



# TOWNSHIP OF MELANCTHON

## A G E N D A

Thursday, February 20, 2020 - 5:00 p.m.

1. **Call to Order**
2. **Announcements**
3. **Additions/Deletions/Approval of Agenda**
4. **Declaration of Pecuniary Interest and the General Nature Thereof**
5. **Approval of Draft Minutes - February 6, 2020**
6. **Business Arising from Minutes**
7. **Point of Privilege or Personal Privilege**
8. **Public Question Period** (Please visit our website under Agenda & Minutes for information on Public Question Period)
9. **Public Works**
  1. Update from Roads Sub-Committee meeting held on February 12, 2020
  2. Other
10. **Planning**
  1. Applications to Permit
  2. Other
11. **Climate Change Initiatives**
  1. Unfinished - LED Lighting for Municipal Office
12. **Police Services Board**
13. **County Council Update**
14. **Correspondence**

### **\*Board & Committee Minutes**

1. Township of Melancthon Police Services Board - November 6, 2019

### **\* Items for Information Purposes**

1. NVCA 60<sup>th</sup> Annual General Meeting Highlights - January 24, 2020
2. Motion from The Town of Grand Valley in support of Interoperable Communications Cost referred by the County
3. Motion from Township of East Garafraxa regarding Interoperable Communication Cost Estimates
4. Email from Ontario Electronic Stewardship December 31, 2020 Contract Termination
5. NVCA Media Release - Conservation Areas have gone Smoke-free
6. Western Ontario Wardens Caucus Media Release - Economic Development moves forward in Western Ontario
7. Western Ontario Wardens Caucus Media Release - Warden Jim Ginn elected Chair of Western Ontario Warden's Caucus (WOWC)
8. Email from Karisa Downey regarding Dufferin County Economic Development Fund
9. Motion from Township of Melancthon Police Services Board
10. Village of Merrickville-Wolford Resolution regarding Ministry of Natural Resources and Forestry practice and procedures around designation of wetlands
11. Letter from Steve Clark, Minister of Municipal Affairs and Housing regarding expected growth

12. Report from Sonya Pritchard regarding Service Review Report Update
13. Motion from South Glengarry in support of Bill 156
14. Letter to Hon. Ernie Hardeman from Wellington North in support of Bill 156
15. Resolution from Chatham-Kent in support of Bill 156
16. Acknowledgement Letter from LPAT regarding Lot 20, Concession 4 NE
17. Proposed regulatory changes under the Aggregate Resources Act
18. Strada Aggregates 2019 Annual Report
19. Resolution from Southwest Middlesex supporting Bill 156
20. OMAFRA seeking input on proposal to streamline Drainage Act approval process

**\* Items for Council Action**

1. NDCC 2020 Draft Budget #4 and motion of the Board

**15. General Business**

1. Draft Capital and Operating Budget 2020
2. New/Other Business/Additions
  1. 2020 Farmland Forum Shifting Landscapes of Farmland Protection (Councillor Thwaites)
  2. Economic Development Forum (Councillor Thwaites)
  3. Request to close Municipal Office on April 29<sup>th</sup> for Emergency Exercise Rudy so that all Administrative Staff can attend
  4. Administrative Penalties - recommendation from Committee of the Whole - February 6, 2020
  5. Main Street Revitalization Monies - Project Completion date is October 31, 2020
3. Unfinished Business
  1. Fire Marque/Insurance Claims
  2. Horning's Mills Hall Board Proposal/Public Meeting Discussion

**16. Delegations**

1. **5:20 p.m.** - 2577791 Ontario Inc- Public Meeting for an Official Plan Amendment on Part of West Half of Lots 7 and 8, Concession 2 O.S.

**17. Third Reading of By-laws (if required)**

**18. Notice of Motion**

**19. Confirmation By-law**

**20. Adjournment and Date of Next Meeting - Thursday, March 5, 2020 - 9:00 a.m.**

**21. On Sites**

**22. Correspondence on File at the Clerk's Office**

## **TOWNSHIP OF MELANCTHON POLICE SERVICES BOARD**

The Township of Melancthon Police Services Board held a meeting on Wednesday, November 6, 2019 at 10:00 a.m. at the Melancthon Township Municipal Office Committee Room. Those present: Municipal Member David Thwaites, Public Member Alan Blundell and Provincial Appointee Kate Martin, Denise Holmes, Secretary, and Detachment Commander Nicol Randall, Dufferin OPP.

### **Call to Order**

Chair Thwaites called the meeting to order at 10:04 a.m.

### **Approval of Agenda**

Moved by Martin, Seconded by Blundell that the Agenda be approved as circulated. Carried.

### **Approval of Minutes - September 12, 2019**

Moved by Blundell, Seconded by Martin that the minutes of the Police Services Board meeting held on September 12, 2019 be approved as circulated. Carried.

### **Issues Arising from the Minutes**

None.

### **Presentations/Delegations**

None.

### **Correspondence**

None.

### **Financial**

1. 2020 Annual Billing Statement Package

Received as information.

### **Detachment Commander's Report**

#### **1. July - September 2019**

Staff Sgt. Randall provided her report in advance of the meeting for the period of July - September 2019 and reviewed her Report with the Board. Staff Sgt. Randall advised that there have been no service complaints for this quarter and advised of the Staffing updates. She spoke to the

various crime and traffic campaigns that have taken place since her last report. She reviewed the Violent Crime, Property Crime, Drug Crime, Clearance Rates, Unfounded stats with the Board 2018 vs 2019. She noted that the Criminal Record Checks are down this year.

### **Committee Reports**

None.

### **Other Business**

#### **1. Action Plan 2020-2022**

It was noted that the Strategic Plan has to be completed first before they can deal with the Action Plan. There is a Commissioner's Committee now in place and they will go forward to finalize the Strategy. Staff Sgt. Randall does not believe this will be done before January. In the meantime, Melancthon PSB will follow its Protocol 4 and advertise and request public comments on the Action Plan. The comments received will be reviewed by Council at the meeting in January and then brought back to the PS Board at its meeting in February.

#### **2. Traffic Calming Measures - Use of "Cut-outs" - Further update from City of Barrie**

No new update as the cut-outs have been taken in for the season and they will be put out next Spring. During this time Staff Sgt. Randall advised that in British Columbia, a shop class created the cut-out to use there and it was suggested that maybe this could be something we look into with the local high school in Shelburne.

#### **3. OPP/Township Community Meeting - Follow up from Meeting on November 5, 2019**

Chair Thwaites thanked Staff Sgt. Randall and the OPP for their presentations last night and a thank you also to Detective Sgt. Crowley for his Cybercrime Presentation.

There was no follow-up from the meeting, but Staff Sgt. Randall will provide information to the Township regarding the Auxiliary Program Recruitment Process for the website.

#### **4. Traffic Stats**

The traffic stats were provided to Staff Sgt. Randall for 2<sup>nd</sup> Line SW, 3<sup>rd</sup> Line OS and 5<sup>th</sup> Line OS. Melancthon Staff will send the traffic stats to Member Blundell so he can re-work them into some graphs.

While on this topic, Chair Thwaites asked if Staff Sgt. Randall had any information regarding a traffic unit option for Dufferin. She advised that she has asked for a costing but is still awaiting the information. She also advised that the Town of Mono has finalized its Report and they have recommended another full time FTE or partner with another municipality to share it.

**5. Other**

Nothing for this.

**Public Discussion**

None.

**Adjournment & Date of Next Meeting**

11:10 a.m. - Moved by Martin, Seconded by Blundell that we adjourn this Police Services Board meeting to meet again on Wednesday, February 5, 2020 at 10:00 a.m. or at the call of the Chair. Carried.

Original Signed

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CHAIR

Original Signed

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SECRETARY



## NVCA 60th Annual General Meeting Highlights January 24, 2020

Next Meeting: February 28, 2020, Tiffin Centre for Conservation, Utopia

For the full meeting agenda including documents and reports, visit [nvca.on.ca/about/boardofdirectors](http://nvca.on.ca/about/boardofdirectors)

### NVCA Board of Directors Election

NVCA Board of Directors has elected and/or appointed the following officers for 2020:

- Chair: Keith White, Councillor for the Town of Essa
- Vice-Chair: Mariane McLeod, Councillor for the Town of Collingwood
- Past-Chair: George Watson, Councillor for the Town of Wasaga Beach

### Keynote Speaker

Jack Imhof, retired National Biologist and Director of Conservation Ecology for Trout Unlimited Canada delivered a keynote speech titled 'Protect the Best and Restore the Rest: The Value of Rebuilding Watershed Resilience'.

Jack emphasized and reiterated the importance of integrated watershed management and the unique position of conservation authorities to increase the functions of the watershed in order to build resiliency towards future extreme weather conditions, drought and flooding brought by a changing climate.

### 2019 Accomplishments

- NVCA's Manager of Forestry, Rick Grillmayer has planted close to 2.5 million trees since starting with the NVCA 25 years ago.
- In 2019, NVCA's stewardship team rehabilitated and protected almost 12 kilometres of streams and shorelines through 134 projects. This was thanks to the \$280,000 that was generously donated

by our community partners, and the many hours that were contributed by our volunteers.

- Watershed science continues to monitor the health of our ground and surface water
- Conservation lands worked with community partners to construct a green energy outdoor accessible washroom at the Tiffin Conservation Area, and started to build a hiking trail at the Utopia Conservation Area
- NVCA's planning and engineering departments are proactively protecting people and their property from natural hazards like flooding and erosion. With another record year with over 2,600 applications and inquiries, the NVCA is again one of the fastest growing conservation authorities in Ontario.
- Flood management continued to monitor weather forecasts and watershed conditions while maintaining and improving the system. Our flood team issued 8 flood messages in 2019.
- Over 12,000 students attended our education programs. Our very own Camp Tiffin saw over 500 children attend, the largest Camp Tiffin to date.

### Video: Managing our watershed at the Nottawasaga Valley Conservation Authority

NVCA staff created a video showcasing how each department at the conservation authority

are linked together to practice integrated watershed management.

[Click here to view the video.](#)

## **2018 Watershed Health Checks**

In 2019, NVCA staff completed nine subwatershed health checks and one watershed-wide health check in 2018.

The health checks subwatershed health checks provide an overview of forest, wetlands, stream and groundwater health within the larger NVCA watershed. They also identify stewardship priorities, future challenges and opportunities to improve environmental health.

Our science monitoring staff collects samples from forests, wetlands, streams and groundwater for data analysis. Our stewardship staff uses this information to determine the success of past restoration projects and areas in need of improvement.

[Click here to view the 2018 Watershed Health Checks](#)

## **Upcoming events**

### **Minesing Wetland Snowshoe Hike**

Date: Saturday, February 8, 2020 9:00 AM - 12:00 PM

Location: Announced a week before hike

### **Family Nature Day - Winter Trek**

Date: Thursday, February 13, 2020 10:00 AM - 3:00 PM

Location: Tiffin Centre for Conservation

### **Family Nature Day - Get back to the Sugar Shack**

Date: Friday, March 6, 2020 10:00 AM - 3:30 PM

Location: Tiffin Centre for Conservation

### **March Break Camp**

Date: Monday, March 16, 2020 9:00 AM - Friday, March 20, 2020 4:00 PM

Location: Tiffin Centre for Conservation, 8195 8th Line, Utopia

## Denise Holmes

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**From:** Meghan Townsend <mtownsend@townofgrandvalley.ca>  
**Sent:** Wednesday, January 29, 2020 11:41 AM  
**To:** Denise Holmes; 'Michelle Dunne'; Fred Simpson; Jane Wilson; Jennifer Willoughby; Jessica Kennedy; Karen Landry; Mark Early; Pam Hillock; Ed Brennan (ebrennan@orangeville.ca); Lisa Ashton (lashton@amaranth.ca)  
**Cc:** Steven Murphy; Kevin McNeilly (kmcneilly@gvdfd.com)  
**Subject:** RE: Interoperable Communications Cost Estimate

Hi Michelle and Dufferin County Municipalities,

At their regular meeting on January 28, 2020, Council for the Town of Grand Valley passed the following motion:

**2020-01-32**

Moved by P Rentsch, Seconded by R Taylor

**BE IT RESOLVED THAT** the Town of Grand Valley supports the Interoperable Radio Communications Project referred by the County to area municipalities, pursuant to a motion passed on November 28, 2019;

**AND FURTHER THAT** this resolution be circulated to all municipalities in Dufferin County.

**CARRIED**

Should you have any questions, please contact our office.

Regards,

Meghan Townsend, MPS, BSc  
Deputy Clerk | Town of Grand Valley

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**From:** Denise Holmes <dholmes@melancthontownship.ca>  
**Sent:** January 17, 2020 11:45 AM  
**To:** 'Michelle Dunne' <mdunne@dufferincounty.ca>; Fred Simpson <fred.simpson@townofmono.com>; Jane Wilson <jwilson@townofgrandvalley.ca>; Jennifer Willoughby <jwilloughby@shelburne.ca>; Jessica Kennedy <jkennedy@eastgarafraxa.ca>; Karen Landry <klandry@orangeville.ca>; Mark Early <mark.early@townofmono.com>; Meghan Townsend <mtownsend@townofgrandvalley.ca>; Pam Hillock <phillock@dufferincounty.ca>; slankheit@orangeville.ca; Sue Stone <suestone@amaranth-eastgary.ca>  
**Cc:** Pam Hillock <phillock@dufferincounty.ca>; Steven Murphy <smurphy@dufferincounty.ca>  
**Subject:** RE: Interoperable Communications Cost Estimate

Hi Michelle,

At the meeting of Council held on January 16, 2020, this matter was discussed and the following motion was passed:

Moved by Thwaites, Seconded by Hannon



**Be it resolved that:** "the Township of Melancthon not support the Interoperable Radio Communication Project referred by the County to area municipalities pursuant to a motion passed November 28, 2019". **Carried.**

Should you have any questions regarding the above, please don't hesitate to contact me.

Thank you.

**Denise B. Holmes, AMCT**  
**CAO/Clerk, Township of Melancthon**  
**519-925-5525 Ext. 101**

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**From:** Michelle Dunne <[mdunne@dufferincounty.ca](mailto:mdunne@dufferincounty.ca)>  
**Sent:** Tuesday, December 17, 2019 10:09 AM  
**To:** Denise Holmes <[dholmes@melancthontownship.ca](mailto:dholmes@melancthontownship.ca)>; Fred Simpson <[fred.simpson@townofmono.com](mailto:fred.simpson@townofmono.com)>; Jane Wilson ([jwilson@townofgrandvalley.ca](mailto:jwilson@townofgrandvalley.ca)) <[jwilson@townofgrandvalley.ca](mailto:jwilson@townofgrandvalley.ca)>; Jennifer Willoughby <[jwilloughby@shelburne.ca](mailto:jwilloughby@shelburne.ca)>; Jessica Kennedy <[jkennedy@eastgarafraxa.ca](mailto:jkennedy@eastgarafraxa.ca)>; Karen Landry <[klandry@orangeville.ca](mailto:klandry@orangeville.ca)>; Mark Early <[mark.early@townofmono.com](mailto:mark.early@townofmono.com)>; Meghan Townsend <[mtownsend@townofgrandvalley.ca](mailto:mtownsend@townofgrandvalley.ca)>; Pam Hillock <[phillock@dufferincounty.ca](mailto:phillock@dufferincounty.ca)>; [slankheit@orangeville.ca](mailto:slankheit@orangeville.ca); Sue Stone <[suestone@amaranth-eastgary.ca](mailto:suestone@amaranth-eastgary.ca)>  
**Cc:** Pam Hillock <[phillock@dufferincounty.ca](mailto:phillock@dufferincounty.ca)>; Steven Murphy <[smurphy@dufferincounty.ca](mailto:smurphy@dufferincounty.ca)>  
**Subject:** Interoperable Communications Cost Estimate

Good morning,

The Council of the County of Dufferin at its regular meeting held on December 12, 2019 adopted the following motion from the November 28<sup>th</sup> General Government Services meeting:

THAT the report of the Clerk/Director of Corporate Services, dated November 28, 2019, to provide a supplemental report to the report of October 24, 2019 titled Interoperable Radio Communications – County Wide, be received;

AND THAT the area municipalities be consulted on how this project could be funded and who would be responsible for the procurement, ongoing maintenance of infrastructure and upgrades to equipment when required;

AND THAT the County of Dufferin commit in principle to fund up to 50% of the upfront infrastructure cost for Option 1 of the consultant's report.

Attached is the staff report for you to share with your Councils.

Should you have any questions, please call.

Kindest regards,

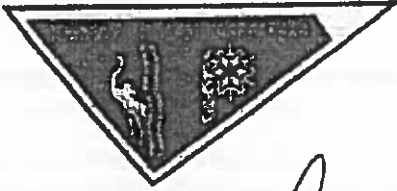
**Michelle Dunne|Deputy Clerk| Corporate Services**

**County of Dufferin|Phone: 519-941-2816 Ext. 2504| [mdunne@dufferincounty.ca](mailto:mdunne@dufferincounty.ca) |55 Zina Street,  
Orangeville, ON L9W 1E5**

**Join in Dufferin -** Share your stories. Connect with your community. Have your say on new projects.  
Click here to **[Sign Up and Speak Up!](#)**

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# THE CORPORATION OF THE TOWNSHIP OF EAST GARAFRAXA

MOVED BY: *Tom Nevills*

DATE: January 28, 2020

SECONDED BY: *John Stirk*

BE IT RESOLVED THAT:

With respect to Interoperable Communication cost estimates, the Council of the Corporation of the Township of East Garafraxa request that this should be a County initiative and fully funded by the County for emergency preparedness purposes and improved communications that are essential to a successful Emergency Management Program.

Defeated  Carried  Head of Council *John Stirk*

Recorded Vote	Yea	Nay	Abstain
Deputy-Mayor John Stirk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Councillor Lenora Banfield	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Councillor Tom Nevills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Councillor Fran Pinkney	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mayor Guy Gardhouse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

WFO#3  
FEB 20 2020

**Denise Holmes**

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**From:** Ontario Electronic Stewardship <oeswindup@ontarioes.ca>  
**Sent:** Friday, January 31, 2020 8:58 AM  
**To:** Denise Holmes  
**Subject:** NOTICE of Ontario Electronic Stewardship (OES) Program Wind Up and service provider  
DECEMBER 31, 2020 CONTRACT TERMINATION



**NOTICE of Ontario Electronic Stewardship (OES) Program Wind Up and  
service provider DECEMBER 31, 2020 CONTRACT TERMINATION**

The Minister of the Environment and Climate Change issued direction to Ontario Electronic Stewardship (OES) in their notice on July 2<sup>nd</sup>, 2019 to wind up the Waste Electrical and Electronic Equipment (WEEE) Program and cease operations on December 31, 2020.

In winding up the program, all OES related operations (including collection, transportation and processing) and corresponding contracts for such services will cease as of December 31<sup>st</sup>, 2020.

**This communication represents formal notification to all contracted service providers of contract termination with OES effective as of end of day, December 31, 2020.**

Payment for services provided up to and including December 31<sup>st</sup>, 2020 will be settled by the OES program in early 2021.

Key dates and deadlines regarding the OES program wind up, including due dates for claims relating to 2020 services, can be found at

<https://ontarioelectronicstewardship.ca/dates-deadlines/>.

The OES Program will continue normal operations through 2020. For more information about Program wind up, please visit the OES Program Wind Up Website: <https://ontarioelectronicstewardship.ca/mecp-direction-to-oes-wind-up/>.

**If you are unsure if this notice applies to you or whether the program wind up will affect your registration or services, or if you have any general questions about the program wind up, please contact OES at [oeswindup@ontarioes.ca](mailto:oeswindup@ontarioes.ca) or 1-888-646-1820, ext. 11.**

Any questions regarding the post wind up period may be directed to [info@rpra.ca](mailto:info@rpra.ca).

Until operations wind up, OES is pleased to work with you and provide safe, secure recycling for all.

Sincerely,

Ontario Electronic Stewardship

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This email was sent to [dholmes@melancthontownship.ca](mailto:dholmes@melancthontownship.ca)

You are receiving this email because your company is a registered steward, supplier or service provider with OES.

[Unsubscribe from this list](#)

Ontario Electronic Stewardship  
5750 Explorer Drive, Suite 302, Mississauga, Ontario L4W 0A9



**Nottawasaga Valley**  
Conservation Authority

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## **MEDIA RELEASE**

FOR IMMEDIATE RELEASE

### **NVCA Conservation Areas have gone Smoke-free**

UTOPIA, Ontario (February 1, 2020) – Starting in 2020, all forms of smoking will be prohibited in all conservation areas and other outdoor spaces owned and managed by the Nottawasaga Valley Conservation Authority (NVCA), except in parking lots.

The restriction on smoking includes cigarettes, cigars, pipes, chewing any form of tobacco, smoking, using medical and non-medical cannabis and electronic cigarettes (vaping).

Smoke-free outdoor spaces can help reduce health risks of second hand smoke, as there is no safe level of exposure to second-hand smoke, even in outdoor spaces. Seeing and smelling smoke can normalize smoking for youth, and can provide sensory cues, triggering relapse for people who are trying to quit smoking.

Tobacco is also a major source of litter in communities and on beaches. The plastic in cigarette butts are made from a type of plastic that does not biodegrade. It eventually breaks down into smaller components which remains in the natural environment.

“Conservation authorities play a vital role in the health and wellness of communities,” said Kyra Howes, Manager of Lands and Operations at the NVCA. “This new policy strengthens NVCA’s commitment to the health of the community and also reinforces the importance of living smoke free.”

#### **NVCA’s Conservation Areas include:**

Edenvale Conservation Area (Township of Springwater)  
Elba Wetlands (Township of Amaranth)  
Historic Fort Willow Conservation Area (Township of Springwater)  
Glencairn Conservation Area (Township of Adjala-Tosorontio)  
Minesing Wetlands (Township of Clearview and Township of Springwater)  
New Lowell Conservation Area (Township of Clearview)  
Nottawasaga Bluffs Conservation Area (Township of Clearview)  
Osprey Wetlands Conservation Area (Municipality of the Grey Highlands)  
Petun Conservation Area (Town of Blue Mountains)  
Tiffin Conservation Area (Township of Essa)  
Tottenham Conservation Area (Town of New Tecumseth)  
Utopia Conservation Area (Township of Essa)

**Nottawasaga Valley Conservation Authority**  
8195 8<sup>th</sup> Line, Utopia, ON L0M 1T0  
T: 705-424-1479 F: 705-424-2115  
admin@nvca.on.ca • nvca.on.ca

*A member of Conservation Ontario*

INFO #5  
FEB 20 2020

For more information about the dangers of smoking, visit the Simcoe Muskoka District Health Unit's website at <http://www.simcoemuskokahealth.org/>.

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**About NVCA:** The Nottawasaga Valley Conservation Authority is a public agency dedicated to the preservation of a healthy environment through specialized programs to protect, conserve and enhance our water, wetlands, forests and lands.

**Media contact:** Maria Leung, Communications Coordinator 705-424-1479 ext.254,  
[mleung@nvca.on.ca](mailto:mleung@nvca.on.ca)



## Media Release

FOR IMMEDIATE RELEASE – January 31, 2020

### Economic Development moves forward in Western Ontario

**Guelph, ON** – The Western Ontario Wardens' Caucus is pleased to announce the return of Kate Burns Gallagher as the Executive Director of Economic Development for Western Ontario.

In partnership with the Western Ontario Community Future Development Corporation Association (WOCFDCA) and the Western Ontario Wardens' Caucus, Ms. Burns Gallagher will be implementing the actions outlined in the Economic Development Strategic Plan.

The plan underlines the region's commitment to working together and speaking with one unified voice on critical economic issues in southwestern Ontario, including workforce planning, infrastructure investment, sector strategies, marketing and promotion.

Kate has been an active member of the economic development industry for more than a decade. She has developed lasting and meaningful relationships within the industry and has been an innovator in developing new programs for today's economy. Kate will be returning to the role that she previously held in 2018.

"We are excited to continue the regional economic development program. From Essex to Simcoe, we all have similar economic concerns and we look forward to working collaboratively to address our workforce, technology and infrastructure challenges," said George Bridge, Chair of the Western Ontario Wardens' Caucus Economic Development Committee.

"We are very excited about working with the Warden's network of county and municipal partners to cross-promote programs including SOFI, our Southern Ontario Fund for Investment in Innovation, where we can provide financial support of up to \$500,000 and sometimes more. As always, our 22 CFDCs will continue to invest in innovative rural businesses and we are looking forward to further collaboration with the WOWC in business development opportunities across Western Ontario." stated Allan Simm Chair of the Western Ontario Community Futures Association.

The Western Ontario Warden's Caucus (WOWC) is a not-for-profit organization representing 15 upper and single tier municipalities in Southwestern Ontario, representing more than 3 million residents. The WOWC aims to enhance the prosperity and overall wellbeing of rural and small urban communities across the region. For more information, visit [www.wowc.ca](http://www.wowc.ca).



Please contact: Kate Burns Gallagher, T: 226-374-6654 E: [kburns@elgin.ca](mailto:kburns@elgin.ca)



## Media Release

**FOR IMMEDIATE RELEASE – January 31, 2020**

### **Warden Jim Ginn elected Chair of Western Ontario Wardens' Caucus (WOWC)**

INGERSOLL, ON - County of Huron Warden Jim Ginn has been acclaimed as Chair of the Western Ontario Wardens' Caucus (WOWC) during the organization's Annual General meeting in Ingersoll, Ontario on January 31, 2020.

"I am honoured to have been placed in the position of Chair of the Caucus, to represent Southwestern Ontario, and I look forward to helping drive our collective goals forward," said Warden Ginn. "We have seen significant success over the last year and a half in relation to advocating on behalf of the region and specifically with the SWIFT broadband project. We thank the Minister of Municipal Affairs, Steve Clark and Minister of Agriculture, Ernie Hardeman, for attending the meeting today, engaging in good conversation with us, and demonstrating how they value our perspective. Co-operation among all levels of government in the form of funding and partnership opportunities will continue to foster the future success of Southwestern Ontario."

Prior to appointment as Chair, Warden Ginn served on the Caucus in 2017, 2018, 2019 and 2020 representing Huron County. As WOWC Chair Warden Ginn also sits on the AMO Board, County Caucus; and he continues to serve as Mayor of Central Huron, as he has done since 2010.

Also appointed at the AGM as WOWC officers were: Darren White, Warden of Dufferin County to the office of Vice Chair; Sonya Pritchard, CAO of Dufferin County as Treasurer; and Meighan Wark, CAO of Huron County as Secretary.

In addition, Mayor George Bridge, Minto Township, was re-appointed as Chair, WOWC Economic Development Sub-Committee; with committee membership to include the following Wardens/Mayors: Mitch Twolan, Bruce; Darren White, Dufferin; George Cornell, Simcoe; Walter McKenzie, Perth; and Jim Ginn, Huron; and Kristal Chopp, Norfolk, with WOWC member CAOs and Economic Development specialist staff.

The Western Ontario Wardens' Caucus is a not-for-profit organization representing 15 upper and single tier municipalities in Southwestern Ontario with more than three million residents. Its purpose is to enhance the prosperity and overall wellbeing of rural and small urban communities across the region. For more information, visit [wowc.ca](http://wowc.ca).



## Media Release

*For further information please contact:*

*WOWC Chair & Huron County Warden Jim Ginn  
WOWC Secretary & Huron County CAO Meighan Wark  
Tel: 519 524-8394  
Email: [warden@huroncounty.on.ca](mailto:warden@huroncounty.on.ca), [mwark@huroncountv.ca](mailto:mwark@huroncountv.ca)*

## Denise Holmes

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**From:** Karisa Downey <kdowney@dufferincounty.ca>  
**Sent:** Tuesday, February 4, 2020 1:13 PM  
**To:** Susan Stone; Meghan Townsend; Jane Wilson; Denise Holmes; David Trotman; Mark Early; Michelle Smibert; Tracey Atkinson; Ruth Phillips; ebrennan@orangeville.ca; Carol Maitland; Denyse Morrissey  
**Cc:** Darrell Keenie; Sonya Pritchard  
**Subject:** Dufferin County Economic Development Fund

Hello everyone

First, I would like to say "thank you" to all of you for your applications to our first ever Dufferin County Economic Development Fund.

We received six applications from five different municipalities. The total dollar amount requested by municipalities was \$175, 750, with a total budget for this project of \$120, 000.

The following chart shows the breakdown of the funds requested from each municipality for their respective proposed projects.

<b>Municipality</b>	<b>Project</b>	<b>Funds Requested</b>
Grand Valley	Life in the Valley is Grand	\$33, 000
Mono	Bridge and Watercourse Signage	\$15, 570
Mulmur	Get Local	\$7, 000
Mulmur	Cycle Trails	\$30, 000
Orangeville	Orangeville Tourism Strategy	\$50, 000
Shelburne	Trail Implementation	\$40, 000
	<b>Total:</b>	<b>\$175, 570</b>

As determined at the Joint Economic Development Committee meeting in September 2019, the applications were scored and evaluated by Dufferin County staff as per the following evaluation criteria:

<b>Factor</b>	<b>Description</b>	<b>Grading</b>
Project Administration	Project Description Project Budget Project Schedule Project Methodology	<b>/20</b>
Strategic Plan Alignment	Application shows clear alignment with the Dufferin county Economic Development Strategic Plan or the municipality's strategic plan.	<b>/30</b>

Partnerships	Application has been submitted in partnership with the County, another municipality or community organization.	/20
Regional Impact	Application showcases how the project will have positive impact on areas beyond the local municipality's borders.	/30
	<b>Total</b>	<b>/100</b>

Dufferin County Economic Development staff will be submitting a report to Council for the February 13, 2020 meeting that will outline the suggested fund allotments for the 2019 Economic Development Fund applications received.

Note that not all projects submitted are able to be funded, or fully funded. Given the Fund's limit, consideration was given to the merits of each project and the scoring achieved against the factors mentioned above.

The recommended disbursement of funds is as follows:

<b>Municipality</b>	<b>Project</b>	<b>Funds Requested</b>	<b>Funds Allotted</b>
Grand Valley	Life in the Valley is Grand	\$33,000	\$30,000
Mono	Bridge and Watercourse Signage	\$15,570	\$0
Mulmur	Get Local	\$7,000	\$0
Mulmur	Cycle Trails	\$30,000	\$30,000
Orangeville	Orangeville Tourism Strategy	\$50,000	\$30,000
Shelburne	Trail Implementation	\$40,000	\$30,000
	<b>Total:</b>	<b>\$175,570</b>	<b>\$120,000</b>

The above funding allotments will be recommended to County Council on February 13, 2020. Should County Council approve supporting the projects as indicated, the County will process funding to the four successful municipalities.

Thank you again for your applications to the Economic Development Fund. We are excited to support regional economic development initiatives and look forward to the outcomes of the supported projects.

Should you have any questions or concerns, please do not hesitate to contact me.

Best,

**Karisa Downey | Economic Development Officer | Planning, Economic Development and Culture  
County of Dufferin | 519.941.2816 x2508 | [kdowney@dufferincounty.ca](mailto:kdowney@dufferincounty.ca) | 55 Zina Street, Orangeville,  
ON L9W 1E5**

**Join in Dufferin** - Share your stories. Connect with your community. Have your say on new projects. Click here to **[Sign Up and Speak Up!](#)**

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**TOWNSHIP OF MELANCTHON**

**POLICE SERVICES BOARD**

157101 Highway 10, Melancthon, Ontario, L9V 2E6

February 5, 2020

Dufferin OPP  
506312 Highway 89  
Mono, Ontario  
L9V 1H9

**Attention: Staff Sergeant Nicol Randall**

Dear Ms. Randall:

**Re: Action Plan 2020-2022**

At today's meeting of the Police Services Board, the following motion was introduced and passed:

**Moved by Martin, Seconded by Thwaites**

**Be it resolved that:**

"The Melancthon Township Police Services Board having consulted with the Public and with the Municipal Council for purposes of the Business Action Plan 2020-22 affirms that the priorities for policing issues be:

- (a) visibility of OPP in the Community
- (b) traffic offence enforcement
- (c) property crime reduction"

**Carried.**

Should you have any questions, please don't hesitate to contact me.

Yours truly,

Denise B. Holmes, AMCT  
Secretary

c. Melancthon Township Council

INFO #09  
FEB 20 2020

Established 1793  
Incorporated  
Wolford 1850  
Merrickville 1860  
Amalgamated 1998



Telephone (613) 269-4791  
Facsimile (613) 269-3095

## VILLAGE OF MERRICKVILLE-WOLFORD

February 5, 2020

**The Honourable Doug Ford, Premier of Ontario**  
Premier's Office, Room 281  
Legislative Building, Queen's Park  
Toronto, ON, M7A 1A1

Dear Premier Ford:

**Re: Provincially Significant Wetlands Designation**

Please find attached the Council of the Corporation of the Village of Merrickville-Wolford's Resolution No. R-029-20, with respect to the Village's concerns surrounding the Ministry of Natural Resources and Forestry's practices and procedures while implementing designations of Provincially Significant Wetlands.

While the attached resolution is tailored to a Village-specific issue, it is Council's position that the concerns expressed therein are being experienced by municipalities Province-wide.

Thank you in advance for the consideration that you give this matter.

Yours truly,

Doug Robertson  
CAO/Clerk/Director, Economic Development

c. Honourable John Yakabuski, Minister of Natural Resources and Forestry  
Honourable Steve Clark, Minister of Municipal Affairs and Housing  
Andy Brown, CAO of the United Counties of Leeds and Grenville  
Association of Municipalities of Ontario  
Rural Ontario Municipal Association  
All Ontario municipalities



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Merrickville 1880  
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## VILLAGE OF MERRICKVILLE-WOLFORD

Resolution Number: R - 029 - 20

Date: January 27, 2020

Moved by: Cameron Foster Halpenny Molloy

Seconded by: Cameron Foster Halpenny Molloy

For Clerk's use only, if  
required:  
**Recorded Vote Requested  
By:**

Cameron	Y	N
Foster	Y	N
Halpenny	Y	N
Molloy	Y	N
Struthers	Y	N

WHEREAS the Village of Merrickville-Wolford is endeavouring to adopt a new Official Plan as required per Section 17 of the *Planning Act* and the Village is required to incorporate the Provincial Policy Statements of the Act;

AND WHEREAS the Provincial Policy Statements require the Village to provide in its Official Plan the updated provisions of new and expanded Provincially Significant Wetlands designations;

AND WHEREAS the Council of the Corporation of the Village of Merrickville-Wolford is concerned that the expansion of these wetlands is detrimentally affecting certain landowners and the Village's assessment base;

AND WHEREAS the Council of the Corporation of the Village of Merrickville-Wolford is concerned that designations of Provincially Significant Wetlands have occurred throughout the Province of Ontario without the provision of supporting evidence;

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Merrickville 1860  
Amalgamated 1998



Telephone (613) 269-4791  
Facsimile (613) 269-3085

## VILLAGE OF MERRICKVILLE-WOLFORD

AND WHEREAS the Council of the Corporation of the Village of Merrickville-Wolford is concerned about the expansion of the Provincially Significant Wetlands in the Northeast quadrant of the Village;

AND WHEREAS the Council of the Corporation of the Village of Merrickville-Wolford is concerned that these wetlands designations have been expanded without the Ministry of Natural Resources and Forestry having provided to the Village supporting evidence to justify said expansion;

NOW THEREFORE BE IT RESOLVED THAT the Council of the Corporation of the Village of Merrickville-Wolford does hereby respectfully request that the Ministry of Natural Resources and Forestry provide the Village with supporting evidence with respect to the expansion of these wetlands designations;

AND THAT the Ministry of Natural Resources and Forestry re-evaluate the subject properties without delay;

AND THAT a copy of this resolution be sent to the Honourable Premier Doug Ford, Minister of Natural Resources and Forestry, the Minister of Municipal Affairs and Housing, the United Counties of Leeds and Grenville, the Association of Municipalities of Ontario and the Rural Ontario Municipal Association and all Ontario municipalities.

Carried / Defeated

J. Douglas Struthers, Mayor

## Denise Holmes

---

**From:** Minister Steve Clark <mah@ontario.ca>  
**Sent:** Thursday, February 6, 2020 3:42 PM  
**To:** Denise Holmes  
**Subject:** Letter from the Honourable Steve Clark, Minister of Municipal Affairs and Housing

*La version française suit.*

**Ministry of  
Municipal Affairs  
and Housing**

Office of the Minister

777 Bay Street, 17<sup>th</sup> Floor  
Toronto ON M5G 2E5  
Tel : 416 585-7000  
Fax : 416 585-6470

**Ministère des  
Affaires municipales  
et du Logement**

Bureau du ministre

777, rue Bay, 17<sup>e</sup> étage  
Toronto ON M5G 2E5  
Tél : 416 585-7000  
Téléco : 416 585-6470



234-2020-177

February 6, 2020

Dear Head of Council:

As you know, the Greater Golden Horseshoe is a critical economic driver in the province and one of the fastest growing regions in North America. By 2041, the region is expected to accommodate approximately 13.5 million people and 6.3 million jobs.

To help accommodate this anticipated growth over the coming decades, our government released [A Place to Grow: Growth Plan for the Greater Golden Horseshoe](#) (A Place to Grow) in May 2019. This new Plan will help manage growth so communities in the region can develop in ways that expand economic opportunities, build more housing, attract investments and create jobs all while maintaining protections for our cultural heritage assets, key employment and agricultural lands and environmentally sensitive areas, including the Greenbelt.

A key part of the successful implementation of A Place to Grow is understanding the future population and employment trends in order to put in place the housing and reliable employment we will need as the region grows. The population and employment forecasts in Schedule 3 of A Place to Grow are established at the upper-and single-tier municipal level and are central to stable, coordinated long-term growth management across the region. They help municipalities assess, plan for and integrate housing, infrastructure, economic, environmental and land needs to support future growth.

As a fundamental component of the A Place to Grow framework, it is imperative that the forecasts be accurate and up-to-date to incorporate the best available data and reflect changes to the region's economy, housing supply and employment landscapes.

With that said, I am pleased to announce that the Ministry of Municipal Affairs and Housing (MMAH) has initiated a review and update of the Schedule 3 forecasts. To assist with this undertaking, MMAH has procured the services of Hemson Consulting.

As part of this work, the Ministry will be consulting with municipalities and key stakeholders through a series of advisory groups and technical workshops to provide insight on forecast-related issues, including potential revisions to the forecast methodology and an appropriate timing structure for updated forecasts to take effect.

The Ministry is working to complete this review no later than summer 2020.

If you have questions about the review and update of the forecasts, please feel free to contact Cordelia Clarke Julien, Assistant Deputy Minister, Ontario Growth Secretariat, Ministry of Municipal Affairs and Housing at [cordelia.clarkejulien@ontario.ca](mailto:cordelia.clarkejulien@ontario.ca).

I look forward to continuing to work together in the months ahead.

Sincerely,



Steve Clark  
Minister

c:  
Chief Administrative Officer

Kate Manson-Smith  
Deputy Minister  
Ministry of Municipal Affairs and Housing

Cordelia Clarke Julien  
Assistant Deputy Minister  
Ontario Growth Secretariat  
Ministry of Municipal Affairs and Housing

Bonjour Président/e du conseil:

Vous n'ignorez pas que la région élargie du Golden Horseshoe est un moteur économique vital de la province, et l'une des régions qui connaît la croissance la plus rapide en Amérique du Nord. On s'attend à ce que d'ici 2041, elle compte environ 13,5 millions d'habitants et 6,3 millions d'emplois.

Afin de nous adapter à cette croissance prévue au cours des prochaines décennies, notre gouvernement a publié En plein essor : Plan de croissance de la région élargie du Golden Horseshoe (En plein essor) en mai 2019. Ce nouveau plan nous aidera à gérer la croissance afin que les collectivités de la région puissent se développer de façon à élargir les possibilités économiques, à construire des logements, à attirer des investissements et à créer des emplois tout en continuant de protéger notre patrimoine culturel, les principales zones d'emploi et terres agricoles ainsi que les zones sensibles sur le plan environnemental, y compris la ceinture de verdure.

Pour assurer l'application fructueuse du plan En plein essor, il faut notamment comprendre les tendances relatives à la population et à l'emploi afin de créer les logements et les emplois stables dont nous aurons besoin pendant la croissance de la région. Les prévisions relatives à la population et aux emplois qui sont fournies à l'annexe 3 du plan En plein essor ont été établies à l'échelon des municipalités de palier supérieur et à palier unique et sont essentielles pour assurer la gestion stable et coordonnée de la croissance à long terme dans toute la région. Elles aident les municipalités à évaluer les besoins relatifs au logement, à l'infrastructure, aux terres et à l'environnement et à planifier en conséquence afin de soutenir la croissance future.

Ces prévisions constituent un élément fondamental du cadre En plein essor, et il est donc primordial qu'elles soient exactes et à jour, qu'elles soient fondées sur les meilleures données dont on dispose et qu'elles reflètent l'évolution de l'économie, de l'offre de logements et du marché de l'emploi dans la région.

