found by mixing street sweepings with winter sand stockpiles. Average of \$11.47 / tonne cost avoidance on purchase of virgin winter sand, while an average of \$7.41 / tonne of alternative daily cover material required to be purchased to offset.

If PW – Roads mixed 100% (average 2000 tonnes) of street sweeping material into winter sand stockpiles, annual savings of approximately \$8,120.00 would be realized by the City based on the average cost of daily cover and road sand. Continued annual testing of the street sweeping material will confirm how much of this material is viable for this use.

### **Relationship of Recommendation(s) To The 2016-2019 Strategic Plan:**

This report directly applies to Goal 3 – A Healthy Environment under action 3.1.9 – Manage Aggregate Resources. By reusing street sweepings for road maintenance activities or inclusion during winter sand stockpiling, the City is directly reducing its reliance on internal or external aggregate production facilities.

### **Consultations:**

Supervisor, Waste Management Operations  
Manager, Roads Operations  
Supervisor, Roads Operations

### **Attachments:**

#### **Appendix A – 2016 Street Sweeping Characterization Results**



Appendix A - 2016  
Street Sweeping Ch.

#### **Appendix B – 2018 Street Sweeping Characterization Results**



Appendix B - 2018  
Street Sweeping Ch.

#### **Appendix C – 2019 Street Sweeping Characterization Results**



Appendix C - 2019  
Street Sweeping Ch.



## Appendix D – 2020 Street Sweeping Characterization Results



Appendix D - 2020  
Street Sweeping Ch

**Department Head E-Mail:** [brobinson@kawarthalakes.ca](mailto:brobinson@kawarthalakes.ca)

**Department Head:** Bryan Robinson



June 27, 2016

Reference No. 11114492-01

City of Kawartha Lakes  
Bobcaygeon Service Centre  
123 East Street South  
Bobcaygeon, Ontario  
K0M 1A0

Attention: Michel Gratton (mgratton@city.kawarthalakes.on.ca)

**Re: Characterization of Sweepings Stockpiles**  
**City of Kawartha Lakes, Ontario**

## **1. Introduction**

At the end of the winter maintenance operations each year the roadways in the City of Kawartha Lakes are swept and the winter sand collected, now referred to as "sweepings", is transported to storage locations. Rather than dispose of the material as a waste, the City of Kawartha Lakes is seeking reuse possibilities for the material. In order to facilitate this possible reuse the sweeping stockpiles were sampled at the Bobcaygeon, Coboconk and Omemee locations. The material was characterized by testing both chemically and for gradation and physical properties. The chemical testing was carried out by submitting samples to SGS Environmental Laboratories, Lakefield, Ontario while the gradation and physical testing was carried out to Ministry of Transport protocol specified in the Laboratory Services Manual by GHD in our Peterborough laboratory.

## **2. Chemical Testing**

The samples consisted primarily of sand and were screened for hydrocarbon vapours with a RKI Eagle II gas detector calibrated with hexane. No elevated vapours were detected in the samples collected. The samples were submitted to SGS Environmental Laboratories in Lakefield for chemical analysis of O. Reg. 153 parameters including pH, Electrical Conductivity (EC), Sodium Adsorption Ratio (SAR), metals, the BTEX volatile organic compounds (VOC), and petroleum hydrocarbons (PHC). The Certificates of Analysis from SGS are attached to this letter (Appendix A) and the results are summarized on Table 2.1 and Table 2.2.

### **GHD Limited**

347 Pido Road, Unit 29, Peterborough, Ontario, K9J 6X7, Canada  
T (705)-749-3317 F 705-749-9248 W www.ghd.com  
SMQ ISO 9001:2008

**Table 2.1: Inorganic and Metal Parameters Summary**

Parameter	Sample Identification			MOECC Table 2 Standards (Residential/ Parkland/ Institutional Property Use)
	SS-1 (Bob)	SS-2 (Cob.)	SS-3 (Ome)	
Moisture Content (%)	2.8	3.8	2.7	-
<b>Metals</b>				
Barium	28	37	18	390
Beryllium	0.08	0.08	0.08	(5) 4
Boron	3	3	4	120
Cadmium	0.04	<0.02	<0.02	1.2
Chromium	12	6.6	3.2	160
Cobalt	1.6	1.9	1.3	22
Copper	8.5	6.2	3.3	(180) 140
Lead	4.2	3.1	2.4	120
Molybdenum	0.6	0.2	0.1	7
Nickel	7.1	4.7	5.6	(130) 100
Silver	0.02	0.01	<0.01	(25) 20
Thallium	<0.02	0.03	<0.02	1
Uranium	0.25	0.26	0.29	23.0
Vanadium	8	10	5	86
Zinc	56	19	10	340
<b>Hydrides</b>				
Antimony	<0.8	<0.8	<0.8	7.5
Arenic	1.1	0.5	1.1	18
Selenium	1.4	1.1	2.2	2.4
<b>ORPs</b>				
Mercury	<0.05	<0.05	<0.05	(1.8) 0.27
Water Soluble Boron	<0.5	<0.5	<0.5	1.5
Sodium Adsorption Ratio [---]	2.06	<b>6.13</b>	2.27	5.0
Conductivity [mS/cm]	0.08	<b>0.78</b>	0.31	0.70
pH [no unit]	7.87	8.08	8.21	-
Chromium VI	0.5	<0.2	<0.2	(10) 8
Free Cyanide	<0.05	<0.05	<0.05	0.051

NOTES: All units in µg/g unless otherwise noted.

\*Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the *Environmental Protection Act, April 15, 2011*

Table 2: Generic Full Depth Site Condition Standards in a Potable Groundwater Condition (Soil other than sediment).

"<" indicates less than laboratory reporting limit, **Bold** indicates an exceedance of the Table 2 RPI Standards\*

() Standard in bracket applies to medium and fine textured soils

**Table 2.2: Organic Parameters Summary**

Parameter	Sample Identification			MOECC Table 2 Standards (Residential/ Parkland/ Industrial Property Use)
	SS-1 (Bob)	SS-2 (Cob.)	SS-3 (Ome)	
<b>BTEX (VOCs)</b>				
Benzene	<0.02	<0.02	<0.02	(0.17) 0.21
Ethylbenzene	<0.05	<0.05	<0.05	(1.6) 1.1
Toluene	<0.05	<0.05	<0.05	(6) 2.3
Xylene (Total)	<0.05	<0.05	<0.05	(25) 3.1
m/p-xylene	<0.05	<0.05	<0.05	-
o-Xylene,	<0.05	<0.05	<0.05	-
<b>PHCs (F1-F4)</b>				
CCME F2 (C10-C16)	<10	<10	<10	(150) 98
CCME F3 (C16-C34)	<b>431</b>	172	282	(1300) 300
CCME F4 (C34-C50)	674	469	468	(5600) 2800
CCME F4G-sg (GHH)	1630	1320	910	-
Chromatogram returned to baseline at nC50 [Yes/No]	NO	NO	NO	-

NOTES: All units in µg/g unless otherwise noted.

\*Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the *Environmental Protection Act, April 15, 2011*

Table 2: Generic Full Depth Site Condition Standards in a Potable Groundwater Condition (Soil other than sediment).

"<" indicates less than laboratory reporting limit, **Bold** indicates an exceedance of the Table 2 RPI Standards\*

() Standard in bracket applies to medium and fine textured soils

The results are compared to The Ministry of the Environment (MOECC) Table 2 Full Depth Generic Site Condition Standards in a Potable Ground Water Condition of the "Soil, Groundwater and Sediment Standards residential, parkland and institutional landuse for use Under Part XV.1 of the Environmental Protection Act" (EPA) dated April 15, 2011, referred to as "SCS" in this letter. The results indicate that Conductivity and Sodium Adsorption Ratio exceed the current MOECC Table 2 SCS for RPI (Residential, Parkland, Institutional) Property usage in the sample from Coboconk, (SS-2). Exceedances in SAR is indicative of impact from road salt and would be expected in the winter sand usage. The MOECC has given an exemption in the EPA regulations for Municipalities where the material is used for safety regarding winter maintenance and thus the material is acceptable for reuse on municipal road right of ways. Hydrocarbons (PHC's) were detected and reported in the samples, and the sample from Bobcaygeon (SS-1) was found to exceed the MOECC Table 2 Regulations for coarse grained soil, but met the Regulation for fine grained soil. The presence of the PHC's in all three samples is likely related to the presence of asphalt pieces in the samples. Since both parameters will have a negative impact on plant life, it is recommended that the sweepings be kept off agricultural property.



### 3. Gradation and Physical Testing

The gradation test yielded results which showed all of the material was less than 4.75 mm in size (see Appendix) with the following results:

Sieve mm	4.75	1.18	0.300	0.150	0.075
% Passing	100	70.2	30.4	15.5	8.2

The material was found to contain some deleterious material but it was less than 2% of sample weight and the micro-deval fine aggregate loss % was 11.4 which is well below the maximum allow for Granular 'B', SSM, drainage granular and cover material.

### 4. Possible Reuses

Based on the results of the gradation and physical testing the stockpiled sweepings would be suitable for reuse as an equivalent Granular 'B' material for use as:

- 1) Backfill against exterior building foundations or culverts. The reused screenings should be kept out of high traffic road subbase because of the lack of stone sized particles present. They could be used as upfill to obtain a higher subgrade on road widenings, or grade raises before being covered with Granular 'B' and 'A'.
- 2) Cover for cables or other utilities where sand cover is specified. The Coefficient of uniformity was found to be 10 with greater than 2.5 specified and the gradation was found to comply with the standard specification.

Sieve mm	4.75	1.18	0.300	0.075
% Specified	75 - 100	0-70	0-30	0-15
% Passing	100	70.2	30.4	8.2

- 3) Where shouldering granular is found to have become blocked with fines and salt residue, drainage trenches can be placed at regular intervals starting at pavement edge at a depth of 0.3 m below subgrade and extending to the ditch. The trench can have a 100 mm diameter subdrain placed on the bottom and covered to the subbase surface with the reused screening material, packed in lifts with a jumping jack. The remainder of the granular base can be Granular M.

- 4) The reused screenings had a low enough frost susceptibility and micro deval loss that the material could be used as sand backfill around catchbasins and manholes to prevent frost jacking and differential settlement due to native soil causing arching is it is used immediately against these structures.

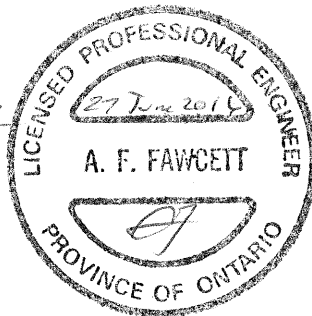
The granular did not meet the gradational requirements for reuse as winter sand, mortar sand or Granular O sheet drains due to the 8% passing the 75 um sieve. However if the material was screened and placed through a wash plant the washing would return the sand to a low enough silt content (ie material passing 75 um sieve) to meet the gradational requirement for winter sand or drainage sand.

We trust that this letter report meets with your immediate requirements. Should you have any questions or concerns regarding any aspect of this report, or should you require further assistance, please do not hesitate to contact our office.

Sincerely,  
GHD



Andy Fawcett, P.Eng.  
Senior Engineer



Encl.  
SGS Chemical Certificates of Analysis – Appendix A  
GHD Soil Laboratory Testing



SGS Canada Inc.  
P.O. Box 4300 - 185 Concession St.  
Lakefield - Ontario - K0L 2H0  
Phone: 705-652-2000 FAX: 705-652-6365

## GHD

Attn : Steve Gagne

347 Pido Rd., Unit #29  
Peterborough, ON  
K9J 6Z8,

Phone: 705-749-3317  
Fax:

25-May-2016

Date Rec. : 18 May 2016  
LR Report: CA15407-MAY16  
Reference: 11114492-01

Copy: #1

# CERTIFICATE OF ANALYSIS Final Report

Analysis	1: Date Extracted / Digested	2: Date Analyzed	3: Analysis Approval Date	4: Analysis Approval Time	5: Table 2 Agricultural or other Property Use	6: Table 2 Residential / Parkland / Institutional Property Use	7: Table 2 Industrial/Commer cial/Community Property Use	8: RDL	9: SS-1 (Bob)	10: SS-2 (Cob.)	11: SS-3 (Ome)
Sample Date & Time	19-May-16	20-May-16	20-May-16	15:33							
Moisture Content [%]	***	***	***	***	***	***	***	***	***	***	***
INORGANIC PARAMETERS											
METALS											
Barium [µg/g]	19-May-16	20-May-16	21-May-16	09:51	390	390	670	0.01	28	37	18
Beryllium [µg/g]	19-May-16	20-May-16	21-May-16	09:51	(5) 4	(5) 4	(10) 8	0.02	0.08	0.08	0.08
Boron [µg/g]	19-May-16	20-May-16	21-May-16	09:51	120	120	120	1	3	3	4
Cadmium [µg/g]	19-May-16	20-May-16	21-May-16	09:51	1	1.2	1.9	0.02	0.04	< 0.02	< 0.02
Chromium [µg/g]	19-May-16	20-May-16	21-May-16	09:51	160	160	160	0.5	12	6.6	3.2
Cobalt [µg/g]	19-May-16	20-May-16	21-May-16	09:51	22	22	(100) 80	0.01	1.6	1.9	1.3
Copper [µg/g]	19-May-16	20-May-16	21-May-16	09:51	(180) 140	(180) 140	(300) 230	0.1	8.5	6.2	3.3
Lead [µg/g]	19-May-16	20-May-16	21-May-16	09:51	45	120	120	0.1	4.2	3.1	2.4
Molybdenum [µg/g]	19-May-16	20-May-16	21-May-16	09:51	7	7	40	0.1	0.6	0.2	0.1
Nickel [µg/g]	19-May-16	20-May-16	21-May-16	09:51	(130) 100	(130) 100	(340) 270	0.1	7.1	4.7	5.6
Silver [µg/g]	19-May-16	20-May-16	21-May-16	09:51	(25) 20	(25) 20	(50) 40	0.01	0.02	0.01	< 0.01
Thallium [µg/g]	19-May-16	20-May-16	21-May-16	09:51	1	1	3.3	0.02	< 0.02	0.03	< 0.02
Uranium [µg/g]	19-May-16	20-May-16	21-May-16	09:51	23.0	23.0	33	0.002	0.25	0.26	0.29
Vanadium [µg/g]	19-May-16	20-May-16	21-May-16	09:51	86	86	86	3	8	10	5
Zinc [µg/g]	19-May-16	20-May-16	21-May-16	09:51	340	340	340	0.7	56	19	10
HYDRIDES	***	***	***	***	***	***	***	***	***	***	***
Antimony [µg/g]	19-May-16	20-May-16	21-May-16	09:51	8	7.5	(50) 40	0.8	< 0.8	< 0.8	< 0.8



SGS Canada Inc.  
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Lakefield - Ontario - K0L 2H0  
Phone: 705-652-2000 FAX: 705-652-6365

LR Report : CA15407-MAY16

Analysis	1: Date Extracted / Digested	2: Date Analyzed	3: Analysis Approval Date	4: Analysis Approval Time	5: Table 2 Agricultural or other Property Use	6: Table 2 Residential / Parkland / Institutional Property Use	7: Table 2 Industrial/Commer cial/Community Property Use	8: RDL	9: SS-1 (Bob)	10: SS-2 (Cob.)	11: SS-3 (Ome)
Arsenic [µg/g]	19-May-16	20-May-16	21-May-16	09:51	11	18	18	0.5	1.1	0.5	1.1
Selenium [µg/g]	19-May-16	20-May-16	21-May-16	09:51	2.4	2.4	5.5	0.7	1.4	1.1	2.2
ORPs	***	***	***	***	***	***	***	***	***	***	***
Mercury [µg/g]	19-May-16	24-May-16	24-May-16	12:12	(1.8) 0.25	(1.8) 0.27	(20) 3.9	0.05	< 0.05	< 0.05	< 0.05
Water Soluble Boron [µg/g]	19-May-16	20-May-16	20-May-16	15:50	1.5	1.5	2	0.5	< 0.5	< 0.5	< 0.5
Sodium Adsorption Ratio [---]	24-May-16	24-May-16	24-May-16	16:37	5	5.0	12	0.01	2.06	6.13	2.27
Conductivity [mS/cm]	20-May-16	20-May-16	24-May-16	13:21	0.70	0.70	1.4	0.002	0.08	0.78	0.31
pH [no unit]	20-May-16	20-May-16	20-May-16	13:57	---	---	---	0.05	7.87	8.08	8.21
Chromium VI [µg/g]	19-May-16	20-May-16	24-May-16	12:44	(10) 8	(10) 8	(10) 8	0.2	0.5	< 0.2	< 0.2
Free Cyanide [µg/g]	19-May-16	20-May-16	25-May-16	13:03	0.051	0.051	0.051	0.05	< 0.05	< 0.05	< 0.05
ORGANIC PARAMETERS	***	***	***	***	***	***	***	***	***	***	***
BTEX (VOCs)	***	***	***	***	***	***	***	***	***	***	***
Benzene [µg/g]	19-May-16	19-May-16	24-May-16	16:00	(0.17) 0.21	(0.17) 0.21	(0.4) 0.32	0.02	< 0.02	< 0.02	< 0.02
Ethylbenzene [µg/g]	19-May-16	19-May-16	24-May-16	16:00	(1.6) 1.1	(1.6) 1.1	(1.6) 1.1	0.05	< 0.05	< 0.05	< 0.05
Toluene [µg/g]	19-May-16	19-May-16	24-May-16	16:00	(6) 2.3	(6) 2.3	(9) 6.4	0.05	< 0.05	< 0.05	< 0.05
Xylene (total) [µg/g]	19-May-16	19-May-16	24-May-16	16:00	(25) 3.1	(25) 3.1	(30) 26	0.05	< 0.05	< 0.05	< 0.05
m/p-xylene [µg/g]	19-May-16	19-May-16	24-May-16	16:00	---	---	---	0.05	< 0.05	< 0.05	< 0.05
o-xylene [µg/g]	19-May-16	19-May-16	24-May-16	16:00	---	---	---	0.05	< 0.05	< 0.05	< 0.05
PHCs (F1-F4)	***	***	***	***	***	***	***	***	***	***	***
CCME F2 (C10-C16) [µg/g]	19-May-16	19-May-16	20-May-16	11:01	(150) 98	(150) 98	(250) 230	10	< 10	< 10	< 10
CCME F3 (C16-C34) [µg/g]	19-May-16	19-May-16	20-May-16	11:01	(1300) 300	(1300) 300	(2500) 1700	50	431	172	282
CCME F4 (C34-C50) [µg/g]	19-May-16	19-May-16	20-May-16	11:01	(5600) 2800	(5600) 2800	(6600) 3300	50	674	469	488
CCME F4G-sg (GHH) [µg/g]	19-May-16	24-May-16	25-May-16	15:36	---	---	---	200	1630	1320	910
Chromatogram returned to baseline at nC50 [Yes / No]	19-May-16	19-May-16	20-May-16	11:01	---	---	---	NO	NO	NO	NO

Brian Graham B.Sc.  
Project Specialist  
Environmental Services, Analytical





SGS Canada Inc.  
P.O. Box 4300 - 185 Concession St.  
Lakefield - Ontario - K0L 2H0  
Phone: 705-652-2000 FAX: 705-652-6365

LR Report : CA15407-MAY16

CCME Method Compliance: Analyses were conducted using analytical procedures that comply with the Reference Method for the CWS for Petroleum Hydrocarbons in soil and have been validated for use at the SGS laboratory, Lakefield, ON site.

Quality Compliance: Instrument performance / calibration quality criteria were met and extraction and analysis limits for holding times were met.

nc6 and nc10 response factors within 30% of response factor for toluene: YES

nc10, nc16 and nc34 response factors within 10% of the average response for the

C50 response factors within 70% of nc10 + nc16 + nc34 average: YES

three compounds: YES

Linearity is within 15%: YES

F4G - gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.

The results for F4 and F4G are both reported and the greater of the two values is to be used in application to the CWS PHC.

Hydrocarbon results are expressed on a dry weight basis.

RDL - reportable detection limit

ND - Non-detect

NSS - not sufficient sample

RPD - relative percent difference

## Quality control Report

Organic Analysis													
Parameter	Reporting Limit	Unit	Method Blank	RPD		Acceptance Criteria	Spike Recovery (%)		LCS / Spike Blank Recovery Limits (%)		Spike Recovery (%)	Matrix Spike / Reference Material Recovery Limits (%)	
						%			Low	High		Low	High
Petroleum Hydrocarbons (F1) - QCBatchID: GCM0207-MAY16													
CCME F1 (C6-C10)	10	µg/g	<10	ND		30	98		80	120	106	60	140
Petroleum Hydrocarbons (F2-F4) - QCBatchID: GCM0200-MAY16													
CCME F2 (C10-C16)	10	µg/g	<10	ND		30	114		80	120	108	60	140
CCME F3 (C16-C34)	50	µg/g	<50	ND		30	114		80	120	108	60	140
CCME F4 (C34-C50)	50	µg/g	<50	ND		30	114		80	120	108	60	140
Petroleum Hydrocarbons (F4G) - QCBatchID: GCM0224-MAY16													
CCME F4G-sg (GHH)	200	µg/g	<200	18		30	82		80	120	NA	60	140
Volatile Organics - QCBatchID: GCM0207-MAY16													
Benzene	0.02	µg/g	<0.02	ND		50	NV		60	130	89	50	140
Ethylbenzene	0.05	µg/g	<0.05	ND		50	NV		60	130	90	50	140
m/p-xylene	0.05	µg/g	<0.05	ND		50	NV		60	130	92	50	140
o-xylene	0.05	µg/g	<0.05	ND		50	NV		60	130	90	50	140
Toluene	0.05	µg/g	<0.05	ND		50	NV		60	130	93	50	140
Xylene (total)	0.05	µg/g	<0.05	ND		50	NV		60	130	92	50	140
Inorganic Analysis													
Parameter	Reporting Limit	Unit	Method Blank	RPD		Acceptance Criteria	Spike Recovery (%)		LCS / Spike Blank Recovery Limits (%)		Spike Recovery (%)	Matrix Spike / Reference Material Recovery Limits (%)	
						%			Low	High		Low	High
Anions by IC - QCBatchID: DIO0332-MAY16													
Chloride	0.4	µg/g	<0.4	0		20	108		80	120	109	75	125
Cyanide by SFA - QCBatchID: SKA5050-MAY16													
Free Cyanide	0.05	µg/g	<0.05	ND		20	102		80	120	77	75	125
Cyanide by SFA - QCBatchID: SKA5057-MAY16													
Free Cyanide	0.05	µg/g	<0.05	ND		20	106		80	120	NV	75	125
Hexavalent Chromium by IC - QCBatchID: DIO0326-MAY16													
Chromium VI	0.2	µg/g	<0.2	6		20	101		80	120	96	75	125
Mercury by CVAAS - QCBatchID: EHG0030-MAY16													
Mercury	0.05	µg/g	<0.05	ND		20	90		80	120	118	70	130
Metals in aqueous samples - ICP-OES - QCBatchID: ESG0066-MAY16													
SAR Calcium	0.02	mg/L	<0.02	13		20	97		80	120	79	70	130
SAR Magnesium	0.003	mg/L	<0.003	10		20	92		80	120	95	70	130
SAR Sodium	0.01	mg/L	<0.01	8		20	91		80	120	NV	70	130
Metals in aqueous samples - ICP-OES - QCBatchID: ESG8015-MAY16													
SAR Calcium	0.02	mg/L	<0.02	0		20	94		80	120	111	70	130



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Inorganic Analysis											
Parameter	Reporting Limit	Unit	Method Blank	Acceptance Criteria		Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Matrix Spike / Reference Material Recovery Limits (%)	
				RPD	%		Low	High			
SAR Magnesium	0.003	mg/L	<0.003	1	20	96	80	120	111	70	130
SAR Sodium	0.01	mg/L	<0.01	1	20	88	80	120	81	70	130
Metals in Soil - Aqua-regia/ICP-MS - QCBatchID: EMS0003-MAY16											
Antimony	0.8	µg/g	<0.8	ND	20	108	70	130	NV	70	130
Arsenic	0.5	µg/g	<0.5	13	20	104	70	130	83	70	130
Barium	0.01	µg/g	<0.01	3	20	105	70	130	100	70	130
Beryllium	0.02	µg/g	<0.02	2	20	103	70	130	78	70	130
Boron	1	µg/g	<1	0	20	102	70	130	78	70	130
Cadmium	0.02	µg/g	<0.02	6	20	106	70	130	96	70	130
Chromium	0.5	µg/g	<0.5	1	20	104	70	130	110	70	130
Cobalt	0.01	µg/g	<0.01	3	20	106	70	130	90	70	130
Copper	0.1	µg/g	<0.1	2	20	108	70	130	104	70	130
Lead	0.1	µg/g	<0.05	3	20	106	70	130	105	70	130
Molybdenum	0.1	µg/g	<0.1	1	20	102	70	130	96	70	130
Nickel	0.1	µg/g	<0.1	1	20	104	70	130	101	70	130
Selenium	0.7	µg/g	<0.7	13	20	105	70	130	121	70	130
Silver	0.01	µg/g	<0.01	0	20	103	70	130	106	70	130
Thallium	0.02	µg/g	<0.02	6	20	104	70	130	84	70	130
Uranium	0.002	µg/g	<0.002	1	20	107	70	130	93	70	130
Vanadium	3	µg/g	<3	3	20	105	70	130	84	70	130
Zinc	0.7	µg/g	<0.7	2	20	108	70	130	102	70	130
pH - QCBatchID: ARD0057-MAY16											
pH	0.05	no unit		0	20	100	80	120			
Water Soluble Boron - QCBatchID: ESG0059-MAY16											
Water Soluble Boron	0.5	µg/g	<0.5	ND	20	95	80	120	107	70	130