Cela dit, j'ai le plaisir d'annoncer que le ministère des Affaires municipales et du Logement (MAML) a entrepris un examen et une mise à jour des prévisions de l'annexe 3. À cette fin, il a fait appel aux services de Hemson Consulting.

Dans le cadre de cette initiative, le ministère consultera les municipalités et les principaux intervenants en mettant sur pied une série de groupes consultatifs et d'ateliers techniques afin de recueillir des indications sur les questions relatives aux prévisions, y compris la modification éventuelle des méthodes de prévision et l'établissement d'un échéancier approprié pour l'entrée en vigueur des prévisions mises à jour.

Le ministère compte terminer l'examen et la mise à jour pas plus tard que l'été 2020.

Pour toute question sur l'examen et la mise à jour des prévisions, n'hésitez pas à communiquer avec Cordelia Clarke Julien, sous-ministre adjointe, Secrétariat des

initiatives de croissance de l'Ontario, ministère des Affaires municipales et du Logement, à [cordelia.clarkejulien@ontario.ca](mailto:cordelia.clarkejulien@ontario.ca).

J'aurai le plaisir de continuer de collaborer avec vous au cours des mois qui viennent.

Veuillez agréer mes sincères salutations.

Le ministre,



Steve Clark

c.c. :

Directeur/rice général/e de la Ville

Kate Manson-Smith  
Sous-ministre  
Ministère des Affaires municipales et du Logement

Cordelia Clarke Julien  
Sous-ministre adjointe  
Secrétariat des initiatives de croissance de l'Ontario  
Ministère des Affaires municipales et du Logement

## REPORT TO COUNCIL

**To:** Warden White and Members of County Council

**From:** Sonya Pritchard, Chief Administrative Officer

**Meeting Date:** February 13, 2020

**Subject:** **Service Review Report #6 – Monthly Update**

**In Support of Strategic Plan Priorities and Objectives:**

**Good Governance** – ensure transparency, clear communication, and prudent financial management

---

### **Purpose**

The purpose of this report is to provide a regular update on the Service Delivery Review (SDR) Project.

### **Background & Discussion**

*Project Vision* – Creating a service delivery model that ensures public value and financial sustainability.

*Project Mission* – Conduct a comprehensive review of shared municipal services, county operations, and human/community services.

### *Project Success*

- in-depth understanding of current services and service delivery methods
- provision of actionable recommendations for efficient, effective, and sustainable delivery of municipal services
- buy-in among County Staff and Stakeholders that recommendations are aligned to the community needs and will reduce future operational costs and improve service delivery
- enhanced knowledge on tools, techniques and methodology to continually improve service delivery moving forward

Phase 1 of the SDR project is now complete. The consultants, project teams and staff successfully moved forward with implementing the phase 1 activities on schedule. The consulting team's objectives in Phase 1 were to identify a final in-scope list of services, create a stakeholder framework, create a service profile template, and identify a list of documents required for review.

The final in-scope list of services consists of 11 services for Part A the shared services section and 10 for Part B the County internal operations/community services section. Determining which services would be considered in the final list for in-depth review consisted of a number of steps: initial discovery interviews with senior staff and members of the Steering committee, a document review, alignment of the services with terms of the service review frameworks and assessment of the services against a set of criteria; discussion at the joint Council workshop, and final review by the Steering Committee and CAO Working Group for Part A and by the County Service Review Team and SMT. The attached document outlines the framework, selection criteria, and final list of services.

Also attached are samples of the stakeholder engagement framework documents and the service profile templates.

Phase 1 for Part B (internal County operations and community services) was highlighted by a number of communications and engagement activities aimed at keeping staff informed and involved with the process. Communications include: weekly briefing notes to be used at staff meetings with suggested topics for further discussion, regular updates to the dedicated Sharepoint site, a monthly newsletter, a videoscribe production, and project Bulletin Boards at each workplace. A number of staff engagement activities were also conducted for phase 1 including: a comment box question, an opportunity to provide feedback on the comment box suggestions through a dotmocracy exercise on each bulletin board, in person focus groups at each location, and a survey with respect to areas for improvement with communication.

Phase 2 will focus on gathering information both in person and through document collection to assess the current state of the in-scope services. This process will involve staff at each municipality and the County. The consultants plan to conduct on-site focus groups and interviews over the next several weeks.

The County Service Review Team will continue to provide information to and gather feedback from staff. Communications initiatives will continue and engagement activities will include additional comment box opportunities and in-person sessions. In addition, to staff engagement a project will be available on JoinIn Dufferin for members of the public. The first public survey will request residents to identify which of the services under review they have previously accessed and to rate their experience.



The chart below outlines the Phase 2 activities and current status.

<b>Activity/Task</b>	<b>Who's involved</b>	<b>Dates</b>	<b>Status</b>
Schedule Focus groups with each municipality	Project Coordinator, Optimus, Local CAOs	February 7-14	Ongoing
Schedule focus groups and meetings with County staff	Project Coordinator, Optimus, Service Review Team, SMT	February 7-14	Ongoing
Distribute document list, service profile templates, and stakeholder engagement frameworks	Project Coordinator, Optimus	February 7	Completed
County Staff communications – briefing notes, February newsletter, bulletin board updates, Phase 2 Video Scribe	County CAO, Project Coordinator, Communications Group	February	Ongoing
Staff Engagement February activities	County CAO, Engagement Group	February	Ongoing
Public Engagement Plan	County CAO, Engagement Group	February 7-21	Ongoing
Submit all requested documents to Optimus	Project Coordinator, Local CAOs, Data Group	February 7-21	Ongoing
Conduct Focus groups and interviews	Optimus	February 12-28	Upcoming
Complete Service profiles for all 21 Services	Optimus	February-March	Upcoming
County Service Review Team to discuss current state findings for Part B	Optimus, County CAO, Project Coordinator, Service Review Team, SMT	TBD	Upcoming
Steering Committee Meeting to discuss current state findings for Part A	Optimus, County CAO, Steering Committee CAO working Group	TBD	Upcoming
Schedule Joint Council Workshop to present findings of in-depth review (current state Part A)	Optimus, CAOs, local Councils	TBD	Upcoming

The Project Coordinator continues to be involved in all activities ensuring logistics requirements and communications are in place.

### **Financial, Staffing, Legal, or IT Considerations**

The application for the Municipal Modernization Funding was successful and the full cost of the consulting contract has been awarded at \$268,000.

Staff at all levels of the County organization continue to be part of the review. The County Project Team is made up of Managers from each Department. Local municipal Councils and staff from all participating municipalities will also be engaged along with Community stakeholders.

### **Recommendation**

**THAT the report of the Chief Administrative Officer, dated February 13, 2020, regarding Service Review Report #6 – Monthly Update, be received.**

Respectfully Submitted By:

Sonya Pritchard, CPA, CMA  
Chief Administrative Officer

#### Attachments:

Final In-Scope Service List Report  
Stakeholder Engagement Framework (sample)  
Service Profile Template (sample)



# Service Delivery Review

→ Final In-Scope Service List  
Parts A & B

**This Version:** February 5, 2020



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## 1.0 Introduction and Project Overview

### 1.1 Introduction

The County of Dufferin is located in Central Ontario, and has approximately 62,000 residents. The Member Municipalities of the County are a rural and urban mix consisting of Amaranth, East Garafraxa, Grand Valley, Melancthon, Mono, Mulmur, Orangeville, and Shelburne.

Residents, businesses and partners in the County are currently served by a mix of local municipal, County, and shared services. Although many services appear to be working well, there is potential for service delivery improvements.

The County is growing rapidly every year, which is putting pressure on existing services and pushing the County and Member Municipalities to look for efficiencies to continue to provide strong services.

This engagement is designed to support the County and Member Municipalities in identifying recommendations for potential improvements to their existing services.

### 1.2 Project Mission & Success

In support of the County's Strategic Plan priorities and objectives of Service Efficiency and Value and Good Governance, the County of Dufferin has undertaken a comprehensive service review of the following focus areas:

- o Shared municipal services/resources;
- o Internal county operations; and,
- o Human/community services.

#### 1.2.1 Project Mission

The Project Mission defines why the County and its Member Municipalities have engaged Optimus SBR. For this engagement, the Mission is defined as:

- o To assist the County of Dufferin in conducting a comprehensive service review of shared municipal services/resources, internal county operations, and human/community services.

#### 1.2.2 Project Success

Project success outlines what the County and its Member Municipalities will have at the conclusion of this engagement, ensuring that our engagement approach and activities will support the achievement of these goals. For this engagement, project success has been defined as:

- o An in-depth understanding of current services and service delivery methods

- o Provision of actionable recommendations for efficient, effective, and sustainable delivery of municipal Services
- o Alignment of all engagement and outcomes with the County's strategic priorities
- o Buy-in among County and Member Municipality stakeholders that the recommendations are aligned to the community needs and will reduce operational costs and improve service delivery
- o Continuous transfer of knowledge to County staff on tools, techniques and general methodology.

This engagement consists of two parts:

- Part A, with a focus on existing and potential shared services across the County and Member Municipalities; and
- Part B, with a focus on services provided by the County of Dufferin itself.

### 1.2.3 About Part A

Part A will involve a review of shared municipal services/resources and will be managed by:

- the Working Group, comprised of the CAOs from each Member Municipality and the County; and
- a Steering Committee consisting of the CAOs along with an elected representative from each local Council.

Through this portion of our review, specific shared services will be identified and reviewed, with recommendations made as appropriate.

### 1.2.4 About Part B

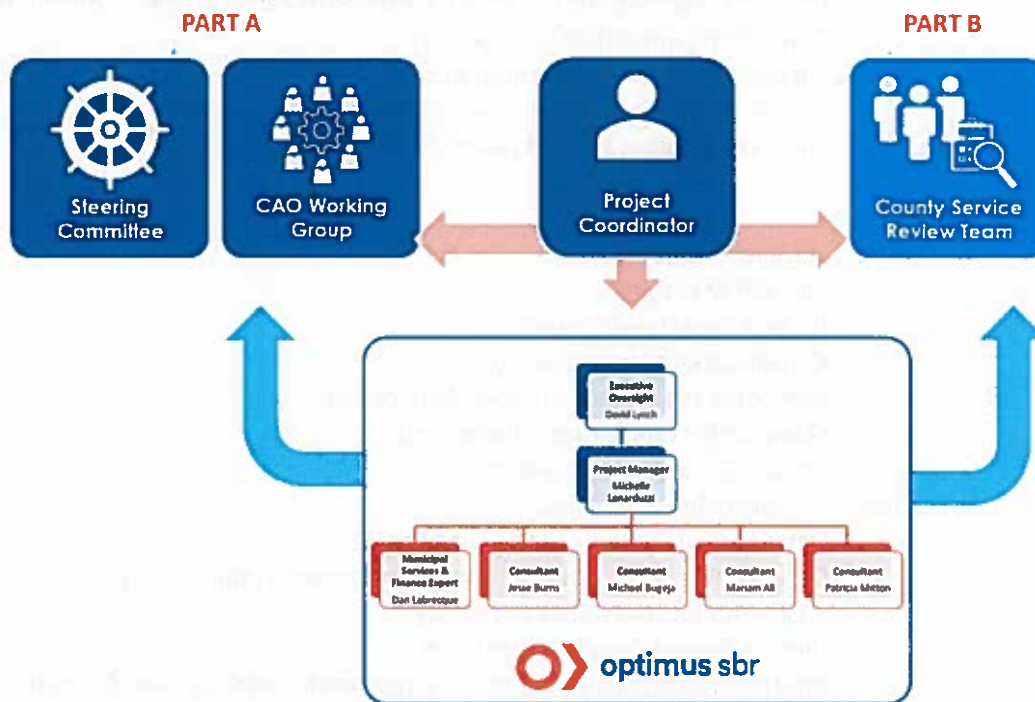
Part B will involve a review of internal county operations and human/community services and will be managed by a County Service Review Team consisting of representatives from each County department.

Through this portion of our review, specific County services will be identified and reviewed, with recommendations made as appropriate.

### 1.2.5 Project Governance Structure

Figure 1 below outlines the overall governance structure for the engagement, distinguishing Parts A and B.

Figure 1: Project Governance Structure



### 1.3 Project Scope

The Project Scope outlines the activities and deliverables that are in scope for the Optimus SBR team.

In scope is a review of up to 30 – or the equivalent effort of 30 “typical” services, as 21 have been identified in this document – County and Municipal shared services. In selecting services we have considered the breadth, complexity and effort required to complete a meaningful review. Some services will need more effort and others less to review. As a result, we have selected 21 to review.

In scope activities for this engagement are divided across the two Parts of the engagement, including:

**Part A:**

- o Phase 1: Project Initiation
  - Kick-Off Meetings;
  - Project Plan Development;
  - Consolidated Service Inventory;
  - Development of Final In-Scope Service List;
  - Stakeholder Consultation Plans; and,

- Up to 8 Discovery Interviews.
- o Phase 2: Detailed Service Review
  - Development of In-Scope Service Profiles;
  - Detailed Focus Groups with each Member Municipality and the County;
  - Follow-up Interviews, as necessary;
  - Interim Report Development; and,
  - Interim Presentations (up to 10 across both Parts) to Joint Council, the Steering Committee, and other as necessary.
- o Phase 3: Recommendations Development
  - Recommendations Development for each In-Scope Service; and,
  - One Presentation to each Member Municipality and the County.

**Part B:**

- o Phase 1: Project Initiation
  - Kick-Off Meetings;
  - Project Plan Development;
  - Consolidated Service Inventory;
  - Development of Final In-Scope Service List;
  - Stakeholder Consultation Plans; and,
  - Up to 8 Discovery Interviews.
- o Phase 2: Detailed Service Review
  - Development of In-Scope Service Profiles;
  - Detailed Focus Groups with each Department in the County;
  - Follow-up Interviews, as necessary;
  - Interim Report Development; and,
  - Interim Presentations (up to 10 across both Parts) to Joint Council, the Steering Committee, and other as necessary.
- o Phase 3: Recommendations Development
  - Recommendations Development for each In-Scope Service;
  - One Presentation of the Final Report to the County Council; and,
  - Up to three (3) presentations to County Staff.

To ensure that project resources and efforts are focused and used efficiently, the following items have been mutually agreed to as being out of scope:

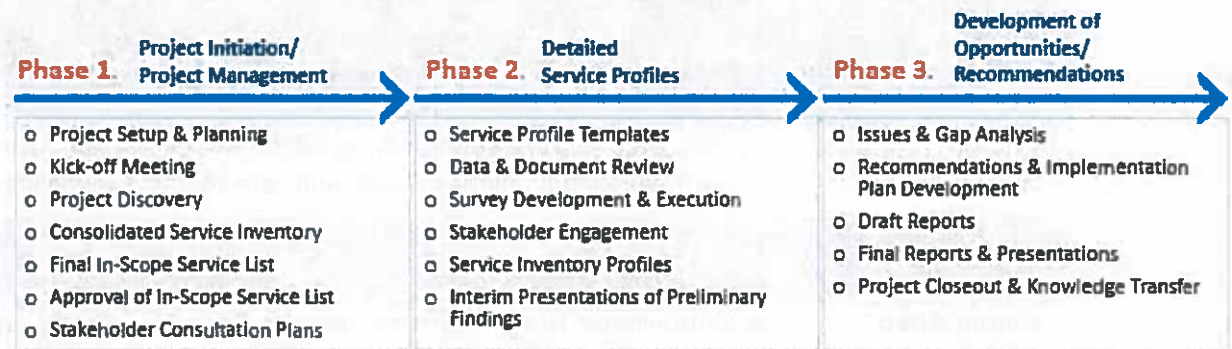
- o Review of services beyond the 30 (or number otherwise agreed upon) services for the review
- o Review of long-term care as a service
- o Review of Paramedic Services as a service
- o Detailed implementation planning
- o Implementation of recommendations
- o Broader change management



## 1.4 Project Approach

The graphic below describes our proposed project approach to ensure this engagement is completed both on time and on budget. Our approach includes three major phases of work, each having its own discreet activities that build on one another. The Optimus SBR team will also be responsible for project management activities throughout the engagement to ensure that any potential risks are identified, captured, and mitigated appropriately.

Figure 2: Project Approach



Through this approach, the County and its Member Municipalities will have a thorough understanding of the current state of the in-scope services, as well as realistic and actionable recommendations moving forward. Most importantly, the County and its Member Municipalities will have the information required to move forward with confidence at the conclusion of this engagement.

## 1.5 Project Deliverables

Throughout the engagement our team will develop a number of interim deliverables, as well as the Final Report. Each deliverable will first be developed in draft form and reviewed with the relevant project governance body prior to incorporating edits and finalizing the content. The table below outlines each deliverable of the engagement, as well as provides a brief description to ensure a common understanding of their content. Highlighted in orange is the deliverable included with this document.

Table 1: Project Deliverables

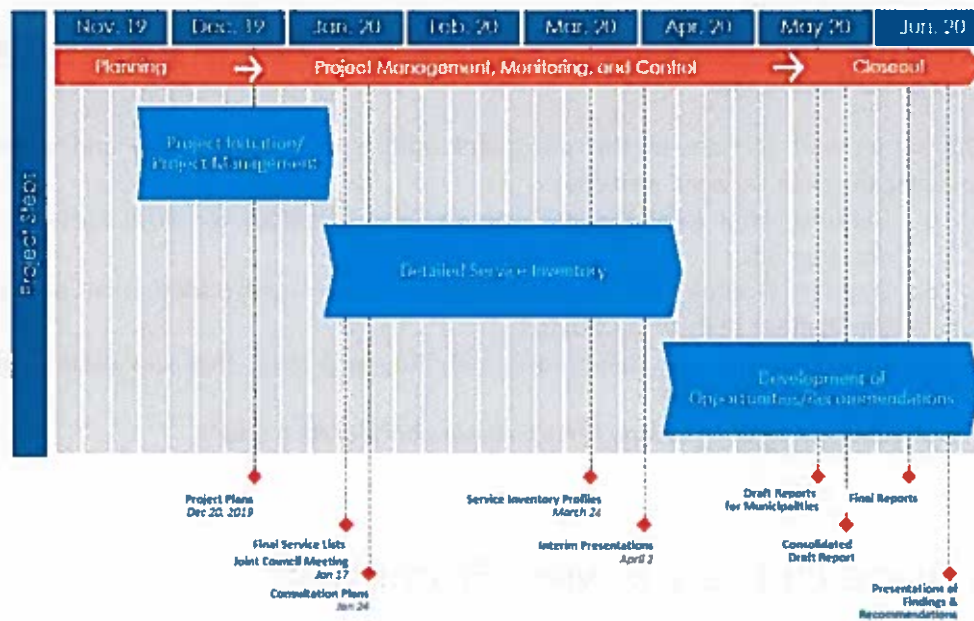
DELIVERABLE	DESCRIPTION
<b>Project Plan</b>	Sets key dates for deliverables and milestones, while also detailing accountabilities of both Optimus SBR and the County and its Member Municipalities project resources.
<b>Consolidated Service Inventory</b>	A complete list of services for both Part A and B compiled based on staff input.

DELIVERABLE	DESCRIPTION
<b>Final In-Scope Service List</b>	Finalized lists of in-scope services for both Part A and B, validated and approved by the Working Group/Steering Committee (Part A services) and the County Service Review Team (Part B services).
<b>Stakeholder Consultation Plans</b>	Outlines proposed approach and methodologies for stakeholder engagement activities pertaining to Part A and B to ensure they are effective and produce meaningful outcomes.
<b>In-Scope Service Profiles</b>	Profiles will be developed in conjunction with the Working Group and County Service Review Team for each in-scope service for both Part A and B and are expected to include Review Scope and Objectives, Current State Findings, Key Challenges, and Next Steps.
<b>Interim Presentations</b>	Consolidated current state findings which will be presented to the Joint Council Workshop, County Council, and each Member Municipality.
<b>Draft Reports for Municipalities</b>	Draft Reports for each Member Municipality consolidating the cumulative Part A engagement.
<b>Consolidated Draft Report</b>	A consolidated Draft Report for County Council including engagement outputs for both Part A and B.
<b>Final Reports</b>	All feedback and revisions will be incorporated into the Draft Reports. The Reports will be finalized, including specific financial implications.
<b>Presentations of Findings and Recommendations</b>	Key parts of the Final Reports will be presented to Member Municipalities, County Council, and County Staff. Provisional presentations, such as to the Joint Council Workshop, each Council, and public meetings can be discussed with the County at extra cost.

## 1.6 Project Timeline

This project has an overall duration of approximately seven and a half months outlined in Figure 3 below:

Figure 3: Project Timeline



## 1.7 Purpose of this Document and How it was Developed

This (combined) Final In-Scope Service List document has been developed for approval by:

- For Part A: The Steering Committee; and
- For Part B: The County Service Review Team.

This document was developed as follows:

- For Part A:
  - A draft was presented to the Steering Committee in early January 2020 for review and discussion ahead of a Joint Council Meeting, after which edits were made; and
  - Optimus SBR facilitated the Joint Council Meeting on January 16<sup>th</sup> to gather further feedback on the in-scope services.

- For Part B:
  - The County CAO and County Service Review Team have reviewed the list of services and provided detailed feedback.

This document has been prepared following final review by the Steering Committee for Part A on Tuesday, February 4<sup>th</sup> and final review by the County Service Review Team for Part B at its earliest convenience.

Once this in-scope service list is finalized, stakeholder engagement planning can be finalized and engagement can begin.

The subsequent sections of this document outline the methodology and considerations for selecting in-scope services, including:

- Defining what is and is not considered a “service” for both Parts A and B of the engagement;
- Outlining Optimus SBR’s Service Delivery Review Framework that will be used to evaluate the final set of in-scope services;
- Describing the selection criteria and filtering process that was used to identify the in-scope services; and
- Identifying the in-scope services across both Parts A and B.

## 2.0 Service Delivery Review Framework

Optimus SBR is employing a Service Delivery Review Framework to effectively and efficiently review services in a consistent manner. This section will define the term “service” for this review and will provide an overview of our Service Delivery Review Framework.

### 2.1 Defining a Service

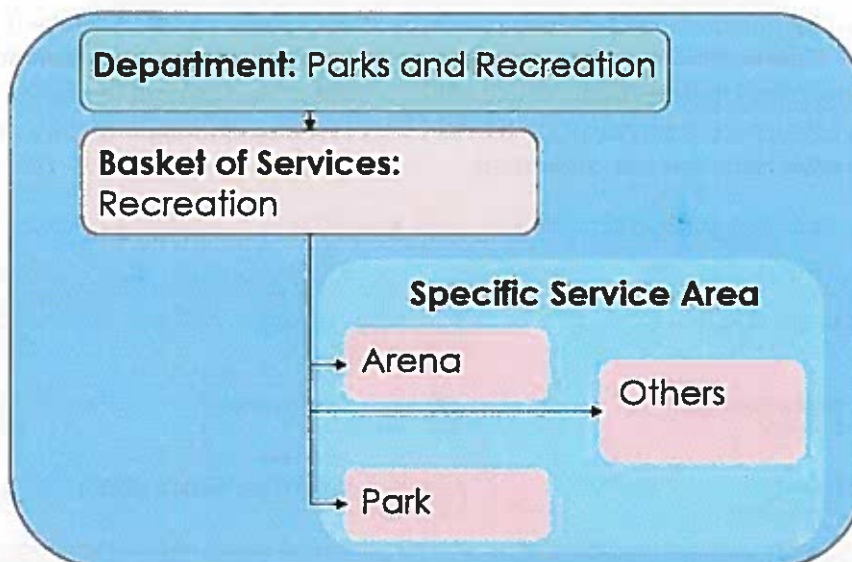
At the outset of the engagement, the Optimus SBR team confirmed with the Steering Committee and County Service Review Team what would be considered a “service” that could be reviewed for this engagement, and to distinguish *services* from *departments*. As this project has two separate Parts, definitions for both *services* and for *departments* were created to reduce potential confusion and ensure a shared understanding for both teams.

#### 2.1.1 Definition of a Shared Service for Part A

When examining Shared Services for Part A, it is important to distinguish as Figure 4 does below between a department of a Member Municipality or the County, a basket of services within that department, and specific services that can be individually identified and reviewed.



Figure 4: Definition of a Shared Service Area for Part A



As illustrated above, Parks & Recreation is a department comprised of services provided by either a Member Municipality or the County. Underneath is “Recreation”, a basket of services. For this review, a “service” is defined as the last level where we find Arena Services, Park Services, and the like.

#### 2.1.1.1 Types of Shared Services Arrangements

As shared services are considered going forward, it will be useful to distinguish among different types of shared services, in particular:

1. **A service that the County provides to one or more Municipalities** – this service is primarily owned and operated by the County; Member Municipalities have access to the service through formal or informal agreements. An example would include IT support provided by the County to East Garafraxa, Amaranth and Melancthon, Shelburne, Grand Valley Fire, Shelburne Fire and the Dufferin Board of Trade.
2. **A service that is offered by one Member Municipality, for one or more other Member Municipalities** – this service is owned and operated by a Member Municipality and shared with one or more other municipalities through formal or informal agreements. An example would include Fire Services provided by Orangeville to East Garafraxa, Amaranth, and Mono.
3. **A service that is contracted out to a third party and then shared among municipalities** – this service is not “owned” by any one Member Municipality, but rather has one or more coming together and paying a third party to perform the service (e.g., collectively hiring a third party for snow removal).

As shared or potentially shared services are reviewed, these different arrangements will be considered, without presupposing that any one of them will be the solution.

### 2.1.2 Definition of a County Service for Part B

For Part B, there are similar distinctions to be made for services provided by the County. As shown below, “Community Services” represents a basket of services rather than an individual service. The target level for this review would be the individual services offered by the Department, which in this case includes services such as Children’s Services, Housing Programs and Services, Income and Employment Services, and others.

Figure 5: Defining a County Service for Part B



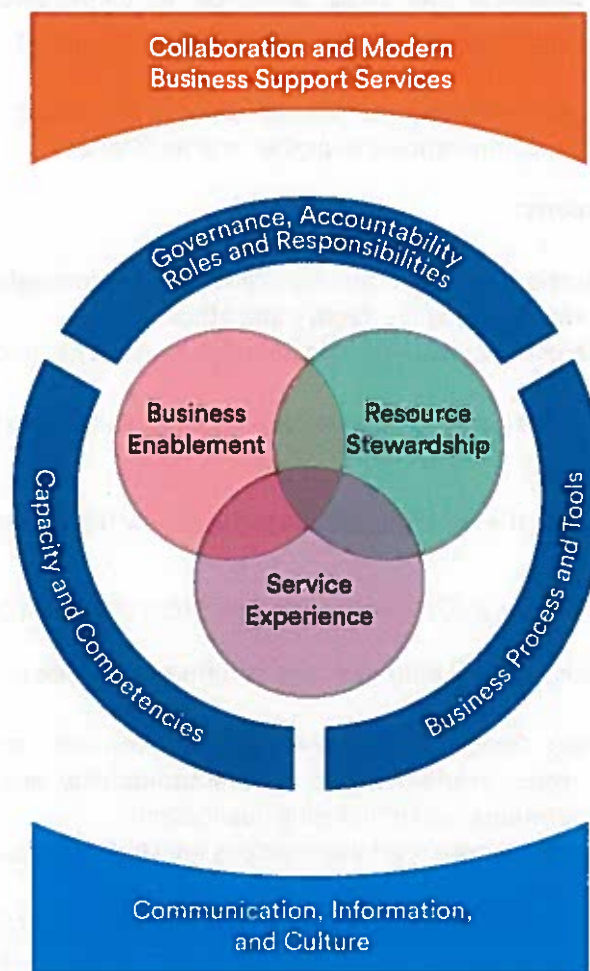
## 2.2 Optimus SBR's Service Delivery Review Framework

To guide this review, Optimus SBR brings a Service Delivery Review Framework (SDRF) with which in-scope services will be reviewed (modifications to the Framework can be made as needed). The SDRF has two parts to ensure that Shared and County Services are reviewed in a manner that respects their unique structures, goals, and delivery mechanisms.

### 2.2.1 Shared Services Delivery Review Framework for Part A

The following graphic outlines Optimus SBR's Shared Services Delivery Review Framework:

Figure 6: Optimus SBR Shared Services Delivery Framework



The Framework contains three fundamental objectives to be achieved for Shared Services in any public sector operating environment. Specifically, these objectives are:

- o **Business Enablement:** Shared services are supported and enabled with high quality and expert services that enable Member Municipalities to deliver on their mandates, programs, and goals.

- o **Resource Stewardship:** Shared services are efficient and support proper stewardship of resources, while maintaining compliance with any applicable legislation, policies and by-laws.
- o **Service Experience:** Shared services provide a positive service experience, based on shared values, expectations, and respect.

These three objectives are supported by three Success Factors and three Foundational Supports:

**Success Factors:**

- o **Governance, Accountability, Roles, and Responsibilities:** Governance and organizational structures are clear and understood by relevant service providers and partners.
- o **Business Processes and Tools:** Processes by which services are performed and the policies, guidelines, templates, and systems to support them are well designed and defined.
- o **Capacity and Competencies:** Shared services are properly resourced in terms of staff organization, competencies, expertise and numbers.

**Foundational Supports:**

- o **Communication:** Internal communication and information sharing among providers, partners, and residents is effective and efficient.
- o **Information:** Data supports providers/partners with information for evidence-based decision-making.
- o **Culture:** Shared services operations embrace a culture that supports a customer-centric service delivery.

Using this Framework, the Optimus SBR team will review the final in-scope services for Part A.

### 2.2.2 County Service Delivery Review Framework for Part B

Part B of the engagement will employ a slightly different Framework which includes the following items:

- o **Governance:** Governance (where appropriate) and more generally organizational structure, roles, responsibilities, and accountability are clear for effective decision making, operations, and minimizing duplication.
- o **Service Levels:** Service level expectations are clearly articulated and/or documented and are appropriate.
- o **Resources:** Required resources are in place to carry out roles and responsibilities at the expected service levels. This can include human resources (e.g., in terms of competencies, expertise, or staffing levels) as well as other (e.g., financial) types of resources.
- o **Process:** Processes are well designed and defined, effective and efficient.
- o **Technology:** Appropriate technology is in place to enable processes and service delivery more broadly.
- o **Cost:** Services are provided cost-effectively relative to the services being provided and the benefits realized.

Using this Framework, the Optimus SBR team will review the final in-scope services for Part B.



### 3.0 How In-Scope Services Were Selected

This section outlines the methodology Optimus SBR used to identify in-scope services for Parts A and B of this engagement.

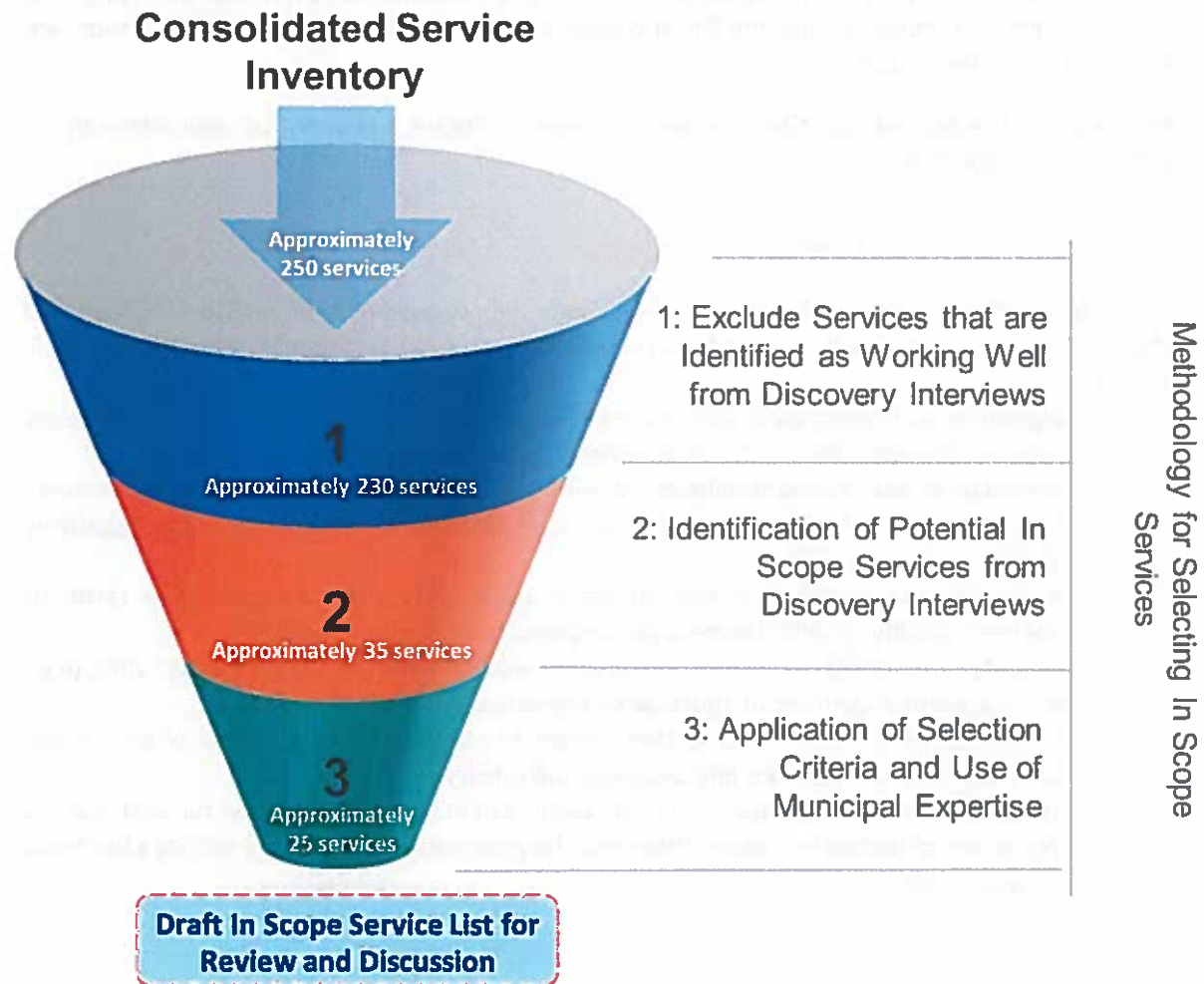
#### 3.1 Methodology for Selecting Services

As discussed earlier, a draft in-scope service list was developed prior to this final list through a combination of discovery interviews and data and document review. To develop a list of in-scope services review we:

- 1) Excluded Services that Are Identified as Working Well from Discovery Interviews;
- 2) Identified Priority In-Scope Services from Discovery Interviews; and,
- 3) Applied Selection Criteria (outlined below in Section 3.1.3).

This process is illustrated below.

Figure 7: Methodology for Selecting Services



### 3.1.1 Consolidated Service Inventory

Our team first compiled a list of all potential services across both Parts A and B into a Consolidated Service Inventory.

### 3.1.2 Discovery Interviews

As described in the Project Approach, discovery interviews were conducted in conjunction with the development of the Consolidated Service Inventory. A Discovery Interview Guide was used which asked, among other questions:

- What services were currently seen as working well, and should be removed from further consideration; and
- What services were not currently seen as working well or viewed as having potential for improvement and should receive a detailed service delivery review.

Responses to the first question often included not only services that were seen as performing well, but also those where reviews had recently taken place, or where the future of the service/program was unknown or to be determined by provincial direction or legislation (e.g., the County's Climate Change service and Ontario Works, respectively). Such services were removed from further consideration.

Response to the second question enabled our team to create a shortlist of approximately 35 potential in-scope services.

### 3.1.3 Application of Selection Criteria

This shortlist of services, as well as select others, were then reviewed based on the interviews and data and document review against criteria related to our Shared Services Framework and SDRF, including:

- o **Alignment with Strategic Priorities:** Whether the service is part of or supports strategic priorities of either the County or Member Municipalities.
- o **Governance and Accountabilities:** Whether current governance and accountability structures in place for the service are clear, or if there are perceived challenges negatively impacting service delivery.
- o **Service Outcomes:** Whether the service is meeting its target outcome(s) in terms of timelines, quality, or effectiveness for partners, businesses or residents.
- o **Capacity Constraints:** Whether the service exhibits potential capacity constraints (e.g., due to growth in demand or shortage of resources).
- o **Duplication of Services:** Whether there appears to be potential duplication of service and thus potential for improved effectiveness and efficiency.
- o **Costs:** Whether services appeared to be significant in terms of either overall cost (e.g., as proportion of budget) or where there may be potential to provide the service effectively at a lower cost.

This process generated a list of 23 Services (in the “Draft In-Scope Service List for Discussion”) which were further reviewed with the respective governance structures of Parts A and B of this engagement as described earlier. This has since been refined to a list of 21.

## 4.0 In-Scope Service List

Below, Table 2 and Table 3 outline the final list of 21 in-scope services, with 11 in Part A and 10 in Part B. As noted earlier, while the scope of the review includes 30 “typical” services, in selecting the final list, the breadth, complexity, and effort required for meaningful review was considered in the development of the final list (for example, reviewing Fire Services and Community Housing services is expected to take more effort than typical).