## Request for Laboratory Services and CHAIN OF CUSTODY

SGS Environmental Services - Lakefield: 185 Concession St., Lakefield, ON K0L 2H0 Phone: 705-632-2000 Toll Free: 877-747-7658 Fax: 705-652-6365  
 - London: 657 Consortium Court, London, ON, N6E 2S8 Phone: 519-672-4500 Toll Free: 877-848-8060 Fax: 519-672-0361 Web: www.ca.sgs.com

No: \_\_\_\_\_

Page \_\_\_\_\_ of \_\_\_\_\_

### Laboratory Information Section - Lab use only

Received By: Steve Gage  
 Received Date (mm/dd/yyyy): \_\_\_\_\_ (mm/dd/yyyy)  
 Received Time: \_\_\_\_\_

Received By (signature): [Signature]  
 Custody Seal Present: ☒  
 Custody Seal Intact: ☒

Cooling Agent Present: ☒  
 Temperature Upon Receipt (°C): 6 x 3

LAB LIMS #: \_\_\_\_\_

### REPORT INFORMATION

Company: GLB  
 Contact: Steve Gage  
 Address: 347 P.O. Road, Unit 29  
Parkborough ON K9J 6X7  
 Phone: 705-749-3317  
 Fax: 705-749-9248  
 Email: Steve.Gage@ghd.com

### INVOICE INFORMATION

☒ (same as Report Information)  
 Company: \_\_\_\_\_  
 Contact: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Email: \_\_\_\_\_

### PROJECT INFORMATION

Quotation #: \_\_\_\_\_  
 Project #: 1114492-01  
 P.O. #: Pending  
 Site Location ID: \_\_\_\_\_

### TURNAROUND TIME (TAT) REQUIRED

☒ Regular TAT (5-7 days) TAT's are quoted in business days (exclude statutory holidays & weekends).  
 Samples received after 3pm or on weekends: TAT begins the next business day

☐ RUSH TAT (Additional Charges May Apply) ☐ 1 Day ☐ 2 Days ☐ 3-4 Days

PLEASE CONFIRM RUSH FEASIBILITY WITH SGS REPRESENTATIVE PRIOR TO SUBMISSION

Specify Due Date: \_\_\_\_\_

Rush Confirmation ID: \_\_\_\_\_

### REGULATIONS

#### Regulation 153 (2011):

☐ Table 1 ☐ Res/Park ☐ Soil Texture: ☒ Coarse  
☒ Table 2 ☐ Ind/Com ☐ MMR  
☐ Table 3 ☐ Agri/Other ☐ Medium  
☐ Table \_\_\_\_\_ ☐ Fine

#### Other Regulations:

☐ Reg 347/558 (3 Day min TAT)  
☐ PWQO ☐ MMR  
☐ CCME ☐ Other: \_\_\_\_\_  
☐ MISA

#### Sewer By-Law:

☐ Sanitary  
☐ Storm  
 Municipality: \_\_\_\_\_

### RECORD OF SITE CONDITION (RSC)

☐ YES ☐ NO

SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	# OF BOTTLES	MATRIX
1 <u>SS-1 (Bob)</u>	<u>05/13/16</u>	<u>10</u>	<u>4</u>	<u>↓</u>
2 <u>SS-2 (Col)</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>
3 <u>SS-3 (Ave)</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>
4				
5				
6				
7				
8				
9				
10				

### ANALYSIS REQUESTED

COMMENTS:  
 Field Filtered (F)  
 Preserved (P)

DRINKING WATER SAMPLES (POTABLE WATER FOR HUMAN CONSUMPTION) MUST BE SUBMITTED WITH SGS DRINKING WATER CHAIN OF CUSTODY

### Observations/Comments/Special Instructions

Sampled By (NAME): Steve Gage Signature: [Signature] Date: 05/13/16 (mm/dd/yyyy) Pink Copy - Client  
 Relinquished by (NAME): Paul Elton Signature: [Signature] Date: 05/13/16 (mm/dd/yyyy) Yellow & White Copy - SGS





## SIEVE ANALYSIS OF GRANULAR MATERIALS (Various LS Procedures)

CLIENT: City of Kawartha Lakes

LAB No.

AG-16-99PROJECT/SITE: Quality Testing

PROJECT No.

11114492-01

Client:	City of Kawartha Lakes	Material Type:	Sweepings	Sieve Shaker No.:	Mary-Anne
Project:	Quality Testing	Specification:	OPSS 1010	Scale No.:	10
Sampled By:	Client	Pit or Quarry	n/a	Project No:	11114492-01
Date Sampled:	1-May-16	Source Location:	Omeme	Lab No:	AG-16-99
Date Received:	19-May-16			Field No:	n/a

## Material Type (check one)

## Granular

☐ A
☐ B-Type 1
☐ B-Type 2
☐ B-Type 3
☐ M
☐ O
☒ SSM

Sieve Size mm's	Acceptance Requirements - Percent Passing							Test Results (Percent Passing)
	Granular Type							
	A	B-Type 1	B-Type 2	B-Type 3	M	O	SSM	

## Coarse Aggregate Material

150	N/A	100	---	100	---	---	100	---
106	---	---	100	---	---	---	---	---
37.5	---	---	---	---	---	100	---	---
26.5	100	50-100	50-100	50-100	---	95-100	50-100	100
19.0	85-100	---	---	---	100	80-95	---	---
13.2	65-90	---	---	---	75-95	60-80	---	---
9.5	50-73	---	---	32-100	55-80	50-70	---	---
4.75	35-55	20-100	20-55	20-90	35-55	20-45	20-100	100

## Fine Aggregate Material

1.18	15-40	10-100	10-40	10-60	15-40	0-15	10-100	70.2
0.300	5-22	2-65	5-22	2-35	5-22	---	5-95	30.4
0.150	---	---	---	---	---	---	2-65	15.5
0.075	2-8 (2-10*)	0-8 (0-10*)	0-10	0-8 (0-10*)	2-8 (2-10*)	0-5	0-25	8.1

## Notes:

\* Where the aggregate is obtained from a quarry source or an air-cooled blast furnace slag or nickel slag source.

PERFORMED BY: \_\_\_\_\_

DATE: \_\_\_\_\_

24-May-16

VERIFIED BY: \_\_\_\_\_

DATE: \_\_\_\_\_

24-May-16



# PHYSICAL PROPERTIES OF GRANULAR MATERIALS (Various LS Procedures)

<b>CLIENT:</b>	<u>City of Kawartha Lakes</u>	<b>LAB No.</b>	<u>AG-16-99</u>
<b>PROJECT/SITE:</b>	<u>Quality Testing</u>	<b>PROJECT No.</b>	<u>11114492-01</u>

Client:	City of Kawartha Lakes	Material Type:	Sweepings	Sieve Shaker No.:	Mary-Anne
Project:	Quality Testing	Specification:	OPSS 1010	Scale No.:	10
Sampled By:	Client	Pit or Quarry:	n/a	Project No:	11114492-01
Date Sampled:	1-May-16	Source Location:	Omeme	Lab No:	AG-16-99
Date Received:	19-May-16			Field No:	n/a

## Material Type (check one)

### Granular

☐ A
 ☐ B-Type 1
 ☐ B-Type 2
 ☐ B-Type 3
 ☐ M
 ☐ O
 ☒ SSM

Laboratory Test , Test Number	Acceptance Requirements							Test Results	
	Granular Type								
	A	B-Type 1	B-Type 2	B-Type 3	M	O	SSM	Reference Material	Sample
Crushed Particles % minimum, LS-607	60	N/A	100	N/A	60	100	N/A	N/A	N/A
Freeze-Thaw Loss % maximum, LS-614	N/A	N/A	N/A	N/A	N/A	15	N/A	N/A	N/A
2 Faces Crushed %, maximum, LS-617	N/A	N/A	N/A	N/A	N/A	85	N/A	N/A	N/A
Micro-Deval Coarse Aggregate Loss % maximum, LS-618	25	30 (Note 3)	30 (Note 3)	30	25	21	30 (Note 3)	N/A	N/A
Micro-Deval Fine Aggregate Loss % maximum, LS-619	30	35	35	35	30	25	N/A	17.1	11.4
Asphalt Coated Particles % maximum, LS-621	30	30	0	30	30	N/A	N/A	N/A	N/A
Amount of Contamination, LS-630	(Note 2)							N/A	N/A
Plastic Fines, LS-631	NP (Non-Plastic)							N/A	N/A
Determination of Permeability, k, LS-709	(Note 3)							N/A	N/A

### Notes:

- The coarse aggregate Micro-Deval abrasion loss test (LS-618) requirement will be waived if the material has more than 80% passing the 4.75mm sieve.
- Granular A, B Type 1, B Type 3, or M may contain up to 15% by mass crushed glass and/or ceramic material. Granular A, O, B Type 1, B Type 3, and M shall not contain more than 1.0% by mass of wood, clay brick and/or gypsum and/or gypsum wall board. Granular B Type 2 and SSM shall not contain more than 0.1% by mass of wood.
- For materials north of the French/Mattawa Rivers only, the coefficient of permeability, k shall be greater than  $1.0 \times 10^{-4}$  cm/s or field experience has demonstrated satisfactory performance. Prior data demonstrating compliance with this requirements for k, shall be acceptable provided that such testing has been done within five years of the material being used and field performance has continually been shown to be satisfactory.
- Acceptance Requirements derived from OPSS SSP110S13.

<b>PERFORMED BY:</b> _____	<b>DATE:</b> <u>24-May-16</u>
<b>VERIFIED BY:</b> _____	<b>DATE:</b> <u>24-May-16</u>



Environmental

Geotechnical

Building Sciences

Construction  
Monitoring

**Telephone**

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**Website**

[cambium-inc.com](http://cambium-inc.com)

**Mailing Address**

P.O. Box 325  
52 Hunter Street East  
Peterborough, ON  
K9H 1G5

**Locations**

Peterborough  
Kingston  
Barrie  
Oshawa

**Laboratory**

Peterborough



August 27, 2018

City of Kawartha Lakes  
26 Francis Street,  
Lindsay, ON K9V 5R8

Via email: [rmonaghan@kawarthalakes.ca](mailto:rmonaghan@kawarthalakes.ca)

Attn: Richard Monaghan, C.E.T.  
Senior Engineering Technician

**Re: Characterization of Street Sweepings**  
**City of Kawartha Lakes, Ontario**  
**Cambium Reference: 7817-001**

---

Dear Mr. Monaghan,

The City of Kawartha Lakes is seeking reuse possibilities for the road sweepings that are collected at the end of the winter from the City roads. Rather than disposing the sweepings as waste, the winter sand sweepings are stockpiled at the Bobcaygeon, Coboconk, and Omemee facilities. Cambium Inc. (Cambium) was retained by the City of Kawartha Lakes (Client) to complete physical and chemical characterization of the sweepings in order to identify potential reuse options for this material.

Samples of the sweepings were provided by the City. The chemical testing was completed by SGS Environmental Laboratories in Lakefield, Ontario. The physical testing was completed at Cambium's CCIL-certified materials testing laboratory in Peterborough, Ontario.

## CHEMICAL TESTING RESULTS

Each sample was tested for the following parameters: petroleum hydrocarbons (PHCs), benzene, toluene, ethylbenzene, and xylenes (BTEX) and metals and inorganics. Analytical results were compared to the Table 1 and Table 2 Site Condition Standards (SCS) of the O.Reg. 153/04 *Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act* (MOE, 2011). Table 1 applies to the *Full Depth Background Site Condition Standards* and Table 2 applies to *Full Depth Generic Site Condition Standards in a Potable Ground Water Condition*. Industrial / Commercial / Community (ICC)



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**Laboratory**

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August 27, 2018

Property Use and coarse-grained soils were selected to determine concentration exceedances for the analyzed parameters. It is noted that Community Property Use includes municipal road right-of-ways.

Table 1 SCS represent typical background concentrations encountered throughout Ontario, and are the most stringent criteria available for comparison. Soil that meets the Table 1 SCS is generally considered clean fill and can be handled as such. Table 2 SCS are less stringent, such that soil that exceeds the Table 2 SCS is generally considered contaminated and has to be disposed at a facility (e.g., landfill) that accepts such waste. Analytical results were compared to both the Table 1 and Table 2 SCS to determine appropriate reuse of the soil.

Laboratory analytical results reported electrical conductivity (EC) and sodium adsorption ratio (SAR) in the sample collected from the Oakwood Depot at concentrations exceeding the Table 1 standards, but less than the Table 2 standards. It is likely that the observed EC and SAR exceedances are due to the use of de-icing salt. The results also reported PHC F3 and/or F4 in the samples collected from the Coboconk and Oakwood depots at concentrations exceeding the Table 1 standards, but less than the Table 2 standards. It is likely that the observed PHC F3 and F4 concentrations are due to asphalt inclusions in the samples. All other tested parameters were reported at concentrations less than the Table 1 and Table 2 Standards, as shown in the attached analytical summary table and the Laboratory Certificates of Analysis.

Based on the laboratory results, the sampled material is suitable for reuse at sites for which the Table 2 SCS for ICC Property Use and coarse-grained soils apply. Accordingly, the soil should not be placed on agricultural or residential land, nor within 30 m of a water body, but is generally suitable for the reuse options provided below.

## GRADATION AND PHYSICAL TESTING RESULTS

The gradation test results and micro-deval fine aggregate loss results are attached to this letter and summarized in Table 1.





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**Table 1 Gradation and Physical Testing Results**

Sieve (mm)	Oakwood Depot (% passing)	Bobcaygeon Depot (% passing)	Coboconk Depot (% passing)
26.5	100	100	100
13.2	99.6	99.8	99.7
9.5	98.2	98.6	98.9
4.75	90.7	91.7	91.6
1.18	48.9	61.5	52.2
0.300	20.2	28.4	12.3
0.150	11.6	15.4	5.1
0.075	7.5	8.8	2.6
Fine Aggregate % loss	9.7%	10.7%	9.4%

The material from the Oakwood and Coboconk Depots meet the gradation requirements for Granular B Type 1 and SSM material. The material from the Bobcaygeon Depot meets the SSM gradation requirements but does not meet the Granular B Type 1 gradation requirements due to the fines percentage of 8.8%, which is slightly more than the maximum of 8% in the specification.

## REUSE OPTIONS

Based on the results of the gradation and physical testing the stockpiled street sweepings would be suitable for reuse as a Granular B Type 1 material (except for the Bobcaygeon Depot) or a Select Subgrade Material in the following situations.

- As backfill material against exterior building foundations or culverts.
- As upfill material to obtain a higher subgrade on road widenings or grade raises, prior to being covered with Granular B and Granular A. Due to the lack of stone sized particles, the reused screenings should be kept out of high traffic road subbase.



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August 27, 2018

- As sand backfill around catchbasins and manholes to prevent frost jacking and differential settlement due to it's low frost susceptibility and micro deval loss.

The stockpiled street sweepings did not meet the gradation requirements for reuse as winter sand, which requires 100% passing the 9.5 mm sieve and <5% passing the 75 µm sieve.

We trust that this letter report meets with your immediate requirements. If you have further questions or comments, please contact the undersigned at 705-742-7900 ext. 220 or 336.

Best regards,

**Cambium Inc.**

Bernie Taylor, P.Eng.  
Project Manager - Environmental

Jennifer Wales, P.Eng.  
Project Manager - Geotechnical

BT/JW

*Encl.      Table 2 – Summary of Soil Quality – Metals, Inorganics, BTEX and PHCs  
Laboratory Certificates of Analysis  
Gradation and Physical Testing Results*

*P:\7800 to 7899\7817-001 City of Kawartha Lakes - Soil Testing - Various Works Yards\Deliverables\2018-08-27 LTR Soil Characterization for CKL.docx*



August 27, 2018

## QUALIFICATIONS AND LIMITATIONS

### Limited Warranty

In performing work on behalf of a client, Cambium relies on its client to provide instructions on the scope of its retainer and, on that basis, Cambium determines the precise nature of the work to be performed. Cambium undertakes all work in accordance with applicable accepted industry practices and standards. Unless required under local laws, other than as expressly stated herein, no other warranties or conditions, either expressed or implied, are made regarding the services, work or reports provided.

### Reliance on Materials and Information

The findings and results presented in reports prepared by Cambium are based on the materials and information provided by the client to Cambium and on the facts, conditions and circumstances encountered by Cambium during the performance of the work requested by the client. In formulating its findings and results into a report, Cambium assumes that the information and materials provided by the client or obtained by Cambium from the client or otherwise are factual, accurate and represent a true depiction of the circumstances that exist. Cambium relies on its client to inform Cambium if there are changes to any such information and materials. Cambium does not review, analyze or attempt to verify the accuracy or completeness of the information or materials provided, or circumstances encountered, other than in accordance with applicable accepted industry practice. Cambium will not be responsible for matters arising from incomplete, incorrect or misleading information or from facts or circumstances that are not fully disclosed to or that are concealed from Cambium during the provision of services, work or reports.

Facts, conditions, information and circumstances may vary with time and locations and Cambium's work is based on a review of such matters as they existed at the particular time and location indicated in its reports. No assurance is made by Cambium that the facts, conditions, information, circumstances or any underlying assumptions made by Cambium in connection with the work performed will not change after the work is completed and a report is submitted. If any such changes occur or additional information is obtained, Cambium should be advised and requested to consider if the changes or additional information affect its findings or results.

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### Site Assessments

A Site assessment is created using data and information collected during the investigation of a Site and based on conditions encountered at the time and particular locations at which fieldwork is conducted. The information, sample results and data collected represent the conditions only at the specific times at which and at those specific locations from which the information, samples and data were obtained and the information, sample results and data may vary at other locations and times. To the extent that Cambium's work or report considers any locations or times other than those from which information, sample results and data was specifically received, the work or report is based on a reasonable extrapolation from such information, sample results and data but the actual conditions encountered may vary from those extrapolations.

Only conditions at the Site and locations chosen for study by the client are evaluated; no adjacent or other properties are evaluated unless specifically requested by the client. Any physical or other aspects of the Site chosen for study by the client, or any other matter not specifically addressed in a report prepared by Cambium, are beyond the scope of the work performed by Cambium and such matters have not been investigated or addressed.

### No Reliance

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Cambium is not responsible for any lost revenues, lost profits, cost of capital, or any special, indirect, consequential or punitive damages suffered by the client or any other party in reliance on any Cambium work or report. Cambium's total liability and responsibility to the client or any other person for any and all losses, costs, expenses, damages, claims, causes of action or other liability whatsoever which do or may result or arise from or be in relation to Cambium's services, work (or failure to perform services or work) or reports shall be limited to the invoiced charges for the work performed by Cambium.

### Personal Liability

The client expressly agrees that Cambium employees shall have no personal liability to the client with respect to a claim, whether in contract, tort and/or other cause of action in law. Furthermore, the client agrees that it will bring no proceedings nor take any action in any court of law against Cambium employees in their personal capacity.

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Table 2 - Summary of Soil Quality (Metals, Inorganics, BTEX and PHCs)

Sample Identification		Units	Laboratory Reportable Detection Limit (RDL)	Table 1 Standards <sup>1</sup>	Table 2 Standards <sup>2</sup>	Coboconk Depot 15-Jun-18	Oakwood Depot 15-Jun-18	Bobcaygeon Depot 15-Jun-18
Sample Date								
Barium		µg/g	0.1	220	670	22	16	18
Beryllium		µg/g	0.02	2.5	8	0.09	0.09	0.12
Boron		µg/g	1	36	120	3	4	3
Cadmium		µg/g	0.02	1.2	1.9	0.02	< 0.02	< 0.02
Chromium		µg/g	0.5	70	160	3.6	5.1	3.9
Cobalt		µg/g	0.01	21	80	1.5	1.2	1.6
Copper		µg/g	0.1	92	230	6.4	4.9	6.8
Lead		µg/g	0.1	120	120	2.6	2.1	1.5
Molybdenum		µg/g	0.1	2	40	0.1	0.2	< 0.1
Nickel		µg/g	0.5	82	270	3.7	3.2	3.4
Silver		µg/g	0.05	0.5	40	< 0.05	< 0.05	< 0.05
Thallium		µg/g	0.02	1	3.3	0.03	0.02	0.03
Uranium		µg/g	0.002	2.5	33	0.25	0.3	0.22
Vanadium		µg/g	3	86	86	9	5	8
Zinc		µg/g	0.7	290	340	13	14	9.5
Antimony		µg/g	0.8	1.3	40	< 0.8	< 0.8	< 0.8
Arsenic		µg/g	0.5	18	18	0.8	1	0.6
Selenium		µg/g	0.7	1.5	5.5	< 0.7	< 0.7	< 0.7
Mercury		µg/g	0.05	0.27	3.9	< 0.05	< 0.05	< 0.05
Boron (Hot Water Soluble)		µg/g	0.5	NV	2	< 0.5	< 0.5	< 0.5
Sodium Adsorption Ratio		N/A	0.2	2.4	12	0.4	<b>8.7</b>	0.3
Conductivity		mS/cm	0.002	0.57	1.4	0.13	<b>1.3</b>	0.13
pH		N/A	0.05	NV	NV	8.21	8.15	8.21
Chromium VI		µg/g	0.2	0.66	8	< 0.2	< 0.2	< 0.2
Cyanide		µg/g	0.05	0.051	0.051	< 0.05	< 0.05	< 0.05
Benzene		µg/g	0.02	0.02	0.32	< 0.02	< 0.02	< 0.02
Ethylbenzene		µg/g	0.05	0.05	1.1	< 0.05	< 0.05	< 0.05
Toluene		µg/g	0.05	0.2	6.4	< 0.05	< 0.05	< 0.05
Xylene Mixture		µg/g	0.05	0.05	26	< 0.05	< 0.05	< 0.05
F1 (C8 to C10)		µg/g	10	25	55	< 10	< 10	< 10
F2 (C10 to C16)		µg/g	10	10	230	< 10	< 10	< 10
F3 (C16 to C34)		µg/g	50	240	1700	<b>245</b>	225	< 50
F4 (C34 to C50)		µg/g	50	120	3300	<b>485</b>	<b>360</b>	58
Gravimetric Heavy Hydrocarbons		µg/g	200	120	3300	<b>1510</b>	<b>1050</b>	---

Notes:

1. Table 1 (Soil Other Than Sediment, Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use) of the Soil Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act.

2. Table 2 (Soil Other Than Sediment, Industrial/Commercial/Community Property Uses, Coarse) of the Soil Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act.

Bold - value exceeds Table 1 standard.

Bold and Shaded - value exceeds Table 2 standard.

Bold and underline - Laboratory RDL exceeds standard.

"NV" indicates no value.

"," indicates value not analyzed.





## FINAL REPORT

CA14576-JUN18 R

7817-001 Bernie Taylor

Prepared for

**Cambium Inc.**

## First Page

CLIENT DETAILS		LABORATORY DETAILS	
Client	Cambium Inc.	Project Specialist	Brian Graham B.Sc.
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Contact	Bernie Taylor	Address	185 Concession St., Lakefield ON, K0L 2H0
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Facsimile	705-742-7907	Facsimile	705-652-6365
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Project	7817-001 Bernie Taylor	SGS Reference	CA14576-JUN18
Order Number		Received	06/18/2018
Samples	Soil (3)	Approved	06/25/2018
		Report Number	CA14576-JUN18 R
		Date Reported	06/25/2018

## COMMENTS

CCME Method Compliance: Analyses were conducted using analytical procedures that comply with the Reference Method for the CWS for Petroleum Hydrocarbons in Soil and have been validated for use at the SGS laboratory, Lakefield, ON site.

Quality Compliance: Instrument performance / calibration quality criteria were met and extraction and analysis limits for holding times were met.

nC6 and nC10 response factors within 30% of response factor for toluene: YES

nC10, nC16 and nC34 response factors within 10% of the average response for the three compounds: YES

C50 response factors within 70% of nC10 + nC16 + nC34 average: YES

Linearity is within 15%: YES

F4G - gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.

The results for F4 and F4G are both reported and the greater of the two values is to be used in application to the CWS PHC.

Hydrocarbon results are expressed on a dry weight basis.

Temperature of Sample upon Receipt: 3 degrees C

Cooling Agent Present: Yes

Custody Seal Present: No

## SIGNATORIES



Brian Graham B.Sc.