Each table outlines:

- o **The service number (e.g., A1, B1, for future reference) and name, along with the Department in the case of Part B;**
- o **The framework focus area from the relevant Shared Services/Service Delivery Review Framework discussed above, as developed through consultation with the respective project governance entity;**
- o **The reason(s) for selecting the service in terms of the selection criteria and/or what was heard from the consultation process;**
- o **The objective of the service review for that service, understanding that all services will be considered in terms of the relevant Shared Services/Service Delivery Review Framework; and**
- o **The focus of stakeholder engagement for Phase 2 – i.e., understanding the “current state” of the service.**

#### 4.1 Final In-Scope Shared Service List for Part A

Table 2: Final In-Scope Shared Services List for Part A

No.	Service	Framework Focus Area(s)	Reason(s) for Selecting Service	Objective(s) of Service Review	Focus of Stakeholder Engagement for Phase 2
A1	Accounting	Governance, Accountability, Roles and Responsibilities; Business Processes and Tools	<ul style="list-style-type: none"> <li>Potentially unnecessary duplication of services; County and each Member Municipality currently provide their own accounting services/functions, including payroll</li> </ul>	<ul style="list-style-type: none"> <li>Identify potential efficiencies through shared service provision or technology resources</li> </ul>	<ul style="list-style-type: none"> <li>Understand existing accounting functions, including payroll and technology used by each Member Municipality</li> <li>Identify potential areas of duplication</li> <li>Identify formal or informal agreements of service support or technology sharing between Member Municipalities, where applicable</li> </ul>
A2	Indoor Recreation Facilities	Governance (Boards), Accountability, Roles and Responsibilities; Resource Stewardship	<ul style="list-style-type: none"> <li>Capacity constraints and costs; significant shared facilities costs anticipated to be incurred across multiple governance structures</li> </ul>	<ul style="list-style-type: none"> <li>Identify optimal approach for cost-sharing forthcoming infrastructure investments and ongoing operations and maintenance</li> </ul>	<ul style="list-style-type: none"> <li>Understand existing governance structures</li> <li>Understand benefits, challenges and opportunities related to providing arena services to residents</li> <li>Understand expected infrastructure investments required</li> </ul>

No.	Service	Framework Focus Area(s)	Reason(s) for Selecting Service	Objective(s) of Service Review	Focus of Stakeholder Engagement for Phase 2
A3	By-Law Enforcement	Capacity and Competencies; Service Experience	<ul style="list-style-type: none"> <li>Capacity constraints leading to difficulty achieving service outcomes across several Member Municipalities</li> </ul>	<ul style="list-style-type: none"> <li>Identify shared service options to address capacity constraints and improve service outcomes, potentially including legal services related to By-Law Enforcement</li> </ul>	<ul style="list-style-type: none"> <li>Understand the current complement of resources available to each Member Municipality in its by-law enforcement activities</li> <li>Understand the scope of requirements for by-law enforcement for Member Municipalities</li> <li>Understand need and requirements for legal expertise for Member Municipalities</li> </ul>
A4	Economic Development	Governance, Accountability, Roles and Responsibilities; Business Processes and Tools; Resource Stewardship	<ul style="list-style-type: none"> <li>Potential ability to improve strategic alignment of County and Member Municipalities</li> <li>Opportunity to better define roles and responsibilities, resource and staff sharing to improve service outcomes at a lower cost</li> </ul>	<ul style="list-style-type: none"> <li>Identify opportunities to align strategic priorities across the organizations and reduce duplication of effort</li> <li>Identify options for defining roles and responsibilities across County and Member Municipalities given available resources</li> </ul>	<ul style="list-style-type: none"> <li>Understand current roles and responsibilities, activities, and capacity of Economic Development resources at the County, Orangeville, and Shelburne</li> <li>Understand current practices of Member Municipalities without dedicated resources</li> </ul>



No.	Service	Framework Focus Area(s)	Reason(s) for Selecting Service	Objective(s) of Service Review	Focus of Stakeholder Engagement for Phase 2
A5	Fire Services	Governance (Boards), Accountability, Roles and Responsibilities; Capacity and Competencies; Resource Stewardship; Service Experience	<ul style="list-style-type: none"> <li>Governance is distributed across individual and shared municipal boards</li> <li>Opportunity to improve service level outcomes and cost arrangements</li> </ul>	<ul style="list-style-type: none"> <li>Identify opportunities to streamline governance and accountability structures to better match service levels to local needs</li> <li>Identify opportunities to reduce risks associated with HR, IT, insurance and procurement</li> </ul>	<ul style="list-style-type: none"> <li>Understand existing governance structures</li> <li>Understand impacts on service levels and cost arrangements</li> </ul>
A6	Human Resources (HR) Services	Capacity and Competencies, Resource Stewardship; Service Experience	<ul style="list-style-type: none"> <li>Inconsistent service outcomes and limited HR services across the County and Member Municipalities</li> <li>Opportunity to improve capacity through shared service/specialized knowledge sharing</li> </ul>	<ul style="list-style-type: none"> <li>Identify shared service delivery models to improve service outcomes including Health and Safety</li> <li>Identify opportunities to mitigate costs, including potentially related legal services, through shared services</li> </ul>	<ul style="list-style-type: none"> <li>Identify existing HR services (including Health and Safety) that each Member Municipality currently operates independently or provides via contract services</li> <li>Understand existing shared services arrangements (formal or informal), policy agreements, processes, etc.</li> <li>Understand need and requirements for legal expertise for Member Municipalities</li> </ul>

No.	Service	Framework Focus Area(s)	Reason(s) for Selecting Service	Objective(s) of Service Review	Focus of Stakeholder Engagement for Phase 2
A7	IT Services	Capacity and Competencies; Business Processes and Tools; Resource Stewardship; Service Experience	<ul style="list-style-type: none"> <li>Inconsistent service outcomes</li> <li>Potential capacity constraints for staff providing this service</li> <li>Cost concerns from the County for IT services provided to Member Municipalities</li> </ul>	<ul style="list-style-type: none"> <li>Identify opportunities to consolidate resources and standardize business processes and tools to improve to service outcomes, potentially including website construction and maintenance</li> <li>Identify a service delivery model to fairly distribute costs</li> <li>Identify opportunities to pool resources for enhanced cybersecurity</li> </ul>	<ul style="list-style-type: none"> <li>Understand existing IT and GIS services and resources within each independent municipality (either by in-house staff or via outsourcing)</li> <li>Understanding existing resources for website construction and technical maintenance within each Member Municipality</li> <li>Understand suite of cybersecurity activities offered by the County and each Member Municipality</li> </ul>
A8	Planning	Governance, Accountability, Roles and responsibilities; Business Processes and Tools	<ul style="list-style-type: none"> <li>Opportunity to improve service planning and delivery using technology to reduce costs</li> </ul>	<ul style="list-style-type: none"> <li>Identify opportunities for a more coordinated approach to streamline resources and processes County-wide</li> <li>Identify opportunities for technology improvements</li> </ul>	<ul style="list-style-type: none"> <li>Understand key similarities, differences, and gaps across Member Municipalities' planning efforts</li> <li>Identify duplication, gaps, and discrepancies for the application process</li> </ul>

No.	Service	Framework Focus Area(s)	Reason(s) for Selecting Service	Objective(s) of Service Review	Focus of Stakeholder Engagement for Phase 2
A9	Procurement Services	Governance, Accountability, Roles and Responsibilities; Business Processes and Tools	<ul style="list-style-type: none"> <li>• Duplication of procurement activities across the County and Member Municipalities</li> <li>• Opportunity to reduce costs through group procurement</li> <li>• Capacity constraints in terms of expertise</li> </ul>	<ul style="list-style-type: none"> <li>• Identify opportunities for potential cost savings through group purchasing process</li> <li>• Identify opportunities for increased effectiveness through pooling resources</li> </ul>	<ul style="list-style-type: none"> <li>• Understand current procurement practices across the County and Member Municipalities, including resources available</li> <li>• Understand existing practice relative to best practices and compliance with free trade agreements</li> </ul>
A10	Roads	Governance, Accountability, Roles and Responsibilities	<ul style="list-style-type: none"> <li>• Lack of aligned roads network plan resulting in negative service outcomes</li> <li>• Duplication of activities and services</li> </ul>	<ul style="list-style-type: none"> <li>• Identify opportunities for an integrated road network for greater efficiency</li> <li>• Identify opportunities to address duplication and capacity constraints by sharing resources</li> </ul>	<ul style="list-style-type: none"> <li>• Understand existing plans and outlines for road networks within Member Municipalities</li> <li>• Understand areas of divergence and duplication</li> <li>• Understand different needs of rural and urban communities</li> </ul>
A11	Winter Control	Governance, Accountability, Roles and Responsibilities; Business Processes and Tools; Resource Stewardship	<ul style="list-style-type: none"> <li>• Cost of winter control is significant for the County and each Member Municipality</li> </ul>	<ul style="list-style-type: none"> <li>• Identify opportunities for an integrated winter maintenance plan to improve service delivery for residents</li> <li>• Identify opportunities to reduced costs through shared service/resource models</li> </ul>	<ul style="list-style-type: none"> <li>• Understand current snow removal and other practices across Member Municipalities</li> <li>• Understand current equipment in use, where it is located, and related logistical considerations</li> <li>• Understand existing arrangements/agreements</li> </ul>



## 4.2 Final In-Scope County Service List for Part B

Table 3: Final In-Scope County Services List for Part B

No.	Department	Service	Framework Focus Area(s)	Reason(s) for Selecting Service	Objective(s) of Service Review	Focus of Stakeholder Engagement for Phase 2
B1	Corporate Services	Communications	Service Levels; Resources	<ul style="list-style-type: none"> <li>• Potential capacity constraints</li> <li>• Unclear accountabilities, roles and responsibilities</li> <li>• Duplication of effort across multiple departments</li> </ul>	<ul style="list-style-type: none"> <li>• Determine most effective and efficient use of resources for consistent communications look and feel across the organization</li> </ul>	<ul style="list-style-type: none"> <li>• Understand overall communication needs and variations across departments, and the relevant expertise required</li> <li>• Review current rationale for departments doing their own communication</li> <li>• Understand where gaps in communication services may exist</li> </ul>
B2	Community Services	Community Housing	Service Levels; Resources; Process	<ul style="list-style-type: none"> <li>• Potential for improved service outcomes for tenants</li> <li>• Multiple departments involved in tasks impacting costs</li> </ul>	<ul style="list-style-type: none"> <li>• Identify opportunities for consolidating resources/activities and streamlining processes to improve service outcomes</li> </ul>	<ul style="list-style-type: none"> <li>• Understand various housing portfolios under Community Services Housing Division, Community Support Services, and Dufferin Oaks</li> <li>• Understand the role of Facilities Management in the various housing portfolios</li> <li>• Identify duplicate activities and services</li> </ul>

No.	Department	Service	Framework Focus Area(s)	Reason(s) for Selecting Service	Objective(s) of Service Review	Focus of Stakeholder Engagement for Phase 2
B3	Community Support Services	Seniors' Services	Governance (Strategy); Service Levels	<ul style="list-style-type: none"> <li>• Potential to improve alignment of Dufferin's Seniors' Services between internal departments and with external community providers</li> </ul>	<ul style="list-style-type: none"> <li>• Identify opportunities to bring greater coherence to and better align Seniors' Services with identified community needs</li> </ul>	<ul style="list-style-type: none"> <li>• Understand the full suite of Seniors' Services offered by the County</li> <li>• Identify where duplication/overlapping of services currently exists</li> <li>• Understand local community provider context</li> </ul>
B4	Human Resources	Human Resources Support to Employees	Service Levels; Resources; Processes; Technology	<ul style="list-style-type: none"> <li>• Duplication of some services between HR and Dufferin Oaks teams</li> <li>• Current capacity constraints impact timeliness of service</li> <li>• Potential for improved service outcomes</li> </ul>	<ul style="list-style-type: none"> <li>• Identify opportunities to consolidate resources/technology for more efficient use of staff time and better service</li> <li>• Understand and clarify roles and responsibilities</li> </ul>	<ul style="list-style-type: none"> <li>• Identify where activities are duplicated between HR and Dufferin Oaks</li> <li>• Determine current technology and process capabilities and limitations</li> </ul>
B5	Planning, Economic Development & Culture	Museum & Archives	Service Levels; Cost	<ul style="list-style-type: none"> <li>• Unsustainable operational costs</li> </ul>	<ul style="list-style-type: none"> <li>• Identify financially viable future state delivery models</li> </ul>	<ul style="list-style-type: none"> <li>• Understand current revenue stream(s) and cost structure</li> <li>• Understand role of Museum in County</li> </ul>

No.	Department	Service	Framework Focus Area(s)	Reason(s) for Selecting Service	Objective(s) of Service Review	Focus of Stakeholder Engagement for Phase 2
B6	Public Works	Engineering	Resources, Processes	<ul style="list-style-type: none"> <li>• Potential staff capacity constraints</li> <li>• Need for better processes to improve service outcomes</li> </ul>	<ul style="list-style-type: none"> <li>• Identify opportunities for improved processes</li> <li>• Identify opportunities to address capacity constraints</li> </ul>	<ul style="list-style-type: none"> <li>• Understand current processes</li> <li>• Understand existing staff capacity constraints</li> <li>• Understand how partner departments are engaged</li> </ul>
B7	Public Works	Facilities Management	Resources; Processes; Technology; Cost	<ul style="list-style-type: none"> <li>• Duplication of activities by multiple Departments managing assets</li> <li>• Potential to improve clarity of roles and responsibilities</li> <li>• Represents a significant operational cost</li> </ul>	<ul style="list-style-type: none"> <li>• Identify opportunities to clarify roles and responsibilities and improve service delivery</li> <li>• Identify opportunities to enhance technology to improve service outcomes and reduce cost</li> <li>• Identify opportunities for alternate service delivery models</li> </ul>	<ul style="list-style-type: none"> <li>• Understand the portfolio of assets currently under the County's management</li> <li>• Understand the current level of service and processes</li> <li>• Identify areas of duplication and specialized activities</li> </ul>
B8	Public Works	Fleet Management	Governance (Roles and Responsibilities, Resources; Process; Technology; Cost)	<ul style="list-style-type: none"> <li>• Duplication of fleet management activities across multiple departments</li> <li>• Opportunity for cost savings with improved processes</li> </ul>	<ul style="list-style-type: none"> <li>• Identify opportunities for consolidation of resources and activities to improve service outcomes and reduce capacity constraints</li> </ul>	<ul style="list-style-type: none"> <li>• Understand the type and scope of fleet services by department</li> <li>• Understand technology currently used to support fleet management</li> </ul>



No.	Department	Service	Framework Focus Area(s)	Reason(s) for Selecting Service	Objective(s) of Service Review	Focus of Stakeholder Engagement for Phase 2
<b>B9</b>	Treasury	Procurement	Governance (Roles and Responsibilities and Accountability), Process; Cost	<ul style="list-style-type: none"> <li>• Duplication of procurement services across departments</li> <li>• Potential negative service outcomes due to capacity constraints and current processes</li> <li>• Costs</li> </ul>	<ul style="list-style-type: none"> <li>• Identify opportunities to streamline and consolidate processes and tasks through the use of technology</li> <li>• Define roles and responsibilities and identify required resources</li> </ul>	<ul style="list-style-type: none"> <li>• Understand how resources and activities are distributed</li> <li>• Understand existing procurement challenges</li> <li>• Understand technology in place and its use</li> </ul>
<b>B10</b>	Treasury	Corporate Finance	Process; Technology	<ul style="list-style-type: none"> <li>• Potentially higher costs due to technology limitations</li> <li>• Potential to improve service outcomes and accountabilities</li> </ul>	<ul style="list-style-type: none"> <li>• Using previously completed assessment redefine opportunities/ requirements for improved technology solutions</li> </ul>	<ul style="list-style-type: none"> <li>• Understand current technology and desired requirements</li> </ul>

## Service Delivery Review

→ Service Profile Template – Part A  
A7. IT Services

February 5<sup>th</sup>, 2020

## 1.0 Purpose of this Document

This document contains the Service Profile Template and can be shared with Municipal staff participating in the review of this service.

The objective of sharing this Service Profile Template will be to allow Municipal staff to prepare for on-site consultations with the Optimus SBR team. This Service Profile Template below can act as a guide for those consultations. Included in the template are "Questions for Municipal Staff". These questions will provide a guide on topics that staff may want to consider prior to discussions with the Optimus SBR Team.

There is no expectation that Municipal Staff complete this template before meeting with the Optimus SBR team.

## 2.0 In-Scope Service Profile Template – Part A

<b>Service:</b>	IT Services
<b>Municipality</b>	

Descriptive Information	
Item	Description
<b>Service Description</b>	<p><i>Reason for collecting this information: This will include a non-technical description of the Shared Service and how it is currently provided.</i></p> <p><i>Questions for Municipal Staff: Please describe, at a high-level, the service.</i></p>
<b>Service Delivery Objectives</b>	<p><i>Reason for collecting this information: This cell will summarize the objectives of the Shared Service and what the Municipality wants to accomplish through the service.</i></p> <p><i>Question for Municipal Staff: What is the ultimate objective of this service? What is it intended to achieve/accomplish?</i></p>
<b>Focus areas and Objectives of Reviewing this Service</b>	
<b>Framework Focus Area(s)</b>	Capacity and Competencies; Business Processes and Tools; Resource Stewardship; Service Experience
<b>Objective(s) of Service Review</b>	<ul style="list-style-type: none"> <li>Identify opportunities to consolidate resources and standardize business processes and tools to improve to service outcomes, potentially including website construction and maintenance</li> <li>Identify a service delivery model to fairly distribute costs</li> <li>Identify opportunities to pool resources for enhanced cybersecurity</li> </ul>
<b>Focus of Stakeholder Engagement</b>	<ul style="list-style-type: none"> <li>Understand existing IT and GIS services and resources within each independent municipality (either by in-house staff or via outsourcing)</li> <li>Understanding existing resources for website construction and technical maintenance within each Member Municipality</li> <li>Understand suite of cybersecurity activities offered by the County and each Member Municipality</li> </ul>

Service Context				
<b>Service Delivery Location</b>	<p><i>Reason for collecting this information: The cells below will illustrate the service delivery location, and, at a high-level, the Shared Service provider. Once consolidated with input from all Municipalities, the chart will provide a holistic view of the service across the region.</i></p> <p><i>Questions for Municipal Staff: For your municipality, please indicate whether your municipality provides the service internally, provides the service internally and to another municipality; or receives the service from another Municipality or contracted third party.</i></p>			
	<b>Municipality</b>	<b>Provides Service internally (does not provide to another municipality)</b>	<b>Provides service internally and to another municipality<sup>1</sup></b>	<b>Receives from another municipality (does not provide internally) OR from a Contracted Third Party<sup>2</sup></b>
	<b>Amaranth</b>			
	<b>East Garafraxa</b>			
	<b>Grand Valley</b>			
	<b>Melancthon</b>			
	<b>Mono</b>			
	<b>Mulmur</b>			
	<b>Orangeville</b>			
	<b>Shelburne</b>			
	<b>County of Dufferin</b>			
<p><i>1 – This will identify the Municipality which the service is provided to (and may include municipalities outside the scope of this review).</i></p> <p><i>2 – This will identify the Municipality which provides the service (and may include municipalities outside the scope of this review). This will be cross-referenced with the column to the left. This will also include reference to any third-party service providers.</i></p>				
<b>Governance</b>	<p><i>Reason for collecting this information: This cell will summarize roles and responsibilities, including information to provide insights on clarity of accountabilities and reducing duplication.</i></p> <p><i>Questions for Municipal Staff: How is the delivery of the Shared Service currently structured? Who is ultimately accountable for the delivery and performance of the Shared Service to recipients (i.e. who is the “leadership” accountable)? Who else is involved in the delivery of the Shared Service and what are their roles/responsibilities? If the Shared Service is provided to your municipality by</i></p>			



	<p><i>another municipality, or contracted third-party provider, what formal structures, processes, and/or agreements do you have in place?</i></p>
<b>Relevant Bylaws and Policies</b>	<p><i>Reason for collecting this information: This cell will summarize bylaws, policies, or provincial legislation which govern the service.</i></p> <p><i>Questions for Municipal Staff: What (if any) policies, bylaws, or legislation guide or impact the Shared Service delivery (i.e. policies regarding frequency of service or service levels).</i></p>
<b>Classification</b>	<p>Mandatory/Legislated <input type="checkbox"/></p> <p>Discretionary/Voluntary <input type="checkbox"/></p> <p><i>Reason for collecting this information: This cell will identify whether the Shared Service provided is a legislated requirement (i.e. the Municipality is required by law/legislation), discretionary/voluntary (i.e. the Municipality is fulfilling a need in the community, but is not legally required to provide the service). Where necessary, a brief description will be included explaining the classification.</i></p> <p><i>Questions for Municipal Staff: Why does the municipality provide this service?</i></p>
<b>Criticality</b>	<p>Critical <input type="checkbox"/></p> <p>Non-Critical <input type="checkbox"/></p> <p><i>Reason for collecting this information: This cell will identify whether the Shared Service provided is classified as critical or non-critical. The objective of this is to distinguish Shared Services such as Fire Services from those such as Arena Services. Where necessary, a brief description will be included explaining the classification.</i></p> <p><i>Questions for Municipal Staff: Is this service defined as a critical Shared Service? Why or why not?</i></p>
<b>Shared Service Provider</b>	<p><i>Reason for collecting this information: This cell will identify the number of, and type of Shared Service provider personnel. This will include whether the service is provided by union or non-union staff, contractors, volunteers, etc. This will also reference FTE counts, where applicable.</i></p> <p><i>Questions for Municipal Staff: Who is responsible for delivering the Shared Service (i.e. who is the "doer")? Are they internal staff, staff of another municipality, or a third-party staff? Are they union or non-union staff? What is the Full Time Equivalency (FTE) staffing level involved in the delivery of this Shared Service? What is the FTE by role/function within the delivery of this Shared Service?</i></p>
<b>Clients Served</b>	<p><i>Reason for collecting this information: This cell will list the clients, people, residents, etc. served by the Shared Service. Where possible/appropriate, it will highlight Shared Service volume. Reference will be made to Internal and External clients served by the Shared Service.</i></p>

	<p><i>Questions for Municipal Staff: Who is the end client/recipient of the Shared Service? Is it an internal staff member/department(s) of the municipality; residents; businesses; etc.? How many clients are serviced?</i></p>
<p><b>User Fees</b></p>	<p><i>Reason for collecting this information: This cell will summarize quantitative information about user fees, if available/applicable.</i></p> <p><i>Questions for Municipal Staff (if applicable): Is there a user fee for this Shared Service? If so, what is the fee and how was it determined? If not, has there ever been consideration given to the implementation of a user fee?</i></p>

Current State Description	
<b>Staff</b>	<p><i>Reason for collecting this information: This cell will summarize findings related to staffing levels; roles and responsibility; location of staff; staff training and experience; etc.</i></p> <p><i>Questions for Municipal Staff: With respect to staff/individuals providing the Shared Service is there clarity in their job description/roles and responsibilities? Are there enough FTEs to meet demand/service levels? Is training adequate? Is the team experienced at providing the Shared Service?</i></p>
<b>Equipment</b>	<p><i>Reason for collecting this information: This cell will summarize findings related to equipment used to complete the Shared Service (where applicable).</i></p> <p><i>Questions for Municipal Staff: What is the major equipment (if any) used to provide the Shared Service? On average, what is the state of repair for this equipment? Is the equipment seen as an enabler to service delivery, or is it a barrier (i.e. poor condition causes issues in meeting service levels)?</i></p>
<b>Facilities</b>	<p><i>Reason for collecting this information: This cell will summarize findings related to the facilities (i.e. condition of facilities, location of facilities, etc.).</i></p> <p><i>Questions for Municipal Staff: What facilities are involved in the delivery of the Shared Service? Where are they located and what condition are they in? Are the facilities involved in the delivery of this service considered an enabler or barrier?</i></p>
<b>Service Experience</b>	<p><i>Reason for collecting this information: This cell will capture findings around performance (i.e. Time, cost, customer satisfaction); including performance metrics and KPIs. This will allow us to understand if the Shared Service is currently meeting targets, under-performing, or over-performing.</i></p> <p><i>Questions for Municipal Staff: What Service Level Standards; Key Performance Indicators/Metrics, etc. exist for this Shared Service? How is the Shared Service perceived to perform against these standards?</i></p>
<b>Business Processes and Tools</b>	<p><i>Reason for collecting this information: This cell will capture findings around key activities associated with delivering the Shared Service.</i></p> <p><i>Questions for Municipal Staff: What pain-points exist with respect to the delivery of the Shared Service? What works well in the delivery of this Shared Service? Do you have ideas on how the Shared Service could be provided more effectively or efficiently?</i></p>
<b>Technology</b>	<p><i>Reason for collecting this information: This cell will capture findings around technology, systems, digital platforms used in the delivery of the Shared Service.</i></p> <p><i>Questions for Municipal Staff: What technology, systems, or digital platforms are involved in the delivery of the Shared Service? Is the technology involved in the delivery of this service considered an enabler or barrier?</i></p>

<b>Cost and Funding</b>	<p><i>Reason for collecting this information: This cell will capture findings around operational and administrative costs (where available) for the Shared Service.</i></p> <p><i>Questions for Municipal Staff: What are the cost drivers associated with the delivery of this Shared Service?</i></p>
<b>Other</b>	<p><i>Reason for collecting this information: This cell will collect any additional information related to the Shared Service that has not already been summarized above.</i></p>

Current State Strengths and Challenges	
Strengths	Challenges
<i>Please describe any key strengths associated with the service.</i>	<i>Please describe the key challenges associated with the service.</i>

SOUTH  
GLENGARRY

Ontario's Celtic Heartland

CORPORATION OF THE TOWNSHIP OF SOUTH GLENGARRY

MOVED BY Sam McDonell

RESOLUTION NO 29-2020

SECONDED BY Martin Lang

DATE February 3, 2020

WHEREAS the Township of South Glengarry has a strong agricultural tradition and continues to play an important role in Ontario's agri-food sector.

AND WHEREAS the Township of South Glengarry recognizes the importance of the safety of those working in the agri-food sector and the need to protect the safety of our food chain.

AND WHEREAS in December 2019, the Ontario government introduced legislation in Bill 156 – Security from Trespass and Protecting Food Safety Act, 2019 which will ensure farm businesses have a legal standing to protect their farm, family and employees, livestock, crops and ultimately the entire food supply.

AND WHEREAS the Council of the Township of South Glengarry appreciates the effort being made by the Ontario government to protect those working in the agri-food sector.

NOW THEREFORE BE IT RESOLVED THAT the Council of the Township of South Glengarry strongly supports Bill 156 and urges all members of the Legislative Assembly of Ontario to pass this legislation to protect all Ontario farm families and food processors.

AND FURTHER that this motion be forwarded to the Honourable Doug Ford, premier of Ontario, the Honourable Ernie Hardman, Minister of Agriculture, Food and Rural Affairs and all Ontario municipalities for their consideration.

CARRIED

DEFEATED

POSTPONED

  
Mayor Frank Prevost

Recorded Vote:	Yes	No
Mayor Prevost	___	___
Deputy Mayor Warden	___	___
Councillor Lang	___	___
Councillor Jaworski	___	___
Councillor McDonell	___	___

INFO # 13

FEB 20 2020



1.866.848.3620 519.848.3620  
519.848.3228

Don't  
Simply Explore  
www.simplyexplore.ca

February 10, 2020

Hon. Ernie Hardeman  
Minister of Agriculture, Food & Rural Affairs  
77 Grenville Street, 11th Floor  
Toronto, Ontario M5S 1B3

Via Email: [minister.omafra@ontario.ca](mailto:minister.omafra@ontario.ca)

Dear Minister Hardeman,

Ontario farms have come under increasing threat from trespassers and activists who illegally enter property, barns and buildings, causing significant disruptions to the entire agri-food sector. These activists are trespassing under false pretenses to gain entry on to farm properties. They have seized private property and threatened the health and safety of Ontario farms, employees, livestock and crops. These individuals and organizations are causing health and safety concerns and undue stress to Ontario farmers, their families, and their businesses. Once peaceful protests have escalated to trespassing, invading, barn break-ins and harassment. These incidents distress farmers, their families and employees, and threaten the health of livestock and crops when activists breach biosecurity protocols, ultimately putting the entire food system at risk.

We strongly support the new proposed legislation, *Bill 156: Security from Trespass and Protecting Food Safety Act*. This new legislation is an important way to keep our farm and food supply safe for all Ontarians. Bill 156 provides a balanced approach to protecting farms while recognizing a citizen's right to protest. This new legislation will ensure farm businesses have a legal standing to protect their farm, family and employees, livestock, crops and ultimately the entire food system. *Bill 156: Security from Trespass and Protecting Food Safety Act* is good news for Ontario's agri-food industry.

Thank you for this important new legislation. Protection of our Ontario Agriculture should be the highest priority.

Sincerely,

Dan Yake  
Acting Mayor

cc: Wellington Federation of Agriculture (via email)

WFA# 14  
FEB 20 2020

February 11, 2020

The Honourable Ernie Hardeman,  
Minister of Agriculture, Food and Rural Affairs  
77 Grenville Street, 11<sup>th</sup> Floor  
Toronto ON M5S 1B3

**Re: Resolution Regarding Bill 156**

Please be advised the Council of the Municipality of Chatham-Kent at its regular meeting held on February 10, 2020 passed the following resolution:

Whereas Bill 156: Security from Trespass and Protecting Food Safety Act is new legislation that is an important way to keep farms and food supply safe for all Ontarians,

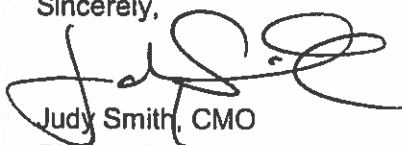
And Whereas Bill 156 provides a balanced approach to protecting farms while recognizing a citizen's right to protest;

And Whereas Bill 156 will ensure farm businesses have a legal standing to protect their farm, family and employees, livestock, crops and ultimately the entire food system;

Therefore be it resolved that the Municipality of Chatham-Kent support the new proposed legislation, Bill 156: Security from Trespass and Protecting Food Safety Act by circulating a letter of support to Ontario municipalities and the Minister of Agriculture, Food & Rural Affairs, the Honourable Ernie Hardeman.

If you have any questions or comments, please contact Judy Smith at [ckclerk@chatham-kent.ca](mailto:ckclerk@chatham-kent.ca)

Sincerely,



Judy Smith, CMO  
Director Municipal Governance  
Clerk /Freedom of Information Coordinator

C Ontario Municipalities

## Denise Holmes

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**From:** Przybylski, Eric (MAG) <Eric.Przybylski@ontario.ca>  
**Sent:** Wednesday, February 12, 2020 3:29 PM  
**To:** Denise Holmes  
**Cc:** rbntripp@gmail.com  
**Subject:** Acknowledgement Letter for LPAT Case Number PL200065 (Lot 20, Concession 4)  
**Attachments:** Acknowledgement Letter for LPAT Case Number PL200065 (Lot 20, Concession 4).pdf

Good Afternoon,

The attached acknowledgement letter is being forwarded to you via email.

A hard copy will not be mailed.

**Eric A. Przybylski**

Case Management Administrative Assistant  
Local Planning Appeal Tribunal (LPAT)  
Ministry of the Attorney General

Tel: (416)-326-6231

Email: [Eric.Przybylski@ontario.ca](mailto:Eric.Przybylski@ontario.ca)

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We are committed to providing accessible services as set out in the Accessibility for Ontarians with Disabilities Act, 2005. If you have any accessibility needs, please contact our Accessibility Coordinator at [ELTO@ontario.ca](mailto:ELTO@ontario.ca) as soon as possible. If you require documents in formats other than conventional print, or if you have specific accommodation needs, please let us know so we can make arrangements in advance.



**Environment and Land Tribunals  
Ontario**  
Local Planning Appeal Tribunal

655 Bay Street, Suite 1500  
Toronto ON M5G 1E5  
Telephone: (416) 212-6349  
Toll Free: 1-866-448-2248  
Website: [www.elto.gov.on.ca](http://www.elto.gov.on.ca)

**Tribunaux de l'environnement et de  
l'aménagement du territoire Ontario**  
Tribunal d'appel de l'aménagement  
local

655 rue Bay, suite 1500  
Toronto ON M5G 1E5  
Téléphone: (416) 212-6349  
Sans Frais: 1-866-448-2248  
Site Web: [www.elto.gov.on.ca](http://www.elto.gov.on.ca)



February 12, 2020

Via Email: [dholmes@melanctontownship.ca](mailto:dholmes@melanctontownship.ca)

Denise Holmes  
Chief Administrative Officer  
Township of Melancthon  
157101 Highway 10  
Melancthon, ON  
L9V 2E6

Subject: Case Number: PL200065  
File Number: PL200065  
Municipality: Township of Melancthon  
By-Law Number: BL 54-2019  
Property Location: Lot 20, Concession 4  
Applicant(s): Robin Tripp & Brenda Serbin  
Appellant(s): Brenda Serbin

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The Local Planning Appeal Tribunal acknowledges receipt of the above referenced file. When communicating with the Tribunal please quote the Tribunal's case and/or file number.

This file has been assigned to Santiago Acevedo-Martinez, Case Coordinator, Planning Assistant For specific questions about this case, you may contact the Case Coordinator, Planning Assistant at (416) 326-5598 or [Santiago.Acevedo-Martinez@ontario.ca](mailto:Santiago.Acevedo-Martinez@ontario.ca).

According to the Local Planning Appeal Tribunal Rules of Practice and Procedure ("Rules"), the Tribunal has completed an administrative screening of the appeal(s).

A one-day Case Management Conference (CMC) will be scheduled for the next available date on the Tribunal's calendar. The availability of persons interested in participating in this appeal will not be canvassed before the CMC date is scheduled. All persons who receive this letter should be prepared to proceed at any time. Service of CMC notice will be directed in accordance with Rule 6.4 of the Rules

(<https://elto.gov.on.ca/tribunals/lpat/legislation-and-rules/>).

Once hearing event dates are set, adjournments are not granted except where compelling circumstances exist and with the consent of all parties and/or the approval of the Tribunal. Please see Rule 17 of the Rules with respect to adjournments.

Mediation is presumptive at the Tribunal and parties shall act and prepare accordingly. Unless the Tribunal determines that there is a good reason for not addressing an appeal with mediation, all parties shall presume that their differences will be first addressed through a mediation in accordance with Rule 18 of the Rules.

We are committed to providing accessible services as set out in the *Accessibility for Ontarians with Disabilities Act, 2005*. If you have any accessibility needs, please contact our Accessibility Coordinator as soon as possible by emailing [ELTO@ontario.ca](mailto:ELTO@ontario.ca). If you require documents in formats other than conventional print, or if you have specific accommodation needs, please let us know so we can make arrangements in advance.

For general information concerning the Tribunal, visit our website at [www.elto.gov.on.ca](http://www.elto.gov.on.ca) or you may contact the Tribunal's offices at (416) 212-6349. You may wish to obtain a copy of the Local Planning Appeal Tribunal appeal guide relevant to your situation. The guides will assist in the understanding of Tribunal matters and its processes. Publications are available on the Tribunal's website or by calling the Tribunal's offices.

Yours truly,

*"Evelyn Dawes"*

Evelyn Dawes  
Deputy Registrar

c.c.  
Brenda Serbin, via Email  
The Clerk, Township of Melancthon, via Email

## Denise Holmes

---

**From:** Aggregates (MNRF) <Aggregates@ontario.ca>  
**Sent:** Thursday, February 13, 2020 9:14 AM  
**To:** Keyes, Jennifer (MNRF)  
**Cc:** Desroches, Pauline (MNRF); Zeran, Rebecca (MNRF)  
**Subject:** Proposed regulatory changes under the Aggregate Resources Act  
**Attachments:** ARA-RegER Posting -- Municipality Notification-12Feb2020\_French.pdf

Dear Ontario Heads of Council and Clerks,

The Ministry of Natural Resources and Forestry recognizes the critical role Ontario's municipalities play in the lives of Ontarians. We value our strong collaborative partnership with municipalities and the associations that represent their interests.

We want to advise you that the Ministry of Natural Resources and Forestry is proposing changes to the way extraction of aggregate resources are regulated in Ontario, and we are inviting your input on the changes proposed.

The Ministry has gathered perspectives from, industry, municipalities, Indigenous communities, members of the public, and other stakeholders. These proposed changes promote economic growth within the aggregate industry while also maintaining strong protection of the environment and addressing community impacts.

The key areas being proposed for change are summarized below for your convenience. However, we would encourage you to read the details of the proposed regulatory changes which can be found on the Environmental Registry notice# **019-1303** *Proposed amendments to Ontario Regulation 244/97 and the Aggregate Resources of Ontario Provincial Standards under the ARA* located [here](#).

The posting notice can also be viewed by searching for notice#**019-1303** at the following web link:  
[www.ero.ontario.ca](http://www.ero.ontario.ca)

We encourage you to provide feedback through the Environmental Registry process.

If you have any questions about the proposed changes, please call Rebecca Zeran at (705) 749-8422.

Kind Regards,

Jennifer Keyes  
Director, Natural Resources Conservation Policy Branch  
Ministry of Natural Resources and Forestry

**Proposed regulatory changes include:**

**For new pits and quarries:**

- enhancing the information required to be included in summary statements and technical reports at the time of application
- improving flexibility in how some standard site plan requirements can be implemented and modernizing how site plans are created

- creating better consistency of site plan requirements between private and Crown land and better alignment with other policy frameworks
- updating the list of qualified professionals who can prepare Class A site plans
- updating the required conditions that must be attached to a newly issued licence or permit
- adjusting notification and consultation timeframes for new pit and quarry applications
- changing and clarifying some aspects of the required notification process for new applications
- updating the objection process to clarify the process
- updating which agencies are to be circulated new pit and quarry applications for comment

**For existing pits and quarries:**

- making some requirements related to dust and blasting apply to all existing and new pits and quarries (requirements which were previously only applied to new applications)
- updating and enhancing some operating requirements that apply to all pits and quarries, including new requirements related to dust management and storage of recycled aggregate materials
- providing consistency on compliance reporting requirements, while reducing burdens for inactive sites
- enhancing reporting on rehabilitation by requiring more context and detail on where, when and how rehabilitation is or has been undertaken
- clarifying application requirements for site plan amendments
- outlining requirements for amendment applications to expand an existing site into an adjacent road allowance
- outlining requirements for amendment applications to expand an existing site below the water table
- setting out eligibility criteria and requirements to allow operators to self-file changes to existing site plans for some routine activities without requiring approval from the ministry (subject to conditions set out in regulation)

**Allowing minor extraction for personal or farm use:**

- outlining eligibility and operating requirements in order for some excavation activities to be exempted from needing a licence (i.e., if rules set in regulation are followed). This would only be for personal use (max. of 300 cubic meters) or farm use (max. 1,000 cubic meters)

# Proposed amendments to Ontario Regulation 244/97 and the Aggregate Resources of Ontario Provincial Standards under the Aggregate Resources Act

ERO (Environmental Registry of Ontario) number	019-1303
Notice type	Regulation
Act	Aggregate Resources Act, R.S.O. 1990
Posted by	Ministry of Natural Resources and Forestry
Notice stage	Proposal
Proposal posted	February 12, 2020
Comment period	February 12, 2020 - March 30, 2020 (47 days) Open
Last updated	February 12, 2020

This consultation closes at 11:59 p.m.

on:

**March 30, 2020**

## Proposal summary

Changes are being proposed to Ontario Regulation 244/97 and the Aggregate Resources of Ontario Provincial Standards under the *Aggregate Resources Act*.

## Proposal details

### Aggregate Resources Act

Ontario's aggregate resources are primarily regulated under the Aggregate Resources Act (ARA). These non-renewable aggregate resources include stone, sand, and gravel.

Ontario requires a continued supply of aggregate resources. Approximately 160 million tonnes of aggregate are needed in Ontario each year. Yet, it is equally important to manage and minimize the impact extraction operations may have on the environment and on the communities that surround them. These operations are located across our diverse province, and the regulatory framework that manages them must be fair and predictable and flexible enough to be effective. Most of the aggregate produced in Ontario comes from private land in the southern region of the province where most demand exists.

## Background

The Ministry of Natural Resources and Forestry has gathered perspectives from industry, municipalities, members of the public, Indigenous communities and other stakeholders for making changes to the way in which extraction of aggregate resources is regulated in Ontario.

Amendments to the *Aggregate Resources Act* were made on December 10, 2019, as part of Bill 132, the *Better for People, Smarter for Business Act*.

To build on those changes, we are consulting on proposed regulatory changes and are looking for your feedback.

The details of the proposed changes can be found in the supporting material document titled: **Proposals to amend Ontario Regulation 244/97 and the Aggregate Resources of Ontario Provincial Standards under the *Aggregate Resources Act***

## Proposed regulatory changes

### For new pits and quarries:

- enhancing the information required to be included in summary statements and technical reports at the time of application
- improving flexibility in how some standard site plan requirements can be implemented and modernizing how site plans are created
- creating better consistency of site plan requirements between private and Crown land and better alignment with other policy frameworks
- updating the list of qualified professionals who can prepare Class A site plans
- updating the required conditions that must be attached to a newly issued licence or permit

- adjusting notification and consultation timeframes for new pit and quarry applications
- changing and clarifying some aspects of the required notification process for new applications
- updating the objection process to clarify the process
- updating which agencies are to be circulated new pit and quarry applications for comment

**For existing pits and quarries:**

- making some requirements related to dust and blasting apply to all existing and new pits and quarries (requirements which were previously only applied to new applications)
- updating and enhancing some operating requirements that apply to all pits and quarries, including new requirements related to dust management and storage of recycled aggregate materials
- providing consistency on compliance reporting requirements, while reducing burdens for inactive sites
- enhancing reporting on rehabilitation by requiring more context and detail on where, when and how rehabilitation is or has been undertaken
- clarifying application requirements for site plan amendments
- outlining requirements for amendment applications to expand an existing site into an adjacent road allowance
- outlining requirements for amendment applications to expand an existing site into the water table
- setting out eligibility criteria and requirements to allow operators to self-file changes to existing site plans for some routine activities without requiring approval from the ministry (subject to conditions set out in regulation)

**Allowing minor extraction for personal or farm use:**

- outlining eligibility and operating requirements in order for some excavation activities to be exempted from needing a licence (i.e., if rules set in regulation are followed). This would be for personal use (max. of 300 cubic meters) or farm use (max. 1,000 cubic meters)

While no changes to aggregates fees are being proposed at this time, we are committed to reviewing and consulting further on any proposed changes to aggregate fees and royalties.



## Regulatory impact analysis

The anticipated environmental consequences of the regulatory proposal are positive as the proposed changes reflect necessary updates to both application requirements for new sites (e.g. technical reports) and existing operational standards and prescribed conditions (e.g. dust mitigation and blast monitoring that protect the environment and minimize community impacts).

The anticipated social consequences of the proposal are positive. Proposals include modernizing and clarifying timelines, processes and requirements for notification and consultation for both private and Crown land applications. This will ensure proper processes are followed for community engagement and consultation on proposals.

The anticipated economic consequences of the proposal are neutral to positive. While many of the proposed changes are intended to reduce burden, streamline approvals and add flexibility for new applicants and existing operators, some of the proposals may add additional requirements and costs depending upon the unique applicant or operator circumstances and the combinations of applicability of the proposals to a particular application type and existing operation.

For more information on the estimated potential cost savings or increases, please refer to Section 5 of the document.

These are estimated costs/savings. Comments are welcome from those incurring the costs to better help the Ministry understand the real costs or savings associated with these proposals.

## Supporting materials

### Related files

[Proposals to amend O.Reg 244/97 and the Aggregate Resources of Ontario Provincial Standards \(https://prod-environmental-registry.s3.amazonaws.com/2020-02/Proposals\\_ARA\\_Reg\\_Standards%20FINAL.pdf\)](https://prod-environmental-registry.s3.amazonaws.com/2020-02/Proposals_ARA_Reg_Standards%20FINAL.pdf)  
pdf (Portable Document Format file) 2.13 MB

### Related links

[Aggregate Resources Act, 1990](#)

<https://www.ontario.ca/laws/statute/90a08>

[Ontario Regulation 244/97 \(Aggregate Resources Act\)](#)

<https://www.ontario.ca/laws/regulation/970244?search=aggregate>

[Aggregate Resources of Ontario Provincial Standards](#)

<https://www.ontario.ca/page/application-standards-proposed-pits-and-quarries>

## [Related ERO \(Environmental Registry of Ontario\) notices](#)

[Proposed amendments to the Aggregate Resources Act \(/notice/019-0556\)](#)

## **View materials in person**

Some supporting materials may not be available online. If this is the case, you can request to view the materials in person.

Get in touch with the office listed below to find out if materials are available.

MNRF - Natural Resources Conservation Policy Branch - Resource Development Section

300 Water Street

2nd Floor, South tower

Peterborough, ON

K9J 3C7

Canada

## **Comment**

Let us know what you think of our proposal.

Have questions? Get in touch with the contact person below. Please include the [ERO \(Environmental Registry of Ontario\)](#) number for this notice in your email or letter to the contact.

[Read our commenting and privacy policies. \(/page/commenting-privacy\)](#)

## Submit by mail

Resource Development  
Coordinator  
MNRF - Natural Resources  
Conservation Policy Branch - Resource  
Development Section  
300 Water Street  
2nd Floor, South tower  
Peterborough, ON  
K9J 3C7  
Canada

---

## Connect with

JS

## Contact

Resource Development  
Coordinator

 [aggregates@ontario.ca](mailto:aggregates@ontario.ca)

## Denise Holmes

---

**From:** tecia white <outlook\_8E2B0ABCD8612EDA@outlook.com> on behalf of tecia white <tecia@white-water.ca>  
**Sent:** Thursday, February 13, 2020 11:52 AM  
**To:** Denise Holmes; Grant Horan; Herbst, Robert (MNRF)  
**Cc:** esther.wearing@ontario.ca  
**Subject:** Strada Aggregates 2019 Annual Report  
**Attachments:** Strada Shelburne\_FINAL\_COMPLETE.pdf

Good morning,

Please see the attached annual report, which has been completed to comply with the Integrated Monitoring Plan (Aggregate Resources Act) and PTTW (Ontario Water Resources Act).

If you have any questions or concerns, please feel free to call me at any time.

Regards,

Tecia White M.Sc. P.Geo.  
Senior Hydrogeologist/President  
Whitewater Hydrogeology Ltd.  
Cell: 705-888-7064

**Whitewater**  
Hydrogeology Ltd.



**2019 GROUNDWATER AND  
SURFACE WATER MONITORING  
REPORT**

**SHELBURNE PITS 1-4**

**Prepared for:  
Strada Aggregates**

**Date: January 2020**

Whitewater Hydrogeology Ltd  
Phone: 705.888.7064  
Email: [tecia@white-water.ca](mailto:tecia@white-water.ca)

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## 1.0 INTRODUCTION

Strada Aggregates Inc. (Strada) holds three adjacent Aggregate Resources Act (ARA) Category 3, Class A licenses from the Ministry of Natural Resources and Forestry (MNR), which permit for the extraction of aggregate from above the water table. The sites referred to as the Bonnefield/Prince Pits, Melancthon Pit #1 and Melancthon Pit #2 and are located on Part Lot 11-14, Concession 3 Township of Melancthon. Each property has been integrated into one all-encompassing operation, which includes a closed loop washing facility, which is regulated under the Melancthon Pits #2 Ontario Water Resources Act, Section 34, Permit to Take Water (PTTW) No.: 3210-AKRL9C (Appendix A).

Whitewater Hydrogeology Ltd. (Whitewater) developed a groundwater and surface water monitoring program that was designed to effectively identify and characterize any cumulative influences on the groundwater and surface water regimes as a result of the extraction and washing operations that occur under the three ARA licenses. This program also integrated a hydro-period surface water monitoring requirement to be used in the annual natural environment impact assessment (NRSI, 2020).

This report has been prepared to comply with the Integrated Monitoring Program which is provided in Appendix B.

## 2.0 COMPLIANCE MONITORING PROGRAM

### 2.1 Groundwater Monitoring

In total, there are currently 28 groundwater well nests that monitor 52 discrete aquifer intervals in the overburden and bedrock aquifers at the Shelburne Pits. The groundwater monitoring program is provided in Table 1 and Figure 1. Monitors "A" are constructed above the geological contact between the sand and gravel unit and the Tavistock Till, if saturated. Otherwise, the screens are set above the geological contact between the Tavistock Till and the bedrock. Monitoring wells constructed in the bedrock contact aquifer system are identified as monitors "B". Borehole records are provided in Appendix B.

The groundwater monitoring program focuses on the on-going monitoring of background conditions (up-gradient locations) in both the overburden and bedrock aquifers and the monitoring of potential influences from the aggregate operation on down-gradient locations. The groundwater monitoring program is provided in Table 2. Selected up-gradient and down-gradient wells are sampled for water quality. The water quality parameters for the semi-annual and annual sampling programs are provided below.

Semi-Annual Groundwater Quality Parameters	Annual Groundwater Quality Parameters
General Water Quality Parameters: pH, Conductivity, Alkalinity, Bicarbonate, Chloride, Calcium, Magnesium, Potassium, Sodium, Sulphate, Nitrate, Nitrite, Phosphorous, and Metals (dissolved).	Total Petroleum Hydrocarbons (F1-F4) BTEX, Total Oil and Grease



Table 1: Groundwater Monitoring Well Details

Well Nest and Old Monitor ID (for reference only)		New Well ID	Top of Casing	Ground Surface	Top of Screen	Bottom of Screen	Location	
			Metres Above Sea Level (masl)				Easting	Northing
<b>Melancthon Pit #1</b>								
MW1	MW1-A	OW13-A	507.13	506.44	495.1	492.1	561,147	4,887,604
	MW1-B	OW13-B	507.13	506.44	490.5	487.5	561,147	4,887,604
MW2	MW2-B	OW14-B	497.36	496.46	479.8	476.8	561,761	4,887,840
MW5	MW5-B	OW15-B	511.48	510.85	482.8	479.8	561,432	4,887,667
MW8	MW8-B	OW16-B	497.28	246.50	488.5	469.9	561,727	4,888,004
<b>Melancthon Pit #2</b>								
MW2	MW2-B	OW2-A	507.64	507.09	500.04	496.99	561,213	4,887,227
	MW2-C	OW2-B	507.64	507.09	484.54	481.49	561,213	4,887,227
MW3	MW3-B/C	OW3-B	504.61	504.11	494.36	491.31	561,272	4,886,849
MW4	MW4-B	OW4-A	506.54	505.84	500.97	497.92	561,355	4,886,426
	MW4-C	OW4-B	506.54	505.84	495.17	492.12	561,355	4,886,426
MW5	MW5-A	OW5-A	494.68	493.95	483.89	480.84	561,742	4,886,523
	MW5-C	OW5-B	494.54	493.94	486.32	483.27	561,743	4,886,525
MW6	MW6A	OW6-A	502.84	502.31	481.59	478.54	561,628	4,887,055
MW7	MW7-A	OW7-A	497.26	496.76	485.18	482.13	561,704	4,886,785
	MW7-C	OW7-B	497.26	496.76	478.56	466.26	561,704	4,886,785
MW13	MW13-A	OW8-A	505.99	504.89	500.39	492.89	561,282	4,887,057
MW9	MW9-A	OW9-A	496.77	496.20	492.85	489.80	561,806	4,887,468
MW10	MW10-B	OW10-A	495.79	495.19	479.04	475.99	561,628	4,887,239
MW11	MW11-A	OW11-A	495.90	495.20	493.7	487.70	561,571	4,886,477
	MW11-C	OW11-B	495.90	495.20	483.00	480.00	561,571	4,886,477
MW12	MW11-A	OW12-A	495.80	485.12	480.62	473.02	560,813	4,887,450
<b>Bonnefield Pit</b>								
-	-	OW17-A	503.60	502.10	481.67	478.63	561,472	4,887,382
-	-	OW17-B	503.60	502.10	477.69	474.67	561,472	4,887,382
-	-	OW18-A	501.45	500.35	483.58	480.53	561,653	4,887,686
-	-	OW18-B	501.45	500.35	479.93	476.88	561,653	4,887,686
<b>Prince Pit</b>								
-	-	OW19-A	510.59	509.49	486.69	485.09	561,035	4,888,193
-	-	OW19-B	510.59	509.49	483.59	482.09	561,035	4,888,193
-	-	OW20-B	509.51	508.41	480.71	479.21	561,544	4,888,334
-	-	OW21-B	511.68	510.58	476.78	475.28	561,593	4,888,681
-	-	OW22-B	513.91	512.81	487.81	486.31	561,384	4,888,891
-	-	OW23-B	510.51	509.41	485.61	484.11	560,937	4,888,788

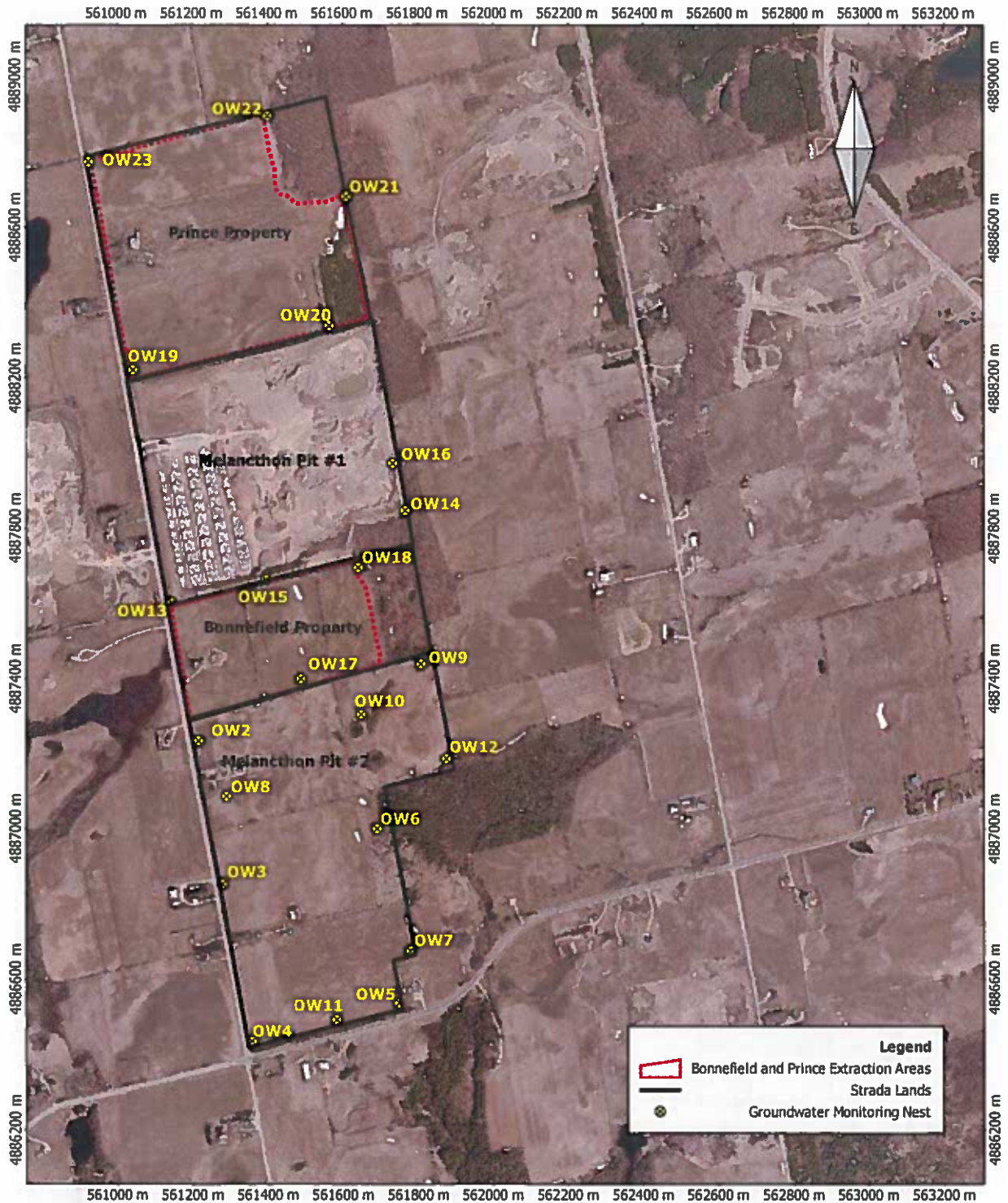


FIGURE 1: GROUNDWATER MONITORING LOCATIONS



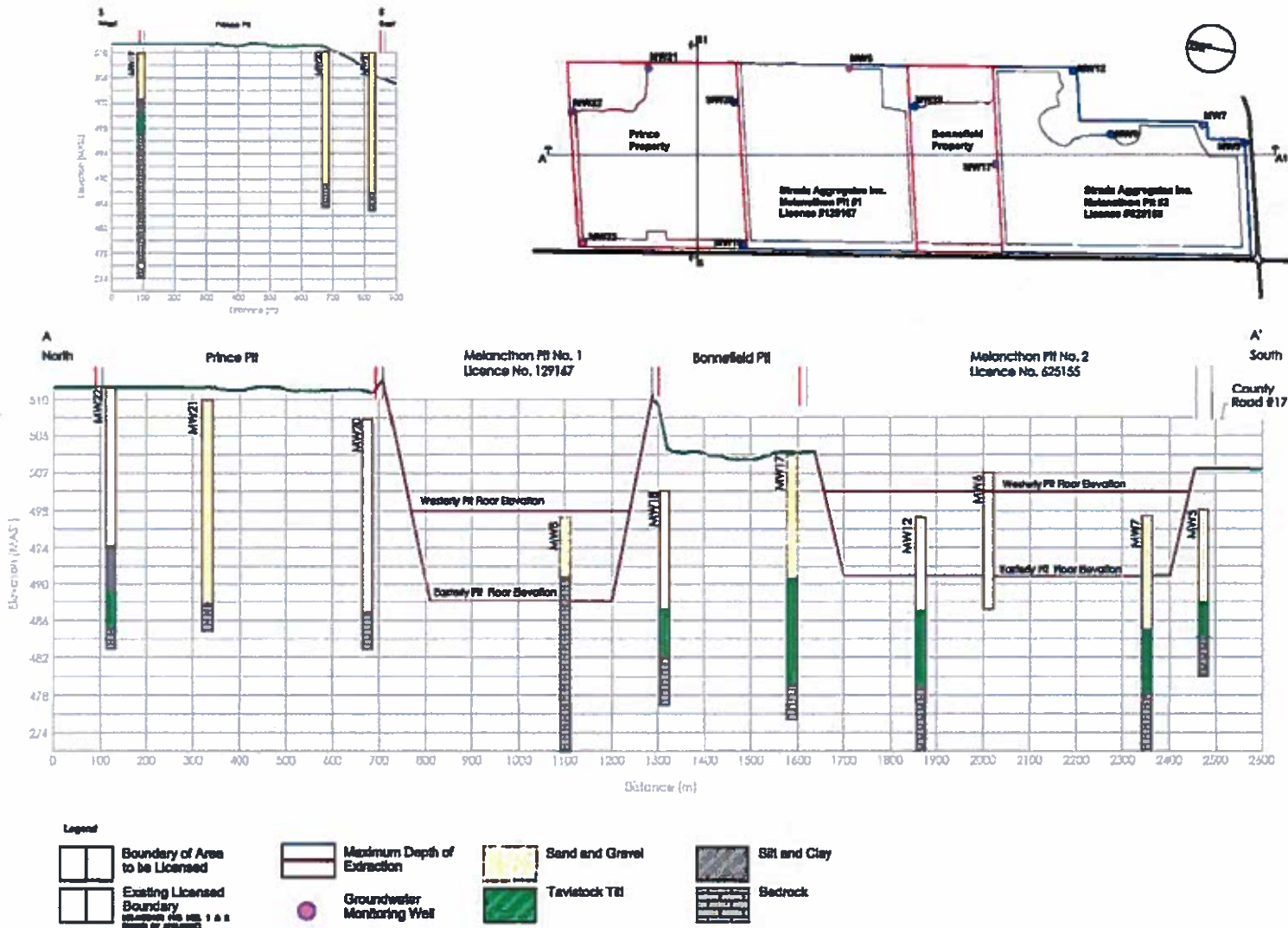


FIGURE 2: GEOLOGICAL CROSS-SECTION

Table 2: Proposed Groundwater Monitoring Network

Well ID	Water Levels		Water Quality	
	Monthly	Manual Water	Semi-Annual	Annual
OW2-A	X		X	
OW2-B	X		X	
OW3-B	X		X	
OW4-A	X		X	
OW4-B	X		X	
OW5-A	X		X	X
OW5-B	X		X	
OW6-A	X		X	X
OW7-A	X		X	X
OW7-B	X		X	
OW8-A	X		X	X
OW9-A	X		X	X
OW10-A	X		X	X
OW11-A	X		X	X
OW11-B	X		X	
OW12-A	X		X	X

Well ID	Water Levels		Water Quality	
	Monthly	Manual Water	Semi-Annual	Annual
OW13-A	X		X	
OW13-B	X		X	
OW14-B	X		X	X
OW15-B	X			
OW16-B	X		X	X
OW17-A	X			
OW17-B	X			
OW18-A	X		X	X
OW18-B	X		X	
OW19-A	X			
OW19-B	X		X	
OW20-B	X		X	X
OW21-B	X		X	x
OW22-B	X		X	
OW23-B	X		X	

## Note:

1. the collection of continuous water levels at selected groundwater monitoring locations is recommended.
2. OW15-B was destroyed in 2018
3. OW11-A, OW17-A and OW17-B was destroyed in 2019

## 2.2 Surface Water Monitoring

Surface water elevation monitoring is completed during unfrozen conditions at 5 locations across the property. Surface water elevation monitoring has been on-going at the Wash Pond, North and South Ponds (Figure 1), since 2007. Two additional surface water monitoring stations to monitor the hydro-period in the wetland and vernal pool commenced in 2019 (Figure 1). Data have been assessed in conjunction with the groundwater monitoring data as part of the annual reporting requirement

In addition, surface water quality is obtained from the North and South Ponds and analyzed for the same parameters as the groundwater wells.

## 2.3 2019 Water Taking Reporting

Strada is required to monitor the daily water takings under the PTTW, which includes recording the date, the volume of water taken on that date, and the rate at which it was taken. This data shall be submitted on or before March 31st every year to the ministry's Water Taking Reporting System.

### 3.0 HYDROLOGICAL / HYDROGEOLOGICAL EVALUATION

#### 3.1 2019 Water Takings

PTTW 3210-AKRL9C allows for the taking of 4,000 L/min for a maximum of 10 hours per day (a total of 2,400,00 L each day) to a maximum of 230 days between April 1 and November 16 of each year. In 2019, water was taken on 16 days between May 16th and June 3rd. The maximum reported daily taking was 2,304,760 L. Strada remains in compliance with the water takings at the Melancthon Pit #2. The 2019 daily water takings from the Melancthon Pit #2 are summarized in Table 3.

TABLE 3: 2019 DAILY WATER TAKINGS

Date	Total Daily Taking (L)
13-May	2,113,435
14-May	2,252,880
15-May	1,016,820
16-May	1,285,200
17-May	2,351,160
18-May	0
19-May	0
20-May	998,546
21-May	945,000
22-May	1,723,680
23-May	2,169,720
24-May	2,322,980
25-May	0
26-May	0
27-May	0
28-May	1,806,840
29-May	1,852,200
30-May	1,515,780
31-May	2,304,760
1-Jun	0
2-Jun	0
3-Jun	856,620
4-Jun	763,560

#### 3.2 Groundwater Level Elevations

##### 3.2.1 Overburden Groundwater Elevations

The groundwater elevations in the vicinity of the Strada properties are strongly influenced by the bedrock topography and the buried bedrock valley system reported in the southeast portion of the study area. This feature has created a primarily downward gradient drawing water levels from the shallow overburden aquifer to the bedrock flow system. As a result, the overburden is dry in the north and north-western portion of Melancthon Pit #1 as well as beneath the Prince property. Permanent unsaturated conditions in the overburden are reported at OW3, OW14, OW16, OW19, OW20, and OW21, where the first water-bearing zone is found beneath the bedrock contact (bedrock aquifer).

Where saturated, the water levels in the overburden represent the water table. Generally, the water level trends are seasonal, with water levels peaking in the spring and decreasing over the warmer and drier summer months (Figure 3). Based on the continuous water level measurements at the 13 overburden monitoring wells, the water table ranges between a high of 501 masl to a low of 489.5 masl during the spring season. Over the following months, the water levels drop approximately 1 and 6 m.

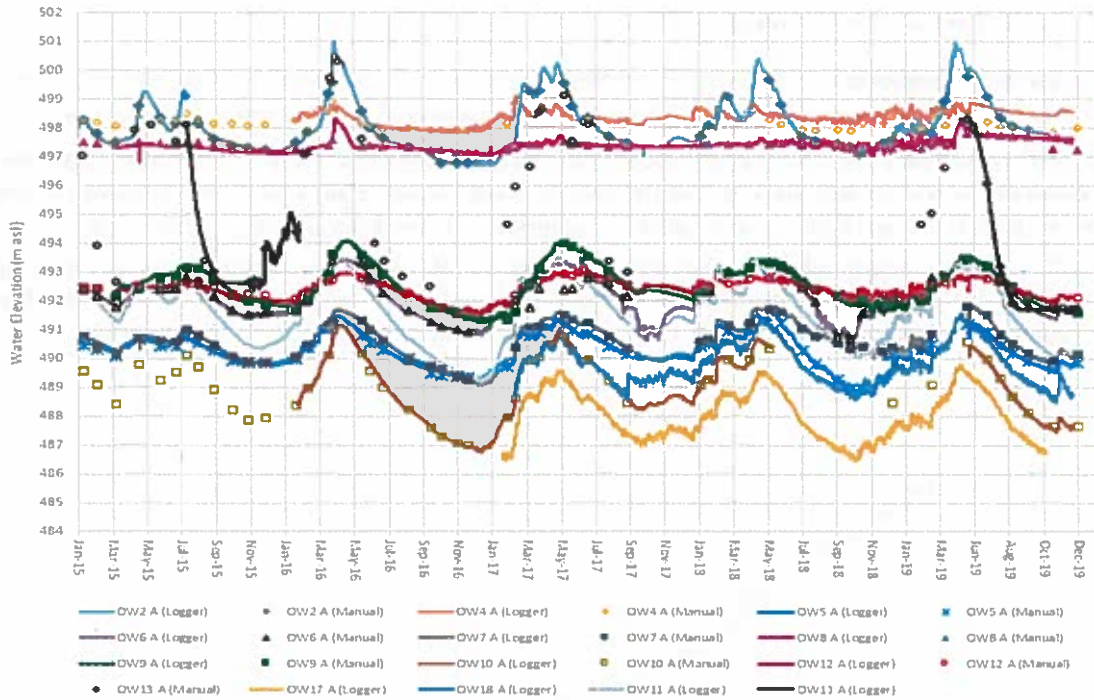


FIGURE 3: OVERBURDEN HYDROGRAPH

3.2.2 Bedrock Groundwater Elevations

Like the overburden water levels, the water levels in the bedrock aquifer show seasonal trends where water level highs are reached during the spring, followed by a slight decrease during the summer, fall, and winter months. The groundwater elevation in the upper bedrock system ranges between 498 masl and 477 masl during the dry periods. This increases to between 497 masl and 483 masl during the wet periods of the year.

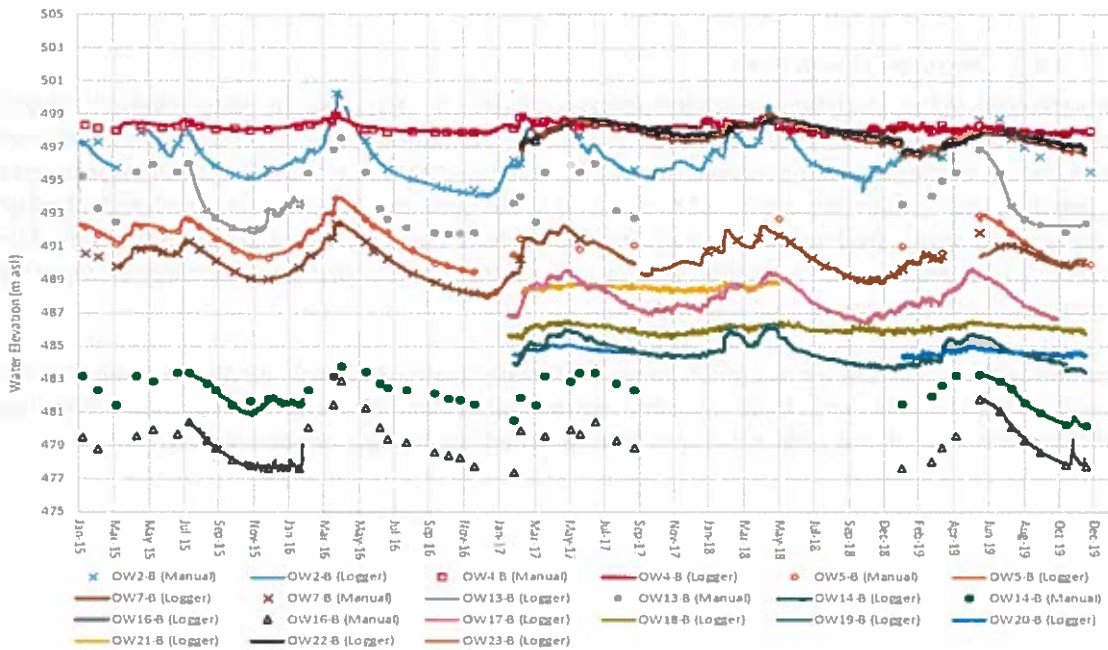


FIGURE 4: BEDROCK HYDROGRAPH

### 3.3 Surface Water Level Elevations

#### 3.3.1 Wash Pond

The wash pond is a closed-loop system where clean groundwater is pumped from a below water pond, run through the washing plant, and then the dirty wash water is discharged into a series of settling ponds before the clean water recirculated back to the freshwater pond. Figure 5 presents the continuous water levels collected from the Wash Pond. Water Levels are referenced to an arbitrary datum of 0 m at the time of data collection. Water taking in 2019 occurred between May 16<sup>th</sup> and June 3<sup>rd</sup>. During the operation of the wash plant, water levels fluctuated in response to the performance of the closed-loop system. No drawdown resulting from the washing of aggregate is evident from the monitoring data.

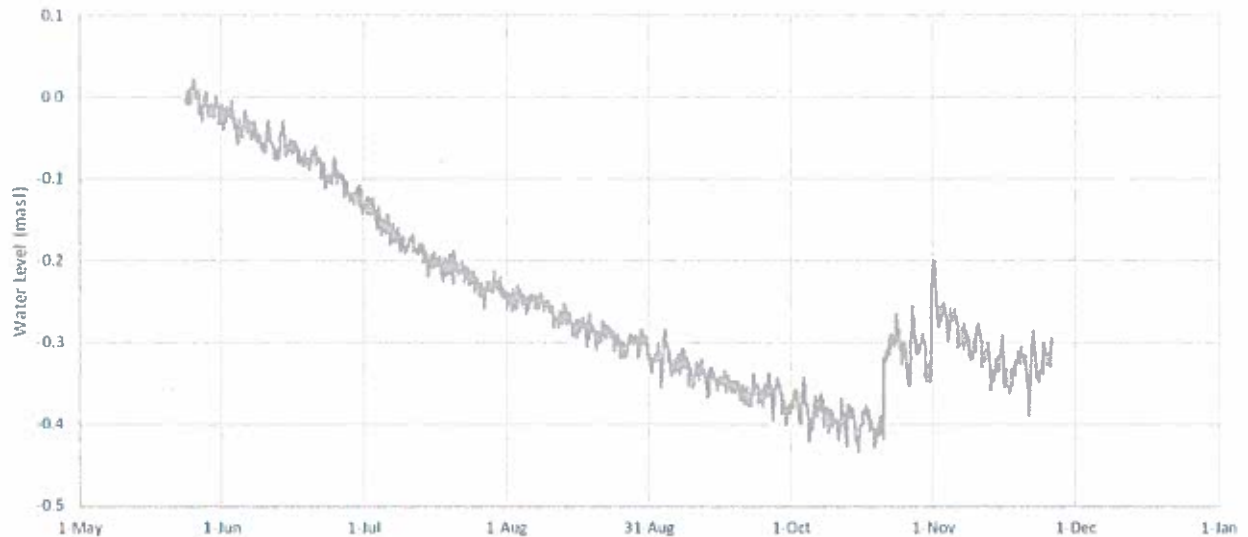


FIGURE 5: WASH POND WATER LEVELS

#### 3.3.2 North and South Ponds

The water level in the South Pond reached approximately 493.5 masl, while the water level in the North Pond peaked around 493.0 masl. Over the course of the monitoring period, water levels in the North and South Ponds steadily declined from the spring high to approximately 490.8 masl and 492.2 masl, respectively (Figure 6). Between the monthly monitoring of August and September, the water level in the North Pond dropped below the datalogger resulting in a data gap. Both ponds have historically gone dry during periods of drought. However, in 2019 both ponds remained wet throughout the ice-free conditions. Dataloggers were removed in the late fall to limit damage to the devices.

To compare the surface water elevations to the local water table conditions, monitoring well 10-A has been plotted in Figure 6. The water table is located approximately 3 m below the surface water levels suggesting that the ponds are isolated surface water systems perched above the groundwater table.



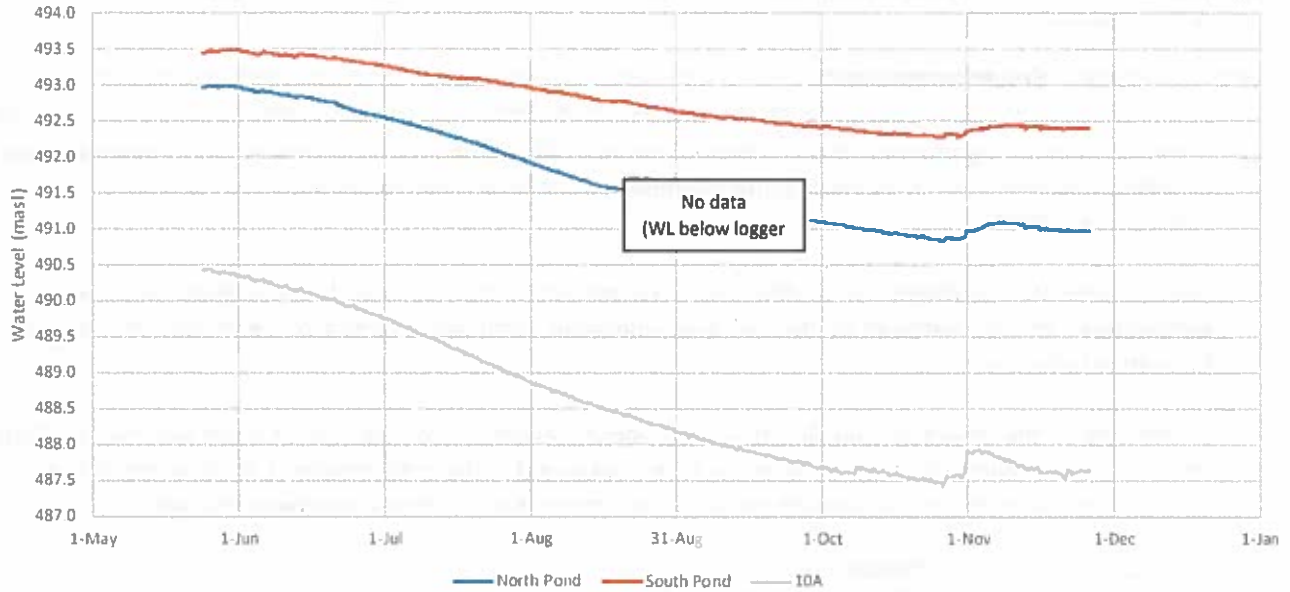


FIGURE 6: NORTH AND SOUTH POND WATER LEVELS

**3.3.3 Vernal Pool and Shallow Marsh Wetland**

Local surface water features include a small wetland and vernal pool, which are located within the forested area approximately 100 m from the proposed extraction boundary for the Bonnefield Pit. These features are perched approximately at least 1.5 m above the water table (Figure 7) and therefore isolated from the groundwater regime.

The vernal pool and wetland marsh had standing water until July 9<sup>th</sup> and Aug 26<sup>th</sup>, respectively.

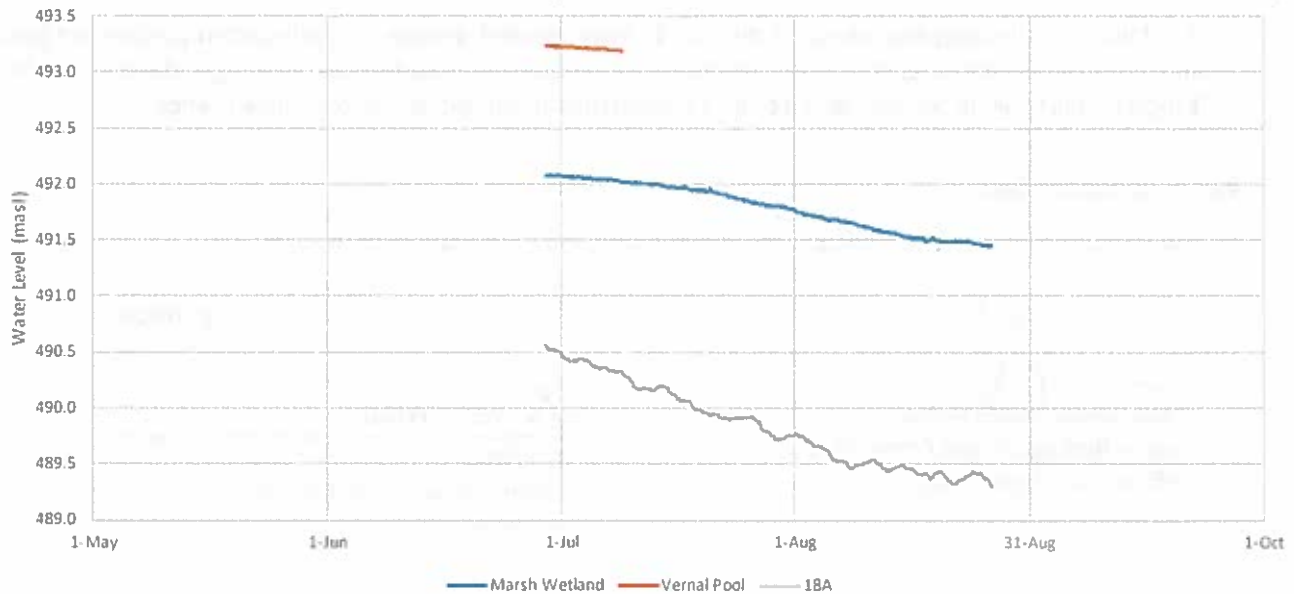


FIGURE 7: VERNAL POOL AND MARSH WETLAND WATER LEVELS

### 3.4 Water Quality

#### 3.4.1 Groundwater Quality

Groundwater quality sampling at the Shelburne Pits is completed on a semi-annual basis (spring and fall). In 2019, the monitoring program was completed on May 24<sup>th</sup>, October 8<sup>th</sup>, and October 21<sup>st</sup>. Samples were collected and analyzed for general water chemistry, volatile organic compounds (VOCs), and petroleum hydrocarbons (PHC).

The groundwater geochemistry at the site is characterized by relatively low concentrations for most parameters. This is illustrated by the fact many inorganic parameters have a concentration that is below laboratory detection limits.

In addition to the inorganic sampling discussed above, several petroleum hydrocarbon parameters were analyzed. Occasional detections of oil and grease were noted in the groundwater (1 mg/L; detection limit is 1 mg/L). This result is not considered to be a concern due to the extremely low concentration.

#### 3.4.2 Surface Water Quality

Surface water quality sampling at the Shelburne Pit is also completed on a semi-annual basis (spring and fall). In 2018, the monitoring program was completed only May 24<sup>th</sup> and October 8<sup>th</sup>. Samples were collected and analyzed for general water chemistry, volatile organic compounds (VOCs), and petroleum hydrocarbons (PHC).

The surface water quality from the North and South Pond exhibits a Ca-HCO<sub>3</sub> signature. Based on Gibbs (1970) classification of surface water, surface water chemistry in closed lakes (or wetlands) is controlled by rainfall, rock weathering, and/or evaporation and fractional crystallization. The primary source of HCO<sub>3</sub> in the North Pond is the generation in the soil zone from CO<sub>2</sub>, which is carried into the pond during runoff and bank erosion. The quality of the North and South Pond is typical of fresh surface water.

In addition to the inorganic sampling discussed above, several petroleum hydrocarbon parameters were analyzed. Occasional detections of oil and grease were noted in the surface water (1 mg/L; detection limit is 1 mg/L). This result is not considered to be a concern due to the extremely low concentration.

## 4.0 CONCLUSIONS

The Shelburne Pits remain in compliance with the ARA and PTTW issued for the sites.



Tecia White, M.Sc., P.Geol.  
Senior Hydrogeologist / President  
Whitewater Hydrogeology Ltd.

1/13/2020

**X** Tecia White

---

Tecia White  
Senior Hydrogeologist, P.Geol #0701  
Signed by: Tecia

# APPENDIX A

## PERMIT TO TAKE WATER

**PERMIT TO TAKE WATER**  
Ground Water  
NUMBER 3210-AKRL9C

*Pursuant to Section 34.1 of the Ontario Water Resources Act, R.S.O. 1990 this Permit To Take Water is hereby issued to:*

Strada Aggregates Inc.  
30 Floral Parkway  
Vaughan, Ontario  
L4K 4R1

*For the water taking from:* Shelburne South Pit - Wash Pond

*Located at:* Lot 11 and 12, Concession 3, Geographic Township of Melancthon  
Melancthon, County of Dufferin

*For the purposes of this Permit, and the terms and conditions specified below, the following definitions apply:*

**DEFINITIONS**

- (a) "Director" means any person appointed in writing as a Director pursuant to section 5 of the OWRA for the purposes of section 34.1, OWRA.
- (b) "Provincial Officer" means any person designated in writing by the Minister as a Provincial Officer pursuant to section 5 of the OWRA.
- (c) "Ministry" means Ontario Ministry of the Environment and Climate Change.
- (d) "District Office" means the Guelph District Office.
- (e) "Permit" means this Permit to Take Water No. 3210-AKRL9C including its Schedules, if any, issued in accordance with Section 34.1 of the OWRA.
- (f) "Permit Holder" means Strada Aggregates Inc..
- (g) "OWRA " means the *Ontario Water Resources Act*, R.S.O. 1990, c. O. 40, as amended.

*You are hereby notified that this Permit is issued subject to the terms and conditions outlined below:*

## **TERMS AND CONDITIONS**

### **1. Compliance with Permit**

- 1.1 Except where modified by this Permit, the water taking shall be in accordance with the application for this Permit To Take Water, dated September 18, 2016 and signed by Grant C. Horan, and all Schedules included in this Permit.
- 1.2 The Permit Holder shall ensure that any person authorized by the Permit Holder to take water under this Permit is provided with a copy of this Permit and shall take all reasonable measures to ensure that any such person complies with the conditions of this Permit.
- 1.3 Any person authorized by the Permit Holder to take water under this Permit shall comply with the conditions of this Permit.
- 1.4 This Permit is not transferable to another person.
- 1.5 This Permit provides the Permit Holder with permission to take water in accordance with the conditions of this Permit, up to the date of the expiry of this Permit. This Permit does not constitute a legal right, vested or otherwise, to a water allocation, and the issuance of this Permit does not guarantee that, upon its expiry, it will be renewed.
- 1.6 The Permit Holder shall keep this Permit available at all times at or near the site of the taking, and shall produce this Permit immediately for inspection by a Provincial Officer upon his or her request.
- 1.7 The Permit Holder shall report any changes of address to the Director within thirty days of any such change. The Permit Holder shall report any change of ownership of the property for which this Permit is issued within thirty days of any such change. A change in ownership in the property shall cause this Permit to be cancelled.

### **2. General Conditions and Interpretation**

- 2.1 Inspections  
The Permit Holder must forthwith, upon presentation of credentials, permit a Provincial Officer to carry out any and all inspections authorized by the OWRA, the *Environmental Protection Act*, R.S.O. 1990, the *Pesticides Act*, R.S.O. 1990, or the *Safe Drinking Water Act*, S. O. 2002.
- 2.2 Other Approvals  
The issuance of, and compliance with this Permit, does not:
  - (a) relieve the Permit Holder or any other person from any obligation to comply with any other applicable legal requirements, including the provisions of the *Ontario Water Resources Act*, and the *Environmental Protection Act*, and any regulations made thereunder; or
  - (b) limit in any way any authority of the Ministry, a Director, or a Provincial Officer, including the authority to require certain steps be taken or to require the Permit Holder to furnish any further information related to this Permit.