# FINAL REPORT

CA14576-JUN18 R

**Client:** Cambium Inc.  
**Project:** 7817-001 Bernie Taylor  
**Project Manager:** Bernie Taylor  
**Samplers:** Steve Elford

## PACKAGE: REG153 - BTEX (SOIL)

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED  
L2 = REG153 / SOIL / COARSE - TABLE 2 - Industrial/Commercial - UNDEFINED

**Parameter**  
**BTEX**

Parameter	Units	RL	L1	L2	Sample Number	Sample Name	Sample Matrix	Sample Date	Result	Result
Benzene	µg/g	0.02	0.02	0.32	11	Coboconk Depot	Soil	15/06/2018	< 0.02	< 0.02
Ethylbenzene	µg/g	0.05	0.05	1.1	12	Oakwood Depot	Soil	15/06/2018	< 0.05	< 0.05
Toluene	µg/g	0.05	0.2	6.4	13	Bobcaygeon Depot	Soil	15/06/2018	< 0.05	< 0.05
Xylene (total)	µg/g	0.05	0.05	26					< 0.05	< 0.05
m/p-xylene	µg/g	0.05							< 0.05	< 0.05
o-xylene	µg/g	0.05							< 0.05	< 0.05

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## PACKAGE: REG153 - Hydrides (SOIL)

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED  
L2 = REG153 / SOIL / COARSE - TABLE 2 - Industrial/Commercial - UNDEFINED

**Parameter**  
**Hydrides**

Parameter	Units	RL	L1	L2	Sample Number	Sample Name	Sample Matrix	Sample Date	Result	Result
Antimony	µg/g	0.8	1.3	40	11	Coboconk Depot	Soil	15/06/2018	< 0.8	< 0.8
Arsenic	µg/g	0.5	18	18	12	Oakwood Depot	Soil	15/06/2018	0.8	1.0
Selenium	µg/g	0.7	1.5	5.5	13	Bobcaygeon Depot	Soil	15/06/2018	< 0.7	< 0.7



# FINAL REPORT

CA14576-JUN18 R

**Client:** Cambium Inc.  
**Project:** 7817-001 Bernie Taylor  
**Project Manager:** Bernie Taylor  
**Samplers:** Steve Elford

## PACKAGE: REG153 - Metals and Inorganics (SOIL)

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED  
L2 = REG153 / SOIL / COARSE - TABLE 2 - Industrial/Commercial - UNDEFINED

### Parameter

### Metals and Inorganics

	Units	RL	L1	L2	Sample Matrix	Sample Name	Sample Number	11	12	13
								Coboconk Depot	Oakwood Depot	Bobcaygeon Depot
								Soil	Soil	Soil
								15/06/2018	15/06/2018	15/06/2018
								Result	Result	Result
Moisture Content	%	-						2.6	2.6	2.0
Barium	µg/g	0.1	220	670				22	16	18
Beryllium	µg/g	0.02	2.5	8				0.09	0.09	0.12
Boron	µg/g	1	36	120				3	4	3
Cadmium	µg/g	0.02	1.2	1.9				0.02	< 0.02	< 0.02
Chromium	µg/g	0.5	70	160				3.6	5.1	3.9
Cobalt	µg/g	0.01	21	80				1.5	1.2	1.6
Copper	µg/g	0.1	92	230				6.4	4.9	6.8
Lead	µg/g	0.1	120	120				2.6	2.1	1.5
Molybdenum	µg/g	0.1	2	40				0.1	0.2	< 0.1
Nickel	µg/g	0.5	82	270				3.7	3.2	3.4
Silver	µg/g	0.05	0.5	40				< 0.05	< 0.05	< 0.05
Thallium	µg/g	0.02	1	3.3				0.03	0.02	0.03
Uranium	µg/g	0.002	2.5	33				0.25	0.30	0.22
Vanadium	µg/g	3	86	86				9	5	8
Zinc	µg/g	0.7	290	340				13	14	9.5
Water Soluble Boron	µg/g	0.5		2				< 0.5	< 0.5	< 0.5



# FINAL REPORT

CA14576-JUN18 R

**Client:** Cambium Inc.  
**Project:** 7817-001 Bernie Taylor  
**Project Manager:** Bernie Taylor  
**Samplers:** Steve Elford

## PACKAGE: REG153 - Other (ORP) (SOIL)

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED  
L2 = REG153 / SOIL / COARSE - TABLE 2 - Industrial/Commercial - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result
Other (ORP)							
Mercury	µg/g	0.05	0.27	3.9	< 0.05	< 0.05	< 0.05
Sodium Adsorption Ratio	---	0.2	2.4	12	0.4	8.7	0.3
Conductivity	mS/cm	0.002	0.57	1.4	0.13	1.3	0.13
pH	no unit	0.05			8.21	8.15	8.21
Chromium VI	µg/g	0.2	0.66	8	< 0.2	< 0.2	< 0.2
Free Cyanide	µg/g	0.05	0.051	0.051	< 0.05	< 0.05	< 0.05

## PACKAGE: REG153 - PHCs (SOIL)

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED  
L2 = REG153 / SOIL / COARSE - TABLE 2 - Industrial/Commercial - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result
PHCs							
F1 (C6-C10)	µg/g	10	25	55	< 10	< 10	< 10
F1-BTEX (C6-C10)	µg/g	10			< 10	< 10	< 10
F2 (C10-C16)	µg/g	10	10	230	< 10	< 10	< 10
F3 (C16-C34)	µg/g	50	240	1700	245	225	< 50
F4 (C34-C50)	µg/g	50	120	3300	485	360	58
F4G-sg (GHH)	µg/g	200	120	3300	1510	1050	
Chromatogram returned to baseline at nC50	Yes / No	-			NO	NO	YES



## EXCEEDANCE SUMMARY

Parameter	Method	Units	Result	REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED	REG153 / SOIL / COARSE - TABLE 2 - Industrial/Commercial - UNDEFINED
				L1	L2

### Coboconk Depot

F3 (C16 to C34)	CCME Tier 1	µg/g	245	240	
F4 (C34 to C50)	CCME Tier 1	µg/g	485	120	
Gravimetric Heavy Hydrocarbons	CCME Tier 1	µg/g	1510	120	

### Oakwood Depot

F4 (C34 to C50)	CCME Tier 1	µg/g	360	120	
Gravimetric Heavy Hydrocarbons	CCME Tier 1	µg/g	1050	120	
Conductivity	EPA 6010/SM 2510	mS/cm	1.3	0.57	
Sodium Adsorption Ratio	MOE 4696e01/EPA 6010	--	8.7	2.4	



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QC SUMMARY

Conductivity

Method: EPA 6010/SM 2510 | Internal ref.: ME-CA-IENVIEWL-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)	High	Spike Recovery (%)	Low	High
Conductivity	EWL0321-JUN18	mS/cm	0.002	<0.002	0	10	99	90	110	NA		

Cyanide by SFA

Method: SM 4500 | Internal ref.: ME-CA-IENVISFA-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)	High	Spike Recovery (%)	Low	High
Free Cyanide	SKA5046-JUN18	µg/g	0.05	<0.05	ND	20	96	80	120	100	75	125

Hexavalent Chromium by IC

Method: EPA218.6/EPA3060A | Internal ref.: ME-CA-IENVIC-LAK-AN-008

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)	High	Spike Recovery (%)	Low	High
Chromium VI	DIO0386-JUN18	µg/g	0.2	<0.2	0	20	104	80	120	100	75	125



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QC SUMMARY

Mercury by CVAAS  
Method: EPA 7471A/EPA 245 | Internal ref.: ME-CA-IENVISPE-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Low	High
Mercury	EMS0099-JUN18	µg/g	0.05	<0.05	2	20	110	80	120	103	70	130

Metals in aqueous samples - ICP-OES  
Method: MOE 4696e01/EPA 6010 | Internal ref.: ME-CA-IENVISPE-LAK-AN-003

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Low	High
SAR Calcium	ESG0056-JUN18	mg/L	0.09	0.1173	4	20	96	80	120	NV	70	130
SAR Magnesium	ESG0056-JUN18	mg/L	0.02	<0.02	10	20	94	80	120	NV	70	130
SAR Sodium	ESG0056-JUN18	mg/L	0.15	<0.15	2	20	91	80	120	NV	70	130



# FINAL REPORT

CA14576-JUN18 R

## QC SUMMARY

Metals in Soil - Aqua-regia/ICP-MS

Method: EPA 3050/EPA 200.8 | Internal ref.: ME-CA-IENVISPE-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Silver	EMS0099-JUN18	ug/g	0.05	<0.05	12	20	92	70	130	98	70	130
Arsenic	EMS0099-JUN18	µg/g	0.5	<0.5	2	20	97	70	130	101	70	130
Barium	EMS0099-JUN18	ug/g	0.1	<0.1	0	20	102	70	130	92	70	130
Beryllium	EMS0099-JUN18	µg/g	0.02	<0.02	1	20	100	70	130	100	70	130
Boron	EMS0099-JUN18	µg/g	1	<1	12	20	100	70	130	103	70	130
Cadmium	EMS0099-JUN18	µg/g	0.02	<0.02	2	20	97	70	130	107	70	130
Cobalt	EMS0099-JUN18	µg/g	0.01	<0.01	1	20	101	70	130	112	70	130
Chromium	EMS0099-JUN18	µg/g	0.5	<0.5	0	20	103	70	130	109	70	130
Copper	EMS0099-JUN18	µg/g	0.1	<0.1	1	20	103	70	130	108	70	130
Molybdenum	EMS0099-JUN18	µg/g	0.1	<0.1	10	20	100	70	130	116	70	130
Nickel	EMS0099-JUN18	ug/g	0.5	<0.5	1	20	103	70	130	110	70	130
Lead	EMS0099-JUN18	ug/g	0.1	<0.1	ND	20	100	70	130	102	70	130
Antimony	EMS0099-JUN18	µg/g	0.8	<0.8	20	20	107	70	130	108	70	130
Selenium	EMS0099-JUN18	µg/g	0.7	<0.7	4	20	99	70	130	104	70	130
Thallium	EMS0099-JUN18	µg/g	0.02	<0.02	10	20	99	70	130	109	70	130
Uranium	EMS0099-JUN18	µg/g	0.002	<0.002	3	20	97	70	130	94	70	130
Vanadium	EMS0099-JUN18	µg/g	3	<3	1	20	100	70	130	108	70	130
Zinc	EMS0099-JUN18	µg/g	0.7	<0.7	1	20	101	70	130	103	70	130



FINAL REPORT

CA14576-JUN18 R

QC SUMMARY

Metals Prep

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High

Prep-Hotblock	EMS0099-JUN18	Prep	no		Error!		Error!			Error!		
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Petroleum Hydrocarbons (F1)

Method: CCME Tier 1 | Internal ref.: ME-CA-IENVIGC-LAK-AN-010

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High

F1 (C6-C10)	GCM0311-JUN18	µg/g	10	<10	ND	30	92	80	120	94	60	140
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FINAL REPORT

CA14576-JUN18 R

QC SUMMARY

Petroleum Hydrocarbons (F2-F4)  
Method: CCME Tier 1 | Internal ref.: ME-CA-TENV/IGC-LAK-AN-010

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	High
F2 (C10-C16)	GCM0312-JUN18	µg/g	10	<10	ND	30	116	80	120	111	60	140
F3 (C16-C34)	GCM0312-JUN18	µg/g	50	<50	ND	30	116	80	120	111	60	140
F4 (C34-C50)	GCM0312-JUN18	µg/g	50	<50	ND	30	116	80	120	111	60	140

Petroleum Hydrocarbons (F4G)  
Method: CCME Tier 1 | Internal ref.: ME-CA-TENV/IGC-LAK-AN-010

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	High
F4G-sg (GHH)	GCM0367-JUN18	µg/g	200	<200	NA	30	93	80	120	NA	60	140



FINAL REPORT

CA14576-JUN18 R

QC SUMMARY

pH

Method: SM 4500 | Internal ref.: ME-CA-IENVIEWL-LAK-AN-001

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Low	High
pH	ARD0081-JUN18	no unit	0.05		0	20	100	80	120			

Volatile Organics

Method: EPA 5035A/5030B/8260C | Internal ref.: ME-CA-IENVIGC-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Low	High
Benzene	GCM0310-JUN18	µg/g	0.02	< 0.02	ND	50	87	60	130	88	50	140
Ethylbenzene	GCM0310-JUN18	µg/g	0.05	< 0.05	ND	50	88	60	130	91	50	140
m/p-xylene	GCM0310-JUN18	µg/g	0.05	< 0.05	ND	50	85	60	130	89	50	140
o-xylene	GCM0310-JUN18	µg/g	0.05	< 0.05	ND	50	87	60	130	90	50	140
Toluene	GCM0310-JUN18	µg/g	0.05	< 0.05	ND	50	87	60	130	89	50	140



FINAL REPORT

CA14576-JUN18 R

QC SUMMARY

Water Soluble Boron  
Method: O.Reg. 153/04 | Internal ref.: ME-CA-IENV1 SPE-LAK-AN-003

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Low	High
Water Soluble Boron	ESG0050-JUN18	µg/g	0.5	<0.5	ND	20	97	80	120	102	70	130

33  
34

Method Blank: a blank matrix that is carried through the entire analytical procedure. Used to assess laboratory contamination.

Duplicate: Paired analysis of a separate portion of the same sample that is carried through the entire analytical procedure. Used to evaluate measurement precision.

LCS/Spike Blank: Laboratory control sample or spike blank refer to a blank matrix to which a known amount of analyte has been added. Used to evaluate analyte recovery and laboratory accuracy without sample matrix effects.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate laboratory accuracy with sample matrix effects.

Reference Material: a material or substance matrix matched to the samples that contains a known amount of the analyte of interest. A reference material may be used in place of a matrix spike.

RL: Reporting limit

RPD: Relative percent difference

AC: Acceptance criteria

**Multielement Scan Qualifier:** as the number of analytes in a scan increases, so does the chance of a limit exceedance by random chance as opposed to a real method problem. Thus, in multielement scans, for the LCS and matrix spike, up to 10% of the analytes may exceed the quoted limits by up to 10% absolute and the spike is considered acceptable.

**Duplicate Qualifier:** for duplicates as the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL.

**Matrix Spike Qualifier:** for matrix spikes, as the concentration of the native analyte increases, the uncertainty of the matrix spike recovery increases. Thus, the matrix spike acceptance limits apply only when the concentration of the matrix spike is greater than or equal to the concentration of the native analyte.

## LEGEND

### FOOTNOTES

**NSS** Insufficient sample for analysis.

**RL** Reporting Limit.

↑ Reporting limit raised.

↓ Reporting limit lowered.

**NA** The sample was not analysed for this analyte

**ND** Non Detect

Samples analysed as received. Solid samples expressed on a dry weight basis. "Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples.

Analysis conducted on samples submitted pursuant to or as part of Reg. 153/04, are in accordance to the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act" published by the Ministry and dated March 9, 2004 as amended.

SGS provides criteria information (such as regulatory or guideline limits and summary of limit exceedances) as a service. Every attempt is made to ensure the criteria information in this report is accurate and current, however, it is not guaranteed. Comparison to the most current criteria is the responsibility of the client and SGS assumes no responsibility for the accuracy of the criteria levels indicated. This document is issued, on the Client's behalf, by the Company under its General Conditions of Service available on request and accessible at [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm). The Client's attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any other holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

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-- End of Analytical Report --

## Request for Laboratory Services and CHAIN OF CUSTODY

No:

Page 1 of 1

SGS Environment,  
Health and Safety

- Lakefield: 185 Concession St., Lakefield, ON K0L 2H0 Phone: 705-652-2000 Toll Free: 877-747-7658 Fax: 705-652-6365

- London: 657 Consortium Court, London, ON, N6E 2S8 Phone: 519-672-4500 Toll Free: 877-848-8060 Fax: 519-672-0361 Web: www.ca.sgs.com

Received By: Karen HethertonReceived Date: 06/18/18 (mm/dd/yy)Received Time: 14:10 am / pm (circle)

Laboratory Information Section - Lab use only

Received By (signature): [Signature]

Custody Seal Present: Y (N) (circle)

Custody Seal Intact: Y (N) (circle)

Cooling Agent Present: Y N Type: IceTemperature Upon Receipt (°C) 3x3

LAB LIMS #:

CA 14576-JAN18

## REPORT INFORMATION

Company: CambiumContact: Bernie TaylorAddress: 52 Hunter Street EastPeterboroughPhone: 705-742-7600

Fax:

Email: bernie.taylor@cambiuminc.com

## INVOICE INFORMATION

☒ (same as Report Information)

Company:

Contact:

Address:

Phone:

## PROJECT INFORMATION

Quotation #:

P.O. #:

Project #: 7017-001 Site Location/ID:

## TURNAROUND TIME (TAT) REQUIRED

TAT's are quoted in business days (exclude statutory holidays &amp; weekends).

Samples received after 3pm or on weekends : TAT begins the next business day

☒ Regular TAT (5-7days)☐ Rush TAT (Additional Charges May Apply) ☐ 1 Day ☐ 2 Days ☐ 3-4 Days

PLEASE CONFIRM RUSH FEASIBILITY WITH SGS REPRESENTATIVE PRIOR TO SUBMISSION

Specify Due Date: Rush Confirmation ID:

## REGULATIONS

Regulation 153 (2011):

☒ Table 1 ☐ Res/Park ☐ Soil Texture:  
☒ Table 2 ☒ Ind/Com ☒ Coarse  
☐ Table 3 ☐ Agri/Other ☐ Medium  
☐ Table ☐ Fine

Other Regulations:

☐ Reg 347/558 (3 Day min TAT)☐ PW/QO ☐ MMER☐ CCME ☐ Other:☐ MISA

Sewer By-Law:

☐ Sanitary☐ Storm

Municipality:

RECORD OF SITE CONDITION (RSC) ☐ YES ☒ NO

## SAMPLE IDENTIFICATION

DATE SAMPLED

TIME SAMPLED

# OF BOTTLES

MATRIX

1 Cobocank Depot

2 Oakwood Depot

3 Bobcaygeon Depot

4

5

6

7

8

9

10

Observations/Comments/Special Instructions

## ANALYSIS REQUESTED

COMMENTS:  
Field Filtered (F)  
Preserved (P)

DRINKING WATER SAMPLES (POTABLE WATER FOR HUMAN CONSUMPTION) MUST BE SUBMITTED WITH SGS DRINKING WATER CHAIN OF CUSTODY

Sampled By (NAME): Steve ElfordSignature: [Signature]Date: 18/06/15 (mm/dd/yy)

Pink Copy - Client

Relinquished by (NAME): Steve ElfordSignature: [Signature]Date: 18/06/15 (mm/dd/yy)

Yellow &amp; White Copy - SGS

Revision #: 1.1

Date of Issue: 25 July, 2016

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(Printed copies are available upon request.) Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.





## SAMPLE INTEGRITY REPORT

Project Number: 7817-001

ONTARIO REGULATION 153/04

SGS Sample ID CA 14576-JUN18

Date / Time Sampled JUN 15/18

Client Sample ID See CoC

ALL

## Sample Submission General Sample Integrity Violations

- Temperature >10 C upon receipt if not sampled same day ☐
- No evidence of cooling trend initiated if sampled same day ☐
- Chain of Custody not submitted ☐
- Chain of Custody incomplete ☐
- Chain of Custody not signed / dated ☐
- Chain of Custody not a current version ☐
- Bottles / Samples listed on CoC but not received ☐
- Bottles / Samples received but not listed on the CoC ☐
- Sample container received empty ☐

## Sample Specific Sample Integrity Violations

- |   |                          |                          |                          |                          |                          |                          |                          |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Sample received past hold time                                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Incorrect preservation (including no preservation where required) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Headspace present in VOC vial (aqueous)                           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Sample(s) received frozen   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Bottle(s) broken or damaged in transport                          | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Discrepancy between sample label and chain of custody             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Analysis requirements absent / unclear                            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Missing or incorrect sample label(s)                              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Inappropriate sample container used                               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Insufficient number of bottles received                           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Limited sample volume   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Insufficient sample volume  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Sample contains multiple phases                                   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

## Sediment Log

- |  |                          |                          |                          |                          |                          |                          |                          |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Groundwater samples contain visible sediment / particulate                       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Groundwater contains greater than 1cm of sediment / particulate matter in bottle | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

## Additional Comments/Remarks:

No issues upon receipt



Initials:

K14



# AGGREGATES GRADATION REQUIREMENTS

## OPSS 1010 - GRANULARS, LS-602

**Project Number:** 7817-001      **Client:** City of Kawartha Lakes  
**Project Name:** Soil Testing - Various Works Yards  
**Sampled By:** Client      **Date Sampled:** June 26, 2018  
**Location:** Coboconk Depot  
**Material Type:** No Specs      **Lab Sample No.:** AG-18-0236  
**MTO Contract No.:** N/A

Sieve Size	Gradation Requirement, % Passing								Test Result	
	A	B			M	O	S	SSM	Sample	Meets Requirements (Y/N)
		Type I	Type II	Type III						
150 mm	--	100	--	100	--	--	--	100	100	
106 mm	--	--	100	--	--	--	--	--	100	
37.5 mm	--	--	--	--	--	100	--	--	100	
26.5 mm	100	50-100	50-100	50-100	--	95-100	100	50-100	100	
19.0 mm	85-100 *87-100	--	--	--	100	80-95	90-100	--	100	
13.2 mm	65-90 *75-95	--	--	--	75-95	60-80	75-100	--	99.7	
9.5 mm	50-73 *60-73	--	--	32-100	55-80	50-70	60-85	--	98.9	
4.75 mm	35-55 *40-60	20-100	20-55	20-90	35-55	20-45	40-60	20-100	91.6	
1.18 mm	15-40	10-100	10-40	10-60	15-40	0-15	20-40	10-100	52.2	
300 µm	2-55	2-65	5-22	2-35	5-22	--	11-25	5-95	12.3	
150 µm	--	--	--	--	--	--	--	2-65	5.1	
75 µm	2.0-8.0 **2.0-10.0	0-8.0 **0-10.0	0-10.0	0-8.0 **0-10.0	2.0-8.0 **2.0-10.0	0-5.0	9.0-15.0 **9.0-17.0	0-25.0	2.6	

**Notes:**

\* When the aggregate is obtained from an iron blast furnace slag source.

\*\* When the aggregate is obtained from a quarry or blast furnace slag or nickel slag source.

Issued by:   
 Stuart Baird, Senior Project Manager

August 7, 2018  
 Date



## AGGREGATES PHYSICAL PROPERTIES REQUIREMENTS OPSS 1010 - GRANULARS, LS-VARIOUS PROCUDURES


**Project Number:** 7817-001      **Client:** City of Kawartha Lakes  
**Project Name:** Soil Testing - Various Works Yards  
**Sampled By:** Client      **Date Sampled:** June 26, 2018  
**Location:** Coboconk Depot  
**Material Type:** No Specs      **Lab Sample No.:** AG-18-0236  
**MTO Contract No.:** N/A

LS Test Procedure Name and Number	Gradation Requirement, % Passing								Test Result	
	A	B			M	O	S	SSM	Sample	Meets Requirements (Y/N)
		Type I	Type II	Type III						
Crushed Particles % minimum, LS-607	60	-	100	-	60	100	50	-	N/A	N/A
Unconfined Freeze-Thaw, % maximum loss, LS-614	-	-	-	-	-	15	-	-	N/A	N/A
2 or more Crushed Faces % minimum, LS-617	-	-	-	-	-	85 (Note 1)	-	-	N/A	N/A
Micro-Deval Abrasion, Coarse Aggregate % maximum loss LS-618	25	30 (Note 2)	30	30 (Note 2)	25	21	25	30 (Note 2)	N/A	N/A
Micro-Deval Abrasion, Fine Aggregate % maximum loss LS-619	30	35	35	35	30	25	30	-	9.4	Y
Asphalt Coated Particles, % maximum, LS-621	30	30	0	30	30	0	30	0	N/A	N/A
Amount of Contamination, LS-630	(Note 3)									N/A
Plasticity Index, maximum, LS-703/704	0									N/A
Determination of Permeability, k, LS-709	(Note 4)									N/A

**Notes:**

- When Granular O is produced from boulders, cobbles, or gravel retained on the 50 mm sieve.
- The coarse aggregate Micro-Deval abrasion loss test requirement shall be waived if the material has more than 80% passing the 4.75 mm sieve.
- Granular A, B Type I, B Type III, or M may contain up to 15 percent by mass crushed glass or ceramic materials. Granular A, B Type III, M, O, and S shall not contain more than 1.0 percent by mass of wood, clay brick and/or gypsum and/or gypsum wall board or plaster. Granular B Type II and SSM shall not contain more than 0.1 percent by mass of wood.
- For materials north of the French/Mattawa Rivers only, the coefficient of permeability, k, shall be greater than  $1.0 \times 10^{-4}$  cm/s or field experience has demonstrated satisfactory performance. Prior data demonstrating compliance with this requirement for k, shall be acceptable provided that such testing has been done within 5 years of the material being used and field performance has continually been shown to be satisfactory.

Issued by:

  
 Stuart Baird, Senior Project Manager

August 7, 2018

Date



# AGGREGATES GRADATION REQUIREMENTS

## OPSS 1010 - GRANULARS, LS-602

**Project Number:** 7817-001      **Client:** City of Kawartha Lakes  
**Project Name:** Soil Testing - Various Works Yards  
**Sampled By:** Client      **Date Sampled:** June 26, 2018  
**Location:** Oakwood Depot  
**Material Type:** No Specs      **Lab Sample No.:** AG-18-0237  
**MTO Contract No.:** N/A

Sieve Size	Gradation Requirement, % Passing								Test Result	
	A	B			M	O	S	SSM	Sample	Meets Requirements (Y/N)
		Type I	Type II	Type III						
150 mm	--	100	--	100	--	--	--	100	100	
106 mm	--	--	100	--	--	--	--	--	100	
37.5 mm	--	--	--	--	--	100	--	--	100	
26.5 mm	100	50-100	50-100	50-100	--	95-100	100	50-100	100	
19.0 mm	85-100 *87-100	--	--	--	100	80-95	90-100	--	100	
13.2 mm	65-90 *75-95	--	--	--	75-95	60-80	75-100	--	99.6	
9.5 mm	50-73 *60-73	--	--	32-100	55-80	50-70	60-85	--	98.2	
4.75 mm	35-55 *40-60	20-100	20-55	20-90	35-55	20-45	40-60	20-100	90.7	
1.18 mm	15-40	10-100	10-40	10-60	15-40	0-15	20-40	10-100	48.9	
300 µm	2-55	2-65	5-22	2-35	5-22	--	11-25	5-95	20.2	Y
150 µm	--	--	--	--	--	--	--	2-65	11.6	
75 µm	2.0-8.0 **2.0-10.0	0-8.0 **0-10.0	0-10.0	0-8.0 **0-10.0	2.0-8.0 **2.0-10.0	0-5.0	9.0-15.0 **9.0-17.0	0-25.0	7.5	Y

**Notes:**

\* When the aggregate is obtained from an iron blast furnace slag source.

\*\* When the aggregate is obtained from a quarry or blast furnace slag or nickel slag source.

Issued by:

Stuart Baird, Senior Project Manager

August 7, 2018

Date



## AGGREGATES PHYSICAL PROPERTIES REQUIREMENTS OPSS 1010 - GRANULARS, LS-VARIOUS PROCUDURES

**Project Number:** 7817-001 **Client:** City of Kawartha Lakes  
**Project Name:** Soil Testing - Various Works Yards  
**Sampled By:** Client **Date Sampled:** June 26, 2018  
**Location:** Oakwood Depot  
**Material Type:** No Specs **Lab Sample No.:** AG-18-0237  
**MTO Contract No.:** N/A

LS Test Procedure Name and Number	Gradation Requirement, % Passing								Test Result	
	A	B			M	O	S	SSM	Sample	Meets Requirements (Y/N)
		Type I	Type II	Type III						
Crushed Particles % minimum, LS-607	60	-	100	-	60	100	50	-	N/A	N/A
Unconfined Freeze-Thaw, % maximum loss, LS-614	-	-	-	-	-	15	-	-	N/A	N/A
2 or more Crushed Faces % minimum, LS-617	-	-	-	-	-	85 (Note 1)	-	-	N/A	N/A
Micro-Deval Abrasion, Coarse Aggregate % maximum loss LS-618	25	30 (Note 2)	30	30 (Note 2)	25	21	25	30 (Note 2)	N/A	N/A
Micro-Deval Abrasion, Fine Aggregate % maximum loss LS-619	30	35	35	35	30	25	30	-	9.7	Y
Asphalt Coated Particles, % maximum, LS-621	30	30	0	30	30	0	30	0	N/A	N/A
Amount of Contamination, LS-630	(Note 3)									N/A
Plasticity Index, maximum, LS-703/704	0									N/A
Determination of Permeability, k, LS-709	(Note 4)									N/A

**Notes:**

- When Granular O is produced from boulders, cobbles, or gravel retained on the 50 mm sieve.
- The coarse aggregate Micro-Deval abrasion loss test requirement shall be waived if the material has more than 80% passing the 4.75 mm sieve.
- Granular A, B Type I, B Type III, or M may contain up to 15 percent by mass crushed glass or ceramic materials. Granular A, B Type III, M, O, and S shall not contain more than 1.0 percent by mass of wood, clay brick and/or gypsum and/or gypsum wall board or plaster. Granular B Type II and SSM shall not contain more than 0.1 percent by mass of wood.
- For materials north of the French/Mattawa Rivers only, the coefficient of permeability, k, shall be greater than  $1.0 \times 10^{-4}$  cm/s or field experience has demonstrated satisfactory performance. Prior data demonstrating compliance with this requirement for k, shall be acceptable provided that such testing has been done within 5 years of the material being used and field performance has continually been shown to be satisfactory.

Issued by:   
 Stuart Baird, Senior Project Manager

August 7, 2018  
 Date





# AGGREGATES GRADATION REQUIREMENTS

## OPSS 1010 - GRANULARS, LS-602

**Project Number:** 7817-001      **Client:** City of Kawartha Lakes  
**Project Name:** Soil Testing - Various Works Yards  
**Sampled By:** Client      **Date Sampled:** June 26, 2018  
**Location:** Bobcaygeon Depot  
**Material Type:** No Specs      **Lab Sample No.:** AG-18-0238  
**MTO Contract No.:** N/A

Sieve Size	Gradation Requirement, % Passing								Test Result	
	A	B			M	O	S	SSM	Sample	Meets Requirements (Y/N)
		Type I	Type II	Type III						
150 mm	--	100	--	100	--	--	--	100	100	
106 mm	--	--	100	--	--	--	--	--	100	
37.5 mm	--	--	--	--	--	100	--	--	100	
26.5 mm	100	50-100	50-100	50-100	--	95-100	100	50-100	100	
19.0 mm	85-100 *87-100	--	--	--	100	80-95	90-100	--	100	
13.2 mm	65-90 *75-95	--	--	--	75-95	60-80	75-100	--	99.8	
9.5 mm	50-73 *60-73	--	--	32-100	55-80	50-70	60-85	--	98.6	
4.75 mm	35-55 *40-60	20-100	20-55	20-90	35-55	20-45	40-60	20-100	91.7	
1.18 mm	15-40	10-100	10-40	10-60	15-40	0-15	20-40	10-100	61.5	
300 µm	2-55	2-65	5-22	2-35	5-22	--	11-25	5-95	28.4	
150 µm	--	--	--	--	--	--	--	2-65	15.4	
75 µm	2.0-8.0 **2.0-10.0	0-8.0 **0-10.0	0-10.0	0-8.0 **0-10.0	2.0-8.0 **2.0-10.0	0-5.0	9.0-15.0 **9.0-17.0	0-25.0	8.8	

**Notes:**

\* When the aggregate is obtained from an iron blast furnace slag source.

\*\* When the aggregate is obtained from a quarry or blast furnace slag or nickel slag source.

Issued by:

Stuart Baird, Senior Project Manager

August 7, 2018

Date



## AGGREGATES PHYSICAL PROPERTIES REQUIREMENTS OPSS 1010 - GRANULARS, LS-VARIOUS PROCUDURES

**Project Number:** 7817-001 **Client:** City of Kawartha Lakes  
**Project Name:** Soil Testing - Various Works Yards  
**Sampled By:** Client **Date Sampled:** June 26, 2018  
**Location:** Bobcaygeon Depot  
**Material Type:** No Specs **Lab Sample No.:** AG-18-0238  
**MTO Contract No.:** N/A

LS Test Procedure Name and Number	Gradation Requirement, % Passing								Test Result	
	A	B			M	O	S	SSM	Sample	Meets Requirements (Y/N)
		Type I	Type II	Type III						
Crushed Particles % minimum, LS-607	60	-	100	-	60	100	50	-	N/A	N/A
Unconfined Freeze-Thaw, % maximum loss, LS-614	-	-	-	-	-	15	-	-	N/A	N/A
2 or more Crushed Faces % minimum, LS-617	-	-	-	-	-	85 (Note 1)	-	-	N/A	N/A
Micro-Deval Abrasion, Coarse Aggregate % maximum loss LS-618	25	30 (Note 2)	30	30 (Note 2)	25	21	25	30 (Note 2)	N/A	N/A
Micro-Deval Abrasion, Fine Aggregate % maximum loss LS-619	30	35	35	35	30	25	30	-	10.7	Y
Asphalt Coated Particles, % maximum, LS-621	30	30	0	30	30	0	30	0	N/A	N/A
Amount of Contamination, LS-630	(Note 3)									N/A
Plasticity Index, maximum, LS-703/704	0									N/A
Determination of Permeability, k, LS-709	(Note 4)									N/A

### Notes:

- When Granular O is produced from boulders, cobbles, or gravel retained on the 50 mm sieve.
- The coarse aggregate Micro-Deval abrasion loss test requirement shall be waived if the material has more than 80% passing the 4.75 mm sieve.
- Granular A, B Type I, B Type III, or M may contain up to 15 percent by mass crushed glass or ceramic materials. Granular A, B Type III, M, O, and S shall not contain more than 1.0 percent by mass of wood, clay brick and/or gypsum and/or gypsum wall board or plaster. Granular B Type II and SSM shall not contain more than 0.1 percent by mass of wood.
- For materials north of the French/Mattawa Rivers only, the coefficient of permeability, k, shall be greater than  $1.0 \times 10^{-4}$  cm/s or field experience has demonstrated satisfactory performance. Prior data demonstrating compliance with this requirement for k, shall be acceptable provided that such testing has been done within 5 years of the material being used and field performance has continually been shown to be satisfactory.

Issued by:

Stuart Baird, Senior Project Manager

August 7, 2018

Date





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City of Kawartha Lakes  
26 Francis Street,  
Lindsay, ON K9V 5R8

Via email: [rmonaghan@kawarthalakes.ca](mailto:rmonaghan@kawarthalakes.ca)

Attn: Richard Monaghan, C.E.T.  
Senior Engineering Technician

**Re: Characterization of Street Sweepings**  
**City of Kawartha Lakes, Ontario**  
**Cambium Reference: 7817-002**

---

Dear Mr. Monaghan,

The City of Kawartha Lakes is seeking reuse possibilities for the road sweepings that are collected at the end of the winter from the City roads. Rather than disposing the sweepings as waste, the winter sand sweepings are stockpiled at the Emily, Fenelon, and Oakwood facilities. Cambium Inc. (Cambium) was retained by the City of Kawartha Lakes (Client) to complete physical and chemical characterization of the sweepings in order to identify potential reuse options for this material.

Samples of the sweepings were provided by the City. The chemical testing was completed by SGS Environmental Laboratories in Lakefield, Ontario. The physical testing was completed at Cambium's CCIL-certified materials testing laboratory in Peterborough, Ontario.

## CHEMICAL TESTING RESULTS

Each sample was tested for the following parameters: petroleum hydrocarbons (PHCs), benzene, toluene, ethylbenzene, and xylenes (BTEX) and metals and inorganics. Analytical results were compared to the Table 1 and Table 2 Site Condition Standards (SCS) of the *Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act* (MOE, 2011). Table 1 applies to the *Full Depth Background Site Condition Standards* and Table 2 applies to *Full Depth Generic Site Condition Standards in a Potable Ground Water Condition*. Industrial / Commercial / Community (ICC) Property Use and





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coarse-grained soils were selected to determine concentration exceedances for the analyzed parameters. It is noted that Community Property Use includes municipal road right-of-ways.

Table 1 SCS represent typical background concentrations encountered in Ontario, and are the most stringent criteria available for comparison. Soil that meets the Table 1 SCS is generally considered clean fill and can be handled as such. Table 2 SCS are less stringent, such that soil that exceeds the Table 2 SCS is generally considered contaminated and has to be disposed at a facility (e.g., landfill) that accepts such waste. Analytical results were compared to both the Table 1 and Table 2 SCS to determine appropriate reuse of the soil.

Laboratory analytical results reported electrical conductivity (EC) and/or sodium adsorption ratio (SAR) in the samples collected from the Emily and Oakwood depots at concentrations exceeding the Table 1 standards, but less than the Table 2 standards. It is likely that the observed EC and SAR exceedances are due to the use of de-icing salt. The results also reported PHC F3 and/or F4 in the samples collected from the Emily and Fenelon depots at concentrations exceeding the Table 1 standards, but less than the Table 2 standards. It is likely that the observed PHC F3 and F4 concentrations are due to asphalt inclusions in the samples. All other tested parameters were reported at concentrations less than the Table 1 and Table 2 standards, as shown in the attached analytical summary table and the Laboratory Certificates of Analysis.

Based on the laboratory results, the sampled material is suitable for reuse at sites for which the Table 2 SCS for ICC Property Use and coarse-grained soils apply. Accordingly, the soil should not be placed on agricultural or residential land, nor within 30 m of a water body, but is generally suitable for the reuse options provided below.

## GRADATION AND PHYSICAL TESTING RESULTS

The gradation test results and micro-deval fine aggregate loss results are attached to this letter and summarized in Table 1.





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**Table 1 Gradation and Physical Testing Results**

Sieve (mm)	Emily Depot (% passing)	Fenelon Depot (% passing)	Oakwood Depot (% passing)
26.5	100	100	100
13.2	99.6	99.9	99.9
9.5	98.6	99.4	99.6
4.75	93.1	93.2	94.9
1.18	66.9	67.1	67.6
0.300	31.6	25.4	25.2
0.150	17.7	11.1	11.2
0.075	10.3	4.7	5.7
Fine Aggregate % loss	11.2%	8.6%	14.1%

The material from the Oakwood and Fenelon Depots meet the gradation requirements for Granular B Type 1 and SSM material. The material from the Emily Depot meets the SSM gradation requirements but does not meet the Granular B Type 1 gradation requirements due to the fines percentage of 10.3%, which is more than the maximum of 8% in the specification.

## REUSE OPTIONS

Based on the results of the gradation and physical testing, the stockpiled street sweepings would be suitable for reuse as a Granular B Type 1 material (except for the Emily Depot) or a Select Subgrade Material in the following situations:

- As backfill material against exterior building foundations or culverts.
- As upfill material to obtain a higher subgrade on road widenings or grade raises, prior to being covered with Granular B and Granular A. Due to the lack of stone sized particles, the reused screenings should be kept out of high traffic road subbase.





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June 27, 2019

- As sand backfill around catchbasins and manholes to prevent frost jacking and differential settlement due to it's low frost susceptibility and micro deval loss.

The stockpiled street sweepings from the Emily Depot did not meet the gradation requirements for reuse as winter sand, which requires 100% passing the 9.5 mm sieve and <5% passing the 75 µm sieve. The stockpiled street sweepings from the Fenelon and Oakwood depots do not meet the winter sand requirements, although the testing results show that they are within <1% of the requirements noted above.

We trust that this letter report meets with your immediate requirements. If you have further questions or comments, please contact the undersigned at 705-742-7900 ext. 220 or 336.

Best regards,

**Cambium Inc.**

Bernie Taylor, P.Eng.  
Project Manager - Environmental

Jennifer Wales, P.Eng.  
Project Manager - Geotechnical

BT/JW

Encl.

Table 2 – Summary of Soil Quality – Metals, Inorganics, BTEX and PHCs

Laboratory Certificates of Analysis

Gradation and Physical Testing Results

\\camfile\Projects\7800 to 7899\7817-002 City of Kawartha Lakes - Soil Testing - Various Works Yards 2019\Deliverables\2019-06-27 LTR Soil Characterization for CKL.docx





June 27, 2019

## QUALIFICATIONS AND LIMITATIONS

### Limited Warranty

In performing work on behalf of a client, Cambium relies on its client to provide instructions on the scope of its retainer and, on that basis, Cambium determines the precise nature of the work to be performed. Cambium undertakes all work in accordance with applicable accepted industry practices and standards. Unless required under local laws, other than as expressly stated herein, no other warranties or conditions, either expressed or implied, are made regarding the services, work or reports provided.

### Reliance on Materials and Information

The findings and results presented in reports prepared by Cambium are based on the materials and information provided by the client to Cambium and on the facts, conditions and circumstances encountered by Cambium during the performance of the work requested by the client. In formulating its findings and results into a report, Cambium assumes that the information and materials provided by the client or obtained by Cambium from the client or otherwise are factual, accurate and represent a true depiction of the circumstances that exist. Cambium relies on its client to inform Cambium if there are changes to any such information and materials. Cambium does not review, analyze or attempt to verify the accuracy or completeness of the information or materials provided, or circumstances encountered, other than in accordance with applicable accepted industry practice. Cambium will not be responsible for matters arising from incomplete, incorrect or misleading information or from facts or circumstances that are not fully disclosed to or that are concealed from Cambium during the provision of services, work or reports.

Facts, conditions, information and circumstances may vary with time and locations and Cambium's work is based on a review of such matters as they existed at the particular time and location indicated in its reports. No assurance is made by Cambium that the facts, conditions, information, circumstances or any underlying assumptions made by Cambium in connection with the work performed will not change after the work is completed and a report is submitted. If any such changes occur or additional information is obtained, Cambium should be advised and requested to consider if the changes or additional information affect its findings or results.

When preparing reports, Cambium considers applicable legislation, regulations, governmental guidelines and policies to the extent they are within its knowledge, but Cambium is not qualified to advise with respect to legal matters. The presentation of information regarding applicable legislation, regulations, governmental guidelines and policies is for information only and is not intended to and should not be interpreted as constituting a legal opinion concerning the work completed or conditions outlined in a report. All legal matters should be reviewed and considered by an appropriately qualified legal practitioner.

### Site Assessments

A Site assessment is created using data and information collected during the investigation of a Site and based on conditions encountered at the time and particular locations at which fieldwork is conducted. The information, sample results and data collected represent the conditions only at the specific times at which and at those specific locations from which the information, samples and data were obtained and the information, sample results and data may vary at other locations and times. To the extent that Cambium's work or report considers any locations or times other than those from which information, sample results and data was specifically received, the work or report is based on a reasonable extrapolation from such information, sample results and data but the actual conditions encountered may vary from those extrapolations.

Only conditions at the Site and locations chosen for study by the client are evaluated; no adjacent or other properties are evaluated unless specifically requested by the client. Any physical or other aspects of the Site chosen for study by the client, or any other matter not specifically addressed in a report prepared by Cambium, are beyond the scope of the work performed by Cambium and such matters have not been investigated or addressed.

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### Limitation of Liability

Cambium is not responsible for any lost revenues, lost profits, cost of capital, or any special, indirect, consequential or punitive damages suffered by the client or any other party in reliance on any Cambium work or report. Cambium's total liability and responsibility to the client or any other person for any and all losses, costs, expenses, damages, claims, causes of action or other liability whatsoever which do or may result or arise from or be in relation to Cambium's services, work (or failure to perform services or work) or reports shall be limited to the invoiced charges for the work performed by Cambium.

### Personal Liability

The client expressly agrees that Cambium employees shall have no personal liability to the client with respect to a claim, whether in contract, tort and/or other cause of action in law. Furthermore, the client agrees that it will bring no proceedings nor take any action in any court of law against Cambium employees in their personal capacity.

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Table 2 - Summary of Soil Quality (Metals, Inorganics, BTEX and PHCs)

Sample Identification	Units	Laboratory Reportable Detection Limit (RDL)	Table 1 Standards <sup>1</sup>	Table 2 Standards <sup>2</sup>	Emily Depot	Fenelon Depot	Oakwood Depot
Sample Date					4-Jun-19	4-Jun-19	4-Jun-19
Barium	µg/g	0.1	220	670	17	15	20
Beryllium	µg/g	0.02	2.5	8	0.09	0.08	0.12
Boron	µg/g	1	36	120	3	2	3
Cadmium	µg/g	0.02	1.2	1.9	0.03	0.09	< 0.02
Chromium	µg/g	0.5	70	160	3.7	4.2	3.6
Cobalt	µg/g	0.01	21	80	1.5	2.1	2
Copper	µg/g	0.1	92	230	4	5.4	4.8
Lead	µg/g	0.1	120	120	2.6	1.5	2.2
Molybdenum	µg/g	0.1	2	40	0.3	0.2	0.1
Nickel	µg/g	0.5	82	270	3	3.2	3.5
Silver	µg/g	0.05	0.5	40	< 0.05	< 0.05	< 0.05
Thallium	µg/g	0.02	1	3.3	0.03	0.02	0.05
Uranium	µg/g	0.002	2.5	33	0.24	0.21	0.28
Vanadium	µg/g	3	86	86	7	12	7
Zinc	µg/g	0.7	290	340	15	57	9.9
Antimony	µg/g	0.8	1.3	40	< 0.8	< 0.8	< 0.8
Arsenic	µg/g	0.5	18	18	1.4	0.8	1.4
Selenium	µg/g	0.7	1.5	5.5	< 0.7	< 0.7	< 0.7
Mercury	µg/g	0.05	0.27	3.9	< 0.05	< 0.05	< 0.05
Boron (Hot Water Soluble)	µg/g	0.5	NV	2	< 0.5	< 0.5	< 0.5
Sodium Adsorption Ratio	N/A	0.2	2.4	12	<b>6.2</b>	0.8	<b>2.8</b>
Conductivity	mS/cm	0.002	0.57	1.4	<b>0.97</b>	0.11	0.29
pH	N/A	0.05	NV	NV	8.15	8.17	8.21
Chromium VI	µg/g	0.2	0.66	8	< 0.2	< 0.2	< 0.2
Cyanide	µg/g	0.05	0.051	0.051	< 0.05	< 0.05	< 0.05
Benzene	µg/g	0.02	0.02	0.32	< 0.02	< 0.02	< 0.02
Ethylbenzene	µg/g	0.05	0.05	1.1	< 0.05	< 0.05	< 0.05
Toluene	µg/g	0.05	0.2	6.4	< 0.05	< 0.05	< 0.05
Xylene Mixture	µg/g	0.05	0.05	26	< 0.05	< 0.05	< 0.05
F1 (C6 to C10)	µg/g	10	25	55	< 10	< 10	< 10
F2 (C10 to C16)	µg/g	10	10	230	< 10	< 10	< 10
F3 (C16 to C34)	µg/g	50	240	1700	189	<b>264</b>	57
F4 (C34 to C50)	µg/g	50	120	3300	<b>366</b>	<b>493</b>	108
PHC F4 (Gravimetric)	µg/g	200	120	3300	<b>1030</b>	<b>1090</b>	---

Notes:

1. Table 1 (Soil Other Than Sediment, Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use) of the Soil Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act.

2. Table 2 (Soil Other Than Sediment, Industrial/Commercial/Community Property Uses, Coarse) of the Soil Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act.

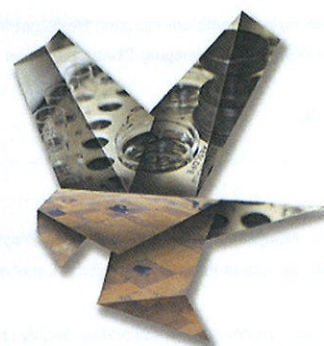
Bold - value exceeds Table 1 standard.

Bold and Shaded - value exceeds Table 2 standard.

Bold and underline - Laboratory RDL exceeds standard.

"NV" indicates no value.

"-" indicates value not analyzed.



## FINAL REPORT

CA14211-JUN19 R

7812-002, Street Sweeping Characterization

Prepared for

**Cambium Inc.**



## First Page

### CLIENT DETAILS

Client Cambium Inc.

Address 52 Hunter Street East  
Peterborough, ON  
K9H 1G5, Canada

Contact Bernie Taylor

Telephone 705-742-7900 ext 200

Facsimile 705-742-7907

Email bernie.taylor@cambium-inc.com; file@cambium-inc.com

Project 7812-002, Street Sweeping Characterization

Order Number

Samples Soil (3)

### LABORATORY DETAILS

Project Specialist Brad Moore Hon. B.Sc

Laboratory SGS Canada Inc.

Address 185 Concession St., Lakefield ON, K0L 2H0

Telephone 705-652-2143

Facsimile 705-652-6365

Email brad.moore@sgs.com

SGS Reference CA14211-JUN19

Received 06/05/2019

Approved 06/12/2019

Report Number CA14211-JUN19 R

Date Reported 06/12/2019

### COMMENTS

CCME Method Compliance: Analyses were conducted using analytical procedures that comply with the Reference Method for the CWS for Petroleum Hydrocarbons in Soil and have been validated for use at the SGS laboratory, Lakefield, ON site.

Quality Compliance: Instrument performance / calibration quality criteria were met and extraction and analysis limits for holding times were met.

nC6 and nC10 response factors within 30% of response factor for toluene: YES

nC10, nC16 and nC34 response factors within 10% of the average response for the three compounds: YES

C50 response factors within 70% of nC10 + nC16 + nC34 average: YES

Linearity is within 15%: YES

F4G - gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.

The results for F4 and F4G are both reported and the greater of the two values is to be used in application to the CWS PHC.

Hydrocarbon results are expressed on a dry weight basis.

Temperature of Sample upon Receipt: 12 degrees C

Cooling Agent Present: No

Custody Seal Present: No

Chain of Custody Number: 006861

### SIGNATORIES

Brad Moore Hon. B.Sc







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# FINAL REPORT

CA14211-JUN19 R

Client: Cambium Inc.