- 2.3 **Information**  
The receipt of any information by the Ministry, the failure of the Ministry to take any action or require any person to take any action in relation to the information, or the failure of a Provincial Officer to prosecute any person in relation to the information, shall not be construed as:
- (a) an approval, waiver or justification by the Ministry of any act or omission of any person that contravenes this Permit or other legal requirement; or
  - (b) acceptance by the Ministry of the information's completeness or accuracy.
- 2.4 **Rights of Action**  
The issuance of, and compliance with this Permit shall not be construed as precluding or limiting any legal claims or rights of action that any person, including the Crown in right of Ontario or any agency thereof, has or may have against the Permit Holder, its officers, employees, agents, and contractors.
- 2.5 **Severability**  
The requirements of this Permit are severable. If any requirements of this Permit, or the application of any requirements of this Permit to any circumstance, is held invalid or unenforceable, the application of such requirements to other circumstances and the remainder of this Permit shall not be affected thereby.
- 2.6 **Conflicts**  
Where there is a conflict between a provision of any submitted document referred to in this Permit, including its Schedules, and the conditions of this Permit, the conditions in this Permit shall take precedence.
- 3. Water Takings Authorized by This Permit**
- 3.1 **Expiry**  
This Permit expires on **March 31, 2027**. No water shall be taken under authority of this Permit after the expiry date.
- 3.2 **Amounts of Taking Permitted**  
The Permit Holder shall only take water from the source, during the periods and at the rates and amounts of taking specified in Table A. Water takings are authorized only for the purposes specified in Table A.

**Table A**

Source Name / Description:	Source: Type:	Taking Specific Purpose:	Taking Major Category:	Max. Taken per Minute (litres):	Max. Num. of Hrs Taken per Day:	Max. Taken per Day (litres):	Max. Num. of Days Taken per Year:	Zone/ Easting/ Northing:
1 Wash Pond	Pond Dugout	Aggregate Washing	Industrial	4,000	10	2,400,000	230	17 561589 4887164
<b>Total Taking:</b>						2,400,000		

- 3.3 Water taking under the authorization of this Permit shall only occur to a maximum of 230 days between April 1 and November 16 of each year from date of issue to March 31, 2027.
- 3.4 This Permit is issued for the sole purpose of washing gravel in a closed loop system where the majority of the water is recirculated and does not include dust suppression.
- 3.5 Prior to taking of water under this Permit, the Permit Holder shall ensure that any and all applicable permits or authorizations are obtained from Federal and Provincial Agencies having legislative mandates in water resources management.

**4. Monitoring**

- 4.1 Under section 9 of O. Reg. 387/04, and as authorized by subsection 34(6) of the *Ontario Water Resources Act*, the Permit Holder shall, on each day water is taken under the authorization of this Permit, record the date, the volume of water taken on that date and the rate at which it was taken. The daily volume of water taken shall be measured by a flow meter or calculated in accordance with the method described in the application for this Permit, or as otherwise accepted by the Director. The Permit Holder shall keep all records required by this condition current and available at or near the site of the taking and shall produce the records immediately for inspection by a Provincial Officer upon his or her request. The Permit Holder, unless otherwise required by the Director, shall submit, on or before March 31<sup>st</sup> in every year, the records required by this condition to the ministry's Water Taking Reporting System.
- 4.2 The Permit Holder shall monitor water levels at the following monitoring points as described below:

Well No. /Pond Name	Water Level Elevations	
	Continuous Datalogger (4-hour intervals)	Monthly Manuals



Wash Pond (during unfrozen conditions)	X	X
OW2-A	X	X
OW2-B	X	X
OW2-C	X	X
OW3-A	X	X
OW3-B	X	X
OW4-A	X	X
OW4-B	X	X
OW4-C	X	X
OW5-A	X	X
OW5-B	X	X
OW5-C	X	X
OW6-A	X	X
OW7-A	X	X
OW7-C	X	X
OW8-A	X	X
OW8-B	X	X
OW9-A	X	X
OW10-A	X	X
OW10-B	X	X
OW11-A	X	X
OW11-C	X	X
OW12-A	X	X
OW13-A	X	X
North Pond	X	X
South Pond	X	X

- 4.3 The Permit Holder shall submit to the Director by March 31, 2019, a report with the monitoring data collected under Sections 4.1 and 4.2 of this Permit during the first two years of the aggregate washing operation, along with its interpretation; the report should include an assessment of the impact of the water taking, if any, on the surface water features (wetland) adjacent to the Wash Pond. The report should also include recommendations on modifications to the water taking and/or to the monitoring program as described in this Permit.

**5. Impacts of the Water Taking**

**5.1 Notification**

The Permit Holder shall immediately notify the local District Office of any complaint arising from the taking of water authorized under this Permit and shall report any action which has been taken or is proposed with regard to such complaint. The Permit Holder shall immediately notify the local District Office if the taking of water is observed to have any significant impact on the surrounding waters. After hours, calls shall be directed to the Ministry's Spills Action Centre at 1-800-268-6060.

**5.2 For Groundwater Takings**

If the taking of water is observed to cause any negative impact to other water supplies obtained from any adequate sources that were in use prior to initial issuance of a Permit for this water taking, the Permit Holder shall take such action necessary to make available to those affected, a supply of water equivalent in quantity and quality to their normal takings, or shall compensate such persons for their reasonable costs of so doing, or shall reduce the rate and amount of taking to prevent or alleviate the observed negative impact. Pending permanent restoration of the affected supplies, the Permit Holder shall provide, to those affected, temporary water supplies adequate to meet their normal requirements, or shall compensate such persons for their reasonable costs of doing so.

If permanent interference is caused by the water taking, the Permit Holder shall restore the water supplies of those permanently affected.

**6. Director May Amend Permit**

The Director may amend this Permit by letter requiring the Permit Holder to suspend or reduce the taking to an amount or threshold specified by the Director in the letter. The suspension or reduction in taking shall be effective immediately and may be revoked at any time upon notification by the Director. This condition does not affect your right to appeal the suspension or reduction in taking to the Environmental Review Tribunal under the *Ontario Water Resources Act*, Section 100 (4).

*The reasons for the imposition of these terms and conditions are as follows:*

1. Condition 1 is included to ensure that the conditions in this Permit are complied with and can be enforced.
2. Condition 2 is included to clarify the legal interpretation of aspects of this Permit.
3. Conditions 3 through 6 are included to protect the quality of the natural environment so as to safeguard the ecosystem and human health and foster efficient use and conservation of waters. These conditions allow for the beneficial use of waters while ensuring the fair sharing, conservation and sustainable use of the waters of Ontario. The conditions also specify the water takings that are authorized by this Permit and the scope of this Permit.

*In accordance with Section 100 of the Ontario Water Resources Act, R.S.O. 1990, you may by written notice served upon me, the Environmental Review Tribunal and the Environmental Commissioner, Environmental Bill of Rights, R.S.O. 1993, Chapter 28, within 15 days after receipt of this Notice, require a hearing by the Tribunal. The Environmental Commissioner will place notice of your appeal on the Environmental Registry. Section 101 of the Ontario Water Resources Act, as amended provides that the Notice requiring a hearing shall state:*

1. The portions of the Permit or each term or condition in the Permit in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

*In addition to these legal requirements, the Notice should also include:*

- a. The name of the appellant;
- b. The address of the appellant;
- c. The Permit to Take Water number;
- d. The date of the Permit to Take Water;
- e. The name of the Director;
- f. The municipality within which the works are located;

*This notice must be served upon:*

*The Secretary  
Environmental Review Tribunal  
655 Bay Street, 15th Floor  
Toronto ON  
M5G 1E5  
Fax: (416) 326-5370  
Email:  
ERTTribunalsecretary@ontario.ca*

*AND*

*The Environmental Commissioner  
1075 Bay Street  
6th Floor, Suite 605  
Toronto, Ontario M5S 2W5*

*AND*

*The Director, Section 34.1,  
Ministry of the Environment and  
Climate Change  
12th Floor  
119 King St W  
Hamilton ON L8P 4Y7  
Fax: (905) 521-7820*

*Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal:*

by Telephone at

(416) 212-6349

Toll Free 1(866) 448-2248

by Fax at

(416) 326-5370

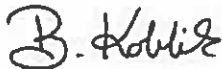
Toll Free 1(844) 213-3474

by e-mail at

www.ert.gov.on.ca

*This instrument is subject to Section 38 of the Environmental Bill of Rights that allows residents of Ontario to seek leave to appeal the decision on this instrument. Residents of Ontario may seek to appeal for 15 days from the date this decision is placed on the Environmental Registry. By accessing the Environmental Registry, you can determine when the leave to appeal period ends.*

Dated at Hamilton this 8th day of May, 2017.



Belinda Koblik

Director, Section 34.1

*Ontario Water Resources Act*, R.S.O. 1990

## **Schedule A**

This Schedule "A" forms part of Permit To Take Water 3210-AKRL9C, dated May 8, 2017.

1. Hydrogeological Assessment in Support an OWRA Sec 34 PTTW, Shelburne South Pit, dated December, 2016, prepared by Whitewater Hydrogeology Ltd. for Strada Aggregates.
2. 2016 Compliance Groundwater Monitoring Report, Shelburne South Pit, dated January 2017, prepared by Whitewater Hydrogeology Ltd. for Strada Aggregates.

# APPENDIX B

## INTEGRATED MONITORING PROGRAM

## **Strada Aggregates Melancthon Pits – Integrated Monitoring Plan February 2018**

### **Background**

The Strada Melancthon Pits consist of:

- Pit #1 (Licence # 129167) located at West Half of Lot 13, Concession 3 O.S., licenced in 2004;
- Pit #2 (Licence # 625155) located at West Half of Part Lot 11 and 12, Concession 3 O.S., licenced in 2012; and
- The proposed Bonnefield and Prince extension lands located at Part of West Half of Lots 12 and 14, Concession 3 O.S.

The proposed Prince and Bonnefield extensions will be fully integrated with existing aggregate operations at Melancthon Pits #1 and #2. The existing operations require monitoring and annual reporting with respect to the water table, water quality and the natural environment. Hydrogeological and natural environment investigations for the proposed extension have recommended expansion of the monitoring programs to include the additional lands. The Ministry of Natural Resources and Forestry (MNRF) has requested an Integrated Monitoring Plan to consolidate the existing and proposed monitoring requirements.

### **Natural Environment**

#### *Amphibian Monitoring*

Annual monitoring of the wetlands for the presence of breeding amphibians was originally recommended in the Level 2 Natural Environment Assessment (NEA) report for Melancthon Pit #2, as well as surface and groundwater monitoring to assess water level fluctuations (NRSI 2010). The implementation of an amphibian monitoring program was further requested by the Nottawasaga Valley Conservation Authority (NVCA) and Michalski Nielson in their review of the Level 2 NEA report.

NRSI has undertaken annual amphibian monitoring at the wetlands located adjacent to Melancthon Pit #2 since 2013. Initial amphibian call surveys were undertaken in 2009.

Of the two proposed pit areas, only the Bonnefield Pit property contains wetland habitat (outside the extraction area). Surveys completed in 2016 recorded the presence of breeding amphibians. To ensure that the proposed pit does not negatively impact the wetland and its amphibian breeding habitat function it was recommended that the existing amphibian monitoring program for Melancthon Pit #2 be expanded to include the Bonnefield Pit to maximize efficiencies, and achieve consistency in methodology and data comparability.

Annual amphibian call surveys that were initiated at Melancthon Pit #2 will continue for the duration of the lifespan of the pit, as was originally proposed. Beginning in 2018, NRSI will initiate annual monitoring of the Bonnefield property wetland which will also be undertaken for the lifespan of that pit. Annual monitoring of the Bonnefield Pit wetland will build on NRSI's 2016 amphibian call surveys on the property

to inform the NEA report. See **Map 1** for the location of the existing monitoring stations at Melancthon Pit #2 in addition to the single monitoring station at the Bonnefield Pit wetland. Since no amphibian calling activity was documented within the Bonnefield property vernal pool during 2016 surveys, despite the presence of standing water, additional long-term monitoring of the vernal pool is not included in this plan. However, if amphibian calling activity is heard within the vernal pool during future monitoring years, an additional monitoring station will be established at this location and will be monitored annually.

Proposed monitoring at the Bonnefield Pit wetland will document additional baseline data on breeding amphibian species presence and relative abundance prior to aggregate extraction, followed by multiple years of operational-stage monitoring. As has been completed for Melancthon Pit #2, long-term data will be collected to identify trends or other indicators that will be used to assess any negative occurrences to amphibian breeding activity that may be the result of pit activities. The amphibian survey data collected at the Bonnefield and Melancthon Pit #2 sites will also be compared to look for spatial trends, or any similarities or differences in survey results over time that may indicate presence of localized or widespread pit operation effects.

In accordance with survey methodology completed to date, the monitoring program will utilize the Marsh Monitoring Program methodology (BSC 2009), which records amphibian call activity during 3-minute call counts. Counts will be conducted once per month during each of April, May and June in conjunction with appropriate night time air temperatures and wind speeds. If the provincial Species of Conservation Concern Western Chorus Frog (*Pseudacris triseriata*) is detected during any monitoring event, additional monitoring events may be added to fully document the abundance and distribution of this species within the surveyed wetlands.

A brief summary report, combining the results collected from the Melancthon Pit #2 site with the Bonnefield Pit site, will be prepared each year which outlines the findings of the annual monitoring. This will include an assessment of the surface water and groundwater monitoring data to be collected by Whitewater Hydrogeology within both properties (Whitewater Hydrogeology 2017) as it relates to amphibian breeding conditions. Each annual report will be provided to Strada for their review, and then to the NVCA and the Township of Melancthon.

#### *Woodland Buffer*

The deciduous woodland communities within the Bonnefield and Prince extension lands will be retained outside the proposed limit of extraction. 10 metre woodland buffers have been recommended to protect these features and mitigate impacts from adjacent extraction activities. The woodland buffers will be allowed to re-naturalize and will be supplemented with targeted native species plantings.

The woodland buffers will be inspected during pit operations to ensure disturbances are not occurring. The health and survival of buffer planting will also be inspected.

#### **Hydrogeology**

Compliance groundwater and surface water monitoring has been occurring at both Melancthon Pit #1 and #2 since 2001 and 2007, respectively. In addition, baseline groundwater monitoring commenced in



2017 at the Bonnefield and Prince properties. In total, there are currently 28 groundwater well nests that monitor 52 discrete aquifer intervals in the overburden and bedrock aquifers. The Melancthon Pit #1 and #2 groundwater monitoring programs were developed to characterize the local groundwater conditions at each individual property and were based on two operating pits (two scale houses, two fuel storage areas, and multiple crushing and processing operations). The proposed licensing of the Bonnefield and Prince properties provides an opportunity to not only streamline operations by eliminating the need to operate as individual pits but to develop a revised groundwater monitoring program. The revision would remove redundancies in the monitoring network and reporting allowing for an opportunity to complete an accumulative impact assessment from the Strada properties.

The revised groundwater monitoring program is shown on **Map 2**. The revised program consists of 22 groundwater well nests that monitor 36 discrete aquifer intervals in the overburden and bedrock aquifers.

The proposed program focuses on the on going monitoring of background conditions (up gradient locations) in both the overburden and bedrock aquifers and the monitoring of potential influences from the aggregate operation on down gradient locations. The proposed groundwater monitoring program is provided in **Table 1**. Selected up gradient and down gradient wells will be sampled for water quality. The water quality parameters for the semi annual (spring and fall) and annual (spring) sampling programs are provided in **Table 2**.

Surface water elevation monitoring has been on-going at the North and South Ponds (Map 2), since 2007. Two additional surface water monitoring stations to monitor the hydro-period in the wetland and vernal pool (Map 2) will commence in 2018. This monitoring will consist of the collection of continuous water level data during non-frozen conditions. Data will be assessed in conjunction with the groundwater monitoring data as part of the annual reporting requirement.

*Table 1 – Proposed Groundwater Monitoring Network*

Well ID	Water Levels		Water Quality	
	Monthly	Manual Water	Semi-Annual	Annual
OW2-A	X		X	
OW2-B	X		X	
OW3-B	X		X	
OW4-A	X		X	
OW4-B	X		X	
OW5-A	X		X	X
OW5-B	X		X	
OW6-A	X		X	X
OW7-A	X		X	X
OW7-B	X		X	
OW8-A	X		X	X
OW9-A	X		X	X
OW10-A	X		X	X
OW11-A	X		X	X
OW11-B	X		X	
OW12-A	X		X	X

Well ID	Water Levels		Water Quality	
	Monthly	Manual Water	Semi-Annual	Annual
OW13-A	X		X	
OW13-B	X		X	
OW14-B	X		X	X
OW15-B	X			
OW16-B	X		X	X
OW17-A	X			
OW17-B	X			
OW18-A	X		X	X
OW18-B	X		X	
OW19-A	X			
OW19-B	X		X	
OW20-B	X		X	X
OW21-B	X		X	x
OW22-B	X		X	
OW23-B	X		X	

Note: the collection of continuous water levels at selected groundwater monitoring locations is recommended.

Table 2 – Proposed Water Quality Parameters

Semi-Annual Groundwater Quality Parameters	Annual Groundwater Quality Parameters
General Water Quality Parameters: pH, Conductivity, Alkalinity, Bicarbonate, Chloride, Calcium, Magnesium, Potassium, Sodium, Sulphate, Nitrate, Nitrite, Phosphorous, and Metals (dissolved).	Total Petroleum Hydrocarbons (F1-F4) BTEX, Total Oil and Grease

It is recommended that a single annual groundwater monitoring report for the Melancthon Pits #1 and 2, as well as the proposed Bonfield and Prince Pits be prepared and submitted to the MNRF, Township of Melancthon and NVCA prior to March 31<sup>st</sup> of each year and include the monitoring data for the 12 month period ending December 31<sup>st</sup> of the previous year. The report shall include, but not be limited to, the following:

1. Monitoring data collected as per Table 1 and Table 2;
2. Data in tabulated and graphical formats;
3. Interpretation of the collected data including discussions of any observed trends in groundwater levels and groundwater quality (analytical) results;
4. Recommendations on and justification for the need for make changes to monitoring locations, monitoring frequency, type of monitoring, pumping patterns and/or the need for mitigation, and
5. Summary and documentation of any water well complaint(s) and their resolution(s).

561400 561500 561600 561700 561800 561900 562000


4887700  
4887600  
48867500  
4886700  
4886600

4887700  
4887600  
4887500  
4886600  
4886700  
4886600

Map 1

## Melancthon #2 and Bonnefield Pits

### Anuran Monitoring Stations



**NATURAL RESOURCE SOLUTIONS INC.**  
Aquatic, Terrestrial and Wetland Biologists






Date: November 7, 2017  
Project: NRSI-1748  
Scale: 1:3,000  
NAD83 - UTM Zone 17

**Proposed Bonnefield Pit**

ANR-009

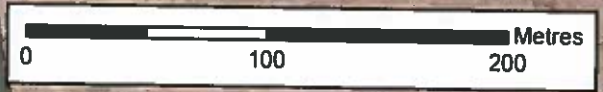


#### Legend

-  Subject Property
-  Anuran Monitoring Station (ANR)
-  Direction of Survey
-  Surveyed Wetland Boundary
-  Wetland (Boundaries Approximate)

Map Produced by Natural Resource Solutions Inc.  
This map is proprietary and confidential and must not be duplicated or distributed by any means without express written permission of NRSI.

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561400 561500 561600 561700 561800 561900 562000



560800 m 561000 m 561200 m 561400 m 561600 m 561800 m 562000 m 562200 m 562400 m 562600 m 562800 m 563000 m 563200 m

4889000 m

4888600 m

4888200 m

4887800 m

4887400 m

4887000 m

4886600 m

4886200 m

4889000 m

4888600 m

4888200 m

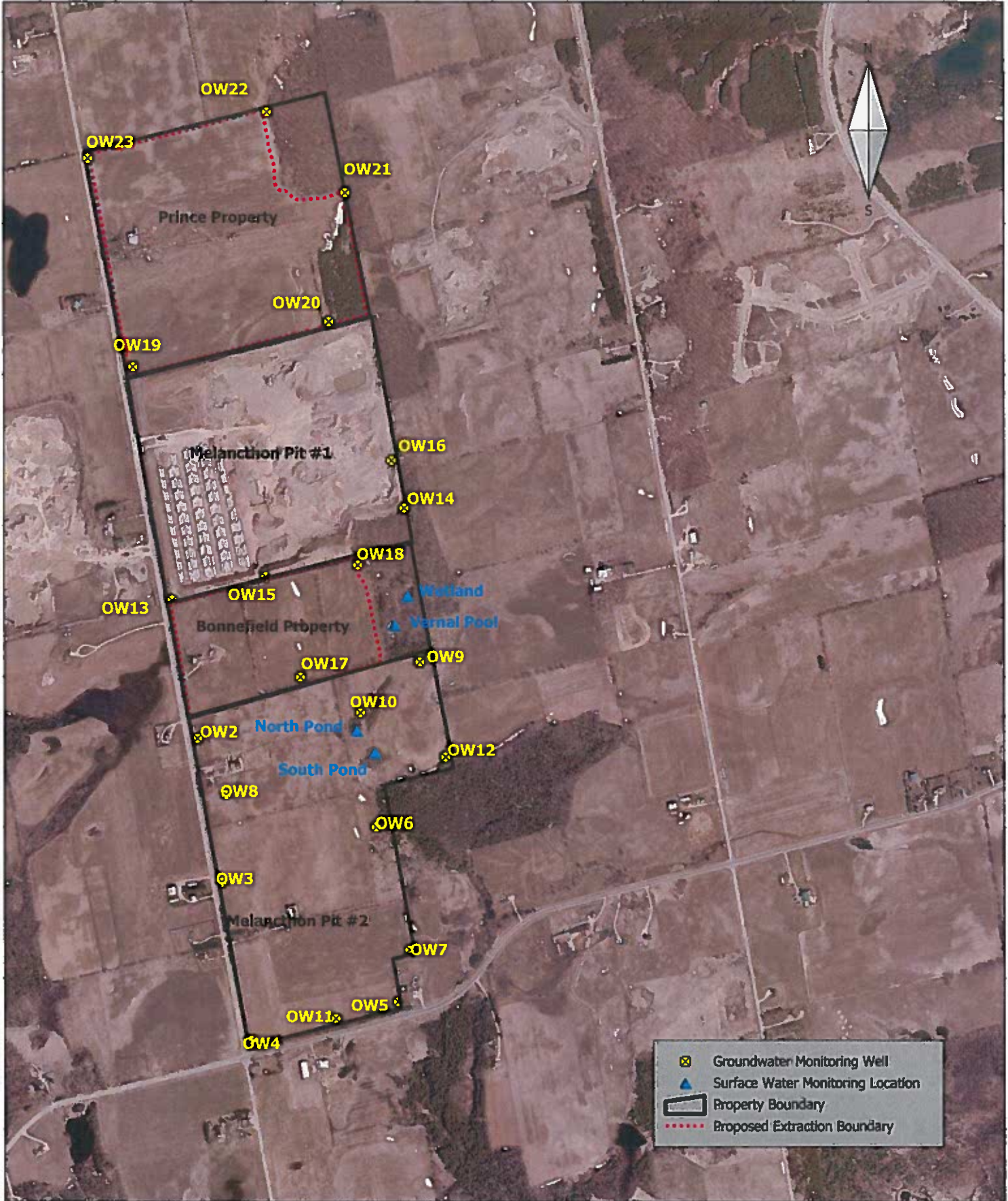
4887800 m

4887400 m

4887000 m

4886600 m

4886200 m



- ⊗ Groundwater Monitoring Well
- ▲ Surface Water Monitoring Location
- ▭ Property Boundary
- ⋯ Proposed Extraction Boundary

560800 m 561000 m 561200 m 561400 m 561600 m 561800 m 562000 m 562200 m 562400 m 562600 m 562800 m 563000 m 563200 m

**APPENDIX C**  
**GROUNDWATER AND SURFACE WATER**  
**QUALITY**



**TESTMARK Laboratories Ltd.**

*Committed to Quality and Service*

## CERTIFICATE OF ANALYSIS

Client: Tecia White  
Company: Whitewater Hydrogeology Ltd.  
Address: 80 Chamberlain Cres  
Collingwood, ON, L9Y 0C8  
Phone: (705) 888-7064  
Email: tecia@white-water.ca

Work Order Number: 373082  
PO #:  
Regulation: None  
Project #: Strada Shelburne Annual Groundwater  
DWS #:  
Sampled By: Tecia White

Date Order Received: 5/27/2019  
Arrival Temperature: 10.8 °C

Analysis Started: 5/29/2019  
Analysis Completed: 6/3/2019

### WORK ORDER SUMMARY

ANALYSES WERE PERFORMED ON THE FOLLOWING SAMPLES. THE RESULTS RELATE ONLY TO THE ITEMS TESTED.

Sample Description	Lab ID	Matrix	Type	Comments	Date Collected	Time Collected
5-A	1440916	Ground Water	None		5/24/2019	
6-A	1440917	Ground Water	None		5/24/2019	
7-A	1440918	Ground Water	None		5/24/2019	
8-A	1440919	Ground Water	None		5/24/2019	
9-A	1440920	Ground Water	None		5/24/2019	
10-A	1440921	Ground Water	None		5/24/2019	
11-A	1440922	Ground Water	None		5/24/2019	
12-A	1440923	Ground Water	None		5/24/2019	
14-B	1440924	Ground Water	None		5/24/2019	
16-B	1440925	Ground Water	None		5/24/2019	

### METHODS AND INSTRUMENTATION

THE FOLLOWING METHODS WERE USED FOR YOUR SAMPLE(S):

Method	Lab	Description	Reference
Oil and Grease (A54)	Mississauga	Determination of Oil and Grease in Water	Modified from EPA 1664
PHC F2-F4 Water (A59)	Mississauga	Determination of PHC (F2-F4) in Water - Tier 1 CCME by GC/FID	Modified from CWS PHC Tier I CCME



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**CERTIFICATE OF ANALYSIS**

Whitewater Hydrogeology Ltd.

Work Order Number: 373082

Method	Lab	Description	Reference
T127-BTEX Water (T127.2ms)	Mississauga	Determination of F1/ BTEX in Water by Headspace GC/MS/FID	Modified from CWS/ EPA 624

This report has been approved by:

Marc Creighton  
Laboratory Director





**CERTIFICATE OF ANALYSIS**

Whitewater Hydrogeology Ltd.

Work Order Number: 373082

**WORK ORDER RESULTS**

Sample Description	5 - A		6 - A		7 - A		8 - A			
Lab ID	1440916		1440917		1440918		1440919			
General Chemistry	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: ODWS
Oil and Grease, Total	1	1	<1	1	1	1	<1	1	mg/L	~

Sample Description	9 - A		10 - A		11 - A		12 - A			
Lab ID	1440920		1440921		1440922		1440923			
General Chemistry	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: ODWS
Oil and Grease, Total	<1	1	1	1	1	1	1	1	mg/L	~

Sample Description	14 - B		16 - B			
Lab ID	1440924		1440925			
General Chemistry	Result	MDL	Result	MDL	Units	Criteria: ODWS
Oil and Grease, Total	1	1	1	1	mg/L	~

Sample Description	5 - A		6 - A		7 - A		8 - A			
Lab ID	1440916		1440917		1440918		1440919			
Petroleum Hydrocarbons (Water)	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: ODWS
F1 (C6-C10) - Less BTEX	<20	20	<20	20	<20	20	<20	20	ug/L	-
F1 (C6-C10) Incl. BTEX	<20	20	<20	20	<20	20	<20	20	ug/L	-
F2 (C10-C16)	<80	80	<80	80	<80	80	<80	80	ug/L	~
F3 (C16-C34)	<400	400	<300	300	<400	400	<300	300	ug/L	~
F4 (C34-C50)	<80	80	<80	80	<80	80	<80	80	ug/L	~
Baseline @ C50	Yes	N/A	Yes	N/A	Yes	N/A	Yes	N/A	NA	-
Benzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	1
Ethylbenzene	<0.4	0.4	<0.4	0.4	<0.4	0.4	<0.4	0.4	ug/L	140



**CERTIFICATE OF ANALYSIS**

Whitewater Hydrogeology Ltd.

Work Order Number: 373082

Sample Description	5 - A		6 - A		7 - A		8 - A			
Lab ID	1440916		1440917		1440918		1440919			
Petroleum Hydrocarbons (Water)	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: ODWS
Toluene	<0.4	0.4	<0.4	0.4	<0.4	0.4	<0.4	0.4	ug/L	60
m+p-Xylene	<0.4	0.4	<0.4	0.4	<0.4	0.4	<0.4	0.4	ug/L	~
o-Xylene	<0.4	0.4	<0.4	0.4	<0.4	0.4	<0.4	0.4	ug/L	300
Total Xylenes	<0.4	0.4	<0.4	0.4	<0.4	0.4	<0.4	0.4	ug/L	90
1,4-dichlorobenzene-d4 (Surr.)	95.1	N/A	91.2	N/A	95.5	N/A	95	N/A	% Rec	~
o-Terphenyl (Surr.)	89.1	N/A	85.2	N/A	93.3	N/A	97.2	N/A	% Rec	~
undecane (Surr.)	120	N/A	119	N/A	111	N/A	116	N/A	% Rec	~

Sample Description	9 - A		10 - A		11 - A		12 - A			
Lab ID	1440920		1440921		1440922		1440923			
Petroleum Hydrocarbons (Water)	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: ODWS
F1 (C6-C10) - Less BTEX	<20	20	<20	20	<20	20	<20	20	ug/L	~
F1 (C6-C10) Incl. BTEX	<20	20	<20	20	<20	20	<20	20	ug/L	~
F2 (C10-C16)	<60	60	<40	40	<40	40	<50	50	ug/L	~
F3 (C16-C34)	<300	300	<200	200	<200	200	<200	200	ug/L	~
F4 (C34-C50)	<60	60	<40	40	<40	40	<50	50	ug/L	~
Baseline @ C50	Yes	N/A	Yes	N/A	Yes	N/A	Yes	N/A	NA	~
Benzene	<0.2	0.2	<0.2	0.2	<0.2	0.2	<0.2	0.2	ug/L	1
Ethylbenzene	<0.4	0.4	<0.4	0.4	<0.4	0.4	<0.4	0.4	ug/L	140
Toluene	<0.4	0.4	<0.4	0.4	<0.4	0.4	<0.4	0.4	ug/L	60
m+p-Xylene	<0.4	0.4	<0.4	0.4	<0.4	0.4	<0.4	0.4	ug/L	~
o-Xylene	<0.4	0.4	<0.4	0.4	<0.4	0.4	<0.4	0.4	ug/L	300
Total Xylenes	<0.4	0.4	<0.4	0.4	<0.4	0.4	<0.4	0.4	ug/L	90
1,4-dichlorobenzene-d4 (Surr.)	94.8	N/A	95.7	N/A	91.8	N/A	96	N/A	% Rec	~
o-Terphenyl (Surr.)	86.2	N/A	129	N/A	121	N/A	111	N/A	% Rec	~



**TESTMARK Laboratories Ltd.**

*Committed to Quality and Service*

### CERTIFICATE OF ANALYSIS

Whitewater Hydrogeology Ltd.

Work Order Number: 373082

Sample Description	9 - A		10 - A		11 - A		12 - A			
Lab ID	1440920		1440921		1440922		1440923			
Petroleum Hydrocarbons (Water)	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: ODWS
undecane (Surr.)	115	N/A	116	N/A	118	N/A	113	N/A	% Rec	~
Sample Description	14 - B		16 - B							
Lab ID	1440924		1440925							
Petroleum Hydrocarbons (Water)	Result	MDL	Result	MDL	Units	Criteria: ODWS				
F1 (C6-C10) - Less BTEX	<20	20	<20	20	ug/L	~				
F1 (C6-C10) Incl. BTEX	<20	20	<20	20	ug/L	~				
F2 (C10-C16)	<40	40	<40	40	ug/L	~				
F3 (C16-C34)	<200	200	<200	200	ug/L	~				
F4 (C34-C50)	<40	40	<40	40	ug/L	~				
Baseline @ C50	Yes	N/A	Yes	N/A	NA	~				
Benzene	<0.2	0.2	<0.2	0.2	ug/L	1				
Ethylbenzene	<0.4	0.4	<0.4	0.4	ug/L	140				
Toluene	<0.4	0.4	<0.4	0.4	ug/L	60				
m+p-Xylene	<0.4	0.4	<0.4	0.4	ug/L	~				
o-Xylene	<0.4	0.4	<0.4	0.4	ug/L	300				
Total Xylenes	<0.4	0.4	<0.4	0.4	ug/L	90				
1,4-dichlorobenzene-d4 (Surr.)	93.8	N/A	93.7	N/A	% Rec	~				
o-Terphenyl (Surr.)	98.4	N/A	93.4	N/A	% Rec	~				
undecane (Surr.)	111	N/A	116	N/A	% Rec	~				



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## CERTIFICATE OF ANALYSIS

Whitewater Hydrogeology Ltd.

Work Order Number: 373082

### LEGEND

Dates: Dates are formatted as mm/dd/year throughout this report.

F1-BTEX, F2-NAPTH, and F3-PAH: BTEX and selected PAHs have been subtracted from the appropriate fractions only if the parameter names are F1-BTEX, F2-NAPTH, and F3-PAH, otherwise these compounds have not been subtracted from their respective fractions.

[rr]: After a parameter name indicates a re-run of that parameter. Sample may not have been handled according to the recommended temperature, hold time and head space requirements of the method after the initial analysis.

MDL: Method detection limit or minimum reporting limit.

~: In a criteria column indicates the criteria is not applicable for the parameter row.

Quality Control: All associated Quality Control data is available on request.

Exceedences: HIGHLIGHTED CELLS INDICATE THAT THE RESULT EXCEEDS A REGULATORY LIMIT. CALCULATED UNCERTAINTY ESTIMATIONS ARE NOT APPLIED FOR DETERMINING SAMPLE EXCEEDANCES.

Benzo(b)fluoranthene: Results for benzo(b)fluoranthene may include contributions from benzo(j)fluoranthene.

Field Data: Reports containing Field Parameters represent data that has been collected and provided by the client. Testmark is not responsible for the validity of this data which may be used in subsequent calculations.

Sample Condition Deviations: A noted sample condition deviation may affect the validity of the result.



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## CERTIFICATE OF ANALYSIS

Client:	Tecia White	Work Order Number:	373092
Company:	Whitewater Hydrogeology Ltd.	PO #:	
Address:	80 Chamberlain Cres Collingwood, ON, L9Y 0C8	Regulation:	None
Phone:	(705) 888-7064	Project #:	Strada Shelburne Annual Groundwater
Email:	tecia@white-water.ca	DWS #:	
		Sampled By:	Tecia White
Date Order Received:	5/27/2019	Analysis Started:	5/29/2019
Arrival Temperature:	10.9 °C	Analysis Completed:	6/3/2019

### WORK ORDER SUMMARY

ANALYSES WERE PERFORMED ON THE FOLLOWING SAMPLES. THE RESULTS RELATE ONLY TO THE ITEMS TESTED.

Sample Description	Lab ID	Matrix	Type	Comments	Date Collected	Time Collected
North Pond	1440931	Surface Water	None		5/24/2019	
South Pond	1440932	Surface Water	None		5/24/2019	

### METHODS AND INSTRUMENTATION

THE FOLLOWING METHODS WERE USED FOR YOUR SAMPLE(S):

Method	Lab	Description	Reference
Oil and Grease (A54)	Mississauga	Determination of Oil and Grease in Water	Modified from EPA 1664
PHC F2-F4 Water (A59)	Mississauga	Determination of PHC (F2-F4) in Water - Tier 1 CCME by GC/FID	Modified from CWS PHC Tier 1 CCME
T127-BTEX Water (T127.2ms)	Mississauga	Determination of F1/BTEX in Water by Headspace GC/MS/FID	Modified from CWS/ EPA 624



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**CERTIFICATE OF ANALYSIS**

Whitewater Hydrogeology Ltd.

Work Order Number: 373092

This report has been approved by:

Marc Creighton  
Laboratory Director





**CERTIFICATE OF ANALYSIS**

Whitewater Hydrogeology Ltd.

Work Order Number: 373092

**WORK ORDER RESULTS**

Sample Description	North Pond		South Pond			
Lab ID	1440931		1440932			
General Chemistry	Result	MDL	Result	MDL	Units	Criteria: ODWS
Oil and Grease, Animal (Calc.)	<1	1	2	1	mg/L	-
Oil and Grease, Mineral	1	1	<1	1	mg/L	-
Oil and Grease, Total	1	1	2	1	mg/L	-

Sample Description	North Pond		South Pond			
Lab ID	1440931		1440932			
Petroleum Hydrocarbons (Water)	Result	MDL	Result	MDL	Units	Criteria: ODWS
F1 (C6-C10) - Less BTEX	<20	20	<20	20	ug/L	-
F1 (C6-C10) Incl. BTEX	<20	20	<20	20	ug/L	-
F2 (C10-C16)	<50	50	<40	40	ug/L	-
F3 (C16-C34)	<200	200	<200	200	ug/L	-
F4 (C34-C50)	<50	50	<40	40	ug/L	-
Baseline @ C50	Yes	N/A	Yes	N/A	NA	-
Benzene	<0.2	0.2	<0.2	0.2	ug/L	1
Ethylbenzene	<0.4	0.4	<0.4	0.4	ug/L	140
Toluene	<0.4	0.4	<0.4	0.4	ug/L	60
m+p-Xylene	<0.4	0.4	<0.4	0.4	ug/L	-
o-Xylene	<0.4	0.4	<0.4	0.4	ug/L	300
Total Xylenes	<0.4	0.4	<0.4	0.4	ug/L	90
1,4-dichlorobenzene-d4 (Surr.)	95.9	N/A	94.4	N/A	% Rec	-
o-Terphenyl (Surr.)	107	N/A	99.1	N/A	% Rec	-
undecane (Surr.)	118	N/A	115	N/A	% Rec	-





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## CERTIFICATE OF ANALYSIS

Whitewater Hydrogeology Ltd.

Work Order Number: 373092

### LEGEND

Dates: Dates are formatted as mm/dd/year throughout this report.

F1-BTEX, F2-NAPTH, and F3-PAH: BTEX and selected PAHs have been subtracted from the appropriate fractions only if the parameter names are F1-BTEX, F2-NAPTH, and F3-PAH, otherwise these compounds have not been subtracted from their respective fractions.

[r]: After a parameter name indicates a re-run of that parameter. Sample may not have been handled according to the recommended temperature, hold time and head space requirements of the method after the initial analysis.

MDL: Method detection limit or minimum reporting limit.

~: In a criteria column indicates the criteria is not applicable for the parameter row.

Quality Control: All associated Quality Control data is available on request.

Exceedences: HIGHLIGHTED CELLS INDICATE THAT THE RESULT EXCEEDS A REGULATORY LIMIT. CALCULATED UNCERTAINTY ESTIMATIONS ARE NOT APPLIED FOR DETERMINING SAMPLE EXCEEDANCES.

Benzo(b)fluoranthene: Results for benzo(b)fluoranthene may include contributions from benzo(j)fluoranthene.

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Sample Condition Deviations: A noted sample condition deviation may affect the validity of the result.



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## CERTIFICATE OF ANALYSIS

Client:	Tecia White	Work Order Number:	373114
Company:	Whitewater Hydrogeology Ltd.	PO #:	
Address:	80 Chamberlain Cres Collingwood, ON, L9Y 0C8	Regulation:	None
Phone:	(705) 888-7064	Project #:	Strada Shelburne Semi-Annual Groundwater
Email:	tecia@white-water.ca	DWS #:	
		Sampled By:	Tecia White
Date Order Received:	5/27/2019	Analysis Started:	5/29/2019
Arrival Temperature:	12.7 °C	Analysis Completed:	6/3/2019

### WORK ORDER SUMMARY

ANALYSES WERE PERFORMED ON THE FOLLOWING SAMPLES. THE RESULTS RELATE ONLY TO THE ITEMS TESTED.

Sample Description	Lab ID	Matrix	Type	Comments	Date Collected	Time Collected
2-A	1440989	Ground Water	None		5/24/2019	
2-B	1440990	Ground Water	None		5/24/2019	
3-B	1440991	Ground Water	None		5/24/2019	
4-B	1440992	Ground Water	None		5/24/2019	
5-A	1440993	Ground Water	None		5/24/2019	
5-B	1440994	Ground Water	None		5/24/2019	
6-A	1440995	Ground Water	None		5/24/2019	
7-A	1440996	Ground Water	None		5/24/2019	
7-B	1440997	Ground Water	None		5/24/2019	
8-A	1440998	Ground Water	None		5/24/2019	
9-A	1440999	Ground Water	None		5/24/2019	
10-A	1441000	Ground Water	None		5/24/2019	
11-A	1441001	Ground Water	None		5/24/2019	
11-B	1441002	Ground Water	None		5/24/2019	
12-A	1441003	Ground Water	None		5/24/2019	
13-A	1441004	Ground Water	None		5/24/2019	



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### CERTIFICATE OF ANALYSIS

Whitewater Hydrogeology Ltd.

Work Order Number: 373114

Sample Description	Lab ID	Matrix	Type	Comments	Date Collected	Time Collected
13-B	1441005	Ground Water	None		5/24/2019	
14-B	1441006	Ground Water	None		5/24/2019	
16-B	1441007	Ground Water	None		5/24/2019	

### METHODS AND INSTRUMENTATION

THE FOLLOWING METHODS WERE USED FOR YOUR SAMPLE(S):

Method	Lab	Description	Reference
Alkalinity (A1.0)	Mississauga	Determination of Alkalinity by Titration	Modified from APHA-2320B
Anions Water (mg/L by IC) (A5)	Mississauga	Determination of Anions in Water by Ion Chromatography	Modified from SW846-9056A
Carbonate (A94)	Mississauga	Determination of Carbonate and Bi-Carbonate	Modified from APHA-2320
Conductivity of Water (A12)	Mississauga	Determination of Conductivity in Water at 25°C	Modified from SM 2510 B
ICPMS Dis. Water (A13)	Mississauga	Determination of Dissolved (Lab Filtered) Metals in Water by ICP/MS	Modified from SW846-6020
ICPMS Dis. Water FF (A13)	Mississauga	Determination of Dissolved (Lab Filtered) Metals in Water by ICP/MS -> Field-Filtered	Modified from SW846-6020
ICPMS Reg. Water (A13)	Mississauga	Determination of Metals in Water by ICP/MS	Modified from SW846-6020
pH of Water (A2.0)	Mississauga	Determination of Water pH by Ion Selective Electrode	Modified from APHA-4500H+ B
TP Water (A23.2)	Kirkland Lake	Determination of Total Phosphorus in Water.	Modified from EPA 365.3 and ESS 310.2,

This report has been approved by:

Marc Creighton  
Laboratory Director



**CERTIFICATE OF ANALYSIS**

Whitewater Hydrogeology Ltd.

Work Order Number: 373114

**WORK ORDER RESULTS**

Sample Description	2 - A		2 - B		3 - B		4 - B		Units	Criteria: ODWS
Lab ID	1440989		1440990		1440991		1440992			
Anions	Result	MDL	Result	MDL	Result	MDL	Result	MDL		
Bromide	<0.1 [<0.1]	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	mg/L	~
Chloride	10.5 [10.4]	0.2	2.4	0.2	79.2	0.2	26.8	0.2	mg/L	250
Fluoride	<0.06 [<0.06]	0.06	1.33	0.06	0.17	0.06	<0.06	0.06	mg/L	1.5
Nitrate (as N)	3.85 [3.85]	0.05	0.32	0.05	9.69	0.05	4.41	0.05	mg/L	10
Nitrite (as N)	<0.05 [<0.05]	0.05	<0.05	0.05	<0.05	0.05	<0.05	0.05	mg/L	1
Sulphate	8.1 [8.1]	0.3	11.5	0.3	14.7	0.3	10.9	0.3	mg/L	500

Sample Description	5 - A		5 - B		6 - A		7 - A		Units	Criteria: ODWS
Lab ID	1440993		1440994		1440995		1440996			
Anions	Result	MDL	Result	MDL	Result	MDL	Result	MDL		
Bromide	<0.1	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	mg/L	~
Chloride	28.5	0.2	57.8	0.2	12.7	0.2	12.9	0.2	mg/L	250
Fluoride	<0.06	0.06	0.08	0.06	<0.06	0.06	<0.06	0.06	mg/L	1.5
Nitrate (as N)	4.16	0.05	3.59	0.05	2.2	0.05	1.76	0.05	mg/L	10
Nitrite (as N)	<0.05	0.05	<0.05	0.05	<0.05	0.05	<0.05	0.05	mg/L	1
Sulphate	8.7	0.3	12.1	0.3	12.2	0.3	21.1	0.3	mg/L	500

Sample Description	7 - B		8 - A		9 - A		10 - A		Units	Criteria: ODWS
Lab ID	1440997		1440998		1440999		1441000			
Anions	Result	MDL	Result	MDL	Result	MDL	Result	MDL		
Bromide	<0.1	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	mg/L	~
Chloride	1.6	0.2	19.1	0.2	2.5	0.2	7.8	0.2	mg/L	250



**CERTIFICATE OF ANALYSIS**

Whitewater Hydrogeology Ltd.

Work Order Number: 373114

Sample Description	7 - B		8 - A		9 - A		10 - A			
Lab ID	1440997		1440998		1440999		1441000			
Anions	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: ODWS
Fluoride	<0.06	0.06	<0.06	0.06	<0.06	0.06	0.06	0.06	mg/L	1.5
Nitrate (as N)	<0.05	0.05	6.12	0.05	1.91	0.05	1.05	0.05	mg/L	10
Nitrite (as N)	<0.05	0.05	<0.05	0.05	<0.05	0.05	<0.05	0.05	mg/L	1
Sulphate	2.3	0.3	8.5	0.3	4	0.3	24.5	0.3	mg/L	500

Sample Description	11 - A		11 - B		12 - A		13 - A			
Lab ID	1441001		1441002		1441003		1441004			
Anions	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: ODWS
Bromide	<0.1	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	mg/L	~
Chloride	69.1	0.2	44.3	0.2	1	0.2	6.2	0.2	mg/L	250
Fluoride	0.08	0.06	<0.06	0.06	<0.06	0.06	<0.06	0.06	mg/L	1.5
Nitrate (as N)	3.64	0.05	<0.05	0.05	0.37	0.05	0.45	0.05	mg/L	10
Nitrite (as N)	<0.05	0.05	<0.05	0.05	<0.05	0.05	<0.05	0.05	mg/L	1
Sulphate	10.8	0.3	0.6	0.3	1.3	0.3	21	0.3	mg/L	500

Sample Description	13 - B		14 - B		16 - B			
Lab ID	1441005		1441006		1441007			
Anions	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: ODWS
Bromide	<0.1	0.1	<0.1	0.1	<0.1	0.1	mg/L	~
Chloride	9.2	0.2	2	0.2	5.5	0.2	mg/L	250
Fluoride	<0.06	0.06	0.07	0.06	<0.06	0.06	mg/L	1.5
Nitrate (as N)	1.36	0.05	1.61	0.05	1.32	0.05	mg/L	10
Nitrite (as N)	<0.05	0.05	<0.05	0.05	<0.05	0.05	mg/L	1
Sulphate	5.2	0.3	6.8	0.3	5.6	0.3	mg/L	500





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### CERTIFICATE OF ANALYSIS

Whitewater Hydrogeology Ltd.

Work Order Number: 373114

Sample Description	2 - A		2 - B		3 - B		4 - B			
Lab ID	1440989		1440990		1440991		1440992			
General Chemistry	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: ODWS
Bicarbonate (Calc.)	329	1	194	1	329	1	297	1	mg/L as CaCO3	-
Carbonate (Calc.)	1	1	1	1	1	1	2	1	mg/L as CaCO3	-
Conductivity	597	1	365	1	838	1	611	1	µS/cm	-
M-Alkalinity (pH 4.5)	330	2	196	2	330	2	299	2	mg/L as CaCO3	-
pH	7.64	N/A	7.91	N/A	7.59	N/A	7.76	N/A	pH	-
Total Phosphorus (as P)	0.068	0.002	0.007 (0.008)	0.002	0.004	0.002	0.004	0.002	mg/L	-
Sample Description	5 - A		5 - B		6 - A		7 - A			
Lab ID	1440993		1440994		1440995		1440996			
General Chemistry	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: ODWS
Bicarbonate (Calc.)	274	1	271	1	144	1	124	1	mg/L as CaCO3	-
Carbonate (Calc.)	1	1	1	1	1	1	<1	1	mg/L as CaCO3	-
Conductivity	564	1	666	1	321	1	303	1	µS/cm	-
M-Alkalinity (pH 4.5)	275	2	272	2	145	2	125	2	mg/L as CaCO3	-
pH	7.68	N/A	7.69	N/A	8	N/A	7.76	N/A	pH	-
Total Phosphorus (as P)	0.006	0.002	0.004	0.002	1.04	0.02	0.006	0.002	mg/L	-
Sample Description	7 - B		8 - A		9 - A		10 - A			
Lab ID	1440997		1440998		1440999		1441000			
General Chemistry	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: ODWS
Bicarbonate (Calc.)	91	1	286	1	181	1	239	1	mg/L as CaCO3	-
Carbonate (Calc.)	1	1	2	1	1	1	2	1	mg/L as CaCO3	-



**CERTIFICATE OF ANALYSIS**

Whitewater Hydrogeology Ltd.

Work Order Number: 373114

Sample Description	7 - B		8 - A		9 - A		10 - A			
Lab ID	1440997		1440998		1440999		1441000			
General Chemistry	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: ODWS
Conductivity	165	1	582	1	334	1	454	1	µS/cm	-
M-Alkalinity (pH 4.5)	92	2	288	2	182	2	241	2	mg/L as CaCO3	-
pH	8.12	N/A	7.84	N/A	7.92	N/A	7.92	N/A	pH	-
Total Phosphorus (as P)	0.005	0.002	3.94	0.02	0.95	0.002	0.008	0.002	mg/L	-
Sample Description	11 - A		11 - B		12 - A		13 - A			
Lab ID	1441001		1441002		1441003		1441004			
General Chemistry	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: ODWS
Bicarbonate (Calc.)	268	1	64	1	160	1	219	1	mg/L as CaCO3	-
Carbonate (Calc.)	2	1	2	1	1	1	1	1	mg/L as CaCO3	-
Conductivity	696	1	250	1	283	1	427	1	µS/cm	-
M-Alkalinity (pH 4.5)	270	2	66	2	161	2	220	2	mg/L as CaCO3	-
P-Alkalinity (pH 8.3)			<2	2					mg/L as CaCO3	-
pH	7.85	N/A	8.44	N/A	7.96	N/A	7.85	N/A	pH	-
Total Phosphorus (as P)	0.005	0.002	0.004	0.002	1.18	0.02	0.006	0.002	mg/L	-
Sample Description	13 - B		14 - B		16 - B					
Lab ID	1441005		1441006		1441007					
General Chemistry	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: ODWS		
Bicarbonate (Calc.)	245	1	403	1	194	1	mg/L as CaCO3	-		
Carbonate (Calc.)	2	1	2	1	1	1	mg/L as CaCO3	-		
Conductivity	458	1	670	1	369	1	µS/cm	-		





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### CERTIFICATE OF ANALYSIS

Whitewater Hydrogeology Ltd.

Work Order Number: 373114

Sample Description	13 - B		14 - B		16 - B			
Lab ID	1441005		1441006		1441007			
General Chemistry	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: ODWS
M-Alkalinity (pH 4.5)	247	2	405	2	195	2	mg/L as CaCO3	-
pH	7.88	N/A	7.81	N/A	7.89	N/A	pH	~
Total Phosphorus (as P)	0.005	0.002	0.235	0.002	0.011	0.002	mg/L	~

Sample Description	16 - B			
Lab ID	1441007			
Metals	Result	MDL	Units	Criteria: ODWS
Calcium	86200 [84600]	500	ug/L	-
Magnesium	25000 [25400]	5	ug/L	-
Potassium	1510 [1500]	1	ug/L	-
Sodium	2370 [2290]	100	ug/L	20000

Sample Description	2 - A		2 - B		3 - B		4 - B			
Lab ID	1440989		1440990		1440991		1440992			
Metals (Dissolved)	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: ODWS
Dissolved Aluminum	<2 [<2]	2	<2	2	<2	2	<2	2	ug/L	-
Dissolved Antimony	<0.5 [<0.5]	0.5	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	-
Dissolved Arsenic	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L	-
Dissolved Barium	76 [76]	1	13	1	70	1	52	1	ug/L	-
Dissolved Beryllium	<0.5 [<0.5]	0.5	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	~



**CERTIFICATE OF ANALYSIS**

Whitewater Hydrogeology Ltd.

Work Order Number: 373114

Sample Description	2 - A		2 - B		3 - B		4 - B			
Lab ID	1440989		1440990		1440991		1440992			
Metals (Dissolved)	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: ODWS
Dissolved Bismuth	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L	~
Dissolved Boron	7 [7]	2	359	2	3	2	<2	2	ug/L	~
Dissolved Cadmium	<0.1 [<0.1]	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L	~
Dissolved Calcium	119000 [113000]	500	20300	500	246000	5000	101000	500	ug/L	~
Dissolved Cerium	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L	~
Dissolved Cesium	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L	~
Dissolved Chromium	4 [<10]	1	1	1	3	1	2	1	ug/L	~
Dissolved Cobalt	0.3 [0.3]	0.1	<0.1	0.1	0.2	0.1	0.2	0.1	ug/L	~
Dissolved Copper	2 [2]	1	4	1	1	1	1	1	ug/L	~
Dissolved Europium	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L	~
Dissolved Gallium	1 [1]	1	<1	1	1	1	<1	1	ug/L	~
Dissolved Iron	419 [423]	20	68	20	437	20	323	20	ug/L	~
Dissolved Lanthanum	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L	~
Dissolved Lead	0.2 [0.2]	0.1	0.8	0.1	<0.1	0.1	<0.1	0.1	ug/L	~
Dissolved Lithium	<5 [<5]	5	6	5	<5	5	<5	5	ug/L	~
Dissolved Magnesium	23900 [24200]	5	16700	5	26700	5	20700	5	ug/L	~
Dissolved Manganese	75 [75]	1	23	1	2	1	<1	1	ug/L	~
Dissolved Mercury	<0.1 [<0.1]	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L	~



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### CERTIFICATE OF ANALYSIS

Whitewater Hydrogeology Ltd.

Work Order Number: 373114

Sample Description	2 - A		2 - B		3 - B		4 - B			
Lab ID	1440989		1440990		1440991		1440992			
Metals (Dissolved)	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: ODWS
Dissolved Molybdenum	1 [1]	1	11	1	<1	1	<1	1	ug/L	-
Dissolved Nickel	5 [5]	1	1	1	5	1	4	1	ug/L	-
Dissolved Niobium	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L	~
Dissolved Phosphorus	413 [417]	50	<50	50	<50	50	<50	50	ug/L	~
Dissolved Potassium	3870 [3880]	100	4050	100	1500	100	791	100	ug/L	~
Dissolved Rubidium	1 [1]	1	5	1	<1	1	<1	1	ug/L	~
Dissolved Scandium	<1 [1]	1	<1	1	1	1	<1	1	ug/L	-
Dissolved Selenium	<0.5 [<0.5]	0.5	<0.5	0.5	0.6	0.5	<0.5	0.5	ug/L	~
Dissolved Silicon	4190 [4370]	600	3690	600	4820	600	3910	600	ug/L	~
Dissolved Silver	<0.1 [<0.1]	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L	~
Dissolved Sodium	5420 [5480]	100	29100	1000	19400	100	13300	100	ug/L	-
Dissolved Strontium	212 [211]	1	405	1	236	1	164	1	ug/L	~
Dissolved Sulfur	3780 [3820]	800	2780	800	5600	800	4000	800	ug/L	~
Dissolved Tellurium	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L	-
Dissolved Thallium	<0.1 [<0.1]	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L	~
Dissolved Thorium	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L	~
Dissolved Tin	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L	~
Dissolved Titanium	2 [2]	1	<1	1	<1	1	<1	1	ug/L	-



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**CERTIFICATE OF ANALYSIS**

Whitewater Hydrogeology Ltd.

Work Order Number: 373114

Sample Description	2 - A		2 - B		3 - B		4 - B			
Lab ID	1440989		1440990		1440991		1440992			
Metals (Dissolved)	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: ODWS
Dissolved Tungsten	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L	~
Dissolved Uranium	<1 [<1]	1	1	1	<1	1	<1	1	ug/L	~
Dissolved Vanadium	1 [2]	1	<1	1	<1	1	<1	1	ug/L	~
Dissolved Yttrium	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L	~
Dissolved Zinc	24 [24]	1	63	1	4	1	2	1	ug/L	~
Dissolved Zirconium	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L	~

Sample Description	5 - A		5 - B		6 - A		7 - A			
Lab ID	1440993		1440994		1440995		1440996			
Metals (Dissolved)	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: ODWS
Dissolved Aluminum	6	2	<2	2	<2	2	<2	2	ug/L	~
Dissolved Antimony	<0.5	0.5	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	~
Dissolved Arsenic	<1	1	<1	1	<1	1	<1	1	ug/L	~
Dissolved Barium	46	1	33	1	37	1	31	1	ug/L	~
Dissolved Beryllium	<0.5	0.5	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	~
Dissolved Bismuth	<1	1	<1	1	<1	1	<1	1	ug/L	~
Dissolved Boron	<2	2	<2	2	<2	2	<2	2	ug/L	~
Dissolved Cadmium	<0.1	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L	~
Dissolved Calcium	92100	500	97800	500	48200	500	50400	500	ug/L	~
Dissolved Cerium	<1	1	<1	1	<1	1	<1	1	ug/L	~
Dissolved Cesium	<1	1	<1	1	<1	1	<1	1	ug/L	~
Dissolved Chromium	3	1	7	1	1	1	<1	1	ug/L	~
Dissolved Cobalt	0.1	0.1	0.2	0.1	<0.1	0.1	<0.1	0.1	ug/L	~



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### CERTIFICATE OF ANALYSIS

Whitewater Hydrogeology Ltd.

Work Order Number: 373114

Sample Description	5 - A		5 - B		6 - A		7 - A			
Lab ID	1440993		1440994		1440995		1440996			
Metals (Dissolved)	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: ODWS
Dissolved Copper	1	1	2	1	<1	1	1	1	ug/L	~
Dissolved Europium	<1	1	<1	1	<1	1	<1	1	ug/L	~
Dissolved Gallium	<1	1	<1	1	<1	1	<1	1	ug/L	~
Dissolved Iron	284	20	287	20	153	20	157	20	ug/L	~
Dissolved Lanthanum	<1	1	<1	1	<1	1	<1	1	ug/L	~
Dissolved Lead	<0.1	0.1	0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L	~
Dissolved Lithium	<5	5	<5	5	<5	5	<5	5	ug/L	~
Dissolved Magnesium	17400	5	21400	5	11700	5	9040	5	ug/L	~
Dissolved Manganese	2	1	<1	1	<1	1	<1	1	ug/L	~
Dissolved Mercury	<0.1	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L	~
Dissolved Molybdenum	<1	1	2	1	<1	1	<1	1	ug/L	~
Dissolved Nickel	3	1	4	1	2	1	2	1	ug/L	~
Dissolved Niobium	<1	1	<1	1	<1	1	<1	1	ug/L	~
Dissolved Phosphorus	<50	50	<50	50	<50	50	<50	50	ug/L	~
Dissolved Potassium	4160	100	2550	100	2300	100	1170	100	ug/L	~
Dissolved Rubidium	<1	1	<1	1	<1	1	<1	1	ug/L	~
Dissolved Scandium	<1	1	<1	1	<1	1	<1	1	ug/L	~
Dissolved Selenium	<0.5	0.5	<0.5	0.5	<0.5	0.5	0.6	0.5	ug/L	~
Dissolved Silicon	3460	600	4100	600	1940	600	2160	600	ug/L	~
Dissolved Silver	<0.1	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L	~
Dissolved Sodium	13700	100	28700	100	4330	100	3120	100	ug/L	~
Dissolved Strontium	149	1	152	1	96	1	85	1	ug/L	~
Dissolved Sulfur	3130	800	4600	800	4400	800	4580	800	ug/L	~
Dissolved Tellurium	<1	1	<1	1	<1	1	<1	1	ug/L	~
Dissolved Thallium	<0.1	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L	~





**CERTIFICATE OF ANALYSIS**

Whitewater Hydrogeology Ltd.

Work Order Number: 373114

Sample Description	5 - A		5 - B		6 - A		7 - A			
Lab ID	1440993		1440994		1440995		1440996			
Metals (Dissolved)	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: ODWS
Dissolved Thorium	<1	1	<1	1	<1	1	<1	1	ug/L	~
Dissolved Tin	<1	1	<1	1	<1	1	<1	1	ug/L	~
Dissolved Titanium	<1	1	<1	1	<1	1	<1	1	ug/L	~
Dissolved Tungsten	<1	1	<1	1	<1	1	<1	1	ug/L	~
Dissolved Uranium	<1	1	<1	1	<1	1	<1	1	ug/L	~
Dissolved Vanadium	<1	1	2	1	<1	1	<1	1	ug/L	~
Dissolved Yttrium	<1	1	<1	1	<1	1	<1	1	ug/L	~
Dissolved Zinc	9	1	18	1	2	1	5	1	ug/L	~
Dissolved Zirconium	<1	1	<1	1	<1	1	<1	1	ug/L	~

Sample Description	7 - B		8 - A		9 - A		10 - A			
Lab ID	1440997		1440998		1440999		1441000			
Metals (Dissolved)	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: ODWS
Dissolved Aluminum	<2	2	<2	2	21	2	<2	2	ug/L	~
Dissolved Antimony	<0.5	0.5	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	~
Dissolved Arsenic	<1	1	<1	1	<1	1	<1	1	ug/L	~
Dissolved Barium	2	1	76	1	29	1	57	1	ug/L	~
Dissolved Beryllium	<0.5	0.5	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	~
Dissolved Bismuth	<1	1	<1	1	<1	1	<1	1	ug/L	~
Dissolved Boron	7	2	<2	2	<2	2	6	2	ug/L	~
Dissolved Cadmium	<0.1	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L	~
Dissolved Calcium	11500	50	94100	500	60100	500	63700	500	ug/L	~
Dissolved Cerium	<1	1	<1	1	<1	1	<1	1	ug/L	~
Dissolved Cesium	<1	1	<1	1	<1	1	<1	1	ug/L	~
Dissolved Chromium	<1	1	3	1	1	1	1	1	ug/L	~



**CERTIFICATE OF ANALYSIS**

Whitewater Hydrogeology Ltd.

Work Order Number: 373114

Sample Description	7 - B		8 - A		9 - A		10 - A			
Lab ID	1440997		1440998		1440999		1441000			
Metals (Dissolved)	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: ODWS
Dissolved Cobalt	<0.1	0.1	0.2	0.1	0.1	0.1	<0.1	0.1	ug/L	~
Dissolved Copper	4	1	<1	1	3	1	<1	1	ug/L	~
Dissolved Europium	<1	1	<1	1	<1	1	<1	1	ug/L	~
Dissolved Gallium	<1	1	1	1	<1	1	<1	1	ug/L	~
Dissolved Iron	51	20	282	20	199	20	206	20	ug/L	~
Dissolved Lanthanum	<1	1	<1	1	<1	1	<1	1	ug/L	~
Dissolved Lead	0.9	0.1	<0.1	0.1	0.8	0.1	<0.1	0.1	ug/L	~
Dissolved Lithium	<5	5	<5	5	<5	5	5	5	ug/L	~
Dissolved Magnesium	15900	5	28100	5	10000	5	22400	5	ug/L	~
Dissolved Manganese	104	1	<1	1	13	1	<1	1	ug/L	~
Dissolved Mercury	<0.1	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L	~
Dissolved Molybdenum	2	1	<1	1	<1	1	<1	1	ug/L	~
Dissolved Nickel	<1	1	3	1	3	1	2	1	ug/L	~
Dissolved Niobium	<1	1	<1	1	<1	1	<1	1	ug/L	~
Dissolved Phosphorus	<50	50	<50	50	<50	50	<50	50	ug/L	~
Dissolved Potassium	797	100	960	100	757	100	1110	100	ug/L	~
Dissolved Rubidium	<1	1	<1	1	1	1	<1	1	ug/L	~
Dissolved Scandium	<1	1	1	1	<1	1	1	1	ug/L	~
Dissolved Selenium	<0.5	0.5	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	~
Dissolved Silicon	<600	600	5560	600	3130	600	4900	600	ug/L	~
Dissolved Silver	<0.1	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L	~
Dissolved Sodium	2020	100	3890	100	1390	100	7100	100	ug/L	~
Dissolved Strontium	14	1	168	1	100	1	198	1	ug/L	~
Dissolved Sulfur	<800	800	3200	800	1440	800	8660	800	ug/L	~
Dissolved Tellurium	<1	1	<1	1	<1	1	<1	1	ug/L	~





**CERTIFICATE OF ANALYSIS**

Whitewater Hydrogeology Ltd.

Work Order Number: 373114

Sample Description	7 - B		8 - A		9 - A		10 - A			
Lab ID	1440997		1440998		1440999		1441000			
Metals (Dissolved)	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: ODWS
Dissolved Thallium	<0.1	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L	-
Dissolved Thorium	<1	1	<1	1	<1	1	<1	1	ug/L	-
Dissolved Tin	<1	1	<1	1	<1	1	<1	1	ug/L	-
Dissolved Titanium	<1	1	<1	1	<1	1	<1	1	ug/L	-
Dissolved Tungsten	<1	1	<1	1	<1	1	<1	1	ug/L	-
Dissolved Uranium	<1	1	<1	1	<1	1	<1	1	ug/L	-
Dissolved Vanadium	<1	1	<1	1	<1	1	<1	1	ug/L	-
Dissolved Yttrium	<1	1	<1	1	<1	1	<1	1	ug/L	-
Dissolved Zinc	20	1	2	1	17	1	7	1	ug/L	-
Dissolved Zirconium	<1	1	<1	1	<1	1	<1	1	ug/L	-

Sample Description	11 - A		11 - B		12 - A		13 - A			
Lab ID	1441001		1441002		1441003		1441004			
Metals (Dissolved)	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: ODWS
Dissolved Aluminum	<2	2	<2	2	<2	2	<2	2	ug/L	-
Dissolved Antimony	<0.5	0.5	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	-
Dissolved Arsenic	<1	1	<1	1	<1	1	<1	1	ug/L	-
Dissolved Barium	38	1	3	1	3	1	27	1	ug/L	-
Dissolved Beryllium	<0.5	0.5	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	-
Dissolved Bismuth	<1	1	<1	1	<1	1	<1	1	ug/L	-
Dissolved Boron	<2	2	8	2	<2	2	<2	2	ug/L	-
Dissolved Cadmium	<0.1	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L	-
Dissolved Calcium	89700	500	8870	50	56700	500	79900	500	ug/L	-
Dissolved Cerium	<1	1	<1	1	<1	1	<1	1	ug/L	-
Dissolved Cesium	<1	1	<1	1	<1	1	<1	1	ug/L	-



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### CERTIFICATE OF ANALYSIS

Whitewater Hydrogeology Ltd.

Work Order Number: 373114

Sample Description	11 - A		11 - B		12 - A		13 - A		Units	Criteria: ODWS
Lab ID	1441001		1441002		1441003		1441004			
Metals (Dissolved)	Result	MDL	Result	MDL	Result	MDL	Result	MDL		
Dissolved Chromium	1	1	<1	1	<1	1	<1	1	ug/L	-
Dissolved Cobalt	0.2	0.1	<0.1	0.1	0.1	0.1	0.1	0.1	ug/L	-
Dissolved Copper	1	1	3	1	4	1	4	1	ug/L	-
Dissolved Europium	<1	1	<1	1	<1	1	<1	1	ug/L	-
Dissolved Gallium	<1	1	<1	1	<1	1	<1	1	ug/L	-
Dissolved Iron	302	20	49	20	181	20	203	20	ug/L	-
Dissolved Lanthanum	<1	1	<1	1	<1	1	<1	1	ug/L	-
Dissolved Lead	0.3	0.1	0.7	0.1	0.8	0.1	0.8	0.1	ug/L	-
Dissolved Lithium	<5	5	<5	5	<5	5	<5	5	ug/L	-
Dissolved Magnesium	20700	5	13100	5	4890	5	19400	5	ug/L	-
Dissolved Manganese	<1	1	71	1	2	1	<1	1	ug/L	-
Dissolved Mercury	<0.1	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L	-
Dissolved Molybdenum	<1	1	2	1	<1	1	<1	1	ug/L	-
Dissolved Nickel	4	1	<1	1	2	1	3	1	ug/L	-
Dissolved Niobium	<1	1	<1	1	<1	1	<1	1	ug/L	-
Dissolved Phosphorus	<50	50	<50	50	<50	50	<50	50	ug/L	-
Dissolved Potassium	2540	100	2780	100	481	100	1010	100	ug/L	-
Dissolved Rubidium	<1	1	<1	1	<1	1	<1	1	ug/L	-
Dissolved Scandium	<1	1	<1	1	<1	1	<1	1	ug/L	-
Dissolved Selenium	<0.5	0.5	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	-
Dissolved Silicon	3380	600	<600	600	1920	600	3920	600	ug/L	-
Dissolved Silver	<0.1	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L	-
Dissolved Sodium	32000	1000	23300	100	2500	100	5720	100	ug/L	-
Dissolved Strontium	155	1	10	1	107	1	119	1	ug/L	-
Dissolved Sulfur	4370	800	<800	800	<800	800	7580	800	ug/L	-



**CERTIFICATE OF ANALYSIS**

Whitewater Hydrogeology Ltd.

Work Order Number: 373114

Sample Description	11 - A		11 - B		12 - A		13 - A			
Lab ID	1441001		1441002		1441003		1441004			
Metals (Dissolved)	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: ODWS
Dissolved Tellurium	<1	1	<1	1	<1	1	<1	1	ug/L	-
Dissolved Thallium	<0.1	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L	-
Dissolved Thorium	<1	1	<1	1	<1	1	<1	1	ug/L	-
Dissolved Tin	<1	1	<1	1	<1	1	<1	1	ug/L	-
Dissolved Titanium	<1	1	<1	1	<1	1	<1	1	ug/L	-
Dissolved Tungsten	<1	1	<1	1	<1	1	<1	1	ug/L	-
Dissolved Uranium	<1	1	<1	1	<1	1	<1	1	ug/L	-
Dissolved Vanadium	<1	1	<1	1	<1	1	<1	1	ug/L	-
Dissolved Yttrium	<1	1	<1	1	<1	1	<1	1	ug/L	-
Dissolved Zinc	24	1	23	1	24	1	19	1	ug/L	-
Dissolved Zirconium	<1	1	<1	1	<1	1	<1	1	ug/L	-

Sample Description	13 - B		14 - B		16 - B			
Lab ID	1441005		1441006		1441007			
Metals (Dissolved)	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: ODWS
Dissolved Aluminum	<2	2	<2	2	6	2	ug/L	-
Dissolved Antimony	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	-
Dissolved Arsenic	<1	1	<1	1	<1	1	ug/L	-
Dissolved Barium	51	1	84	1	33	1	ug/L	-
Dissolved Beryllium	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	-
Dissolved Bismuth	<1	1	<1	1	<1	1	ug/L	-
Dissolved Boron	<2	2	<2	2	<2	2	ug/L	-
Dissolved Cadmium	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L	-
Dissolved Calcium	83700	500	109000	500	59100	500	ug/L	-
Dissolved Cerium	<1	1	<1	1	<1	1	ug/L	-



**CERTIFICATE OF ANALYSIS**

Whitewater Hydrogeology Ltd.

Work Order Number: 373114

Sample Description	13 - B		14 - B		16 - B			
Lab ID	1441005		1441006		1441007			
Metals (Dissolved)	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: ODWS
Dissolved Cesium	<1	1	<1	1	<1	1	ug/L	~
Dissolved Chromium	<1	1	3	1	2	1	ug/L	~
Dissolved Cobalt	0.1	0.1	0.2	0.1	<0.1	0.1	ug/L	-
Dissolved Copper	4	1	<1	1	1	1	ug/L	~
Dissolved Europium	<1	1	<1	1	<1	1	ug/L	~
Dissolved Gallium	<1	1	1	1	<1	1	ug/L	-
Dissolved Iron	248	20	342	20	186	20	ug/L	-
Dissolved Lanthanum	<1	1	<1	1	<1	1	ug/L	~
Dissolved Lead	0.8	0.1	<0.1	0.1	0.7	0.1	ug/L	~
Dissolved Lithium	<5	5	<5	5	<5	5	ug/L	-
Dissolved Magnesium	14700	5	36300	5	13100	5	ug/L	-
Dissolved Manganese	<1	1	<1	1	2	1	ug/L	-
Dissolved Mercury	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L	~
Dissolved Molybdenum	<1	1	3	1	<1	1	ug/L	~
Dissolved Nickel	3	1	4	1	2	1	ug/L	~
Dissolved Niobium	<1	1	<1	1	<1	1	ug/L	-
Dissolved Phosphorus	<50	50	<50	50	<50	50	ug/L	~
Dissolved Potassium	1070	100	886	100	1000	100	ug/L	~
Dissolved Rubidium	<1	1	<1	1	<1	1	ug/L	~
Dissolved Scandium	<1	1	2	1	<1	1	ug/L	~
Dissolved Selenium	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L	-
Dissolved Silicon	2930	600	6230	600	2620	600	ug/L	~
Dissolved Silver	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L	-
Dissolved Sodium	6150	100	3260	100	2500	100	ug/L	~
Dissolved Strontium	139	1	209	1	92	1	ug/L	~



**CERTIFICATE OF ANALYSIS**

Whitewater Hydrogeology Ltd.

Work Order Number: 373114

Sample Description	13 - B		14 - B		16 - B			
Lab ID	1441005		1441006		1441007			
Metals (Dissolved)	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: ODWS
Dissolved Sulfur	1770	800	2870	800	1720	800	ug/L	-
Dissolved Tellurium	<1	1	<1	1	<1	1	ug/L	-
Dissolved Thallium	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L	-
Dissolved Thorium	<1	1	<1	1	<1	1	ug/L	-
Dissolved Tin	<1	1	<1	1	<1	1	ug/L	-
Dissolved Titanium	<1	1	<1	1	<1	1	ug/L	-
Dissolved Tungsten	<1	1	<1	1	<1	1	ug/L	-
Dissolved Uranium	<1	1	<1	1	<1	1	ug/L	-
Dissolved Vanadium	<1	1	<1	1	<1	1	ug/L	-
Dissolved Yttrium	<1	1	<1	1	<1	1	ug/L	-
Dissolved Zinc	42	1	20	1	10	1	ug/L	-
Dissolved Zirconium	<1	1	<1	1	<1	1	ug/L	-

**LEGEND**

Dates: Dates are formatted as mm/dd/year throughout this report.

{r}: After a parameter name indicates a re-run of that parameter. Sample may not have been handled according to the recommended temperature, hold time and head space requirements of the method after the initial analysis.

MDL: Method detection limit or minimum reporting limit.

{ } : Results for laboratory replicates are shown in square brackets immediately below the associated sample result for ease of comparison.

- : In a criteria column indicates the criteria is not applicable for the parameter row.

Quality Control: All associated Quality Control data is available on request.

Exceedences: HIGHLIGHTED CELLS INDICATE THAT THE RESULT EXCEEDS A REGULATORY LIMIT. CALCULATED UNCERTAINTY ESTIMATIONS ARE NOT APPLIED FOR DETERMINING SAMPLE EXCEEDANCES.

Benzo(b)fluoranthene: Results for benzo(b)fluoranthene may include contributions from benzo(j)fluoranthene.

Field Data: Reports containing Field Parameters represent data that has been collected and provided by the client. Testmark is not responsible for the validity of this data which may be used in subsequent calculations.

Sample Condition Deviations: A noted sample condition deviation may affect the validity of the result.



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Whitewater Hydrogeology Ltd.

Work Order Number: 373114





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## CERTIFICATE OF ANALYSIS

Client:	Tecia White	Work Order Number:	373145
Company:	Whitewater Hydrogeology Ltd.	PO #:	
Address:	80 Chamberlain Cres Collingwood, ON, L9Y 0C8	Regulation:	None
Phone:	(705) 888-7064	Project #:	Strada Shelburne Semi-Annual Groundwater
Email:	tecia@white-water.ca	DWS #:	
		Sampled By:	Tecia White
Date Order Received:	5/27/2019	Analysis Started:	5/29/2019
Arrival Temperature:	12.5 °C	Analysis Completed:	6/3/2019

### WORK ORDER SUMMARY

ANALYSES WERE PERFORMED ON THE FOLLOWING SAMPLES. THE RESULTS RELATE ONLY TO THE ITEMS TESTED.

Sample Description	Lab ID	Matrix	Type	Comments	Date Collected	Time Collected
North Pond	1441127	Ground Water	None		5/24/2019	
South Pond	1441128	Ground Water	None		5/24/2019	

### METHODS AND INSTRUMENTATION

THE FOLLOWING METHODS WERE USED FOR YOUR SAMPLE(S):

Method	Lab	Description	Reference
Alkalinity (A1.0)	Mississauga	Determination of Alkalinity by Titration	Modified from APHA-2320B
Anions Water (mg/L by IC) (A5)	Mississauga	Determination of Anions in Water by Ion Chromatography	Modified from SW846-9056A
Carbonate (A94)	Mississauga	Determination of Carbonate and Bi-Carbonate	Modified from APHA-2320
Conductivity of Water (A12)	Mississauga	Determination of Conductivity in Water at 25°C	Modified from SM 2510 B
ICPMS Dis. Water (A13)	Mississauga	Determination of Dissolved (Lab Filtered) Metals in Water by ICP/MS	Modified from SW846-6020
ICPMS Reg. Water (A13)	Mississauga	Determination of Metals in Water by ICP/MS	Modified from SW846-6020
pH of Water (A2.0)	Mississauga	Determination of Water pH by Ion Selective Electrode	Modified from APHA-4500H+ B
TP Water (A23.2)	Kirkland Lake	Determination of Total Phosphorus in Water.	Modified from EPA 365.3 and ESS 310.2.





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**CERTIFICATE OF ANALYSIS**

Whitewater Hydrogeology Ltd.

Work Order Number: 373145

This report has been approved by:

Marc Creighton  
Laboratory Director



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### CERTIFICATE OF ANALYSIS

Whitewater Hydrogeology Ltd.

Work Order Number: 373145

#### WORK ORDER RESULTS

Sample Description	North Pond		South Pond			
Lab ID	1441127		1441128			
Anions	Result	MDL	Result	MDL	Units	Criteria: ODWS
Bromide	<0.1 [<0.1]	0.1	<0.1	0.1	mg/L	-
Chloride	5.4 [5.4]	0.2	0.6	0.2	mg/L	250
Fluoride	<0.06 [<0.06]	0.06	<0.06	0.06	mg/L	1.5
Nitrate (as N)	0.08 [0.08]	0.05	0.06	0.05	mg/L	10
Nitrite (as N)	<0.05 [<0.05]	0.05	<0.05	0.05	mg/L	1
Sulphate	3.4 [3.4]	0.3	<0.3	0.3	mg/L	500

Sample Description	North Pond		South Pond			
Lab ID	1441127		1441128			
General Chemistry	Result	MDL	Result	MDL	Units	Criteria: ODWS
Bicarbonate (Calc.)	199	1	145	1	mg/L as CaCO3	-
Carbonate (Calc.)	2	1	1	1	mg/L as CaCO3	-
Conductivity	364	1	257	1	µS/cm	-
M-Alkalinity (pH 4.5)	201	2	146	2	mg/L as CaCO3	-
pH	8.06	N/A	7.94	N/A	pH	-
Total Phosphorus (as P)	0.057	0.002	0.019	0.002	mg/L	-



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Whitewater Hydrogeology Ltd.

Work Order Number: 373145

Sample Description	North Pond		South Pond			
Lab ID	1441127		1441128			
Metals	Result	MDL	Result	MDL	Units	Criteria: ODWS
Calcium	66500	500	51400	500	ug/L	-
Magnesium	10100	5	3570	5	ug/L	-
Potassium	1910	1	2360	1	ug/L	-
Sodium	2220	100	674	100	ug/L	20000

Sample Description	North Pond		South Pond			
Lab ID	1441127		1441128			
Metals (Dissolved)	Result	MDL	Result	MDL	Units	Criteria: ODWS
Dissolved Aluminum	38	2	3 [3]	2	ug/L	-
Dissolved Antimony	<0.5	0.5	<0.5 [<0.5]	0.5	ug/L	-
Dissolved Arsenic	<1	1	<1 [<1]	1	ug/L	-
Dissolved Barium	27	1	6 [6]	1	ug/L	-
Dissolved Beryllium	<0.5	0.5	<0.5 [<0.5]	0.5	ug/L	-
Dissolved Bismuth	<1	1	<1 [<1]	1	ug/L	-
Dissolved Boron	<2	2	<2 [<2]	2	ug/L	-
Dissolved Cadmium	<0.1	0.1	<0.1 [<0.1]	0.1	ug/L	-
Dissolved Calcium	67800	500	51900 [51700]	500	ug/L	-
Dissolved Cerium	<1	1	<1 [<1]	1	ug/L	-
Dissolved Cesium	<1	1	<1 [<1]	1	ug/L	-
Dissolved Chromium	1	1	<1 [<1]	1	ug/L	-



**CERTIFICATE OF ANALYSIS**

Whitewater Hydrogeology Ltd.

Work Order Number: 373145

Sample Description	North Pond		South Pond			
Lab ID	1441127		1441128			
Metals (Dissolved)	Result	MDL	Result	MDL	Units	Criteria: ODWS
Dissolved Cobalt	0.2	0.1	<0.1 [<0.1]	0.1	ug/L	~
Dissolved Copper	1	1	<1 [<1]	1	ug/L	-
Dissolved Europium	<1	1	<1 [<1]	1	ug/L	~
Dissolved Gallium	<1	1	<1 [<1]	1	ug/L	-
Dissolved Iron	322	20	208 [214]	20	ug/L	~
Dissolved Lanthanum	<1	1	<1 [<1]	1	ug/L	-
Dissolved Lead	0.2	0.1	<0.1 [<0.1]	0.1	ug/L	~
Dissolved Lithium	<5	5	<5 [<5]	5	ug/L	~
Dissolved Magnesium	10400	5	3650 [3670]	5	ug/L	-
Dissolved Manganese	25	1	14 [14]	1	ug/L	~
Dissolved Mercury	<0.1	0.1	<0.1 [<0.1]	0.1	ug/L	~
Dissolved Molybdenum	<1	1	<1 [<1]	1	ug/L	~
Dissolved Nickel	3	1	<1 [<1]	1	ug/L	-
Dissolved Niobium	<1	1	<1 [<1]	1	ug/L	~
Dissolved Phosphorus	<50	50	<50 [<50]	50	ug/L	~
Dissolved Potassium	1980	100	2420 [2430]	100	ug/L	~
Dissolved Rubidium	2	1	2 [3]	1	ug/L	-
Dissolved Scandium	<1	1	<1 [<1]	1	ug/L	~



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Whitewater Hydrogeology Ltd.