Project: 7812-002, Street Sweeping Characteri

Project Manager: Bernie Taylor

Samplers: Dave Flemming

## PACKAGE: REG153 - BTEX (SOIL)

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

L2 = REG153 / SOIL / COARSE - TABLE 2 - Industrial/Commercial - UNDEFINED

			Sample Number		11	12	13
			Sample Name		Emily Depot	Oakwood Depot	Fenelon Depot
			Sample Matrix		Soil	Soil	Soil
			Sample Date		04/06/2019	04/06/2019	04/06/2019
Parameter	Units	RL	L1	L2	Result	Result	Result
<b>BTEX</b>							
Benzene	µg/g	0.02	0.02	0.32	< 0.02	< 0.02	< 0.02
Ethylbenzene	µg/g	0.05	0.05	1.1	< 0.05	< 0.05	< 0.05
Toluene	µg/g	0.05	0.2	6.4	< 0.05	< 0.05	< 0.05
Xylene (total)	µg/g	0.05	0.05	26	< 0.05	< 0.05	< 0.05
m/p-xylene	µg/g	0.05			< 0.05	< 0.05	< 0.05
o-xylene	µg/g	0.05			< 0.05	< 0.05	< 0.05

## PACKAGE: REG153 - Hydrides (SOIL)

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

L2 = REG153 / SOIL / COARSE - TABLE 2 - Industrial/Commercial - UNDEFINED

			Sample Number		11	12	13
			Sample Name		Emily Depot	Oakwood Depot	Fenelon Depot
			Sample Matrix		Soil	Soil	Soil
			Sample Date		04/06/2019	04/06/2019	04/06/2019
Parameter	Units	RL	L1	L2	Result	Result	Result
<b>Hydrides</b>							
Antimony	µg/g	0.8	1.3	40	< 0.8	< 0.8	< 0.8
Arsenic	µg/g	0.5	18	18	1.4	1.4	0.8
Selenium	µg/g	0.7	1.5	5.5	< 0.7	< 0.7	< 0.7





# FINAL REPORT

CA14211-JUN19 R

Client: Cambium Inc.

Project: 7812-002, Street Sweeping Characteri:

Project Manager: Bernie Taylor

Samplers: Dave Flemming

## PACKAGE: REG153 - Metals and Inorganics (SOIL)

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

L2 = REG153 / SOIL / COARSE - TABLE 2 - Industrial/Commercial - UNDEFINED

Sample Number	11	12	13
Sample Name	Emily Depot	Oakwood Depot	Fenelon Depot
Sample Matrix	Soil	Soil	Soil
Sample Date	04/06/2019	04/06/2019	04/06/2019

Parameter	Units	RL	L1	L2	Result	Result	Result
<b>Metals and Inorganics</b>							
Moisture Content	%	-			4.6	4.4	3.2
Barium	µg/g	0.1	220	670	17	20	15
Beryllium	µg/g	0.02	2.5	8	0.09	0.12	0.08
Boron	µg/g	1	36	120	3	3	2
Cadmium	µg/g	0.02	1.2	1.9	0.03	< 0.02	0.09
Chromium	µg/g	0.5	70	160	3.7	3.6	4.2
Cobalt	µg/g	0.01	21	80	1.5	2.0	2.1
Copper	µg/g	0.1	92	230	4.0	4.8	5.4
Lead	µg/g	0.1	120	120	2.6	2.2	1.5
Molybdenum	µg/g	0.1	2	40	0.3	0.1	0.2
Nickel	µg/g	0.5	82	270	3.0	3.5	3.2
Silver	µg/g	0.05	0.5	40	< 0.05	< 0.05	< 0.05
Thallium	µg/g	0.02	1	3.3	0.03	0.05	0.02
Uranium	µg/g	0.002	2.5	33	0.24	0.28	0.21
Vanadium	µg/g	3	86	86	7	7	12
Zinc	µg/g	0.7	290	340	15	9.9	57
Water Soluble Boron	µg/g	0.5		2	< 0.5	< 0.5	< 0.5



# FINAL REPORT

CA14211-JUN19 R

Client: Cambium Inc.

Project: 7812-002, Street Sweeping Characteri

Project Manager: Bernie Taylor

Samplers: Dave Flemming

## PACKAGE: REG153 - Other (ORP) (SOIL)

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

L2 = REG153 / SOIL / COARSE - TABLE 2 - Industrial/Commercial - UNDEFINED

Sample Number	11	12	13
Sample Name	Emily Depot	Oakwood Depot	Fenelon Depot
Sample Matrix	Soil	Soil	Soil
Sample Date	04/06/2019	04/06/2019	04/06/2019

Parameter	Units	RL	L1	L2	Result	Result	Result
Other (ORP)							
Mercury	µg/g	0.05	0.27	3.9	< 0.05	< 0.05	< 0.05
Sodium Adsorption Ratio	---	0.2	2.4	12	6.2	2.8	0.8
SAR Calcium	mg/L	0.09			27.5	22.6	11.0
SAR Magnesium	mg/L	0.02			21.9	1.6	0.80
SAR Sodium	mg/L	0.15			178	52.0	10.4
Conductivity	mS/cm	0.002	0.57	1.4	0.97	0.29	0.11
pH	pH Units	0.05			8.15	8.21	8.17
Chromium VI	µg/g	0.2	0.66	8	< 0.2	< 0.2	< 0.2
Free Cyanide	µg/g	0.05			< 0.05	< 0.05	< 0.05





# FINAL REPORT

CA14211-JUN19 R

Client: Cambium Inc.

Project: 7812-002, Street Sweeping Characteri:

Project Manager: Bernie Taylor

Samplers: Dave Flemming

## PACKAGE: REG153 - PHCs (SOIL)

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

L2 = REG153 / SOIL / COARSE - TABLE 2 - Industrial/Commercial - UNDEFINED

Sample Number	11	12	13
Sample Name	Emily Depot	Oakwood Depot	Fenelon Depot
Sample Matrix	Soil	Soil	Soil
Sample Date	04/06/2019	04/06/2019	04/06/2019

Parameter	Units	RL	L1	L2	Result	Result	Result
<b>PHCs</b>							
F1 (C6-C10)	µg/g	10	25	55	< 10	< 10	< 10
F1-BTEX (C6-C10)	µg/g	10			< 10	< 10	< 10
F2 (C10-C16)	µg/g	10	10	230	< 10	< 10	< 10
F3 (C16-C34)	µg/g	50	240	1700	189	57	264
F4 (C34-C50)	µg/g	50	120	3300	366	108	493
F4G-sg (GHH)	µg/g	200	120	3300	1030		1090
Chromatogram returned to baseline at nC50	Yes / No	-			NO	YES	NO

### EXCEEDANCE SUMMARY

				REG153 / SOIL / COARSE - TABLE 1 - Residential/Parklan d/Industrial - UNDEFINED	REG153 / SOIL / COARSE - TABLE 2 - Industrial/Commer cial - UNDEFINED
Parameter	Method	Units	Result	L1	L2
Emily Depot					
F4 (C34 to C50)	CCME Tier 1	µg/g	366	120	
Gravimetric Heavy Hydrocarbons	CCME Tier 1	µg/g	1030	120	
Conductivity	EPA 6010/SM 2510	µg/g	0.97	0.57	
Sodium Adsorption Ratio	MOE 4696e01/EPA 6010	µg/g	6.2	2.4	
Oakwood Depot					
Sodium Adsorption Ratio	MOE 4696e01/EPA 6010	µg/g	2.8	2.4	
Fenelon Depot					
F3 (C16 to C34)	CCME Tier 1	µg/g	264	240	
F4 (C34 to C50)	CCME Tier 1	µg/g	493	120	
Gravimetric Heavy Hydrocarbons	CCME Tier 1	µg/g	1090	120	





## FINAL REPORT

CA1421

## QC SUMMARY

## Conductivity

Method: EPA 6010/SM 2510 | Internal ref.: ME-CA-IENVIEWL-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.	
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Lin (%)
								Low	High		Low
Conductivity	EWL0123-JUN19	mS/cm	0.002	<0.002	0	10	99	90	110	NA	

## Cyanide by SFA

Method: SM 4500 | Internal ref.: ME-CA-IENVISFA-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.	
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Lin (%)
								Low	High		Low
Free Cyanide	SKA5021-JUN19	µg/g	0.05	<0.05	ND	20	97	80	120	101	75

## Hexavalent Chromium by IC

Method: EPA218.6/EPA3060A | Internal ref.: ME-CA-IENVIC-LAK-AN-008

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.	
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Lin (%)
								Low	High		Low
Chromium VI	DIO0119-JUN19	µg/g	0.2	<0.2	ND	20	98	80	120	94	75

## QC SUMMARY

### Mercury by CVAAS

Method: EPA 7471A/EPA 245 | Internal ref.: ME-CA-IENVISPE-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.	
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Li (%)
								Low	High		Low
Mercury	EMS0032-JUN19	µg/g	0.05	<0.05	ND	20	101	80	120	93	70

### Metals in aqueous samples - ICP-OES

Method: MOE 4696e01/EPA 6010 | Internal ref.: ME-CA-IENVISPE-LAK-AN-003

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.	
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Li (%)
								Low	High		Low
SAR Calcium	ESG0021-JUN19	mg/L	0.09	<0.09	4	20	99	80	120	100	70
SAR Magnesium	ESG0021-JUN19	mg/L	0.02	<0.02	ND	20	96	80	120	101	70
SAR Sodium	ESG0021-JUN19	mg/L	0.15	<0.15	4	20	91	80	120	93	70



## QC SUMMARY

Metals in Soil - Aqua-regia/ICP-MS

Method: EPA 3050/EPA 200.8 | Internal ref.: ME-CA-IENVISPE-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.	
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Lin (%)
								Low	High		
Silver	EMS0032-JUN19	ug/g	0.05	<0.05	ND	20	102	70	130	101	70
Arsenic	EMS0032-JUN19	µg/g	0.5	<0.5	7	20	92	70	130	92	70
Barium	EMS0032-JUN19	ug/g	0.1	<0.1	10	20	107	70	130	94	70
Beryllium	EMS0032-JUN19	µg/g	0.02	<0.02	1	20	100	70	130	95	70
Boron	EMS0032-JUN19	µg/g	1	<1	6	20	108	70	130	96	70
Cadmium	EMS0032-JUN19	µg/g	0.02	<0.02	4	20	100	70	130	104	70
Cobalt	EMS0032-JUN19	µg/g	0.01	<0.01	0	20	102	70	130	109	70
Chromium	EMS0032-JUN19	µg/g	0.5	<0.5	1	20	101	70	130	108	70
Copper	EMS0032-JUN19	µg/g	0.1	<0.1	1	20	104	70	130	104	70
Molybdenum	EMS0032-JUN19	µg/g	0.1	<0.1	12	20	95	70	130	106	70
Nickel	EMS0032-JUN19	ug/g	0.5	<0.5	7	20	105	70	130	109	70
Lead	EMS0032-JUN19	ug/g	0.1	<0.1	2	20	103	70	130	95	70
Antimony	EMS0032-JUN19	µg/g	0.8	<0.8	ND	20	108	70	130	97	70
Selenium	EMS0032-JUN19	µg/g	0.7	<0.7	ND	20	103	70	130	102	70
Thallium	EMS0032-JUN19	µg/g	0.02	<0.02	ND	20	101	70	130	96	70
Uranium	EMS0032-JUN19	µg/g	0.002	<0.002	1	20	101	70	130	93	70
Vanadium	EMS0032-JUN19	µg/g	3	<3	2	20	103	70	130	107	70
Zinc	EMS0032-JUN19	µg/g	0.7	<0.7	3	20	103	70	130	102	70

## QC SUMMARY

### Petroleum Hydrocarbons (F1)

Method: CCME Tier 1 | Internal ref.: ME-CA-IENVIGC-LAK-AN-010

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.	
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Li (%)
								Low	High		Low
F1 (C6-C10)	GCM0139-JUN19	µg/g	10	<10	ND	30	105	80	120	100	60

### Petroleum Hydrocarbons (F2-F4)

Method: CCME Tier 1 | Internal ref.: ME-CA-IENVIGC-LAK-AN-010

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.	
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Li (%)
								Low	High		Low
F2 (C10-C16)	GCM0161-JUN19	µg/g	10	<10	ND	30	99	80	120	96	60
F3 (C16-C34)	GCM0161-JUN19	µg/g	50	<50	24	30	99	80	120	96	60
F4 (C34-C50)	GCM0161-JUN19	µg/g	50	<50	13	30	99	80	120	96	60





## FINAL REPORT

CA1421

## QC SUMMARY

## Petroleum Hydrocarbons (F4G)

Method: CCME Tier 1 | Internal ref.: ME-CA-IENVIGC-LAK-AN-010

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.	
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Lin (%)
								Low	High		Low
F4G-sg (GHH)	GCM0217-JUN19	µg/g	200	<200	11	30	99	80	120	NA	60

## pH

Method: SM 4500 | Internal ref.: ME-CA-IENVIEWL-LAK-AN-001

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.	
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Lin (%)
								Low	High		Low
pH	ARD0026-JUN19	pH Units	0.05		0	20	101	80	120		

## QC SUMMARY

### Volatile Organics

Method: EPA 5035A/5030B/8260C | Internal ref.: ME-CA-ENVIGC-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.	
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Li (%)
								Low	High		
Benzene	GCM0139-JUN19	µg/g	0.02	<0.02	ND	50	90	60	130	86	50
Ethylbenzene	GCM0139-JUN19	µg/g	0.05	<0.05	ND	50	90	60	130	89	50
m/p-xylene	GCM0139-JUN19	µg/g	0.05	<0.05	ND	50	94	60	130	93	50
o-xylene	GCM0139-JUN19	µg/g	0.05	<0.05	ND	50	93	60	130	92	50
Toluene	GCM0139-JUN19	µg/g	0.05	<0.05	ND	50	91	60	130	89	50

### Water Soluble Boron

Method: O.Req. 153/04 | Internal ref.: ME-CA-ENV1 SPE-LAK-AN-003

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.	
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Li (%)
								Low	High		
Water Soluble Boron	ESG0015-JUN19	µg/g	0.5	<0.5	ND	20	103	80	120	101	70



## QC SUMMARY

---

**Method Blank:** a blank matrix that is carried through the entire analytical procedure. Used to assess laboratory contamination.

**Duplicate:** Paired analysis of a separate portion of the same sample that is carried through the entire analytical procedure. Used to evaluate measurement precision.

**LCS/Spike Blank:** Laboratory control sample or spike blank refer to a blank matrix to which a known amount of analyte has been added. Used to evaluate analyte recovery and laboratory accuracy without sample matrix effects.

**Matrix Spike:** A sample to which a known amount of the analyte of interest has been added. Used to evaluate laboratory accuracy with sample matrix effects.

**Reference Material:** a material or substance matrix matched to the samples that contains a known amount of the analyte of interest. A reference material may be used in place of a matrix spike.

**RL:** Reporting limit

**RPD:** Relative percent difference

**AC:** Acceptance criteria

**Multielement Scan Qualifier:** as the number of analytes in a scan increases, so does the chance of a limit exceedance by random chance as opposed to a real method problem. Thus, in multielement scans, for the LCS and matrix spike, up to 10% of the analytes may exceed the quoted limits by up to 10% absolute and the spike is considered acceptable.

**Duplicate Qualifier:** for duplicates as the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL.

**Matrix Spike Qualifier:** for matrix spikes, as the concentration of the native analyte increases, the uncertainty of the matrix spike recovery increases. Thus, the matrix spike acceptance limits apply only when the concentration of the matrix spike is greater than or equal to the concentration of the native analyte.

## LEGEND

### FOOTNOTES

**NSS** Insufficient sample for analysis.

**RL** Reporting Limit.

↑ Reporting limit raised.

↓ Reporting limit lowered.

**NA** The sample was not analysed for this analyte

**ND** Non Detect

Samples analysed as received. Solid samples expressed on a dry weight basis. "Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples.

Analysis conducted on samples submitted pursuant to or as part of Reg. 153/04, are in accordance to the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act" published by the Ministry and dated March 9, 2004 as amended.

SGS provides criteria information (such as regulatory or guideline limits and summary of limit exceedances) as a service. Every attempt is made to ensure the criteria information in this report is accurate and current, however, it is not guaranteed. Comparison to the most current criteria is the responsibility of the client and SGS assumes no responsibility for the accuracy of the criteria levels indicated. This document is issued, on the Client's behalf, by the Company under its General Conditions of Service available on request and accessible at [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm). The Client's attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any other holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

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-- End of Analytical Report --









## AGGREGATES GRADATION REQUIREMENTS OPSS 1010 - GRANULARS, LS-602

**Client:** City of Kawartha Lakes, Waste and Recycling Branch  
**Project Name:** Soil Testing - Various Works Yards 2019  
**Sampled By:** Client  
**Location:** Emily Depot  
**Material Type:** No Specs  
**MTO Contract No.:** N/A

**Project Number:** 7817-002  
**Date Sampled:** June 3, 2019  
**Lab Sample No.:** AG-19-0152

Sieve Size	Gradation Requirement, % Passing								Test Result	
	A	B			M	O	S	SSM	Sample	Meets Requirements (Y/N)
		Type I	Type II	Type III						
150 mm	--	100	--	100	--	--	--	100	100	
106 mm	--	--	100	--	--	--	--	--	100	
37.5 mm	--	--	--	--	--	100	--	--	100	
26.5 mm	100	50-100	50-100	50-100	--	95-100	100	50-100	100	
19.0 mm	85-100 *87-100	--	--	--	100	80-95	90-100	--	99.9	
13.2 mm	65-90 *75-95	--	--	--	75-95	60-80	75-100	--	99.6	
9.5 mm	50-73 *60-73	--	--	32-100	55-80	50-70	60-85	--	98.6	
4.75 mm	35-55 *40-60	20-100	20-55	20-90	35-55	20-45	40-60	20-100	93.1	
1.18 mm	15-40	10-100	10-40	10-60	15-40	0-15	20-40	10-100	66.9	
300 µm	2-55	2-65	5-22	2-35	5-22	--	11-25	5-95	31.6	
150 µm	--	--	--	--	--	--	--	2-65	17.7	
75 µm	2.0-8.0 **2.0-10.0	0-8.0 **0-10.0	0-10.0	0-8.0 **0-10.0	2.0-8.0 **2.0-10.0	0-5.0	9.0-15.0 **9.0-17.0	0-25.0	10.3	

**Notes:**

- \* When the aggregate is obtained from an iron blast furnace slag source.
- \*\* When the aggregate is obtained from a quarry or blast furnace slag or nickel slag source.

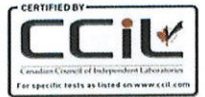
Issued by:

Stuart Baird, Senior Project Manager

June 24, 2019

Date





## AGGREGATES PHYSICAL PROPERTIES REQUIREMENTS OPSS 1010 - GRANULARS, LS-VARIOUS PROCEDURE

**Client:** City of Kawartha Lakes, Waste and Recycling Branch  
**Project Name:** Soil Testing - Various Works Yards 2019  
**Sampled By:** Client  
**Location:** Emily Depot  
**Material Type:** No Specs  
**MTO Contract No.:** N/A

**Project Number:** 7817-002

**Date Sampled:** June 3, 2019

**Lab Sample No.:** AG-19-0152

LS Test Procedure Name and Number	Gradation Requirement, % Passing								Test Result	
	A	B			M	O	S	SSM	Sample	Meets Requiremen ts (Y/N)
		Type I	Type II	Type III						
Crushed Particles % minimum, LS-607	60	-	100	-	60	100	50	-	N/A	
Unconfined Freeze- Thaw, % maximum loss, LS-614	-	-	-	-	-	15	-	-	N/A	
2 or more Crushed Faces % minimum, LS-617	-	-	-	-	-	85 (Note 1)	-	-	N/A	
Micro-Deval Abrasion, Coarse Aggregate % maximum loss LS-618	25	30 (Note 2)	30	30 (Note 2)	25	21	25	30 (Note 2)	N/A	
Micro-Deval Abrasion, Fine Aggregate % maximum loss LS-619	30	35	35	35	30	25	30	-	11.2	
Asphalt Coated Particles, % maximum, LS-621	30	30	0	30	30	0	30	0	N/A	
Amount of Contamination, LS-630	(Note 3)									
Plasticity Index, maximum, LS-703/704	0									
Determination of Permeability, k, LS-709	(Note 4)									

Notes:

- When Granular O is produced from boulders, cobbles, or gravel retained on the 50 mm sieve.
- The coarse aggregate Micro-Deval abrasion loss test requirement shall be waived if the material has more than 80% passing the 4.75 mm sieve.
- Granular A, B Type I, B Type III, or M may contain up to 15 percent by mass crushed glass or ceramic materials. Granular A, B Type III, M, O, and S shall not contain more than 1.0 percent by mass of wood, clay brick and/or gypsum and/or gypsum wall board or plaster. Granular B Type II and SSM shall not contain more than 0.1 percent by mass of wood.
- For materials north of the French/Mattawa Rivers only, the coefficient of permeability, k, shall be greater than  $1.0 \times 10^{-4}$  cm/s or field experience has demonstrated satisfactory performance. Prior data demonstrating compliance with this requirement for k, shall be acceptable provided that such testing has been done within 5 years of the material being used and field performance has continually been shown to be satisfactory.

Issued by:

  
Stuart Baird, Senior Project Manager

June 24, 2019

Date





# AGGREGATES GRADATION REQUIREMENTS

## OPSS 1010 - GRANULARS, LS-602

**Client:** City of Kawartha Lakes, Waste and Recycling Branch

**Project Number:** 7817-002

**Project Name:** Soil Testing - Various Works Yards 2019

**Sampled By:** Client

**Date Sampled:** June 3, 2019

**Location:** Fenelon Depot

**Material Type:** No Specs

**MTO Contract No.:** N/A

**Lab Sample No.:** AG-19-0151

Sieve Size	Gradation Requirement, % Passing								Test Result	
	A	B			M	O	S	SSM	Sample	Meets Requirements (Y/N)
		Type I	Type II	Type III						
150 mm	--	100	--	100	--	--	--	100	100	
106 mm	--	--	100	--	--	--	--	--	100	
37.5 mm	--	--	--	--	--	100	--	--	100	
26.5 mm	100	50-100	50-100	50-100	--	95-100	100	50-100	100	
19.0 mm	85-100 *87-100	--	--	--	100	80-95	90-100	--	100	
13.2 mm	65-90 *75-95	--	--	--	75-95	60-80	75-100	--	99.9	
9.5 mm	50-73 *60-73	--	--	32-100	55-80	50-70	60-85	--	99.4	
4.75 mm	35-55 *40-60	20-100	20-55	20-90	35-55	20-45	40-60	20-100	93.2	
1.18 mm	15-40	10-100	10-40	10-60	15-40	0-15	20-40	10-100	67.1	
300 µm	2-55	2-65	5-22	2-35	5-22	--	11-25	5-95	25.4	
150 µm	--	--	--	--	--	--	--	2-65	11.1	
75 µm	2.0-8.0 **2.0-10.0	0-8.0 **0-10.0	0-10.0	0-8.0 **0-10.0	2.0-8.0 **2.0-10.0	0-5.0	9.0-15.0 **9.0-17.0	0-25.0	4.7	

**Notes:**

\* When the aggregate is obtained from an iron blast furnace slag source.

\*\* When the aggregate is obtained from a quarry or blast furnace slag or nickel slag source.

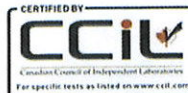
Issued by:

Stuart Baird, Senior Project Manager

June 24, 2019

Date





# AGGREGATES PHYSICAL PROPERTIES REQUIREMENTS OPSS 1010 - GRANULARS, LS-VARIOUS PROCEDURES

**Client:** City of Kawartha Lakes, Waste and Recycling Branch  
**Project Name:** Soil Testing - Various Works Yards 2019  
**Sampled By:** Client  
**Location:** Fenelon Depot  
**Material Type:** No Specs  
**MTO Contract No.:** N/A

**Project Number:** 7817-002

**Date Sampled:** June 3, 2019

**Lab Sample No.:** AG-19-0151

LS Test Procedure Name and Number	Gradation Requirement, % Passing								Test Result	
	A	B			M	O	S	SSM	Sample	Meets Requirements (Y/N)
		Type I	Type II	Type III						
Crushed Particles % minimum, LS-607	60	-	100	-	60	100	50	-	N/A	
Unconfined Freeze-Thaw, % maximum loss, LS-614	-	-	-	-	-	15	-	-	N/A	
2 or more Crushed Faces % minimum, LS-617	-	-	-	-	-	85 (Note 1)	-	-	N/A	
Micro-Deval Abrasion, Coarse Aggregate % maximum loss LS-618	25	30 (Note 2)	30	30 (Note 2)	25	21	25	30 (Note 2)	N/A	
Micro-Deval Abrasion, Fine Aggregate % maximum loss LS-619	30	35	35	35	30	25	30	-	8.6	
Asphalt Coated Particles, % maximum, LS-621	30	30	0	30	30	0	30	0	N/A	
Amount of Contamination, LS-630	(Note 3)									
Plasticity Index, maximum, LS-703/704	0									
Determination of Permeability, k, LS-709	(Note 4)									

Notes:

- When Granular O is produced from boulders, cobbles, or gravel retained on the 50 mm sieve.
- The coarse aggregate Micro-Deval abrasion loss test requirement shall be waived if the material has more than 80% passing the 4.75 mm sieve.
- Granular A, B Type I, B Type III, or M may contain up to 15 percent by mass crushed glass or ceramic materials. Granular A, B Type III, M, O, and S shall not contain more than 1.0 percent by mass of wood, clay brick and/or gypsum and/or gypsum wall board or plaster. Granular B Type II and SSM shall not contain more than 0.1 percent by mass of wood.
- For materials north of the French/Mattawa Rivers only, the coefficient of permeability, k, shall be greater than  $1.0 \times 10^{-4}$  cm/s or field experience has demonstrated satisfactory performance. Prior data demonstrating compliance with this requirement for k, shall be acceptable provided that such testing has been done within 5 years of the material being used and field performance has continually been shown to be satisfactory.

Issued by:

Stuart Baird, Senior Project Manager

June 24, 2019

Date





## AGGREGATES GRADATION REQUIREMENTS OPSS 1010 - GRANULARS, LS-602

**Client:** City of Kawartha Lakes, Waste and Recycling Branch

**Project Number:** 7817-002

**Project Name:** Soil Testing - Various Works Yards 2019

**Sampled By:** Client

**Date Sampled:** June 3, 2019

**Location:** Oakwood Depot

**Material Type:** No Specs

**MTO Contract No.:** N/A

**Lab Sample No.:** AG-19-0153

Sieve Size	Gradation Requirement, % Passing								Test Result	
	A	B			M	O	S	SSM	Sample	Meets Requirements (Y/N)
		Type I	Type II	Type III						
150 mm	--	100	--	100	--	--	--	100	100	
106 mm	--	--	100	--	--	--	--	--	100	
37.5 mm	--	--	--	--	--	100	--	--	100	
26.5 mm	100	50-100	50-100	50-100	--	95-100	100	50-100	100	
19.0 mm	85-100 *87-100	--	--	--	100	80-95	90-100	--	100	
13.2 mm	65-90 *75-95	--	--	--	75-95	60-80	75-100	--	99.9	
9.5 mm	50-73 *60-73	--	--	32-100	55-80	50-70	60-85	--	99.6	
4.75 mm	35-55 *40-60	20-100	20-55	20-90	35-55	20-45	40-60	20-100	94.9	
1.18 mm	15-40	10-100	10-40	10-60	15-40	0-15	20-40	10-100	67.6	
300 µm	2-55	2-65	5-22	2-35	5-22	--	11-25	5-95	25.2	
150 µm	--	--	--	--	--	--	--	2-65	11.2	
75 µm	2.0-8.0 **2.0-10.0	0-8.0 **0-10.0	0-10.0	0-8.0 **0-10.0	2.0-8.0 **2.0-10.0	0-5.0	9.0-15.0 **9.0-17.0	0-25.0	5.7	

**Notes:**

\* When the aggregate is obtained from an iron blast furnace slag source.

\*\* When the aggregate is obtained from a quarry or blast furnace slag or nickel slag source.

Issued by:

Stuart Baird, Senior Project Manager

June 24, 2019

Date





# AGGREGATES PHYSICAL PROPERTIES REQUIREMENTS OPSS 1010 - GRANULARS, LS-VARIOUS PROCDURES

**Client:** City of Kawartha Lakes, Waste and Recycling Branch  
**Project Name:** Soil Testing - Various Works Yards 2019  
**Sampled By:** Client  
**Location:** Oakwood Depot  
**Material Type:** No Specs  
**MTO Contract No.:** N/A

**Project Number:** 7817-002

**Date Sampled:** June 3, 2019

**Lab Sample No.:** AG-19-0153

LS Test Procedure Name and Number	Gradation Requirement, % Passing								Test Result	
	A	B			M	O	S	SSM	Sample	Meets Requirements (Y/N)
		Type I	Type II	Type III						
Crushed Particles % minimum, LS-607	60	-	100	-	60	100	50	-	N/A	
Unconfined Freeze-Thaw, % maximum loss, LS-614	-	-	-	-	-	15	-	-	N/A	
2 or more Crushed Faces % minimum, LS-617	-	-	-	-	-	85 (Note 1)	-	-	N/A	
Micro-Deval Abrasion, Coarse Aggregate % maximum loss LS-618	25	30 (Note 2)	30	30 (Note 2)	25	21	25	30 (Note 2)	N/A	
Micro-Deval Abrasion, Fine Aggregate % maximum loss LS-619	30	35	35	35	30	25	30	-	14.1	
Asphalt Coated Particles, % maximum, LS-621	30	30	0	30	30	0	30	0	N/A	
Amount of Contamination, LS-630	(Note 3)									
Plasticity Index, maximum, LS-703/704	0									
Determination of Permeability, k, LS-709	(Note 4)									

Notes:

- When Granular O is produced from boulders, cobbles, or gravel retained on the 50 mm sieve.
- The coarse aggregate Micro-Deval abrasion loss test requirement shall be waived if the material has more than 80% passing the 4.75 mm sieve.
- Granular A, B Type I, B Type III, or M may contain up to 15 percent by mass crushed glass or ceramic materials. Granular A, B Type III, M, O, and S shall not contain more than 1.0 percent by mass of wood, clay brick and/or gypsum and/or gypsum wall board or plaster. Granular B Type II and SSM shall not contain more than 0.1 percent by mass of wood.
- For materials north of the French/Mattawa Rivers only, the coefficient of permeability, k, shall be greater than  $1.0 \times 10^{-4}$  cm/s or field experience has demonstrated satisfactory performance. Prior data demonstrating compliance with this requirement for k, shall be acceptable provided that such testing has been done within 5 years of the material being used and field performance has continually been shown to be satisfactory.

Issued by:

Stuart Baird, Senior Project Manager

June 24, 2019

Date





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**Locations**

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Kingston  
Barrie  
Oshawa

**Laboratory**

Peterborough



September 9, 2020

City of Kawartha Lakes  
26 Francis Street,  
Lindsay, ON K9V 5R8

Via email: [rmonaghan@kawarthalakes.ca](mailto:rmonaghan@kawarthalakes.ca)

Attn: Richard Monaghan, C.E.T.  
Senior Engineering Technician

**Re: Characterization of Street Sweepings**  
**City of Kawartha Lakes, Ontario**  
**Cambium Reference: 11419-001**

---

Dear Mr. Monaghan,

The City of Kawartha Lakes is seeking reuse possibilities for the road sweepings that are collected at the end of the winter from the City roads. Rather than disposing of the sweepings as waste, the winter sand sweepings are stockpiled at the Emily, Eldon, and Bobcaygeon Public Works facilities. Cambium Inc. (Cambium) was retained by the City of Kawartha Lakes (Client) to complete physical and chemical characterization of the sweepings in order to identify potential reuse options for this material.

Samples of the sweepings were provided by the City. The chemical testing was completed by SGS Environmental Laboratories in Lakefield, Ontario. The physical testing was completed at Cambium's CCIL-certified materials testing laboratory in Peterborough, Ontario.

## CHEMICAL TESTING RESULTS

Each sample was tested for the following parameters: petroleum hydrocarbons (PHCs), benzene, toluene, ethylbenzene, and xylenes (BTEX) and metals and inorganics. Analytical results were compared to the Table 1 and Table 2 Site Condition Standards (SCS) of the *Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act* (MOE, 2011). Table 1 applies to the *Full Depth Background Site Condition Standards* and Table 2 applies to *Full Depth Generic Site Condition Standards in a Potable Ground Water Condition*. Industrial / Commercial / Community (ICC) Property Use and





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Peterborough



September 9, 2020

coarse-grained soils were selected to determine concentration exceedances for the analyzed parameters. It is noted that Community Property Use includes municipal road right-of-ways.

Table 1 SCS represent typical background concentrations encountered in Ontario, and are the most stringent criteria available for comparison. Soil that meets the Table 1 SCS is generally considered clean fill and can be handled as such. Table 2 SCS are less stringent, such that soil that exceeds the Table 2 SCS is generally considered contaminated and has to be disposed at a licensed facility (e.g., landfill) that accepts such waste. Analytical results were compared to both the Table 1 and Table 2 SCS to determine appropriate reuse of the soil.

Laboratory analytical results reported PHC F4 in the samples collected from all three depots at concentrations exceeding the Table 1 SCS, but less than the Table 2 SCS. It is likely that these concentrations were due to asphalt inclusions in the samples. All other tested parameters were reported at concentrations less than the Table 1 and Table 2 standards, as shown in the attached analytical summary table and the Laboratory Certificates of Analysis.

Based on the laboratory results, the sampled material is suitable for reuse at sites for which the Table 2 SCS for ICC Property Use and coarse-grained soils apply. Accordingly, the soil should not be placed on agricultural or residential land, nor within 30 m of a water body, but is generally suitable for the reuse options provided below.

Note that Ontario Regulation 406/19 (On-site and Excess Soil Management) will come into effect January 1, 2021. While this regulation includes some exemptions for municipalities, there may be additional requirements for road sweepings reuse in 2021.





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September 9, 2020

## GRADATION AND PHYSICAL TESTING RESULTS

The gradation test results and micro-deval fine aggregate loss results are attached to this letter and summarized in Table 1.

**Table 1 Gradation and Physical Testing Results**

Sieve (mm)	Emily Depot (% passing)	Eldon Depot (% passing)	Bobcaygeon Depot (% passing)
26.5	100	100	100
13.2	99.5	99.3	99.3
9.5	98.4	98.1	97.6
4.75	92.2	91.5	89.7
1.18	69.5	67.3	67.3
0.300	30.1	29.3	29.0
0.150	14.6	14.7	13.9
0.075	7.4	7.5	6.8
Fine Aggregate % loss	10.6%	9.7%	10.71%

The material from all three depots, Emily, Eldon, and Bobcaygeon, meets the gradation requirements for Granular B Type 1 and SSM material.

## REUSE OPTIONS

Based on the results of the gradation and physical testing, the stockpiled street sweepings would be suitable for reuse as a Granular B Type 1 material or a Select Subgrade Material in the following situations:

- As backfill material against exterior building foundations or culverts.
- As upfill material to obtain a higher subgrade on road widenings or grade raises, prior to being covered with Granular B and Granular A. Due to the lack of stone sized particles, the reused screenings should be kept out of high traffic road subbase.





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September 9, 2020

- As sand backfill around catchbasins and manholes to prevent frost jacking and differential settlement due to it's low frost susceptibility and micro deval loss.

The stockpiled street sweepings from all three depots did not meet the gradation requirements for reuse as winter sand, which requires 100% passing the 9.5 mm sieve and <5% passing the 75 µm sieve.

**CLOSING**

We trust that this letter report meets with your immediate requirements. If you have further questions or comments, please contact the undersigned at 705-742-7900 ext. 220 or 336.

Best regards,

**Cambium Inc.**

Bernie Taylor, P.Eng.  
Project Manager - Environmental

BT/JW

Jennifer Wales, P.Eng.  
Project Manager – Geotechnical

Encl.      Table 2 – Summary of Soil Quality – Metals, Inorganics, BTEX and PHCs  
             Laboratory Certificates of Analysis  
             Gradation and Physical Testing Results

P:\11400 to 11499\11419-001 City of Kawartha Lakes (Waste & Recycling Branch) - Soil Testing 2020 - Various Works Yards\Deliverables\2020-09-01 LTR Soil Characterization for CKL.docx





Table 2 - Summary of Soil Quality (Metals, Inorganics, BTEX and PHCs)

Sample Identification	Units	Laboratory Reportable Detection Limit (RDL)	Table 1 Standards <sup>1</sup>	Table 2 Standards <sup>2</sup>	Emily Depot	Eldon Depot	Bobcaygeon Depot
Sample Date					12-Aug-20	12-Aug-20	12-Aug-20
Barium	µg/g	0.1	220	670	25	20	25
Beryllium	µg/g	0.02	2.5	8	0.14	0.11	0.11
Boron	µg/g	1	36	120	5	4	5
Cadmium	µg/g	0.02	1.2	1.9	0.03	< 0.02	< 0.02
Chromium	µg/g	0.5	70	160	5.7	5.1	5.1
Cobalt	µg/g	0.01	21	80	2.4	1.8	1.9
Copper	µg/g	0.1	92	230	6.2	7	4
Lead	µg/g	0.1	120	120	2.9	2.4	2.6
Molybdenum	µg/g	0.1	2	40	0.3	0.2	0.2
Nickel	µg/g	0.5	82	270	4.3	3.6	3.6
Silver	µg/g	0.05	0.5	40	< 0.05	< 0.05	< 0.05
Thallium	µg/g	0.02	1	3.3	0.05	0.03	0.02
Uranium	µg/g	0.002	2.5	33	0.35	0.31	0.31
Vanadium	µg/g	3	86	86	10	8	7
Zinc	µg/g	0.7	290	340	14	13	11
Antimony	µg/g	0.8	1.3	40	< 0.8	< 0.8	< 0.8
Arsenic	µg/g	0.5	18	18	1.2	1	1.2
Selenium	µg/g	0.7	1.5	5.5	< 0.7	< 0.7	< 0.7
Mercury	µg/g	0.05	0.27	3.9	< 0.05	< 0.05	< 0.05
Boron (Hot Water Soluble)	µg/g	0.5	NV	2	< 0.5	< 0.5	< 0.5
Sodium Adsorption Ratio	N/A	0.2	2.4	12	1.1	1	1.6
Conductivity	mS/cm	0.002	0.57	1.4	0.2	0.23	0.25
pH	N/A	0.05	NV	NV	7.95	7.98	8.1
Chromium VI	µg/g	0.2	0.66	8	< 0.2	< 0.2	< 0.2
Cyanide	µg/g	0.05	0.051	0.051	< 0.05	< 0.05	< 0.05
Benzene	µg/g	0.02	0.02	0.32	< 0.02	< 0.02	< 0.02
Ethylbenzene	µg/g	0.05	0.05	1.1	< 0.05	< 0.05	< 0.05
Toluene	µg/g	0.05	0.2	6.4	< 0.05	< 0.05	< 0.05
Xylene Mixture	µg/g	0.05	0.05	26	< 0.05	< 0.05	< 0.05
m/p-xylene	µg/g	0.05	NV	NV	< 0.05	< 0.05	< 0.05
o-xylene	µg/g	0.05	NV	NV	< 0.05	< 0.05	< 0.05
F1 (C6 to C10)	µg/g	10	25	55	< 10	< 10	< 10
F2 (C10 to C16)	µg/g	10	10	230	< 10	< 10	< 10
F3 (C16 to C34)	µg/g	50	240	1700	111	108	175
F4 (C34 to C50)	µg/g	50	120	3300	267	232	353
Gravimetric Heavy Hydrocarbons	µg/g	200	120	3300	837	848	1080

Notes:

1. Table 1 (Soil Other Than Sediment, Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use) of the Soil Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act.

2. Table 2 (Soil Other Than Sediment, Industrial/Commercial/Community Property Uses, Coarse) of the Soil Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act.

Bold - value exceeds Table 1 standard.

Bold and Shaded - value exceeds Table 2 standard.

Bold and underline - Laboratory RDL exceeds standard.

"NV" indicates no value.

"-" indicates value not analyzed.



## FINAL REPORT

CA14180-AUG20 R

11419-00 Street Sweeping Characterization

Prepared for

**Cambium Inc.**



### First Page

CLIENT DETAILS		LABORATORY DETAILS	
Client	Cambium Inc.	Project Specialist	Brad Moore Hon. B.Sc
Address	52 Hunter Street East Peterborough, ON K9H 1G5, Canada	Laboratory	SGS Canada Inc.
Contact	Bernie Taylor	Address	185 Concession St., Lakefield ON, K0L 2H0
Telephone	705-742-7900 ext 200	Telephone	705-652-2143
Facsimile	705-742-7907	Facsimile	705-652-6365
Email	bernie.taylor@cambium-inc.com; file@cambium-inc.com	Email	brad.moore@sgs.com
Project	11419-00 Street Sweeping Characterization	SGS Reference	CA14180-AUG20
Order Number		Received	08/12/2020
Samples	Soil (3)	Approved	08/19/2020
		Report Number	CA14180-AUG20 R
		Date Reported	08/19/2020

### COMMENTS

CCME Method Compliance: Analyses were conducted using analytical procedures that comply with the Reference Method for the CWS for Petroleum Hydrocarbons in Soil and have been validated for use at the SGS laboratory, Lakefield, ON site.

Quality Compliance: Instrument performance / calibration quality criteria were met and extraction and analysis limits for holding times were met.

nC6 and nC10 response factors within 30% of response factor for toluene: YES

nC10, nC16 and nC34 response factors within 10% of the average response for the

three compounds: YES

C50 response factors within 70% of nC10 + nC16 + nC34 average: YES

Linearity is within 15%: YES

F4G - gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.

The results for F4 and F4G are both reported and the greater of the two values is to be used in application to the CWS PHC.

Hydrocarbon results are expressed on a dry weight basis.

Temperature of Sample upon Receipt: 24 degrees C


Cooling Agent Present: No

Custody Seal Present: No

Chain of Custody Number: 014259

### SIGNATORIES

Brad Moore Hon. B.Sc





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# FINAL REPORT

CA14180-AUG20 R

Client: Cambium Inc.

Project: 11419-00 Street Sweeping Characteri

Project Manager: Bernie Taylor

Samplers: Connor Frazer

## PACKAGE: REG153 - BTEX (SOIL)

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

				Sample Number	9	10	11
				Sample Name	Emily Depot	Eldon PW Depot	Bobcaygeon Depot
				Sample Matrix	Soil	Soil	Soil
				Sample Date	12/08/2020	12/08/2020	12/08/2020
Parameter	Units	RL	L1	Result	Result	Result	
BTEX							
Benzene	µg/g	0.02	0.02	< 0.02	< 0.02	< 0.02	
Ethylbenzene	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	
Toluene	µg/g	0.05	0.2	< 0.05	< 0.05	< 0.05	
Xylene (total)	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	
m/p-xylene	µg/g	0.05		< 0.05	< 0.05	< 0.05	
o-xylene	µg/g	0.05		< 0.05	< 0.05	< 0.05	

## PACKAGE: REG153 - Hydrides (SOIL)

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

				Sample Number	9	10	11
				Sample Name	Emily Depot	Eldon PW Depot	Bobcaygeon Depot
				Sample Matrix	Soil	Soil	Soil
				Sample Date	12/08/2020	12/08/2020	12/08/2020
Parameter	Units	RL	L1	Result	Result	Result	
Hydrides							
Antimony	µg/g	0.8	1.3	< 0.8	< 0.8	< 0.8	
Arsenic	µg/g	0.5	18	1.2	1.0	1.2	
Selenium	µg/g	0.7	1.5	< 0.7	< 0.7	< 0.7	



# FINAL REPORT

CA14180-AUG20 R

Client: Cambium Inc.

Project: 11419-00 Street Sweeping Characteriz

Project Manager: Bernie Taylor

Samplers: Connor Frazer

PACKAGE: REG153 - Metals and Inorganics (SOIL)

Sample Number	9	10	11
Sample Name	Emily Depot	Eldon PW Depot	Bobcaygeon Depot
Sample Matrix	Soil	Soil	Soil
Sample Date	12/08/2020	12/08/2020	12/08/2020

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result
<b>Metals and Inorganics</b>						
Moisture Content	%	-		3.1	3.6	2.6
Barium	µg/g	0.1	220	25	20	25
Beryllium	µg/g	0.02	2.5	0.14	0.11	0.11
Boron	µg/g	1	36	5	4	5
Cadmium	µg/g	0.02	1.2	0.03	< 0.02	< 0.02
Chromium	µg/g	0.5	70	5.7	5.1	5.1
Cobalt	µg/g	0.01	21	2.4	1.8	1.9
Copper	µg/g	0.1	92	6.2	7.0	4.0
Lead	µg/g	0.1	120	2.9	2.4	2.6
Molybdenum	µg/g	0.1	2	0.3	0.2	0.2
Nickel	µg/g	0.5	82	4.3	3.6	3.6
Silver	µg/g	0.05	0.5	< 0.05	< 0.05	< 0.05
Thallium	µg/g	0.02	1	0.05	0.03	0.02
Uranium	µg/g	0.002	2.5	0.35	0.31	0.31
Vanadium	µg/g	3	86	10	8	7
Zinc	µg/g	0.7	290	14	13	11
Water Soluble Boron	µg/g	0.5		< 0.5	< 0.5	< 0.5





# FINAL REPORT

CA14180-AUG20 R

Client: Cambium Inc.

Project: 11419-00 Street Sweeping Characteri

Project Manager: Bernie Taylor

Samplers: Connor Frazer

PACKAGE: REG153 - Other (ORP) (SOIL)

Sample Number	9	10	11
Sample Name	Emily Depot	Eldon PW Depot	Bobcaygeon Depot
Sample Matrix	Soil	Soil	Soil
Sample Date	12/08/2020	12/08/2020	12/08/2020

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result
Other (ORP)						
Mercury	µg/g	0.05	0.27	< 0.05	< 0.05	< 0.05
Sodium Adsorption Ratio	No unit	0.2	2.4	1.1	1.0	1.6
SAR Calcium	mg/L	0.09		21.5	36.2	22.4
SAR Magnesium	mg/L	0.02		1.6	2.1	1.5
SAR Sodium	mg/L	0.15		20.2	22.6	29.7
Conductivity	mS/cm	0.002	0.57	0.20	0.23	0.25
pH	pH Units	0.05		7.95	7.98	8.10
Chromium VI	µg/g	0.2	0.66	< 0.2	< 0.2	< 0.2
Free Cyanide	µg/g	0.05	0.051	< 0.05	< 0.05	< 0.05





# FINAL REPORT

CA14180-AUG20 R

Client: Cambium Inc.

Project: 11419-00 Street Sweeping Characteriz

Project Manager: Bernie Taylor

Samplers: Connor Frazer

PACKAGE: REG153 - PHCs (SOIL)

Sample Number	9	10	11
Sample Name	Emily Depot	Eldon PW Depot	Bobcaygeon Depot
Sample Matrix	Soil	Soil	Soil
Sample Date	12/08/2020	12/08/2020	12/08/2020

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result
<b>PHCs</b>						
F1 (C6-C10)	µg/g	10	25	< 10	< 10	< 10
F1-BTEX (C6-C10)	µg/g	10		< 10	< 10	< 10
F2 (C10-C16)	µg/g	10	10	< 10	< 10	< 10
F3 (C16-C34)	µg/g	50	240	111	108	175
F4 (C34-C50)	µg/g	50	120	267	232	353
F4G-sg (GHH)	µg/g	200	120	837	848	1080
Chromatogram returned to baseline at nC50	Yes / No	-		NO	NO	NO

## EXCEEDANCE SUMMARY

REG153 / SOIL /  
COARSE - TABLE  
1 -  
Residential/Parklan  
d/Industrial -  
UNDEFINED  
L1

Parameter	Method	Units	Result
-----------	--------	-------	--------

### Emily Depot

F4 (C34 to C50)	CCME Tier 1	µg/g	267	120
Gravimetric Heavy Hydrocarbons	CCME Tier 1	µg/g	837	120

### Eldon PW Depot

F4 (C34 to C50)	CCME Tier 1	µg/g	232	120
Gravimetric Heavy Hydrocarbons	CCME Tier 1	µg/g	848	120

### Bobcaygeon Depot

F4 (C34 to C50)	CCME Tier 1	µg/g	353	120
Gravimetric Heavy Hydrocarbons	CCME Tier 1	µg/g	1080	120



## QC SUMMARY

### Conductivity

Method: EPA 6010/SM 2510 | Internal ref.: ME-CA-IENVIEWL-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.	
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Lin (%)
								Low	High		Low
Conductivity	EWL0179-AUG20	mS/cm	0.002	<0.002	ND	10	100	90	110	NA	

### Cyanide by SFA

Method: SM 4500 | Internal ref.: ME-CA-IENVISFA-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.	
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Lin (%)
								Low	High		Low
Free Cyanide	SKA0087-AUG20	µg/g	0.05	<0.05	ND	20	96	80	120	104	75

### Hexavalent Chromium by SFA

Method: EPA218.6/EPA3060A | Internal ref.: ME-CA-IENVISKA-LAK-AN-012

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.	
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Lin (%)
								Low	High		Low
Chromium VI	SKA5050-AUG20	ug/g	0.2	<0.2	ND	20	90	80	120	88	75

## QC SUMMARY

### Mercury by CVAAS

Method: EPA 7471A/EPA 245 | Internal ref.: ME-CA-ENVISPE-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.	
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Li (%)
								Low	High		Low
Mercury	EMS0067-AUG20	µg/g	0.05	<0.05	ND	20	100	80	120	98	70

### Metals in aqueous samples - ICP-OES

Method: MOE 4696e01/EPA 6010 | Internal ref.: ME-CA-ENVISPE-LAK-AN-003

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.	
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Li (%)
								Low	High		Low
SAR Calcium	ESG0043-AUG20	mg/L	0.09	<0.09	0	20	100	80	120	100	70
SAR Magnesium	ESG0043-AUG20	mg/L	0.02	<0.02	4	20	99	80	120	104	70
SAR Sodium	ESG0043-AUG20	mg/L	0.15	<0.15	2	20	98	80	120	104	70