Work Order Number: 373145

Sample Description	North Pond		South Pond			
Lab ID	1441127		1441128			
Metals (Dissolved)	Result	MDL	Result	MDL	Units	Criteria: ODWS
Dissolved Selenium	<0.5	0.5	<0.5 [<0.5]	0.5	ug/L	-
Dissolved Silicon	1800	600	<600 [<600]	600	ug/L	-
Dissolved Silver	<0.1	0.1	<0.1 [<0.1]	0.1	ug/L	-
Dissolved Sodium	2310	100	669 [631]	100	ug/L	-
Dissolved Strontium	97	1	70 [71]	1	ug/L	-
Dissolved Sulfur	1820	800	1520 [1650]	800	ug/L	-
Dissolved Tellurium	<1	1	<1 [<1]	1	ug/L	-
Dissolved Thallium	<0.1	0.1	<0.1 [<0.1]	0.1	ug/L	-
Dissolved Thorium	<1	1	<1 [<1]	1	ug/L	-
Dissolved Tin	<1	1	<1 [<1]	1	ug/L	-
Dissolved Titanium	<1	1	<1 [<1]	1	ug/L	-
Dissolved Tungsten	<1	1	<1 [<1]	1	ug/L	-
Dissolved Uranium	<1	1	<1 [<1]	1	ug/L	-
Dissolved Vanadium	<1	1	<1 [<1]	1	ug/L	-
Dissolved Yttrium	<1	1	<1 [<1]	1	ug/L	-
Dissolved Zinc	9	1	4 [4]	1	ug/L	-
Dissolved Zirconium	<1	1	<1 [<1]	1	ug/L	-



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## CERTIFICATE OF ANALYSIS

Whitewater Hydrogeology Ltd.

Work Order Number: 373145

### LEGEND

Dates: Dates are formatted as mm/dd/year throughout this report.

[rr]: After a parameter name indicates a re-run of that parameter. Sample may not have been handled according to the recommended temperature, hold time and head space requirements of the method after the initial analysis.

MDL: Method detection limit or minimum reporting limit.

[ ]: Results for laboratory replicates are shown in square brackets immediately below the associated sample result for ease of comparison.

~: In a criteria column indicates the criteria is not applicable for the parameter row.

Quality Control: All associated Quality Control data is available on request.

Exceedences: HIGHLIGHTED CELLS INDICATE THAT THE RESULT EXCEEDS A REGULATORY LIMIT. CALCULATED UNCERTAINTY ESTIMATIONS ARE NOT APPLIED FOR DETERMINING SAMPLE EXCEEDANCES.

Benzo(b)fluoranthene: Results for benzo(b)fluoranthene may include contributions from benzo(j)fluoranthene.

Field Data: Reports containing Field Parameters represent data that has been collected and provided by the client. Testmark is not responsible for the validity of this data which may be used in subsequent calculations.

Sample Condition Deviations: A noted sample condition deviation may affect the validity of the result.



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## CERTIFICATE OF ANALYSIS

Client:	Tecia White	Work Order Number:	385271
Company:	Whitewater Hydrogeology Ltd.	PO #:	
Address:	80 Chamberlain Cres Collingwood, ON, L9Y 0C8	Regulation:	PWQO
Phone:	(705) 888-7064	Project #:	Strada Shedburne Semi-Annual Groundwater
Email:	tecia@white-water.ca	DWS #:	
		Sampled By:	
Date Order Received:	10/11/2019	Analysis Started:	10/15/2019
Arrival Temperature:	19.7 °C	Analysis Completed:	10/18/2019

### WORK ORDER SUMMARY

ANALYSES WERE PERFORMED ON THE FOLLOWING SAMPLES. THE RESULTS RELATE ONLY TO THE ITEMS TESTED.

Sample Description	Lab ID	Matrix	Type	Comments	Date Collected	Time Collected
North Pond	1485286	Surface Water	None		10/8/2019	
South Pond	1485287	Surface Water	None		10/8/2019	
Wash Pond	1485288	Surface Water	None		10/8/2019	

### METHODS AND INSTRUMENTATION

THE FOLLOWING METHODS WERE USED FOR YOUR SAMPLE(S):

Method	Lab	Description	Reference
Alkalinity (A1.0)	Mississauga	Determination of Alkalinity by Titration	Modified from APHA-2320B
Anions Water (mg/L by IC) (A5)	Mississauga	Determination of Anions in Water by Ion Chromatography	Modified from SW846-9056A
Carbonate (A94)	Mississauga	Determination of Carbonate and Bi-Carbonate	Modified from APHA-2320
Conductivity of Water (A12)	Mississauga	Determination of Conductivity in Water at 25°C	Modified from SM 2510 B
ICPMS Reg. Water (A13)	Mississauga	Determination of Metals in Water by ICP/MS	Modified from SW846-6020
pH of Water (A2.0)	Mississauga	Determination of Water pH by Ion Selective Electrode	Modified from APHA-4500H+ B
TP Water (A23.2)	Kirkland Lake	Determination of Total Phosphorus in Water.	Modified from EPA 365.3 and ESS 310.2.





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**CERTIFICATE OF ANALYSIS**

Whitewater Hydrogeology Ltd.

Work Order Number: 385271

This report has been approved by:

Marc Creighton  
Laboratory Director



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### CERTIFICATE OF ANALYSIS

Whitewater Hydrogeology Ltd.

Work Order Number: 385271

#### WORK ORDER RESULTS

Sample Description	North Pond		South Pond		Wash Pond			
Sample Date	10/8/2019 12:00 AM		10/8/2019 12:00 AM		10/8/2019 12:00 AM			
Lab ID	1485286		1485287		1485288			
Anions	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: PWQO
Bromide	<0.1	0.1	<0.1	0.1	<0.1	0.1	mg/L	~
Chloride	5.4	0.2	3.0	0.2	9.8	0.2	mg/L	~
Fluoride	<0.06	0.06	<0.06	0.06	<0.06	0.06	mg/L	~
Nitrate (as N)	0.08	0.05	<0.05	0.05	0.27	0.05	mg/L	~
Nitrite (as N)	0.16	0.05	<0.05	0.05	0.26	0.05	mg/L	~
Sulphate	5.0	0.3	1.3	0.3	13.3	0.3	mg/L	~

Sample Description	North Pond		South Pond		Wash Pond			
Sample Date	10/8/2019 12:00 AM		10/8/2019 12:00 AM		10/8/2019 12:00 AM			
Lab ID	1485286		1485287		1485288			
General Chemistry	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: PWQO
Bicarbonate (Calc.)	179	1	138	1	89	1	mg/L as CaCO3	~
Carbonate (Calc.)	1	1	<1	1	2	1	mg/L as CaCO3	~
Conductivity	365	1	192	1	212	1	µS/cm	~
M-Alkalinity (pH 4.5)	180	2	139	2	92	2	mg/L as CaCO3	~
pH	7.82	N/A	7.85	N/A	8.39	N/A	pH	~
Total Phosphorus (as P)	0.122 [0.111]	0.002	0.125	0.002	0.013	0.002	mg/L	~



**CERTIFICATE OF ANALYSIS**

Whitewater Hydrogeology Ltd.

Work Order Number: 385271

Sample Description	North Pond		South Pond		Wash Pond			
Sample Date	10/8/2019 12:00 AM		10/8/2019 12:00 AM		10/8/2019 12:00 AM			
Lab ID	1485286		1485287		1485288			
Metals	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: PWCO
Aluminum	0.094 [0.103]	0.001	0.010	0.001	0.038	0.001	mg/L	~
Antimony	<0.0005 [<0.0005]	0.0005	<0.0005	0.0005	<0.0005	0.0005	mg/L	~
Arsenic	<0.001 [<0.001]	0.001	<0.001	0.001	<0.001	0.001	mg/L	~
Barium	0.037 [0.037]	0.001	0.008	0.001	0.026	0.001	mg/L	~
Beryllium	<0.0005 [<0.0005]	0.0005	<0.0005	0.0005	<0.0005	0.0005	mg/L	~
Bismuth	<0.001 [<0.001]	0.001	<0.001	0.001	<0.001	0.001	mg/L	~
Boron	0.010 [0.011]	0.002	0.008	0.002	0.008	0.002	mg/L	~
Cadmium	<0.0001 [<0.0001]	0.0001	0.0002	0.0001	<0.0001	0.0001	mg/L	~
Calcium	52.8 [52.2]	0.5	46.5	0.5	18.90	0.05	mg/L	~
Cerium	<0.001 [<0.001]	0.001	<0.001	0.001	<0.001	0.001	mg/L	~
Cesium	<0.001 [<0.001]	0.001	<0.001	0.001	<0.001	0.001	mg/L	~
Chromium	0.003 [0.002]	0.001	0.002	0.001	0.001	0.001	mg/L	~
Cobalt	0.0003 [0.0003]	0.0001	0.0001	0.0001	<0.0001	0.0001	mg/L	~
Copper	0.002 [0.002]	0.001	<0.001	0.001	0.002	0.001	mg/L	~
Europium	<0.001 [<0.001]	0.001	<0.001	0.001	<0.001	0.001	mg/L	~
Gallium	<0.001 [<0.001]	0.001	<0.001	0.001	<0.001	0.001	mg/L	~
Iron	0.8 [0.8]	0.2	0.42	0.02	0.09	0.02	mg/L	~



**CERTIFICATE OF ANALYSIS**

Whitewater Hydrogeology Ltd.

Work Order Number: 385271

Sample Description	North Pond		South Pond		Wash Pond			
Sample Date	10/8/2019 12:00 AM		10/8/2019 12:00 AM		10/8/2019 12:00 AM			
Lab ID	1485286		1485287		1485288			
Metals	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: PWQO
Lanthanum	<0.001 [<0.001]	0.001	<0.001	0.001	<0.001	0.001	mg/L	~
Lead	0.0003 [0.0003]	0.0001	0.0002	0.0001	<0.0001	0.0001	mg/L	~
Lithium	<0.005 [<0.005]	0.005	<0.005	0.005	<0.005	0.005	mg/L	~
Magnesium	10.700 [11.100]	0.005	5.040	0.005	14.200	0.005	mg/L	~
Manganese	0.152 [0.158]	0.001	0.099	0.001	0.003	0.001	mg/L	~
Mercury	<0.0001 [<0.0001]	0.0001	<0.0001	0.0001	<0.0001	0.0001	mg/L	0.0002
Molybdenum	<0.001 [<0.001]	0.001	0.003	0.001	<0.001	0.001	mg/L	~
Nickel	<0.001 [<0.001]	0.001	<0.001	0.001	<0.001	0.001	mg/L	~
Niobium	<0.001 [<0.001]	0.001	<0.001	0.001	<0.001	0.001	mg/L	~
Phosphorus	0.06 [0.06]	0.05	<0.05	0.05	<0.05	0.05	mg/L	~
Potassium	3.440 [3.510]	0.001	6.430	0.001	2.700	0.001	mg/L	~
Rhenium	<0.001 [<0.001]	0.001	<0.001	0.001	<0.001	0.001	mg/L	~
Rubidium	0.004 [0.004]	0.001	0.005	0.001	<0.001	0.001	mg/L	~
Scandium	<0.001 [<0.001]	0.001	<0.001	0.001	<0.001	0.001	mg/L	~
Selenium	0.0014 [0.0011]	0.0005	0.0009	0.0005	<0.0005	0.0005	mg/L	~
Silicon	2.620 [2.670]	0.002	2.780	0.002	0.102	0.002	mg/L	~
Silver	<0.0001 [<0.0001]	0.0001	<0.0001	0.0001	<0.0001	0.0001	mg/L	~



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**CERTIFICATE OF ANALYSIS**

Whitewater Hydrogeology Ltd.

Work Order Number: 385271

Sample Description	North Pond		South Pond		Wash Pond			
Sample Date	10/8/2019 12:00 AM		10/8/2019 12:00 AM		10/8/2019 12:00 AM			
Lab ID	1485286		1485287		1485288			
Metals	Result	MDL	Result	MDL	Result	MDL	Units	Criteria: PWQO
Sodium	2.3 [2.4]	0.1	0.5	0.1	4.0	0.1	mg/L	-
Strontium	0.084 [0.086]	0.001	0.082	0.001	0.088	0.001	mg/L	-
Sulfur	3.3 [3.6]	0.8	1.6	0.8	6.2	0.8	mg/L	-
Tellurium	<0.001 [<0.001]	0.001	<0.001	0.001	<0.001	0.001	mg/L	-
Thallium	<0.0001 [<0.0001]	0.0001	<0.0001	0.0001	<0.0001	0.0001	mg/L	-
Thorium	<0.001 [<0.001]	0.001	<0.001	0.001	<0.001	0.001	mg/L	-
Tin	<0.001 [<0.001]	0.001	<0.001	0.001	<0.001	0.001	mg/L	-
Titanium	<0.001 [0.003]	0.001	<0.001	0.001	<0.001	0.001	mg/L	-
Tungsten	<0.001 [<0.001]	0.001	<0.001	0.001	<0.001	0.001	mg/L	-
Uranium	<0.001 [<0.001]	0.001	<0.001	0.001	<0.001	0.001	mg/L	-
Vanadium	<0.001 [<0.001]	0.001	<0.001	0.001	<0.001	0.001	mg/L	-
Yttrium	<0.001 [<0.001]	0.001	<0.001	0.001	<0.001	0.001	mg/L	-
Zinc	<0.001 [<0.001]	0.001	0.004	0.001	<0.001	0.001	mg/L	-
Zirconium	<0.001 [<0.001]	0.001	<0.001	0.001	<0.001	0.001	mg/L	-



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## CERTIFICATE OF ANALYSIS

Whitewater Hydrogeology Ltd.

Work Order Number: 385271

### LEGEND

**Dates:** Dates are formatted as mm/dd/year throughout this report.

**[rr]:** After a parameter name indicates a re-run of that parameter. If multiple re-runs exist they are suffixed by a number. Sample may not have been handled according to the recommended temperature, hold time and head space requirements of the method after the initial analysis.

**MDL:** Method detection limit or minimum reporting limit.

**[ ]:** Results for laboratory replicates are shown in square brackets immediately below the associated sample result for ease of comparison.

**~:** In a criteria column indicates the criteria is not applicable for the parameter row.

**Quality Control:** All associated Quality Control data is available on request.

**Exceedances:** HIGHLIGHTED CELLS INDICATE THAT THE RESULT EXCEEDS A REGULATORY LIMIT. CALCULATED UNCERTAINTY ESTIMATIONS ARE NOT APPLIED FOR DETERMINING SAMPLE EXCEEDANCES.

**Benzo(b)fluoranthene:** Results for benzo(b)fluoranthene may include contributions from benzo(j)fluoranthene.

**Field Data:** Reports containing Field Parameters represent data that has been collected and provided by the client. Testmark is not responsible for the validity of this data which may be used in subsequent calculations.

**Sample Condition Deviations:** A noted sample condition deviation may affect the validity of the result.



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### CERTIFICATE OF ANALYSIS

Client:	Tecia White	Work Order Number:	385273
Company:	Whitewater Hydrogeology Ltd.	PO #:	
Address:	80 Chamberlain Cres Collingwood, ON, L9Y 0C8	Regulation:	Information not provided
Phone:	(705) 888-7064	Project #:	Strada Shedburne Semi-Annual Groundwater
Email:	tecia@white-water.ca	DWS #:	
		Sampled By:	Tecia White
Date Order Received:	10/11/2019	Analysis Started:	10/15/2019
Arrival Temperature:	18.4 °C	Analysis Completed:	10/21/2019

### WORK ORDER SUMMARY

ANALYSES WERE PERFORMED ON THE FOLLOWING SAMPLES. THE RESULTS RELATE ONLY TO THE ITEMS TESTED.

Sample Description	Lab ID	Matrix	Type	Comments	Date Collected	Time Collected
3B	1485291	Ground Water	None		10/8/2019	
5A	1485292	Ground Water	None		10/8/2019	
5B	1485293	Ground Water	None		10/8/2019	
6A	1485294	Ground Water	None		10/8/2019	
7A	1485295	Ground Water	None		10/8/2019	
7B	1485296	Ground Water	None		10/8/2019	
4B	1485297	Ground Water	None		10/8/2019	
8A	1485298	Ground Water	None		10/8/2019	
9A	1485299	Ground Water	None		10/8/2019	
10A	1485300	Ground Water	None		10/8/2019	
12A	1485301	Ground Water	None		10/8/2019	

### METHODS AND INSTRUMENTATION

THE FOLLOWING METHODS WERE USED FOR YOUR SAMPLE(S):

Method	Lab	Description	Reference
Alkalinity (A1.0)	Mississauga	Determination of Alkalinity by Titration	Modified from APHA-2320B





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## CERTIFICATE OF ANALYSIS

Whitewater Hydrogeology Ltd.

Work Order Number: 385273

Method	Lab	Description	Reference
Anions Water (mg/L by IC) (A5)	Mississauga	Determination of Anions in Water by Ion Chromatography	Modified from SW846-9056A
Carbonate (A94)	Mississauga	Determination of Carbonate and Bi-Carbonate	Modified from APHA-2320
Conductivity of Water (A12)	Mississauga	Determination of Conductivity in Water at 25°C	Modified from SM 2510 B
ICPMS Dis. Water (A13)	Mississauga	Determination of Dissolved (Lab Filtered) Metals in Water by ICP/MS	Modified from SW846-6020
ICPMS Dis. Water FF (A13)	Mississauga	Determination of Dissolved (Lab Filtered) Metals in Water by ICP/MS -> Field-Filtered	Modified from SW846-6020
pH of Water (A2.0)	Mississauga	Determination of Water pH by Ion Selective Electrode	Modified from APHA-4500H+ B
TP Water (A23.2)	Kirkland Lake	Determination of Total Phosphorus in Water.	Modified from EPA 365.3 and ESS 310.2.

This report has been approved by:

Marc Creighton  
Laboratory Director



**CERTIFICATE OF ANALYSIS**

Whitewater Hydrogeology Ltd.

Work Order Number: 385273

**WORK ORDER RESULTS**

Sample Description	3B		5A		5B		6A		
Sample Date	10/8/2019 12:00 AM		10/8/2019 12:00 AM		10/8/2019 12:00 AM		10/8/2019 12:00 AM		
Lab ID	1485291		1485292		1485293		1485294		
Anions	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units
Bromide	<0.1	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	mg/L
Chloride	10.5	0.2	12.8	0.2	50.7	0.2	9.9	0.2	mg/L
Fluoride	<0.06	0.06	<0.06	0.06	<0.06	0.06	<0.06	0.06	mg/L
Nitrate (as N)	0.98	0.05	2.78	0.05	3.30	0.05	1.07	0.05	mg/L
Nitrite (as N)	0.26	0.05	0.36	0.05	<0.05	0.05	0.24	0.05	mg/L
Sulphate	10.4	0.3	10.8	0.3	11.7	0.3	17.9	0.3	mg/L

Sample Description	7A		7B		4B		8A		
Sample Date	10/8/2019 12:00 AM		10/8/2019 12:00 AM		10/8/2019 12:00 AM		10/8/2019 12:00 AM		
Lab ID	1485295		1485296		1485297		1485298		
Anions	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units
Bromide	<0.1	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	mg/L
Chloride	10.8	0.2	1.8	0.2	34.3	0.2	28.0	0.2	mg/L
Fluoride	<0.06	0.06	<0.06	0.06	<0.06	0.06	<0.06	0.06	mg/L
Nitrate (as N)	1.36	0.05	<0.05	0.05	6.50	0.05	6.19	0.05	mg/L
Nitrite (as N)	0.25	0.05	<0.05	0.05	<0.05	0.05	<0.05	0.05	mg/L
Sulphate	11.8	0.3	2.5	0.3	9.2	0.3	9.9	0.3	mg/L



**CERTIFICATE OF ANALYSIS**

Whitewater Hydrogeology Ltd.

Work Order Number: 385273

Sample Description	9A		10A		12A		
Sample Date	10/8/2019 12:00 AM		10/8/2019 12:00 AM		10/8/2019 12:00 AM		
Lab ID	1485299		1485300		1485301		
Anions	Result	MDL	Result	MDL	Result	MDL	Units
Bromide	<0.1	0.1	<0.1	0.1	<0.1	0.1	mg/L
Chloride	3.3	0.2	7.4	0.2	1.8	0.2	mg/L
Fluoride	<0.06	0.06	<0.06	0.06	<0.06	0.06	mg/L
Nitrate (as N)	7.81	0.05	1.02	0.05	1.40	0.05	mg/L
Nitrite (as N)	<0.05	0.05	0.19	0.05	<0.05	0.05	mg/L
Sulphate	5.8	0.3	22.5	0.3	6.2	0.3	mg/L

Sample Description	3B		5A		5B		6A		
Sample Date	10/8/2019 12:00 AM		10/8/2019 12:00 AM		10/8/2019 12:00 AM		10/8/2019 12:00 AM		
Lab ID	1485291		1485292		1485293		1485294		
General Chemistry	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units
Bicarbonate (Calc.)	259	1	196	1	275	1	155	1	mg/L as CaCO3
Carbonate (Calc.)	2	1	2	1	2	1	1	1	mg/L as CaCO3
Conductivity	531	1	462	1	697	1	365	1	µS/cm
M-Alkalinity (pH 4.5)	261	2	198	2	277	2	156	2	mg/L as CaCO3
pH	7.96	N/A	7.97	N/A	7.91	N/A	7.89	N/A	pH
Total Phosphorus (as P)	0.138	0.002	0.453	0.002	0.009	0.002	0.005	0.002	mg/L



**CERTIFICATE OF ANALYSIS**

Whitewater Hydrogeology Ltd.

Work Order Number: 385273

Sample Description	7A		7B		4B		8A		
Sample Date	10/8/2019 12:00 AM		10/8/2019 12:00 AM		10/8/2019 12:00 AM		10/8/2019 12:00 AM		
Lab ID	1485295		1485296		1485297		1485298		
General Chemistry	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units
Bicarbonate (Calc.)	156	1	66	1	297	1	261	1	mg/L as CaCO3
Carbonate (Calc.)	1	1	1	1	2	1	2	1	mg/L as CaCO3
Conductivity	369	1	157	1	689	1	676	1	µS/cm
M-Alkalinity (pH 4.5)	157	2	67	2	299	2	263	2	mg/L as CaCO3
pH	7.89	N/A	8.3	N/A	7.8	N/A	7.83	N/A	pH
Total Phosphorus (as P)	0.004	0.002	0.008	0.002	0.004	0.002	0.005	0.002	mg/L

Sample Description	9A		10A		12A		
Sample Date	10/8/2019 12:00 AM		10/8/2019 12:00 AM		10/8/2019 12:00 AM		
Lab ID	1485299		1485300		1485301		
General Chemistry	Result	MDL	Result	MDL	Result	MDL	Units
Bicarbonate (Calc.)	226	1	226	1	170	1	mg/L as CaCO3
Carbonate (Calc.)	2	1	2	1	2	1	mg/L as CaCO3
Conductivity	514	1	499	1	362	1	µS/cm
M-Alkalinity (pH 4.5)	228	2	228	2	172 [173]	2	mg/L as CaCO3
pH	7.99	N/A	7.93	N/A	8	N/A	pH
Total Phosphorus (as P)	0.005	0.002	0.008	0.002	0.004	0.002	mg/L



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### CERTIFICATE OF ANALYSIS

Whitewater Hydrogeology Ltd.

Work Order Number: 385273

Sample Description	3B		5A		5B		6A		
Sample Date	10/8/2019 12:00 AM		10/8/2019 12:00 AM		10/8/2019 12:00 AM		10/8/2019 12:00 AM		
Lab ID	1485291		1485292		1485293		1485294		
Metals (Dissolved)	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units
Dissolved Aluminum	8 [3]	2	<2	2	<2	2	<2	2	ug/L
Dissolved Antimony	<0.5 [<0.5]	0.5	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L
Dissolved Arsenic	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L
Dissolved Barium	28 [7]	1	37	1	33	1	43	1	ug/L
Dissolved Beryllium	<0.5 [<0.5]	0.5	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L
Dissolved Bismuth	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L
Dissolved Boron	7 [7]	2	6	2	8	2	11	2	ug/L
Dissolved Cadmium	<0.1 [<0.1]	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L
Dissolved Calcium	77600 [77700]	500	80100	500	89000	500	48200	500	ug/L
Dissolved Cerium	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L
Dissolved Cesium	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L
Dissolved Chromium	5 [4]	1	4	1	5	1	2	1	ug/L
Dissolved Cobalt	<0.1 [<0.1]	0.1	0.1	0.1	0.1	0.1	<0.1	0.1	ug/L
Dissolved Copper	<1 [<1]	1	4	1	2	1	3	1	ug/L
Dissolved Europium	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L
Dissolved Gallium	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L
Dissolved Iron	180 [180]	20	130	20	760	200	86	20	ug/L



**CERTIFICATE OF ANALYSIS**

Whitewater Hydrogeology Ltd.

Work Order Number: 385273

Sample Description	3B		5A		5B		6A		
Sample Date	10/8/2019 12:00 AM		10/8/2019 12:00 AM		10/8/2019 12:00 AM		10/8/2019 12:00 AM		
Lab ID	1485291		1485292		1485293		1485294		
Metals (Dissolved)	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units
Dissolved Lanthanum	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L
Dissolved Lead	<0.1 [<0.1]	0.1	0.8	0.1	<0.1	0.1	0.8	0.1	ug/L
Dissolved Lithium	<5 [<5]	5	<5	5	<5	5	<5	5	ug/L
Dissolved Magnesium	18800 [18900]	5	15500	5	21700	5	13400	5	ug/L
Dissolved Manganese	<1 [<1]	1	20	1	29	1	<1	1	ug/L
Dissolved Mercury	<0.1 [<0.1]	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L
Dissolved Molybdenum	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L
Dissolved Nickel	1 [1]	1	2	1	1	1	1	1	ug/L
Dissolved Niobium	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L
Dissolved Phosphorus	<50 [<50]	50	<50	50	<50	50	<50	50	ug/L
Dissolved Potassium	1370 [1350]	100	4070	100	2550	100	2790	100	ug/L
Dissolved Rubidium	<1 [<1]	1	2	1	<1	1	<1	1	ug/L
Dissolved Scandium	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L
Dissolved Selenium	<0.5 [<0.5]	0.5	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L
Dissolved Silicon	3800 [3900]	600	3200	600	3600	600	2700	600	ug/L
Dissolved Silver	3.5 [<0.1]	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L
Dissolved Sodium	3340 [3350]	100	12500	100	22900	100	4510	100	ug/L





**CERTIFICATE OF ANALYSIS**

Whitewater Hydrogeology Ltd.

Work Order Number: 385273

Sample Description	3B		5A		5B		6A		
Sample Date	10/8/2019 12:00 AM		10/8/2019 12:00 AM		10/8/2019 12:00 AM		10/8/2019 12:00 AM		
Lab ID	1485291		1485292		1485293		1485294		
Metals (Dissolved)	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units
Dissolved Strontium	109 [107]	1	114	1	133	1	105	1	ug/L
Dissolved Sulfur	2200 [2200]	800	2500	800	2500	800	3300	800	ug/L
Dissolved Tellurium	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L
Dissolved Thallium	<0.1 [<0.1]	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L
Dissolved Thorium	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L
Dissolved Tin	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L
Dissolved Titanium	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L
Dissolved Tungsten	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L
Dissolved Uranium	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L
Dissolved Vanadium	1 [1]	1	<1	1	1	1	<1	1	ug/L
Dissolved Yttrium	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L
Dissolved Zinc	<1 [<1]	1	17	1	20	1	16	1	ug/L
Dissolved Zirconium	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L





**CERTIFICATE OF ANALYSIS**

Whitewater Hydrogeology Ltd.

Work Order Number: 385273

Sample Description	7A		7B		4B		8A		
Sample Date	10/8/2019 12:00 AM		10/8/2019 12:00 AM		10/8/2019 12:00 AM		10/8/2019 12:00 AM		
Lab ID	1485295		1485296		1485297		1485298		
Metals (Dissolved)	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units
Dissolved Aluminum	<2	2	<2	2	<2	2	<2	2	ug/L
Dissolved Antimony	<0.5	0.5	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L
Dissolved Arsenic	<1	1	<1	1	<1	1	<1	1	ug/L
Dissolved Barium	34	1	2	1	49	1	79	1	ug/L
Dissolved Beryllium	<0.5	0.5	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L
Dissolved Bismuth	<1	1	<1	1	<1	1	<1	1	ug/L
Dissolved Boron	6	2	14	2	6	2	5	2	ug/L
Dissolved Cadmium	<0.1	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L
Dissolved Calcium	56200	500	6920	50	105000	500	95300	500	ug/L
Dissolved Cerium	<1	1	<1	1	<1	1	<1	1	ug/L
Dissolved Cesium	<1	1	<1	1	<1	1	<1	1	ug/L
Dissolved Chromium	2	1	1	1	5	1	6	1	ug/L
Dissolved Cobalt	<0.1	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L
Dissolved Copper	3	1	3	1	3	1	2	1	ug/L
Dissolved Europium	<1	1	<1	1	<1	1	<1	1	ug/L
Dissolved Gallium	<1	1	<1	1	<1	1	2	1	ug/L
Dissolved Iron	92	20	59	20	170	20	150	20	ug/L
Dissolved Lanthanum	<1	1	<1	1	<1	1	<1	1	ug/L
Dissolved Lead	0.7	0.1	0.7	0.1	0.5	0.1	0.5	0.1	ug/L
Dissolved Lithium	<5	5	<5	5	<5	5	<5	5	ug/L
Dissolved Magnesium	9820	5	15100	5	20400	5	28300	5	ug/L
Dissolved Manganese	<1	1	62	1	<1	1	<1	1	ug/L
Dissolved Mercury	<0.1	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L
Dissolved Molybdenum	<1	1	3	1	<1	1	<1	1	ug/L



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### CERTIFICATE OF ANALYSIS

Whitewater Hydrogeology Ltd.

Work Order Number: 385273

Sample Description	7A		7B		4B		8A		
Sample Date	10/8/2019 12:00 AM		10/8/2019 12:00 AM		10/8/2019 12:00 AM		10/8/2019 12:00 AM		
Lab ID	1485295		1485296		1485297		1485298		
Metals (Dissolved)	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units
Dissolved Nickel	1	1	<1	1	2	1	9	1	ug/L
Dissolved Niobium	<1	1	<1	1	<1	1	<1	1	ug/L
Dissolved Phosphorus	<50	50	<50	50	<50	50	<50	50	ug/L
Dissolved Potassium	1340	100	740	100	770	100	920	100	ug/L
Dissolved Rubidium	<1	1	<1	1	<1	1	<1	1	ug/L
Dissolved Scandium	<1	1	<1	1	<1	1	<1	1	ug/L
Dissolved Selenium	<0.5	0.5	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L
Dissolved Silicon	2600	600	<600	600	3900	600	5800	600	ug/L
Dissolved Silver	<0.1	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L
Dissolved Sodium	4140	100	1900	100	16700	100	5290	100	ug/L
Dissolved Strontium	79	1	8	1	144	1	149	1	ug/L
Dissolved Sulfur	3100	800	<800	800	2200	800	2000	800	ug/L
Dissolved Tellurium	<1	1	<1	1	<1	1	<1	1	ug/L
Dissolved Thallium	<0.1	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L
Dissolved Thorium	<1	1	<1	1	<1	1	<1	1	ug/L
Dissolved Tin	<1	1	<1	1	<1	1	<1	1	ug/L
Dissolved Titanium	<1	1	<1	1	<1	1	<1	1	ug/L
Dissolved Tungsten	<1	1	<1	1	<1	1	<1	1	ug/L
Dissolved Uranium	<1	1	<1	1	<1	1	<1	1	ug/L
Dissolved Vanadium	<1	1	<1	1	1	1	1	1	ug/L
Dissolved Yttrium	<1	1	<1	1	<1	1	<1	1	ug/L
Dissolved Zinc	15	1	17	1	13	1	12	1	ug/L
Dissolved Zirconium	<1	1	<1	1	<1	1	<1	1	ug/L



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**CERTIFICATE OF ANALYSIS**

Whitewater Hydrogeology Ltd.

Work Order Number: 385273

Sample Description	9A		10A		12A		
Sample Date	10/8/2019 12:00 AM		10/8/2019 12:00 AM		10/8/2019 12:00 AM		
Lab ID	1485299		1485300		1485301		
Metals (Dissolved)	Result	MDL	Result	MDL	Result	MDL	Units
Dissolved Aluminum	2	2	<2	2	<2	2	ug/L
Dissolved Antimony	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L
Dissolved Arsenic	<1	1	<1	1	<1	1	ug/L
Dissolved Barium	38	1	53	1	5	1	ug/L
Dissolved Beryllium	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L
Dissolved Bismuth	<1	1	<1	1	<1	1	ug/L
Dissolved Boron	4	2	11	2	5	2	ug/L
Dissolved Cadmium	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L
Dissolved Calcium	82800	500	64600	500	63400	500	ug/L
Dissolved Cerium	<1	1	<1	1	<1	1	ug/L
Dissolved Cesium	<1	1	<1	1	<1	1	ug/L
Dissolved Chromium	3	1	3	1	3	1	ug/L
Dissolved Cobalt	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L
Dissolved Copper	2	1	2	1	<1	1	ug/L
Dissolved Europium	<1	1	<1	1	<1	1	ug/L
Dissolved Gallium	<1	1	<1	1	<1	1	ug/L
Dissolved Iron	130	20	110	20	100	20	ug/L
Dissolved Lanthanum	<1	1	<1	1	<1	1	ug/L
Dissolved Lead	0.5	0.1	<0.1	0.1	<0.1	0.1	ug/L
Dissolved Lithium	<5	5	5	5	<5	5	ug/L
Dissolved Magnesium	14000	5	21800	5	5850	5	ug/L
Dissolved Manganese	19	1	<1	1	<1	1	ug/L
Dissolved Mercury	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L
Dissolved Molybdenum	<1	1	<1	1	<1	1	ug/L



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### CERTIFICATE OF ANALYSIS

Whitewater Hydrogeology Ltd.

Work Order Number: 385273

Sample Description	9A		10A		12A		
Sample Date	10/8/2019 12:00 AM		10/8/2019 12:00 AM		10/8/2019 12:00 AM		
Lab ID	1485299		1485300		1485301		
Metals (Dissolved)	Result	MDL	Result	MDL	Result	MDL	Units
Dissolved Nickel	2	1	1	1	<1	1	ug/L
Dissolved Niobium	<1	1	<1	1	<1	1	ug/L
Dissolved Phosphorus	<50	50	<50	50	<50	50	ug/L
Dissolved Potassium	770	100	1150	100	1530	100	ug/L
Dissolved Rubidium	2	1	<1	1	<1	1	ug/L
Dissolved Scandium	<1	1	<1	1	<1	1	ug/L
Dissolved Selenium	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L
Dissolved Silicon	3600	600	4700	600	2600	600	ug/L
Dissolved Silver	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L
Dissolved Sodium	1650	100	6730	100	1070	100	ug/L
Dissolved Strontium	118	1	166	1	134	1	ug/L
Dissolved Sulfur	1200	800	10500	800	2100	800	ug/L
Dissolved Tellurium	<1	1	<1	1	<1	1	ug/L
Dissolved Thallium	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L
Dissolved Thorium	<1	1	<1	1	<1	1	ug/L
Dissolved Tin	<1	1	<1	1	<1	1	ug/L
Dissolved Titanium	<1	1	<1	1	<1	1	ug/L
Dissolved Tungsten	<1	1	<1	1	<1	1	ug/L
Dissolved Uranium	<1	1	<1	1	<1	1	ug/L
Dissolved Vanadium	<1	1	<1	1	<1	1	ug/L
Dissolved Yttrium	<1	1	<1	1	<1	1	ug/L
Dissolved Zinc	13	1	12	1	<1	1	ug/L
Dissolved Zirconium	<1	1	<1	1	<1	1	ug/L



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## CERTIFICATE OF ANALYSIS

Whitewater Hydrogeology Ltd.

Work Order Number: 385273

### LEGEND

Dates: Dates are formatted as mm/dd/year throughout this report.

[rr]: After a parameter name indicates a re-run of that parameter. If multiple re-runs exist they are suffixed by a number. Sample may not have been handled according to the recommended temperature, hold time and head space requirements of the method after the initial analysis.

MDL: Method detection limit or minimum reporting limit.

[ ]: Results for laboratory replicates are shown in square brackets immediately below the associated sample result for ease of comparison.

Quality Control: All associated Quality Control data is available on request.

Exceedances: HIGHLIGHTED CELLS INDICATE THAT THE RESULT EXCEEDS A REGULATORY LIMIT. CALCULATED UNCERTAINTY ESTIMATIONS ARE NOT APPLIED FOR DETERMINING SAMPLE EXCEEDANCES.

Benzo(b)fluoranthene: Results for benzo(b)fluoranthene may include contributions from benzo(j)fluoranthene.

Field Data: Reports containing Field Parameters represent data that has been collected and provided by the client. Testmark is not responsible for the validity of this data which may be used in subsequent calculations.

Sample Condition Deviations: A noted sample condition deviation may affect the validity of the result.



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## CERTIFICATE OF ANALYSIS

Client:	Tecia White	Work Order Number:	386290
Company:	Whitewater Hydrogeology Ltd.	PO #:	
Address:	80 Chamberlain Cres Collingwood, ON, L9Y 0C8	Regulation:	None
Phone:	(705) 888-7064	Project #:	Strada Shelburne Semi-Annual Groundwater
Email:	tecia@white-water.ca	DWS #:	
		Sampled By:	Tecia White
Date Order Received:	10/23/2019	Analysis Started:	10/23/2019
Arrival Temperature:	17.8 °C	Analysis Completed:	10/30/2019

### WORK ORDER SUMMARY

ANALYSES WERE PERFORMED ON THE FOLLOWING SAMPLES. THE RESULTS RELATE ONLY TO THE ITEMS TESTED.

Sample Description	Lab ID	Matrix	Type	Comments	Date Collected	Time Collected
13-B	1489641	Ground Water	None		10/21/2019	
14-B	1489642	Ground Water	None		10/21/2019	
16-B	1489643	Ground Water	None		10/21/2019	
18-A	1489644	Ground Water	None		10/21/2019	
18-B	1489645	Ground Water	None		10/21/2019	
19-B	1489646	Ground Water	None		10/21/2019	
20-B	1489647	Ground Water	None		10/21/2019	
21-B	1489648	Ground Water	None		10/21/2019	
22-B	1489649	Ground Water	None		10/21/2019	
23-B	1489650	Ground Water	None		10/21/2019	

### METHODS AND INSTRUMENTATION

THE FOLLOWING METHODS WERE USED FOR YOUR SAMPLE(S):

Method	Lab	Description	Reference
Alkalinity (A1.0)	Mississauga	Determination of Alkalinity by Titration	Modified from APHA-2320B
Anions Water (mg/L by IC) (A5)	Mississauga	Determination of Anions in Water by Ion Chromatography	Modified from SW846-9056A



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## CERTIFICATE OF ANALYSIS

Whitewater Hydrogeology Ltd.

Work Order Number: 386290

Method	Lab	Description	Reference
Carbonate (A94)	Mississauga	Determination of Carbonate and Bi-Carbonate	Modified from APHA-2320
Conductivity of Water (A12)	Mississauga	Determination of Conductivity in Water at 25° C	Modified from SM 2510 B
ICPMS Dis. Water (A13)	Mississauga	Determination of Dissolved (Lab Filtered) Metals in Water by ICP/MS	Modified from SW846-6020
ICPMS Dis. Water FF (A13)	Mississauga	Determination of Dissolved (Lab Filtered) Metals in Water by ICP/MS -> Field-Filtered	Modified from SW846-6020
pH of Water (A2.0)	Mississauga	Determination of Water pH by Ion Selective Electrode	Modified from APHA-4500H+ B
TP Water (A23.2)	Kirkland Lake	Determination of Total Phosphorus in Water.	Modified from EPA 365.3 and ESS 310.2,

This report has been approved by:

Marc Creighton  
Laboratory Director





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### CERTIFICATE OF ANALYSIS

Whitewater Hydrogeology Ltd.