## QC SUMMARY

Metals in Soil - Aqua-regia/ICP-MS

Method: EPA 3050/EPA 200.8 | Internal ref.: ME-CA-IENVISPE-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.	
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Lin (%)
								Low	High		Low
Silver	EMS0067-AUG20	ug/g	0.05	<0.05	ND	20	100	70	130	105	70
Arsenic	EMS0067-AUG20	µg/g	0.5	<0.5	1	20	101	70	130	93	70
Barium	EMS0067-AUG20	ug/g	0.1	<0.1	3	20	103	70	130	104	70
Beryllium	EMS0067-AUG20	µg/g	0.02	<0.02	7	20	99	70	130	89	70
Boron	EMS0067-AUG20	µg/g	1	<1	4	20	109	70	130	100	70
Cadmium	EMS0067-AUG20	µg/g	0.02	<0.02	3	20	97	70	130	104	70
Cobalt	EMS0067-AUG20	µg/g	0.01	<0.01	0	20	96	70	130	112	70
Chromium	EMS0067-AUG20	µg/g	0.5	<0.5	12	20	98	70	130	117	70
Copper	EMS0067-AUG20	µg/g	0.1	<0.1	3	20	100	70	130	108	70
Molybdenum	EMS0067-AUG20	µg/g	0.1	<0.1	ND	20	96	70	130	110	70
Nickel	EMS0067-AUG20	ug/g	0.5	<0.5	ND	20	94	70	130	109	70
Lead	EMS0067-AUG20	ug/g	0.1	<0.1	2	20	101	70	130	99	70
Antimony	EMS0067-AUG20	µg/g	0.8	<0.8	ND	20	94	70	130	112	70
Selenium	EMS0067-AUG20	µg/g	0.7	<0.7	ND	20	100	70	130	102	70
Thallium	EMS0067-AUG20	µg/g	0.02	<0.02	0	20	102	70	130	100	70
Uranium	EMS0067-AUG20	µg/g	0.002	<0.002	19	20	99	70	130	94	70
Vanadium	EMS0067-AUG20	µg/g	3	<3	0	20	97	70	130	110	70
Zinc	EMS0067-AUG20	µg/g	0.7	<0.7	1	20	95	70	130	102	70



## FINAL REPORT

CA1418

## QC SUMMARY

## Petroleum Hydrocarbons (F1)

Method: CCME Tier 1 | Internal ref.: ME-CA-IENVIGC-LAK-AN-010

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.	
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Li (%)
								Low	High		Low
F1 (C6-C10)	GCM0212-AUG20	µg/g	10	<10	ND	30	109	80	120	103	60

## Petroleum Hydrocarbons (F2-F4)

Method: CCME Tier 1 | Internal ref.: ME-CA-IENVIGC-LAK-AN-010

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.	
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Li (%)
								Low	High		Low
F2 (C10-C16)	GCM0244-AUG20	µg/g	10	<10	ND	30	108	80	120	118	60
F3 (C16-C34)	GCM0244-AUG20	µg/g	50	<50	7	30	108	80	120	118	60
F4 (C34-C50)	GCM0244-AUG20	µg/g	50	<50	13	30	108	80	120	118	60





## FINAL REPORT

CA14180

## QC SUMMARY

## Petroleum Hydrocarbons (F4G)

Method: CCME Tier 1 | Internal ref.: ME-CA-IENVIGC-LAK-AN-010

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.	
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Lim (%)
								Low	High		Low
F4G-sg (GHH)	GCM0275-AUG20	µg/g	200	<200	5	30	99	80	120	NA	60

## pH

Method: SM 4500 | Internal ref.: ME-CA-IENVIEWL-LAK-AN-001

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.	
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Lim (%)
								Low	High		Low
pH	ARD0041-AUG20	pH Units	0.05		0	20	100	80	120		

## QC SUMMARY

### Volatile Organics

Method: EPA 5035A/5030B/8260C | Internal ref.: ME-CA-[ENV]GC-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.	
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Li (%)
								Low	High		Low
Benzene	GCM0211-AUG20	µg/g	0.02	< 0.02	ND	50	85	60	130	95	50
Ethylbenzene	GCM0211-AUG20	µg/g	0.05	< 0.05	ND	50	87	60	130	95	50
m/p-xylene	GCM0211-AUG20	µg/g	0.05	< 0.05	ND	50	87	60	130	95	50
o-xylene	GCM0211-AUG20	µg/g	0.05	< 0.05	ND	50	87	60	130	95	50
Toluene	GCM0211-AUG20	µg/g	0.05	< 0.05	ND	50	87	60	130	94	50

### Water Soluble Boron

Method: O.Req. 15 3/04 | Internal ref.: ME-CA-[ENV] SPE-LAK-AN-003

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.	
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Li (%)
								Low	High		Low
Water Soluble Boron	ESG0042-AUG20	µg/g	0.5	<0.5	ND	20	99	80	120	104	70



## QC SUMMARY

Method Blank: a blank matrix that is carried through the entire analytical procedure. Used to assess laboratory contamination.

Duplicate: Paired analysis of a separate portion of the same sample that is carried through the entire analytical procedure. Used to evaluate measurement precision.

LCS/Spike Blank: Laboratory control sample or spike blank refer to a blank matrix to which a known amount of analyte has been added. Used to evaluate analyte recovery and laboratory accuracy without sample matrix effects.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate laboratory accuracy with sample matrix effects.

Reference Material: a material or substance matrix matched to the samples that contains a known amount of the analyte of interest. A reference material may be used in place of a matrix spike.

RL: Reporting limit

RPD: Relative percent difference

AC: Acceptance criteria

**Multielement Scan Qualifier:** as the number of analytes in a scan increases, so does the chance of a limit exceedance by random chance as opposed to a real method problem. Thus, in multielement scans, for the LCS and matrix spike, up to 10% of the analytes may exceed the quoted limits by up to 10% absolute and the spike is considered acceptable.

**Duplicate Qualifier:** for duplicates as the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL.

**Matrix Spike Qualifier:** for matrix spikes, as the concentration of the native analyte increases, the uncertainty of the matrix spike recovery increases. Thus, the matrix spike acceptance limits apply only when the concentration of the matrix spike is greater than or equal to the concentration of the native analyte.

## LEGEND

### FOOTNOTES

**NSS** Insufficient sample for analysis.

**RL** Reporting Limit.

↑ Reporting limit raised.

↓ Reporting limit lowered.

**NA** The sample was not analysed for this analyte

**ND** Non Detect

Samples analysed as received. Solid samples expressed on a dry weight basis. "Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples.

Analysis conducted on samples submitted pursuant to or as part of Reg. 153/04, are in accordance to the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act" published by the Ministry and dated March 9, 2004 as amended.

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-- End of Analytical Report --



Revision #: 1.2  
Date of Issue: 09 Sept, 2019

**Note:** Submission of samples to SGS is acknowledged in that you have been provided direction on sample collection/handling and transportation of samples. (2) Submission of samples to SGS is considered authorization for completion of work. Signatures may appear on this form or be retained on file in the contract, or in an alternative format (e.g. shipping documents). (3) Results may be sent by email to an unlimited number of addresses for no additional cost. Fax is available upon request. This document is issued by the Company under its General Conditions of Service accessible at [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm). (Printed copies are available upon request). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.





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Oshawa

**Laboratory**

Peterborough



September 9, 2020

## QUALIFICATIONS AND LIMITATIONS

### Limited Warranty

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A Site assessment is created using data and information collected during the investigation of a Site and based on conditions encountered at the time and particular locations at which fieldwork is conducted. The information, sample results and data collected represent the conditions only at the specific times at which and at those specific locations from which the information, samples and data were obtained and the information, sample results and data may vary at other locations and times. To the extent that Cambium's work or report considers any locations or times other than those from which information, sample results and data was specifically received, the work or report is based on a reasonable extrapolation from such information, sample results and data but the actual conditions encountered may vary from those extrapolations.

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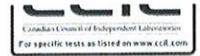
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# Gradation Analysis

Client Name: City of Kawartha Lakes - Waste and Recycling E

Project No.: 11419-001

Project Name: CKL - Soil Testing 2020 - Various Works Yards

Source: No. 1 Emily Depot

Date Sampled: August 10, 2020

Sampled By: Client

Lab No.: AG-20-0291

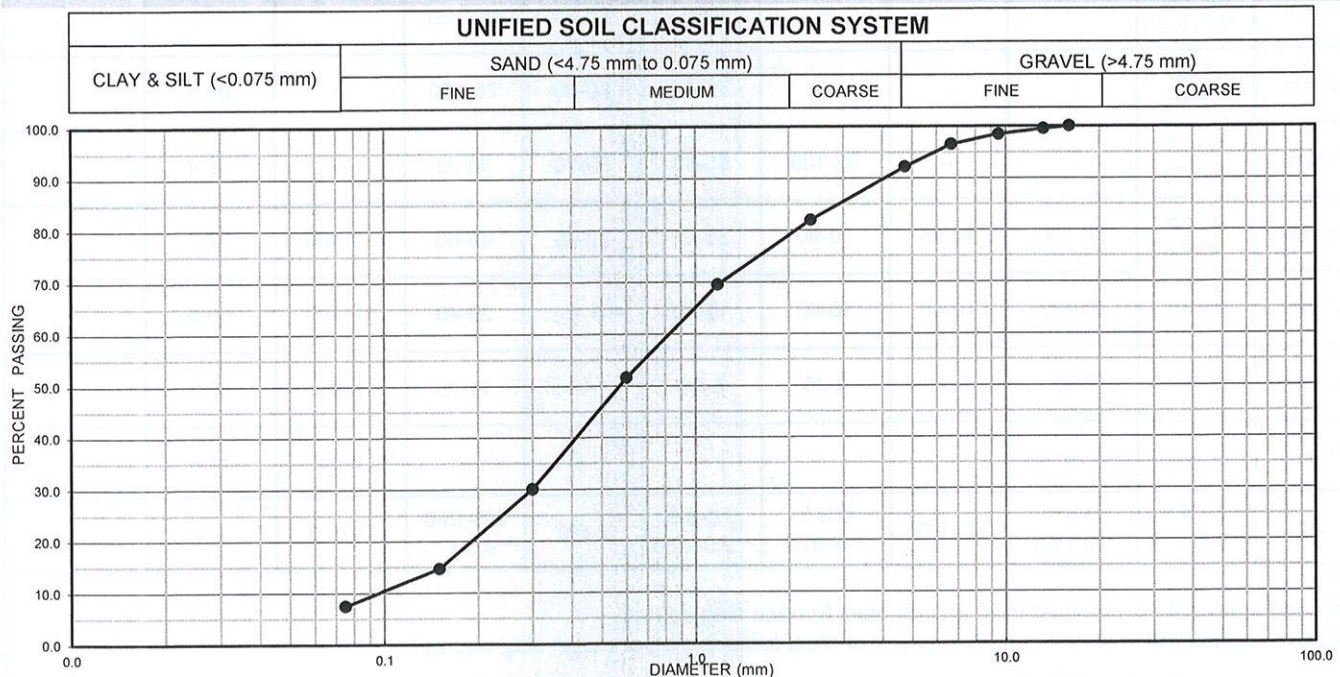
Material Type: No Specs

Sieves (mm)	% Passing* Sample
Coarse Aggregate	
150.00	
106.00	
63.00	
53.00	
37.50	
26.50	
19.00	
16.00	100.0
13.20	99.5
9.50	98.4
6.70	96.5
4.75	92.2

Sieves (mm)	% Passing* Sample
Fine Aggregate	
2.36	81.9
1.18	69.5
0.600	51.6
0.300	30.1
0.150	14.6
0.075	7.4

Sample Results	
Initial Dry Sample Mass (g)	8767.0
Coarse Aggregate (%)	7.8
Fine Aggregate (%)	92.2
Moisture Content (%)	3.5
% Loss	0.0

\* Percentages are based on oven-dry material



Remarks:

Issued By:

*John Baird*  
(Senior Project Manager)

Date Issued:

August 19, 2020





## AGGREGATES GRADATION REQUIREMENTS OPSS 1010 - GRANULARS, LS-602

**Client:** City of Kawartha Lakes - Waste and Recycling Branch  
**Project Name:** CKL - Soil Testing 2020 - Various Works Yards  
**Sampled By:** Client  
**Location:** Emily Depot  
**Material Type:** No Specs  
**MTO Contract No.:** N/A

**Project Number:** 11419-001

**Date Sampled:** August 10, 2020

**Lab Sample No.:** AG-20-0291

Sieve Size	Gradation Requirement, % Passing								Test Result	
	A	B			M	O	S	SSM	Sample	Meets Requirements (Y/N)
		Type I	Type II	Type III						
150 mm	--	100	--	100	--	--	--	100	100	
106 mm	--	--	100	--	--	--	--	--	100	
37.5 mm	--	--	--	--	--	100	--	--	100	
26.5 mm	100	50-100	50-100	50-100	--	95-100	100	50-100	100	
19.0 mm	85-100 *87-100	--	--	--	100	80-95	90-100	--	100	
13.2 mm	65-90 *75-95	--	--	--	75-95	60-80	75-100	--	99.5	
9.5 mm	50-73 *60-73	--	--	32-100	55-80	50-70	60-85	--	98.4	
4.75 mm	35-55 *40-60	20-100	20-55	20-90	35-55	20-45	40-60	20-100	92.2	
1.18 mm	15-40	10-100	10-40	10-60	15-40	0-15	20-40	10-100	69.5	
300 µm	2-55	2-65	5-22	2-35	5-22	--	11-25	5-95	30.1	
150 µm	--	--	--	--	--	--	--	2-65	14.6	
75 µm	2.0-8.0 **2.0-10.0	0-8.0 **0-10.0	0-10.0	0-8.0 **0-10.0	2.0-8.0 **2.0-10.0	0-5.0	9.0-15.0 **9.0-17.0	0-25.0	7.4	

**Notes:**

\* When the aggregate is obtained from an iron blast furnace slag source.

\*\* When the aggregate is obtained from a quarry or blast furnace slag or nickel slag source.

Issued by:

Stuart Baird, Senior Project Manager

August 19, 2020

Date





# AGGREGATES PHYSICAL PROPERTIES REQUIREMENTS OPSS 1010 - GRANULARS, LS-VARIOUS PROCEDURE

**Client:** City of Kawartha Lakes - Waste and Recycling Branch  
**Project Name:** CKL - Soil Testing 2020 - Various Works Yards  
**Sampled By:** Client  
**Location:** Emily Depot  
**Material Type:** No Specs  
**MTO Contract No.:** N/A

**Project Number:** 11419-001

**Date Sampled:** August 10, 2020

**Lab Sample No.:** AG-20-0291

LS Test Procedure Name and Number	Gradation Requirement, % Passing								Test Result	
	A	B			M	O	S	SSM	Sample	Meets Requirement s (Y/N)
		Type I	Type II	Type III						
Crushed Particles % minimum, LS-607	60	-	100	-	60	100	50	-	N/A	
Unconfined Freeze-Thaw, % maximum loss, LS-614	-	-	-	-	-	15	-	-	N/A	
2 or more Crushed Faces % minimum, LS-617	-	-	-	-	-	85 (Note 1)	-	-	N/A	
Micro-Deval Abrasion, Coarse Aggregate % maximum loss LS-618	25	30 (Note 2)	30	30 (Note 2)	25	21	25	30 (Note 2)	N/A	
Micro-Deval Abrasion, Fine Aggregate % maximum loss LS-619	30	35	35	35	30	25	30	-	10.6	
Asphalt Coated Particles, % maximum, LS-621	30	30	0	30	30	0	30	0	N/A	
Amount of Contamination, LS-630	(Note 3)									
Plasticity Index, maximum, LS-703/704	0									
Determination of Permeability, k, LS-709	(Note 4)									

Notes:

- When Granular O is produced from boulders, cobbles, or gravel retained on the 50 mm sieve.
- The coarse aggregate Micro-Deval abrasion loss test requirement shall be waived if the material has more than 80% passing the 4.75 mm sieve.
- Granular A, B Type I, B Type III, or M may contain up to 15 percent by mass crushed glass or ceramic materials. Granular A, B Type III, M, O, and S shall not contain more than 1.0 percent by mass of wood, clay brick and/or gypsum and/or gypsum wall board or plaster. Granular B Type II and SSM shall not contain more than 0.1 percent by mass of wood.
- For materials north of the French/Mattawa Rivers only, the coefficient of permeability, k, shall be greater than  $1.0 \times 10^{-4}$  cm/s or field experience has demonstrated satisfactory performance. Prior data demonstrating compliance with this requirement for k, shall be acceptable provided that such testing has been done within 5 years of the material being used and field performance has continually been shown to be satisfactory.

Issued by:

Stuart Baird, Senior Project Manager

August 20, 2020

Date





## Gradation Analysis

**Client Name:** City of Kawartha Lakes - Waste and Recycling E

**Project No.:** 11419-001

**Project Name:** CKL - Soil Testing 2020 - Various Works Yards

**Source:** No. 2 Eldon Depot

**Date Sampled:** August 10, 2020

**Sampled By:** Client

**Lab No.:** AG-20-0292

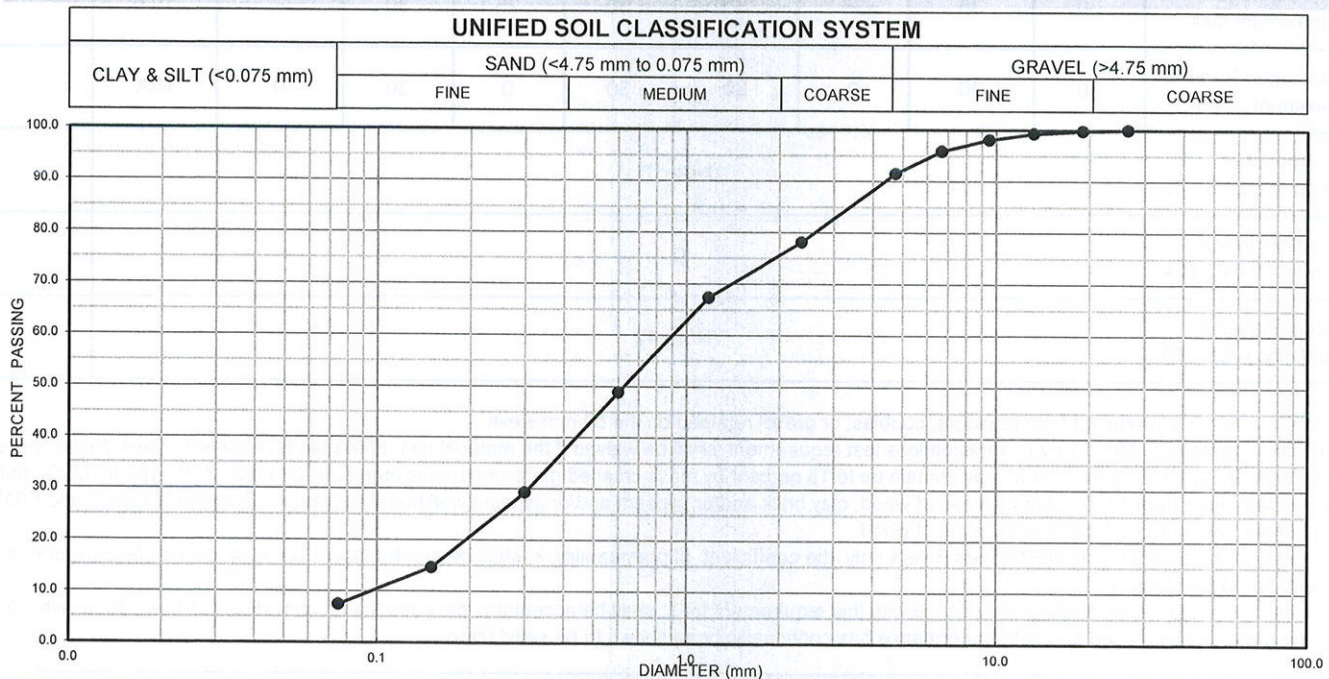
**Material Type:** No Specs

Sieves (mm)	% Passing* Sample
Coarse Aggregate	
150.00	
106.00	
63.00	
53.00	
37.50	
26.50	100.0
19.00	99.8
16.00	
13.20	99.3
9.50	98.1
6.70	95.9
4.75	91.5

Sieves (mm)	% Passing* Sample
Fine Aggregate	
2.36	78.1
1.18	67.3
0.600	48.8
0.300	29.3
0.150	14.7
0.075	7.5

Sample Results	
Initial Dry Sample Mass (g)	10897.0
Coarse Aggregate (%)	8.5
Fine Aggregate (%)	91.5
Moisture Content (%)	3.4
% Loss	0.0

\* Percentages are based on oven-dry material



Remarks:

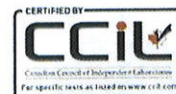
Issued By:

*John Baird*  
(Senior Project Manager)

Date Issued:

August 19, 2020





# AGGREGATES GRADATION REQUIREMENTS

## OPSS 1010 - GRANULARS, LS-602

**Client:** City of Kawartha Lakes - Waste and Recycling Branch

**Project Number:** 11419-001

**Project Name:** CKL - Soil Testing 2020 - Various Works Yards

**Sampled By:** Client

**Date Sampled:** August 10, 2020

**Location:** Eldon Depot

**Material Type:** No Specs

**MTO Contract No.:** N/A

**Lab Sample No.:** AG-20-0292

Sieve Size	Gradation Requirement, % Passing								Test Result	
	A	B			M	O	S	SSM	Sample	Meets Requirements (Y/N)
		Type I	Type II	Type III						
150 mm	--	100	--	100	--	--	--	100	100	
106 mm	--	--	100	--	--	--	--	--	100	
37.5 mm	--	--	--	--	--	100	--	--	100	
26.5 mm	100	50-100	50-100	50-100	--	95-100	100	50-100	100	
19.0 mm	85-100 *87-100	--	--	--	100	80-95	90-100	--	99.8	
13.2 mm	65-90 *75-95	--	--	--	75-95	60-80	75-100	--	99.3	
9.5 mm	50-73 *60-73	--	--	32-100	55-80	50-70	60-85	--	98.1	
4.75 mm	35-55 *40-60	20-100	20-55	20-90	35-55	20-45	40-60	20-100	91.5	
1.18 mm	15-40	10-100	10-40	10-60	15-40	0-15	20-40	10-100	67.3	
300 µm	2-55	2-65	5-22	2-35	5-22	--	11-25	5-95	29.3	
150 µm	--	--	--	--	--	--	--	2-65	14.7	
75 µm	2.0-8.0 **2.0-10.0	0-8.0 **0-10.0	0-10.0	0-8.0 **0-10.0	2.0-8.0 **2.0-10.0	0-5.0	9.0-15.0 **9.0-17.0	0-25.0	7.5	

**Notes:**

\* When the aggregate is obtained from an iron blast furnace slag source.

\*\* When the aggregate is obtained from a quarry or blast furnace slag or nickel slag source.

Issued by:

Stuart Baird, Senior Project Manager

August 19, 2020

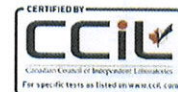
Date

Cambium Inc. (Laboratory)

866.217.7900 | cambium-inc.com

701 The Queensway | Units 5-6 | Peterborough | ON | K9J 7J6





## AGGREGATES PHYSICAL PROPERTIES REQUIREMENTS OPSS 1010 - GRANULARS, LS-VARIOUS PROCEDURE

**Client:** City of Kawartha Lakes - Waste and Recycling Branch

**Project Number:** 11419-001

**Project Name:** CKL - Soil Testing 2020 - Various Works Yards

**Sampled By:** Client

**Date Sampled:** August 10, 2020

**Location:** Eldon Depot

**Material Type:** No Specs

**MTO Contract No.:** N/A

**Lab Sample No.:** AG-20-0292

LS Test Procedure Name and Number	Gradation Requirement, % Passing								Test Result	
	A	B			M	O	S	SSM	Sample	Meets Requirement s (Y/N)
		Type I	Type II	Type III						
Crushed Particles % minimum, LS-607	60	-	100	-	60	100	50	-	N/A	
Unconfined Freeze- Thaw, % maximum loss, LS-614	-	-	-	-	-	15	-	-	N/A	
2 or more Crushed Faces % minimum, LS-617	-	-	-	-	-	85 (Note 1)	-	-	N/A	
Micro-Deval Abrasion, Coarse Aggregate % maximum loss LS-618	25	30 (Note 2)	30	30 (Note 2)	25	21	25	30 (Note 2)	N/A	
Micro-Deval Abrasion, Fine Aggregate % maximum loss LS-619	30	35	35	35	30	25	30	-	9.7	
Asphalt Coated Particles, % maximum, LS-621	30	30	0	30	30	0	30	0	N/A	
Amount of Contamination, LS-630	(Note 3)									
Plasticity Index, maximum, LS-703/704	0									
Determination of Permeability, k, LS-709	(Note 4)									

**Notes:**

1. When Granular O is produced from boulders, cobbles, or gravel retained on the 50 mm sieve.
2. The coarse aggregate Micro-Deval abrasion loss test requirement shall be waived if the material has more than 80% passing the 4.75 mm sieve.
3. Granular A, B Type I, B Type III, or M may contain up to 15 percent by mass crushed glass or ceramic materials. Granular A, B Type III, M, O, and S shall not contain more than 1.0 percent by mass of wood, clay brick and/or gypsum and/or gypsum wall board or plaster. Granular B Type II and SSM shall not contain more than 0.1 percent by mass of wood.
4. For materials north of the French/Mattawa Rivers only, the coefficient of permeability, k, shall be greater than  $1.0 \times 10^{-4}$  cm/s or field experience has demonstrated satisfactory performance. Prior data demonstrating compliance with this requirement for k, shall be acceptable provided that such testing has been done within 5 years of the material being used and field performance has continually been shown to be satisfactory.

Issued by:

  
Stuart Baird, Senior Project Manager

August 20, 2020

Date

Cambium Inc. (Laboratory)

866.217.7900 | [cambium-inc.com](http://cambium-inc.com)

701 The Queensway | Units 5-6 | Peterborough | ON | K9J 7J6





## Gradation Analysis

**Client Name:** City of Kawartha Lakes - Waste and Recycling E

**Project No.:** 11419-001

**Project Name:** CKL - Soil Testing 2020 - Various Works Yards

**Source:** No. 3 Bobcaygeon Depot

**Date Sampled:** August 10, 2020

**Sampled By:** Client

**Lab No.:** AG-20-0293

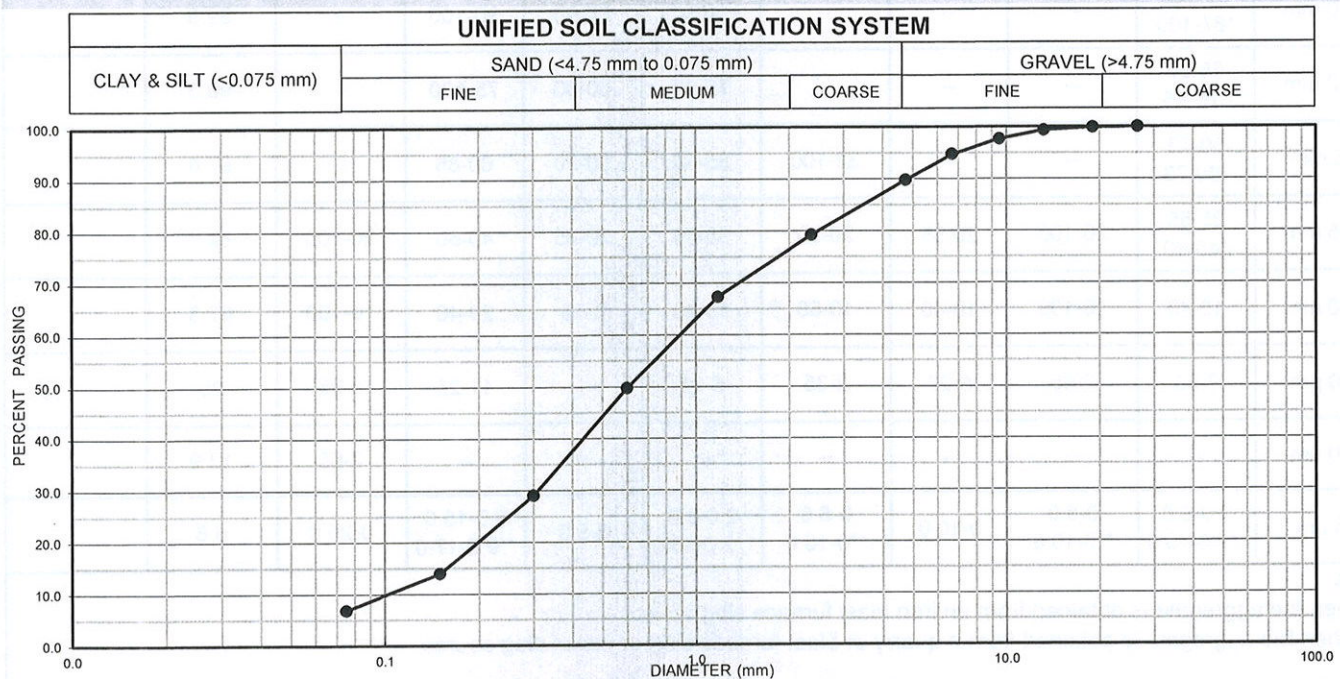
**Material Type:** No Specs

Sieves (mm)	% Passing* Sample
Coarse Aggregate	
150.00	
106.00	
63.00	
53.00	
37.50	
26.50	100.0
19.00	99.9
16.00	
13.20	99.3
9.50	97.6
6.70	94.7
4.75	89.7

Sieves (mm)	% Passing* Sample
Fine Aggregate	
2.36	79.2
1.18	67.3
0.600	49.7
0.300	29.0
0.150	13.9
0.075	6.8

Sample Results	
Initial Dry Sample Mass (g)	10270.0
Coarse Aggregate (%)	10.3
Fine Aggregate (%)	89.7
Moisture Content (%)	2.8
% Loss	0.0

\* Percentages are based on oven-dry material



Remarks:

Issued By:

*John Baird*  
(Senior Project Manager)

Date Issued:

August 19, 2020





## AGGREGATES GRADATION REQUIREMENTS OPSS 1010 - GRANULARS, LS-602

**Client:** City of Kawartha Lakes - Waste and Recycling Branch  
**Project Name:** CKL - Soil Testing 2020 - Various Works Yards  
**Sampled By:** Client  
**Location:** Bobcaygeon Depot  
**Material Type:** No Specs  
**MTO Contract No.:** N/A

**Project Number:** 11419-001

**Date Sampled:** August 10, 2020

**Lab Sample No.:** AG-20-0293

Sieve Size	Gradation Requirement, % Passing								Test Result	
	A	B			M	O	S	SSM	Sample	Meets Requirements (Y/N)
		Type I	Type II	Type III						
150 mm	--	100	--	100	--	--	--	100	100	
106 mm	--	--	100	--	--	--	--	--	100	
37.5 mm	--	--	--	--	--	100	--	--	100	
26.5 mm	100	50-100	50-100	50-100	--	95-100	100	50-100	100	
19.0 mm	85-100 *87-100	--	--	--	100	80-95	90-100	--	99.9	
13.2 mm	65-90 *75-95	--	--	--	75-95	60-80	75-100	--	99.3	
9.5 mm	50-73 *60-73	--	--	32-100	55-80	50-70	60-85	--	97.6	
4.75 mm	35-55 *40-60	20-100	20-55	20-90	35-55	20-45	40-60	20-100	89.7	
1.18 mm	15-40	10-100	10-40	10-60	15-40	0-15	20-40	10-100	67.3	
300 µm	2-55	2-65	5-22	2-35	5-22	--	11-25	5-95	29	
150 µm	--	--	--	--	--	--	--	2-65	13.9	
75 µm	2.0-8.0 **2.0-10.0	0-8.0 **0-10.0	0-10.0	0-8.0 **0-10.0	2.0-8.0 **2.0-10.0	0-5.0	9.0-15.0 **9.0-17.0	0-25.0	6.8	

**Notes:**

\* When the aggregate is obtained from an iron blast furnace slag source.

\*\* When the aggregate is obtained from a quarry or blast furnace slag or nickel slag source.

Issued by:

Stuart Baird, Senior Project Manager

August 19, 2020

Date





# AGGREGATES PHYSICAL PROPERTIES REQUIREMENTS OPSS 1010 - GRANULARS, LS-VARIOUS PROCDURES

**Client:** City of Kawartha Lakes - Waste and Recycling Branch  
**Project Name:** CKL - Soil Testing 2020 - Various Works Yards  
**Sampled By:** Client  
**Location:** Bobcaygeon Depot  
**Material Type:** No Specs  
**MTO Contract No.:** N/A

**Project Number:** 11419-001

**Date Sampled:** August 10, 2020

**Lab Sample No.:** AG-20-0293

LS Test Procedure Name and Number	Gradation Requirement, % Passing								Test Result	
	A	B			M	O	S	SSM	Sample	Meets Requirement s (Y/N)
		Type I	Type II	Type III						
Crushed Particles % minimum, LS-607	60	-	100	-	60	100	50	-	N/A	
Unconfined Freeze-Thaw, % maximum loss, LS-614	-	-	-	-	-	15	-	-	N/A	
2 or more Crushed Faces % minimum, LS-617	-	-	-	-	-	85 (Note 1)	-	-	N/A	
Micro-Deval Abrasion, Coarse Aggregate % maximum loss LS-618	25	30 (Note 2)	30	30 (Note 2)	25	21	25	30 (Note 2)	N/A	
Micro-Deval Abrasion, Fine Aggregate % maximum loss LS-619	30	35	35	35	30	25	30	-	10.7	
Asphalt Coated Particles, % maximum, LS-621	30	30	0	30	30	0	30	0	N/A	
Amount of Contamination, LS-630	(Note 3)									
Plasticity Index, maximum, LS-703/704	0									
Determination of Permeability, k, LS-709	(Note 4)									

Notes:

- When Granular O is produced from boulders, cobbles, or gravel retained on the 50 mm sieve.
- The coarse aggregate Micro-Deval abrasion loss test requirement shall be waived if the material has more than 80% passing the 4.75 mm sieve.
- Granular A, B Type I, B Type III, or M may contain up to 15 percent by mass crushed glass or ceramic materials. Granular A, B Type III, M, O, and S shall not contain more than 1.0 percent by mass of wood, clay brick and/or gypsum and/or gypsum wall board or plaster. Granular B Type II and SSM shall not contain more than 0.1 percent by mass of wood.
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Issued by:

Stuart Baird, Senior Project Manager

August 20, 2020

Date

# **RobynThe Corporation of the City of Kawartha Lakes**

## **Committee of the Whole Report**

**Report Number LGL2020-011**

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**Meeting Date:** November 3, 2020

**Title:** Regulation of Nuisance associated with Cannabis Cultivation and Processing Operations within the City of Kawartha Lakes

**Description:** Proposed amendments to the Zoning By-law and Property Standards By-law to address odour and light pollution associated with Cannabis Cultivation and Processing Operations. Proposed amendments to the Fees and Charges By-law re seized cannabis.

**Ward Number:** All

**Author and Title:** Robyn Carlson – City Solicitor  
Aaron Sloan – Manager of Municipal Law Enforcement  
Jonathan Derworiz – Planner II

---

### **Recommendations:**

**That** Report RS2020-011 Regulation of Nuisance associated with Cannabis Cultivation and Processing Operations within the City of Kawartha Lakes, be received;

**That** a by-law to amend the Property Standards By-law in the form attached as Appendix “A” be placed before the Agricultural Development Advisory Committee for review and comment;

**That** an amendment to the Fees and Charges By-law substantially in the form attached as Appendix “B” be forwarded to Council for adoption;

**That** a further report come forward from Development Services, to discuss potential by-law amendments to the various Zoning By-laws in force and effect throughout the municipality, following statutory public consultation; and

**Department Head:**\_\_\_\_\_

**Legal/ Finance/ Other:**\_\_\_\_\_

**Chief Administrative Officer:**\_\_\_\_\_

**That** these recommendations be forwarded to the agenda for the next Council meeting for adoption.

## **Background:**

By way of Council Resolution CW2020-095, Council on June 23, 2020 passed the following resolution:

That the Memorandum from Councillor Richardson, regarding the Regulatory Considerations for Managing Cannabis Cultivation in the City of Kawartha Lakes, be received;

That Staff be directed to provide information and options for zoning by-law regulations for both personal medical and commercial cultivation operations;

That Staff be directed to provide information and options for enforcement measures when commercial or personal medical cultivation operations exceed Federal approvals, or when the impact of the operation exceeds lot coverage percentages and post production/ processing brings a commercial element to otherwise residential or farm dwellings; and

That staff report back to Council with their proposals by the end of Q3 2020.

This Report addresses that direction. This Report does not address retail Cannabis sales, which are permitted in the General Retail category of Commercial zones. This Report addresses cannabis cultivation and processing operations, either through a federal commercial license (allowing sale to the government) or for personal use as a medical license.

## **Rationale:**

If a member of the public is concerned with the legality of a cannabis operation, they should contact the police. The City is not privy to personal medical licenses, nor is it privy to commercial production licenses, both of which are issued by the federal government.

The City is entitled to regulate cannabis cultivation and production to the extent that this regulation falls within the City's ability to regulate land use within Zoning By-laws, enacted for valid planning purposes, and Property Standards By-laws.

The City is entitled to draft and enforce these by-laws to regulate property development to minimize nuisance, such as odour and light pollution. However, it cannot be the intent of these by-laws to supplement the criminal framework set

out in the Criminal Code and Cannabis Act. Perceived increase in crime as a result of the land use is not something that can be regulated under the Planning Act. It is important that all levels of government work together to ensure that residents feel safe in both the rural and urban settings.

### *Medical Marijuana and Planning Regulation*

Medical marijuana can only be accessory to a residential use if the person with the license lives on the property.

### *Licensing for Commercial Cultivation and Processing*

Health Canada is the governing body responsible for reviewing licence applications of prospective commercial cannabis growers. There are two types of licenses available that have tiers based on cultivation area and output:

Cultivation licenses allow the growing of cannabis indoors or outdoors, and if authorized, the sale and distribution to other licence holders and licensed retailers.

- 1) Standard Cultivation – no maximum cultivation area. License can authorize produce fresh and dried cannabis, cannabis plants and seeds. Accessory uses include drying, trimming and milling.
- 2) Micro Cultivation – 200m<sup>2</sup> maximum cultivation area. Permitted uses are the same as the Standard Cultivation license.
- 3) Nursery – license can permit production of cannabis plants and plant seeds. Accessory uses include drying.

Processing licenses permit the processing of cannabis indoors, and if authorized, the sale and distribution to other license holders and licensed retailers. Processing activities include extraction and refinement to create topicals, extracts and edibles.

- 1) Standard Processing – no maximum processing amount per year.
- 2) Micro Processing – permitted to process up to 600kg of dried flower, or equivalent, per year.

### *Land Use Issues and Planning Implications*

Under the Cannabis Act, interested cultivators or processors are not required to obtain support from a municipality prior to applying for a license. Successful proponents are required to notify the municipality, copying the Minister, when a license is issued. While the Cannabis Act does not require any consultation with the municipality, under the Planning Act, municipalities are granted the authority to regulate land uses. From a land use planning perspective, cannabis crops, grown either indoor or outdoor, have land use planning implications the same as



mainstream agricultural or industrial uses. Staff have identified the following issues and options that require further analyses in determining the most appropriate course of action for regulating cannabis cultivation and processing in the City of Kawartha Lakes. This list is not exhaustive and, as this is an emerging industry, additional issues may arise:

- Distinguishing cannabis cultivation from production by way of defining such uses in Zoning By-laws;
- Amending existing definitions (i.e., Agricultural) or carving out new use-specific definitions.
- Determining an appropriate definition for the uses;
- Determining appropriate separation distances from residential uses and other sensitive land uses;
- Requiring Dark Sky compliance to mitigate light pollution;
- Applying Site Plan Control to each cultivator or producer; and,
- How and when to require studies pertaining to odour, stormwater and noise to minimize potential concerns from neighbouring property owners.

There are various options to address the issues outlined above. Brock, Uxbridge, Clarington and Scugog were examined in a municipal scan and are all currently exploring regulatory options for cannabis cultivation and production. This includes determining appropriate zones and zone requirements, enforcement measures and licensing. Brock and Scugog have both implemented Interim Control By-laws prohibiting the uses in the meantime while regulations are developed. Staff has obtained studies on cannabis cultivation and production from Georgina and Ramara and will be considering findings as regulations are built out. Staff are monitoring the progress made in these municipalities.

Along with odour and servicing, Staff are aware of concerns pertaining to a potential increase in criminal activity as a result of the land use. With regard to any land use, enforcement of applicable laws and maintaining a generally comfortable perception of safety requires a multifaceted approach from the respective municipality.

Planning will be reviewing minimum lot sizes in the agricultural zone to see if it is sufficient for cannabis growing (both indoor and outdoor). Planning will be reviewing agricultural, light industrial and residential lot coverage maximums that currently exist in the zoning by-laws that are in force and effect throughout the municipality to determine if they are sufficient for indoor cannabis cultivation.

#### *Proposed Amendments to the Property Standards By-law*

The proposed amendments to the Property Standards By-law should address the odour and light pollution issues associated both with residential cultivation of cannabis pursuant to medical license, the commercial cultivation of cannabis in

the agricultural zone, and the commercial processing of the cannabis plant into product in the industrial zone. The proposed amendments consider regulation of the nuisance issues associated with cannabis cultivation, and maintaining the safety of those in residential buildings where cannabis cultivation is occurring pursuant to a medical license. Proposed additional definitions and sections amendments are as follows:

“Noxious Odour” mean odours from activities emanating from a property that is persistent or continuous and is likely to interfere with the normal and reasonable use of another property;

“Odour Abatement Protocol” means a combination of methods, practices, equipment and technologies designed for the purpose of eliminating the emission and emanation of Noxious Odours from a property.

Light Penetration: Every Owner shall provide and maintain effective barriers to prevent the light from lamp standards, signs, vehicle head-lamps and other sources from shining directly into a Dwelling Unit or onto a neighbouring property.

Cannabis Related Activity: Where a Cannabis Related Activity is permitted on a property which occurs in a green house or building or other structure, the Owner or Occupier shall ensure that a ventilation system is installed to filter and exhaust the Noxious Odours

Exhaust of Noxious and Other Substances: Where a system of mechanical ventilation or Odour Abatement Protocol which exhausts noxious fumes, odours, gases, dust or sawdust from a Building is installed, the Owner shall ensure that the discharge from the system terminates above the roof line of the Building, and not less than three (3) metres (equivalent to nine point eight (9.8') feet) clear of any skylight, window, ventilator or other opening into that or another Building, and is operated in a manner so as not to constitute a Nuisance.

See Appendix “A” for a full list of proposed amendments. These proposals will be put before the Agricultural Development Advisory Committee for its review and comment before returning to Council.

#### *Proposed Amendments to the Fees and Charges By-law*

Enforcement of the Criminal Code with respect to illegal cannabis cultivation can be expensive, as the Ontario Provincial Police and the Kawartha Lakes Police are currently subject to the City’s tipping fees when attempting to landfill cannabis plants that have been seized. The by-law amendments to the City’s Fees and Charges By-law proposed at Schedule B provide a waiver of these costs for the enforcement authorities.

### **Other Alternatives Considered:**

No other alternatives have been considered.

### **Financial/Operation Impacts:**

Additional operation impacts will be felt by the Municipal Law Enforcement Office, as the enforcement of these added Property Standards provisions will fall to them. No additional staff is being proposed for that Office, so will result in additional workload for existing staff. Staff in that department are currently at/over capacity, so this is intended to increase wait times for responses. That department currently has a wait time of 2 months for some investigative issues and response.

A waiver of tipping fees will result in reduced revenue by the City.

### **Relationship of Recommendations to the 2020-2023 Strategic Plan:**

This report and recommended resolutions aligns with the Guiding Principle of service excellence. Moreover, this report and recommendations support the strategic priority of good government.

### **Review of Accessibility Implications of Any Development or Policy:**

N/A

### **Consultations:**

Director of Development Services  
Manager of Municipal Law Enforcement  
Manager of Planning

### **Attachments:**



LGL2020-011  
Appendix A - Proper

Appendix A – Proposed Amendments to the Property Standards By-law to Address Nuisance Associated with Cannabis Growth and Processing Operations



LGL2020-011  
Appendix B - By-Law

Appendix B – Proposed Amendments to the Fees and Charges By-law to  
Address costs associated with police enforcement of illegal cannabis cultivation

**Department Head E-Mail: [rtaylor@kawarthalakes.ca](mailto:rtaylor@kawarthalakes.ca)**

**Department Head: Ron Taylor**



# **The Corporation of the City of Kawartha Lakes**

## **By-Law 2020-xxx**

### **A By-Law To Amend By-Law 2016-112 Being a By-Law to Regulate and Govern The Standards For Maintaining And Occupying Property Within Kawartha Lakes.**

#### **Recitals**

1. The federal Cannabis Act authorizes residents and commercial business to grow cannabis as regulated, on certain properties in the City of Kawartha Lakes.
2. The City of Kawartha Lakes' Municipal Law Enforcement Division and other enforcement agencies have seen an increase in farm and residential properties being used to grow Cannabis.
3. Council considers it advisable to amend Property Standards By-Law 2016-112 in order to regulate property use so that cannabis cultivation occurs in a manner that addresses public nuisance and health.
4. While the existing Property Standards By-Law provides amelioration of odours and light in industrial zones, it fails to address these concerns on residential and agricultural property.

**Accordingly, the Council of The Corporation of the City of Kawartha Lakes enacts this By-law 2020-xxx.**

#### **Section 1.00: Definitions and Interpretation**

**1.01 Definitions:** Section 1.01 will be amended to include the following definitions:

- (a) **“Cannabis”** shall have the same meaning as Cannabis as defined in the Cannabis Act.
- (b) **“Cannabis Processing”** means an operation that includes the application of manual, mechanical or chemical methods, it is transformed into another form.
- (c) **“Cannabis Related Activity”** means growing, harvesting, processing, extracting, packaging, or otherwise making ready for sale, testing, destroying, storing, shipping, permitting consumption or sale of cannabis or cannabis products.
- (d) **“Noxious Odour”** mean odours from activities emanating from a property that is persistent or continuous and is likely to interfere with the normal and reasonable use of another property

- (e) **“Odour Abatement Protocol”** means a combination of methods, practices, equipment and technologies designed for the purpose of eliminating the emission and emanation of Noxious Odours from a property,

## **Section 2.00: Amendments to the Standards for All Properties**

### **2.01: Section 3.28 “Light Penetration” which reads:**

“Every Owner shall provide and maintain effective barriers to prevent the light from lamp standards, signs, vehicle head-lamps and other sources from shining directly into a Dwelling Unit” will be amended by adding the word “or” following the word “Unit”, by replacing “on” with “onto a”, so that it reads as follows: “Every Owner shall provide and maintain effective barriers to prevent the light from lamp standards, signs, vehicle head-lamps and other sources from shining directly into a Dwelling Unit or onto a neighbouring property.”

- 2.02 Section 5.04, “Ventilation Requirement”, will be removed from section 5, which applies only to non-residential and mixed-use buildings, and placed in new section 3.28, as section 3 applies to all buildings. The paragraph will be amended so that it reads as follows: “Every Owner of a Residential, Non-residential or Mixed Use Building shall ensure that it is adequately ventilated by natural or mechanical means and with regard to the operations carried on within the Building, to ensure that persons within the Building are not exposed to conditions harmful to their health or safety.”
- 2.03 Section 5.06 **“Ventilation Equipment”**, will be removed from section 5 and placed in new section 3.29. The paragraph will be amended so that it reads as follows: “Every Owner of a Residential, Non-residential or Mixed Use Building shall ensure that all of the mechanical ventilating equipment and the supports for that equipment are maintained in good repair and in a safe mechanical condition.”
- 2.04 A new section 3.30 will be added: **“Cannabis Related Activity:** Where a Cannabis Related Activity is permitted on a property which occurs in a green house or building or other structure, the Owner or Occupier shall ensure that a ventilation system is installed to filter and exhaust the Noxious Odours.”
- 2.05 Section 5.07 will be removed from section 5 and placed in new section 3.31, with amendments so that it reads as follows: **“Exhaust of Noxious and Other Substances:** Where a system of mechanical ventilation or Odour Abatement Protocol which exhausts noxious fumes, odours, gases, dust or sawdust from a Building is installed, the Owner shall ensure that the discharge from the system terminates above the roof line of the Building, and not less than three (3) metres (equivalent to nine point eight (9.8’) feet) clear of any skylight, window, ventilator or other opening into

that or another Building, and is operated in a manner so as not to constitute a Nuisance.”

### **Section 3.00: Administration and Effective Date**

**3.03 Effective Date:** This By-law shall come into force and take effect on the date it is passed.

By-law read a first, second and third time, and finally passed, this xx day of xxx, 2020.

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Andy Letham, Mayor

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Cathie Ritchie, City Clerk

# **The Corporation of the City of Kawartha Lakes**

## **By-Law 2020-**

### **A By-law to Amend By-Law 2018-234, Being a By-law to Establish and Require Payment of Fees for Information, Services, Activities and Use of City Property in The City of Kawartha Lakes (known as the Consolidated Fees By-law)**

#### **Recitals**

1. By-laws may be passed to establish and require the payment of fees for information, services, activities and use of municipal property.
2. Section 391 of the Municipal Act 2001, S.O. 2001, as amended, provides for a municipality to pass by-laws imposing fees or charges on persons for services and activities provided or done by or on behalf of it, for cost payable by it for services or activities provided or done by or on behalf of any other municipality or local board, and for the use of its property including property under its control.
3. By-law 2018-234 consolidates all fees charged by the municipality into one by-law.
4. Waiver of landfill tipping fees for cannabis plants seized by the Ontario Provincial Police or the Kawartha Lakes Police will aid in law enforcement efforts relating to illegal cannabis cultivation by reducing the costs of such enforcement.

**Accordingly, the Council of The Corporation of the City of Kawartha Lakes enacts this By-law 2020- .**

#### **Section 1.00: Amendments to By-Law 2018-234**

**1.01 Amendment:** A new row will be added to Schedule F – Waste Management Fees in By-law 2018-34, stating that “Cannabis plants seized by the Ontario Provincial Police or the Kawartha Lakes Police” will not be subject to tipping fees.

#### **Section 3.00: Effective Date**

**3.01 Effective Date:** This By-law shall come into force on the date it is finally passed.

By-law read a first, second and third time, and finally passed, this \_\_\_\_ day of \_\_\_\_\_, 2020.

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Andy Letham, Mayor

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Cathie Ritchie, City Clerk