Work Order Number: 386290

### WORK ORDER RESULTS

Sample Description	13 - B		14 - B		16 - B		18 - A		
Sample Date	10/21/2019 12:00 AM		10/21/2019 12:00 AM		10/21/2019 12:00 AM		10/21/2019 12:00 AM		
Lab ID	1489641		1489642		1489643		1489644		
Anions	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units
Bromide	<0.1	0.1	<0.1	0.1	<0.1 [<0.1]	0.1	<0.1	0.1	mg/L
Chloride	13.6	0.2	1.8	0.2	4.5 [4.3]	0.2	7.8	0.2	mg/L
Fluoride	<0.06	0.06	<0.06	0.06	<0.06 [<0.06]	0.06	<0.06	0.06	mg/L
Nitrate (as N)	1.72	0.05	2.31	0.05	2.59 [2.59]	0.05	3.95	0.05	mg/L
Nitrite (as N)	0.31	0.05	0.10	0.05	<0.05 [<0.05]	0.05	0.27	0.05	mg/L
Sulphate	29.2	0.3	14.7	0.3	12.1 [11.6]	0.3	17.3	0.3	mg/L
Sample Description	18 - B		19 - B		20 - B		21 - B		
Sample Date	10/21/2019 12:00 AM		10/21/2019 12:00 AM		10/21/2019 12:00 AM		10/21/2019 12:00 AM		
Lab ID	1489645		1489646		1489647		1489648		
Anions	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units
Bromide	<0.1	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	mg/L
Chloride	5.5	0.2	17.4	0.2	2.4	0.2	1.6	0.2	mg/L
Fluoride	<0.06	0.06	0.07	0.06	<0.06	0.06	<0.06	0.06	mg/L
Nitrate (as N)	1.69	0.05	7.87	0.05	1.77	0.05	0.79	0.05	mg/L
Nitrite (as N)	<0.05	0.05	0.75	0.05	<0.05	0.05	<0.05	0.05	mg/L
Sulphate	5.3	0.3	20.3	0.3	8.1	0.3	11.7	0.3	mg/L



**CERTIFICATE OF ANALYSIS**

Whitewater Hydrogeology Ltd.

Work Order Number: 386290

Sample Description	22 - B		23 - B		
Sample Date	10/21/2019 12:00 AM		10/21/2019 12:00 AM		
Lab ID	1489649		1489650		
Anions	Result	MDL	Result	MDL	Units
Bromide	<0.1	0.1	<0.1	0.1	mg/L
Chloride	18.7	0.2	15.8	0.2	mg/L
Fluoride	<0.06	0.06	<0.06	0.06	mg/L
Nitrate (as N)	7.53	0.05	6.83	0.05	mg/L
Nitrite (as N)	0.46	0.05	0.42	0.05	mg/L
Sulphate	38.8	0.3	18.3	0.3	mg/L

Sample Description	13 - B		14 - B		16 - B		18 - A		
Sample Date	10/21/2019 12:00 AM		10/21/2019 12:00 AM		10/21/2019 12:00 AM		10/21/2019 12:00 AM		
Lab ID	1489641		1489642		1489643		1489644		
General Chemistry	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units
Bicarbonate (Calc.)	256	1	318	1	171	1	187	1	mg/L as CaCO3
Carbonate (Calc.)	4	1	5	1	4	1	2	1	mg/L as CaCO3
Conductivity	537	1	555	1	358	1	403	1	µS/cm
M-Alkalinity (pH 4.5)	260	2	323	2	175	2	189	2	mg/L as CaCO3
P-Alkalinity (pH 8.3)					3	2			mg/L as CaCO3
pH	8.25	N/A	8.19	N/A	8.4	N/A	8.02	N/A	pH
Total Phosphorus (as P)	0.007	0.002	0.004	0.002	0.007	0.002	0.111	0.002	mg/L



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### CERTIFICATE OF ANALYSIS

Whitewater Hydrogeology Ltd.

Work Order Number: 386290

Sample Description	18 - B		19 - B		20 - B		21 - B		
Sample Date	10/21/2019 12:00 AM		10/21/2019 12:00 AM		10/21/2019 12:00 AM		10/21/2019 12:00 AM		
Lab ID	1489645		1489646		1489647		1489648		
General Chemistry	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units
Bicarbonate (Calc.)	190	1	229	1	203	1	216	1	mg/L as CaCO <sub>3</sub>
Carbonate (Calc.)	3	1	2	1	2	1	2	1	mg/L as CaCO <sub>3</sub>
Conductivity	229	1	434	1	275	1	374	1	µS/cm
M-Alkalinity (pH 4.5)	193	2	231	2	205	2	218	2	mg/L as CaCO <sub>3</sub>
pH	8.16	N/A	8.02	N/A	8.1	N/A	8.08	N/A	pH
Total Phosphorus (as P)	0.054	0.002	0.292	0.002	0.132	0.002	0.218	0.002	mg/L

Sample Description	22 - B		23 - B		
Sample Date	10/21/2019 12:00 AM		10/21/2019 12:00 AM		
Lab ID	1489649		1489650		
General Chemistry	Result	MDL	Result	MDL	Units
Bicarbonate (Calc.)	206	1	209	1	mg/L as CaCO <sub>3</sub>
Carbonate (Calc.)	2	1	2	1	mg/L as CaCO <sub>3</sub>
Conductivity	541	1	483	1	µS/cm
M-Alkalinity (pH 4.5)	208	2	211	2	mg/L as CaCO <sub>3</sub>
pH	8.06	N/A	8.08	N/A	pH
Total Phosphorus (as P)	0.008	0.002	0.024	0.002	mg/L



**CERTIFICATE OF ANALYSIS**

Whitewater Hydrogeology Ltd.

Work Order Number: 386290

Sample Description	13 - B		14 - B		16 - B		18 - A		
Sample Date	10/21/2019 12:00 AM		10/21/2019 12:00 AM		10/21/2019 12:00 AM		10/21/2019 12:00 AM		
Lab ID	1489641		1489642		1489643		1489644		
Metals (Dissolved)	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units
Dissolved Aluminum	<2 [<2]	2	<2	2	<2	2	31	2	ug/L
Dissolved Antimony	<0.5 [<0.5]	0.5	<0.5	0.5	<0.5	0.5	1.0	0.5	ug/L
Dissolved Arsenic	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L
Dissolved Barium	38 [39]	1	86	1	32	1	66	1	ug/L
Dissolved Beryllium	<0.5 [<0.5]	0.5	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L
Dissolved Bismuth	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L
Dissolved Boron	7 [8]	2	7	2	6	2	6	2	ug/L
Dissolved Cadmium	<0.1 [<0.1]	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L
Dissolved Calcium	74200 [74400]	500	99000	500	53300	500	77100	500	ug/L
Dissolved Cerium	<1 [<1]	1	<1	1	<1	1	1	1	ug/L
Dissolved Cesium	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L
Dissolved Chromium	5 [5]	1	6	1	3	1	3	1	ug/L
Dissolved Cobalt	0.1 [0.1]	0.1	0.3	0.1	<0.1	0.1	<0.1	0.1	ug/L
Dissolved Copper	3 [3]	1	5	1	<1	1	4	1	ug/L
Dissolved Europium	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L
Dissolved Gallium	<1 [<1]	1	2	1	<1	1	2	1	ug/L
Dissolved Iron	234 [245]	20	278	20	130	20	190	20	ug/L



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### CERTIFICATE OF ANALYSIS

Whitewater Hydrogeology Ltd.

Work Order Number: 386290

Sample Description	13 - B		14 - B		16 - B		18 - A		
Sample Date	10/21/2019 12:00 AM		10/21/2019 12:00 AM		10/21/2019 12:00 AM		10/21/2019 12:00 AM		
Lab ID	1489641		1489642		1489643		1489644		
Metals (Dissolved)	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units
Dissolved Lanthanum	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L
Dissolved Lead	0.6 [0.7]	0.1	1.1	0.1	0.1	0.1	0.6	0.1	ug/L
Dissolved Lithium	<5 [<5]	5	<5	5	<5	5	<5	5	ug/L
Dissolved Magnesium	19400 [20000]	5	25900	5	13000	5	18100	5	ug/L
Dissolved Manganese	1 [1]	1	9	1	<1	1	15	1	ug/L
Dissolved Mercury	<0.1 [<0.1]	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L
Dissolved Molybdenum	<1 [<1]	1	3	1	2	1	<1	1	ug/L
Dissolved Nickel	2 [2]	1	2	1	<1	1	2	1	ug/L
Dissolved Niobium	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L
Dissolved Phosphorus	<50 [<50]	50	<50	50	<50	50	<50	50	ug/L
Dissolved Potassium	1300 [1350]	100	790	100	540	100	1120	100	ug/L
Dissolved Rubidium	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L
Dissolved Scandium	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L
Dissolved Selenium	0.8 [<0.5]	0.5	0.8	0.5	<0.5	0.5	<0.5	0.5	ug/L
Dissolved Silicon	4000 [4100]	600	5100	600	3400	600	3400	600	ug/L
Dissolved Silver	<0.1 [<0.1]	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L
Dissolved Sodium	6830 [7300]	100	2010	100	2270	100	2630	100	ug/L



**CERTIFICATE OF ANALYSIS**

Whitewater Hydrogeology Ltd.

Work Order Number: 386290

Sample Description	13 - B		14 - B		16 - B		18 - A		
Sample Date	10/21/2019 12:00 AM		10/21/2019 12:00 AM		10/21/2019 12:00 AM		10/21/2019 12:00 AM		
Lab ID	1489641		1489642		1489643		1489644		
Metals (Dissolved)	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units
Dissolved Strontium	111 [114]	1	161	1	87	1	118	1	ug/L
Dissolved Sulfur	1900 [2300]	800	1300	800	3300	800	5200	800	ug/L
Dissolved Tellurium	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L
Dissolved Thallium	<0.1 [<0.1]	0.1	0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L
Dissolved Thorium	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L
Dissolved Tin	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L
Dissolved Titanium	<1 [<1]	1	1	1	<1	1	<1	1	ug/L
Dissolved Tungsten	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L
Dissolved Uranium	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L
Dissolved Vanadium	1 [1]	1	2	1	<1	1	<1	1	ug/L
Dissolved Yttrium	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L
Dissolved Zinc	16 [17]	1	73	1	19	1	6	1	ug/L
Dissolved Zirconium	<1 [<1]	1	<1	1	<1	1	<1	1	ug/L





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### CERTIFICATE OF ANALYSIS

Whitewater Hydrogeology Ltd.

Work Order Number: 386290

Sample Description	18 - B		19 - B		20 - B		21 - B		
Sample Date	10/21/2019 12:00 AM		10/21/2019 12:00 AM		10/21/2019 12:00 AM		10/21/2019 12:00 AM		
Lab ID	1489645		1489646		1489647		1489648		
Metals (Dissolved)	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units
Dissolved Aluminum	19	2	269	2	18	2	215	2	ug/L
Dissolved Antimony	0.9	0.5	2.9	0.5	<0.5	0.5	0.9	0.5	ug/L
Dissolved Arsenic	<1	1	<1	1	<1	1	<1	1	ug/L
Dissolved Barium	33	1	167	10	64	1	87	1	ug/L
Dissolved Beryllium	<0.5	0.5	<0.5	0.5	<0.5	0.5	<0.5	0.5	ug/L
Dissolved Bismuth	<1	1	<1	1	<1	1	<1	1	ug/L
Dissolved Boron	7	2	14	2	8	2	7	2	ug/L
Dissolved Cadmium	<0.1	0.1	0.3	0.1	<0.1	0.1	0.2	0.1	ug/L
Dissolved Calcium	62000	500	112000	500	64300	500	86100	500	ug/L
Dissolved Cerium	<1	1	10	1	<1	1	4	1	ug/L
Dissolved Cesium	<1	1	<1	1	<1	1	<1	1	ug/L
Dissolved Chromium	3	1	6	1	3	1	5	1	ug/L
Dissolved Cobalt	<0.1	0.1	0.4	0.1	<0.1	0.1	0.4	0.1	ug/L
Dissolved Copper	19	1	13	1	<1	1	9	1	ug/L
Dissolved Europium	<1	1	<1	1	<1	1	<1	1	ug/L
Dissolved Gallium	<1	1	4	1	2	1	2	1	ug/L
Dissolved Iron	140	20	389	20	130	20	299	20	ug/L
Dissolved Lanthanum	<1	1	4	1	<1	1	2	1	ug/L
Dissolved Lead	0.4	0.1	22.6	0.1	0.3	0.1	11.8	0.1	ug/L
Dissolved Lithium	<5	5	<5	5	<5	5	<5	5	ug/L
Dissolved Magnesium	14900	5	37000	5	22400	5	30900	5	ug/L
Dissolved Manganese	8	1	63	1	6	1	41	1	ug/L
Dissolved Mercury	<0.1	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L
Dissolved Molybdenum	<1	1	<1	1	<1	1	<1	1	ug/L





**CERTIFICATE OF ANALYSIS**

Whitewater Hydrogeology Ltd.

Work Order Number: 386290

Sample Description	18 - B		19 - B		20 - B		21 - B		
Sample Date	10/21/2019 12:00 AM		10/21/2019 12:00 AM		10/21/2019 12:00 AM		10/21/2019 12:00 AM		
Lab ID	1489645		1489646		1489647		1489648		
Metals (Dissolved)	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Units
Dissolved Nickel	<1	1	3	1	<1	1	2	1	ug/L
Dissolved Niobium	<1	1	<1	1	<1	1	<1	1	ug/L
Dissolved Phosphorus	<50	50	130	50	<50	50	130	50	ug/L
Dissolved Potassium	1280	100	5590	100	860	100	850	100	ug/L
Dissolved Rubidium	<1	1	2	1	<1	1	1	1	ug/L
Dissolved Scandium	<1	1	1	1	<1	1	<1	1	ug/L
Dissolved Selenium	0.9	0.5	<0.5	0.5	<0.5	0.5	0.7	0.5	ug/L
Dissolved Silicon	3100	600	5200	600	4500	600	4800	600	ug/L
Dissolved Silver	<0.1	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L
Dissolved Sodium	2750	100	4330	100	6180	100	3760	100	ug/L
Dissolved Strontium	90	1	179	1	111	1	156	1	ug/L
Dissolved Sulfur	1400	800	6300	800	2200	800	3700	800	ug/L
Dissolved Tellurium	<1	1	<1	1	<1	1	<1	1	ug/L
Dissolved Thallium	<0.1	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	ug/L
Dissolved Thorium	<1	1	<1	1	<1	1	<1	1	ug/L
Dissolved Tin	2	1	5	1	<1	1	3	1	ug/L
Dissolved Titanium	<1	1	2	1	<1	1	2	1	ug/L
Dissolved Tungsten	<1	1	<1	1	<1	1	<1	1	ug/L
Dissolved Uranium	<1	1	<1	1	<1	1	<1	1	ug/L
Dissolved Vanadium	<1	1	2	1	<1	1	2	1	ug/L
Dissolved Yttrium	<1	1	4	1	<1	1	2	1	ug/L
Dissolved Zinc	24	1	98	1	1	1	28	1	ug/L
Dissolved Zirconium	<1	1	<1	1	<1	1	<1	1	ug/L



**TESTMARK Laboratories Ltd.**

*Committed to Quality and Service*

## CERTIFICATE OF ANALYSIS

Whitewater Hydrogeology Ltd.

Work Order Number: 386290

Sample Description	22 - B		23 - B		
Sample Date	10/21/2019 12:00 AM		10/21/2019 12:00 AM		
Lab ID	1489649		1489650		
Metals (Dissolved)	Result	MDL	Result	MDL	Units
Dissolved Aluminum	11	2	12	2	ug/L
Dissolved Antimony	5.2	0.5	0.9	0.5	ug/L
Dissolved Arsenic	<1	1	<1	1	ug/L
Dissolved Barium	71	1	31	1	ug/L
Dissolved Beryllium	<0.5	0.5	<0.5	0.5	ug/L
Dissolved Bismuth	<1	1	<1	1	ug/L
Dissolved Boron	7	2	11	2	ug/L
Dissolved Cadmium	<0.1	0.1	<0.1	0.1	ug/L
Dissolved Calcium	76900	500	69700	500	ug/L
Dissolved Cerium	<1	1	<1	1	ug/L
Dissolved Cesium	<1	1	<1	1	ug/L
Dissolved Chromium	3	1	3	1	ug/L
Dissolved Cobalt	<0.1	0.1	<0.1	0.1	ug/L
Dissolved Copper	2	1	5	1	ug/L
Dissolved Europium	<1	1	<1	1	ug/L
Dissolved Gallium	2	1	<1	1	ug/L
Dissolved Iron	150	20	140	20	ug/L
Dissolved Lanthanum	<1	1	<1	1	ug/L
Dissolved Lead	0.1	0.1	0.2	0.1	ug/L
Dissolved Lithium	<5	5	<5	5	ug/L
Dissolved Magnesium	31200	5	28200	5	ug/L
Dissolved Manganese	1	1	3	1	ug/L
Dissolved Mercury	<0.1	0.1	<0.1	0.1	ug/L
Dissolved Molybdenum	<1	1	<1	1	ug/L



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## CERTIFICATE OF ANALYSIS

Whitewater Hydrogeology Ltd.

Work Order Number: 386290

Sample Description	22 - B		23 - B		
Sample Date	10/21/2019 12:00 AM		10/21/2019 12:00 AM		
Lab ID	1489649		1489650		
Metals (Dissolved)	Result	MDL	Result	MDL	Units
Dissolved Nickel	2	1	1	1	ug/L
Dissolved Niobium	<1	1	<1	1	ug/L
Dissolved Phosphorus	<50	50	<50	50	ug/L
Dissolved Potassium	950	100	1350	100	ug/L
Dissolved Rubidium	<1	1	1	1	ug/L
Dissolved Scandium	<1	1	<1	1	ug/L
Dissolved Selenium	<0.5	0.5	<0.5	0.5	ug/L
Dissolved Silicon	5100	600	4500	600	ug/L
Dissolved Silver	<0.1	0.1	<0.1	0.1	ug/L
Dissolved Sodium	4170	100	7770	100	ug/L
Dissolved Strontium	132	1	108	1	ug/L
Dissolved Sulfur	12400	800	5800	800	ug/L
Dissolved Tellurium	<1	1	<1	1	ug/L
Dissolved Thallium	<0.1	0.1	<0.1	0.1	ug/L
Dissolved Thorium	<1	1	<1	1	ug/L
Dissolved Tin	3	1	3	1	ug/L
Dissolved Titanium	<1	1	<1	1	ug/L
Dissolved Tungsten	<1	1	<1	1	ug/L
Dissolved Uranium	<1	1	<1	1	ug/L
Dissolved Vanadium	<1	1	1	1	ug/L
Dissolved Yttrium	<1	1	<1	1	ug/L
Dissolved Zinc	7	1	7	1	ug/L
Dissolved Zirconium	<1	1	<1	1	ug/L



**TESTMARK Laboratories Ltd.**

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## CERTIFICATE OF ANALYSIS

Whitewater Hydrogeology Ltd.

Work Order Number: 386290

### LEGEND

Dates: Dates are formatted as mm/dd/year throughout this report.

[rr]: After a parameter name indicates a re-run of that parameter. If multiple re-runs exist they are suffixed by a number. Sample may not have been handled according to the recommended temperature, hold time and head space requirements of the method after the initial analysis.

MDL: Method detection limit or minimum reporting limit.

[ ]: Results for laboratory replicates are shown in square brackets immediately below the associated sample result for ease of comparison.

Quality Control: All associated Quality Control data is available on request.

Exceedences: HIGHLIGHTED CELLS INDICATE THAT THE RESULT EXCEEDS A REGULATORY LIMIT. CALCULATED UNCERTAINTY ESTIMATIONS ARE NOT APPLIED FOR DETERMINING SAMPLE EXCEEDANCES.

Benzo(b)fluoranthene: Results for benzo(b)fluoranthene may include contributions from benzo(j)fluoranthene.

Field Data: Reports containing Field Parameters represent data that has been collected and provided by the client. Testmark is not responsible for the validity of this data which may be used in subsequent calculations.

Sample Condition Deviations: A noted sample condition deviation may affect the validity of the result.



February 13, 2020

To:

The Honourable Doug Ford, Premier of Ontario,  
The Honourable Ernie Hardeman, Minister of Agriculture, Food and Rural Affairs,  
The Honourable Steve Clark, Minister of Municipal Affairs and Housing,  
Andrea Horwath, Leader of the New Democratic Party of Ontario,  
John Fraser, Interim Leader of the Liberal Party of Ontario,  
Mike Schreiner, Leader of the Green Party of Ontario,  
Monte McNaughton, MPP, Middlesex-Kent;  
Association of Municipalities of Ontario; and  
Ontario municipalities

**RE: Southwest Middlesex Resolution regarding Government Bill 156**

Please be advised that at its February 12, 2020 meeting, the Council of the Municipality of Southwest Middlesex passed the following resolution regarding Bill 156, *Security from Trespass and Protecting Food Safety Act, 2019*:

Moved by Councillor McGill  
Seconded by Councillor Cowell

**Whereas** the Provincial Government of Ontario is considering Bill 156, *Security from Trespass and Protecting Food Safety Act, 2019*; and

**Whereas** Bill 156 is intended to protect farms, farm operations, and food safety and security by addressing unwanted trespassing; and

**Whereas** Ontario farmers are increasingly under threat of unwanted trespassers who are illegally entering property, barns and buildings, and safety of drivers of motor vehicles transporting farm animals which threatens the health and safety of the farm, employees, livestock and crops; and

**Whereas** additional protection for the agri-food industry to protect the security of the food chain, the farm owners, family and employees is the purpose of the *Security from Trespass and Protecting Food Safety Act, 2019*; and

**Whereas** unwanted trespassing occurs on all types of farm operations, including grain farmers, which has the potential to impact the safety and security of people and the food chain;

**Now Therefore Be It Resolved That** the Municipality of Southwest Middlesex supports the intent of Bill 156 and requests that the Province of Ontario expanding Bill 156 to identify and include protections against trespass for grain farm operations; and

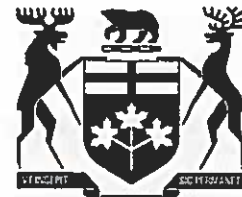
**That** a copy of this Motion be sent to the Honourable Doug Ford, Premier of Ontario, The Honourable Ernie Hardeman, Minister of Agriculture, Food and Rural Affairs, the Honourable Steve Clark, Minister of Municipal Affairs and Housing, Andrea Horwath, Leader of the New Democratic Party of Ontario, John Fraser, Interim Leader of the Liberal Party of Ontario, Mike Schreiner, Leader of the Green Party of Ontario, and Monte McNaughton, MPP, Middlesex-Kent; and

**That** a copy of this motion be sent to the Association of Municipalities of Ontario (AMO), and Ontario municipalities.

Carried

Ministry of Agriculture,  
Food and Rural Affairs

Ministère de l'Agriculture, de  
l'Alimentation et des Affaires rurales



Ontario

Office of the Minister

Bureau du ministre

77 Grenville Street, 11th Floor  
Toronto, Ontario M7A 1B3  
Tel: 416-326-3074  
[www.ontario.ca/OMAFRA](http://www.ontario.ca/OMAFRA)

77, rue Grenville, 11<sup>e</sup> étage  
Toronto (Ontario) M7A 1B3  
Tél. : 416 326-3074  
[www.ontario.ca/MAAARO](http://www.ontario.ca/MAAARO)

January 22, 2020

Denise Holmes  
CAO/Clerk  
Township of Melancthon  
[dholmes@melancthontownship.ca](mailto:dholmes@melancthontownship.ca)

Dear Ms. Holmes:

The Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) is seeking input on a proposal to streamline Drainage Act approval processes that would address common stakeholder concerns about the act while maintaining our province's high environmental standards. This is part of our government's broader initiative to reduce regulatory burden in consultation with the farm and agri-food sector while preserving rules that keep Ontarians safe and healthy.

The Drainage Act Discussion Paper is posted on the province's Environmental Registry at [ero.ontario.ca/notice/019-1187](http://ero.ontario.ca/notice/019-1187). It describes some of the proposed changes which would reduce costs and project delays for farmers and other rural landowners and municipalities. The paper also poses questions for your feedback.

OMAFRA will be hosting webinars for key stakeholders who play an important role in the Drainage Act. The webinars are scheduled for:

January 31st	10:00 - 11:00 a.m.	Municipalities
January 31st	1:00 - 2:00 p.m.	Conservation Authorities
February 7th	10:00 - 11:00 a.m.	Drainage Industry
February 7th	1:00 - 2:00 p.m.	General Farm Organizations

To register, please contact the Agricultural Information Contact Centre (AICC) by email to [ag.info.omafra@ontario.ca](mailto:ag.info.omafra@ontario.ca) or call 1-877-424-1300. Although the webinars are targeted to specific audiences, you are very welcome to enroll at a time or date that better suits your schedule.

.../2



Good things grow in Ontario  
À bonne terre, bons produits

Ministry Headquarters: 1 Stone Road West, Guelph, Ontario N1G 4Y2  
Bureau principal du ministère: 1 Stone Road West, Guelph (Ontario) N1G 4Y2

INFO # 20  
FEB 20 2020



Printed copies of the French Discussion Paper are also available from the AICC on request.

Our Ministry is committed to relieving the red tape burden that will ensure drainage continues to deliver critical economic and environmental benefits that will help rural communities, agricultural landowners and drainage contractors save money and/or time. We are confident the proposed changes will assist in making this a reality.

I look forward to your input.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ernie Hardeman', with a large, stylized initial 'E'.

**Ernie Hardeman**  
**Minister of Agriculture, Food and Rural Affairs**

# Drainage Act Discussion Paper

## Summary of Proposal

Ontario's agri-food sector is an important component of the provincial economy, contributing \$39.5 billion in Gross Domestic Product (GDP) and employing nearly 822,500 people in 2017. Primary agriculture accounted for roughly 11 per cent of the sector's GDP (\$4.4 billion), generating \$13.1 billion in farm cash receipts and employing 68,500 people in 2017 while producing a diverse range of over 200 different commodities.

Drainage is critical for supporting agricultural productivity and the production of food. It also enables sector growth by delivering environmental and economic benefits such as improved crop productivity, nutrient loss reduction, reduced soil erosion, habitat protection and flood control. Though mostly unnoticed, it is an essential part of the rural Ontario landscape with more than 45,000 kilometers of municipal drains servicing approximately 1.75 million hectares of cropland.

It also positively impacts the economy as over \$100M is privately invested in drainage annually which has created 800-900 jobs and supports over 100 independent businesses.

To permit the construction and maintenance of municipal drains and private agricultural drainage systems, the agricultural sector has relied on drainage legislation for over 150 years. OMAFRA administers three pieces of agricultural drainage legislation: the *Drainage Act*, the *Tile Drainage Act* and the *Agricultural Tile Drainage Installation Act*.

The *Drainage Act* is unique in many ways. It establishes a process for resolving property right disputes involving water flow and drainage. It is premised on a user pay system where costs are fairly assessed to the property owners within the watershed. A drainage engineers report provides the design and allocation of project costs for a municipal drain that involves multiple private properties. Through collaboration between private landowners, it has helped address broader societal benefits such as flood control within Ontario's rural communities.

The *Drainage Act* is one of the Province's oldest pieces of legislation. Passed in 1859, there have not been any significant changes to the legislation since 1975. This has led to stakeholders requesting changes to the Act. For example, some stakeholders have indicated there are too many steps and agencies involved for drainage construction, maintenance and improvements to be approved in a timely and less costly way. Others have suggested that additional protocols (such as the *Drainage Act and Conservation Authorities Act Protocol*) could help with streamlining approvals for low risk activities.

To address some of these stakeholder concerns and reduce burden (e.g. project delays and projects costs) while maintaining environmental standards, OMAFRA is considering changes to the *Drainage Act*. This is part of the Ontario Government's broader approach to cutting red tape and reducing regulatory burden for all businesses, to lower business operating costs and improve Ontario's competitiveness.

OMAFRA is proposing changes to the *Drainage Act* that would, if passed:

- Create a new streamlined *Drainage Act* process for minor improvements to drainage systems;
- Enable a simplified process to update the engineer's report to account for changes to the design made during construction; and
- Provide the minister with legislative authority to adopt technical protocols such as the DART Protocol by reference in regulation.

## 1. Supporting Technical Protocols

### *Authority to adopt protocols by reference in regulation*

Currently, projects under the *Drainage Act* typically require approvals from multiple agencies (e.g. conservation authorities, Department of Fisheries and Oceans, Ministry of Natural Resources and Forestry) to address protection of endangered species, water management and flood risks and other environmental considerations. When not coordinated, these additional approvals can add cost and project delays.

Protocols (such as the *Drainage Act and Conservation Authorities Act Protocol*) when adopted, have been demonstrated to reduce project delays and project costs while maintaining environmental protections. OMAFRA is proposing to amend the *Drainage Act* to enable broader adoption of this collaborative approach by providing legislative authority for the minister to develop and sign off on technical protocols.

Similar to the DART Protocol that originated from a multi-agency *Drainage Act and Regulations Team (DART)*, OMAFRA would work in collaboration with other ministries, regulatory agencies, conservation authorities, municipalities, farming organizations, indigenous organizations and others on the development of any new protocols.

The DART Protocol was established in 2008 to streamline approvals for municipal drain repair and maintenance projects that meet *Conservation Authorities Act* permitting requirements in order to support compliance with *Drainage Act* requirements. For example, specific drainage maintenance and repair that follows environmental mitigation measures recommended in the

DART Protocol are provided with a streamlined approval under section 28 of the *Conservation Authorities Act* where conservation authorities have adopted the Protocol.

Numerous stakeholders contributed to the development of the DART protocol including the Ministry of Natural Resources and Forestry, Conservation Ontario, conservation authorities, the Drainage Superintendents Association of Ontario, the Society of Professional Engineers Land Drainage Committee, Ontario Federation of Agriculture, Ontario Farm Environmental Coalition and the Rural Ontario Municipal Association.

## 2. Streamlining Approvals

### *Creating a new process for minor improvements*

The *Drainage Act* establishes a process for resolving issues involving water flow and drainage. However, it doesn't enable a streamlined process for simple drain improvement projects that have minimal impact on the environment and other properties. This leads to a very lengthy and involved process that involves all assessed landowners, creating additional cost and burden, and can result in delaying or avoiding improvement activities.

OMAFRA is considering a new *Drainage Act* process for minor improvements so projects could be completed in a less costly and more efficient way. Examples of minor improvements could include: creating or widening a crossing, relocating a drain on an individual property or the addition of a feature with environmental benefits (e.g. buffer, water retention area). It would also allow for easier adoption of some green infrastructure technologies that have multiple benefits.

It is estimated that a streamlined minor improvement process could reduce the approval process by half; from 9 months to possibly 4-5 months. Less process and fewer meetings could result in an estimated 10 per cent savings a year for minor improvement project costs. The reduced process and costs would be especially important in facilitating environmental improvements to drains.

Moving the requirements into a new regulation would define minor improvement projects and describe a process to implement them in a streamlined way.

### 3. Simplifying Administrative Processes

#### *Accounting for changes to drain design during construction*

An engineer's report is prepared at the beginning of a drainage project to assess water drainage needs, affected landowners, system design and costs. It is common for drainage systems built under the *Drainage Act* to deviate from the design plans in the engineer's report because of unforeseen site conditions in the field. These changes are currently not identified in the engineer's report since there is no authority or defined process in the Act to follow to amend the report with new information. This can lead to a lack of clarity for municipal drainage superintendents who plan and implement maintenance and repair activity in accordance with the engineer's report.

OMAFRA is considering amendments to the *Drainage Act* to enable a simplified process to update the engineer's report to account for any changes made during construction. This would recognize and align with existing engineering practices.

It would also ensure the municipality has the authority to maintain the drain "as built" which would ensure that landowners are fairly assessed for the costs of maintaining and repairing the drain. By providing clarity to municipalities on the content of the engineer's report (accounting for changes made to the design during construction), cost savings could also be expected for municipalities while increasing certainty for landowners.

## Summary

Changes to the *Drainage Act* are proposed that would, if passed, enable a streamlined process for drainage projects to meet the requirements of property owners, municipalities and a cross section of government agencies. Additional housekeeping amendments may be considered.

The ministry is seeking your feedback on potential amendments to the *Drainage Act* and related programs. Your feedback will be considered during the development of possible legislative amendments.

We are also committed to consulting further on more specific changes to be included in a regulatory proposal for minor drain improvements.

**Questions for Consultation**

- i. Beyond the DART Protocol, what additional protocols could be established to help streamline approvals?*
- ii. What projects should be included in the definition of minor improvements? What else would you like a minor process to achieve?*
- iii. Do you have any specific concerns with any of the items discussed in the paper?*
- iv. Do you have any additional suggestions to reduce burden or contribute to additional opportunities for your business?*

**Email**

OMAFRA: [sara.peckford@ontario.ca](mailto:sara.peckford@ontario.ca)

**Address**

Ontario Ministry of Agriculture, Food and Rural Affairs  
Food Safety and Environmental Policy Branch  
1 Stone Road West, 2<sup>nd</sup> Floor SW  
Guelph, ON N1G 4Y2  
*c/o Sara Peckford*

Ontario Ministry of Agriculture, Food and Rural Affairs

# *Drainage Act* Amendment Proposal

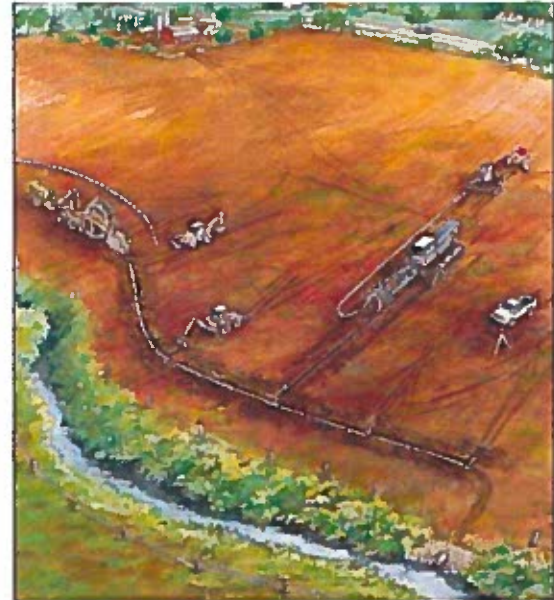
Stakeholder Consultation

January 31 and February 7, 2020



# Agenda

- Welcome and Introductions
- Background
- Proposed Changes
  - Discussion & Feedback
- Next Steps and Closing Remarks



# Background

- Three Acts regulate drainage in rural communities: *Drainage Act*, *Agricultural Tile Drainage Installation Act*, *Tile Drainage Act*. The *Drainage Act* is a long established piece of legislation that has not been significantly updated since 1975.
- Over the past several years, opportunities for burden reduction have been identified by stakeholders and through internal review.
- The Ministry is proposing enabling amendments to the *Drainage Act* that would, if passed:
  - Create a new streamlined *Drainage Act* process for minor improvements to drainage systems;
  - Enable a simplified process to update the engineer's report to account for changes to the design made during construction; and
  - Provide the minister with legislative authority to adopt technical protocols such as the DART Protocol by reference in regulation.
- These proposals are expected to reduce administrative burden, streamline approvals and address stakeholder concerns while maintaining environmental standards.
- This is the beginning of a consultation process. Further consultation would occur on the proposed regulation which would include details on the minor improvement process and the process to update the engineer's report.



# Streamlining Approvals

# Creating a New Process for Minor Improvements

## Current

The *Drainage Act* doesn't enable a streamlined process for simple drain improvement projects that have a minimal impact on the environment and other properties.

## Why Consider a Change

The current process involves all landowners assessed during the original development of the entire municipal drain, creating unnecessary cost and burden, and can result in delaying or avoiding improvement activities on an individual property.

## Proposal

Create a new *Drainage Act* process for minor improvements so projects can be completed in a less costly and more efficient way while maintaining environmental protections. A new regulation would be developed to define minor improvements and describe the process.

- Examples of minor improvements could include: creating or widening a crossing, relocating a drain on an individual property, or the addition of a feature with environmental benefits (e.g. buffer, water retention area).

# **Simplifying Administrative Processes**



# Accounting for Changes to Drain Design during Construction

## Current

Drainage systems built under the *Drainage Act* sometimes deviate from the design plans because of unforeseen site conditions in the field. These changes are not recognized in the engineer's report since there is no authority or defined process to do so under the Act.

## Why Consider a Change

Without a process to recognize changes in the engineer's report, the municipality doesn't have the authority to maintain the drain "as built". This can lead to a lack of clarity for municipal superintendents who plan and implement maintenance and repair activity in accordance with the engineer's report.

## Proposal

Amend the *Drainage Act* to enable a simplified process to update the engineer's report to account for any changes made during construction. A new regulation would be developed to outline the process.

# Supporting Technical Protocols



# Authority to Adopt Protocols by Reference in Regulation

## Current



There is one technical protocol for drain maintenance and repair activities (*Drainage Act and Conservation Authorities Act Protocol (DART Protocol)*) which is currently implemented voluntarily. The Protocol includes general and activity specific environmental mitigation requirements.

The Ministry of Natural Resources and Forestry (MNRF) proposed changes to development permit regulations under the *Conservation Authorities Act* in April 2019. These proposed changes included exempting, across all CAs, certain drain repair and maintenance activities that are undertaken in accordance with the DART Protocol.

## Why Consider a Change

Stakeholders such as the Ontario Federation of Agriculture and the Land Drainage Committee have suggested new protocols, which could be developed collaboratively by the DART team.

## Proposal

Amend the *Drainage Act* to enable the incorporation of technical protocols by reference in regulation. Any new Protocols would need to ensure that environmental protections are maintained.

# Proposal Recap

## Proposals

### **Streamlining Approvals**

Create a new process for minor improvements

### **Simplifying Administrative Processes**

Enable a simplified process to update the engineer's report and to account for changes to drain design during construction

### **Supporting Technical Proposals**

Incorporation of protocols by reference in a regulation

## Intended Benefits

The proposed amendments have the intended benefits of:

- Supporting economic competitiveness by making it easier and more cost effective to ensure existing drains perform well
- Increasing opportunity for collaboration in the development of protocols to ensure environmental protections are maintained
- Enhancing climate resiliency by encouraging the uptake of new technologies and approaches

# Discussion and Feedback

## Discussion Paper Questions

1. Beyond the DART Protocol, what additional protocols could be established to help streamline approvals?
2. What projects should be included in the definition of minor improvements? What else would you like a minor process to achieve?
3. Do you have any specific concerns with any of the items discussed in the paper?
4. Do you have any additional suggestions to reduce burden or contribute to additional opportunities for your business?

# Next Steps

- Access the full proposal at [www.ero.Ontario.ca](http://www.ero.Ontario.ca)
- Provide your comments by February 18, 2020.
- Feedback gathered will be used in finalizing the proposed changes.
- To implement the proposed *Drainage Act* amendments, OMAFRA will be developing a regulatory proposal. We will consult separately on this proposal.

# Contact Information

**Sara Peckford**

Senior Policy Advisor, Environmental Stewardship Policy Unit  
Food Safety and Environmental Policy Branch  
Ontario Ministry of Agriculture, Food and Rural Affairs  
Guelph, ON N1G 4Y2

Phone: 1-888-466-2372 ext. 519-400-0986 (toll-free)  
or (519) 400-0986 (local)

Email: [sara.Peckford@Ontario.ca](mailto:sara.Peckford@Ontario.ca)

**Thank you for your  
participation**

8



# North Dufferin Community Centre Board of Management



Moved by Bert Tupling.....

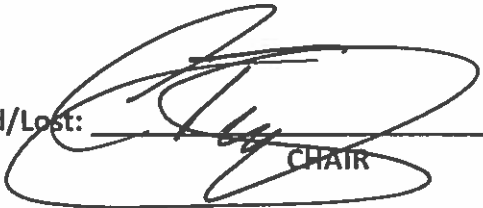
Seconded by Nancy Noble.....

Date Feb 12/20....., 2020

Be it resolved that:

The Board of Management approve the 2020 Budget Draft #4. *as amended*

<u>Recorded Vote</u>	<u>Yea</u>	<u>Nay</u>
Chair Chester Tupling		
Vice Chair Bert Tupling		
Member Dave Besley		
Member Debbie Fawcett		
Member Keith Lowry		
Member Nancy Noble		
Member Clayton Rowbotham		
Member Patricia Clark		

Carried/Lost:   
CHAIR



**NDCC Board of Management  
2020 Budget**

Account	Description	Draft #4						Comments
		2018 Actuals	2018 Budget	2019 Actual	2019 Budget	2020 Budget	Budget Variance	
<b>REVENUES</b>								
01-2000-4000	MULMUR GRANT	25,277	25,277	55,024	55,024	53,651	(1,372)	-2.49%
01-2000-4010	MELANCTHON GRANT	25,277	25,277	55,024	55,024	53,651	(1,372)	-2.49%
01-2000-4020	DONATION REVENUE	100	-	2,819	-	-	0	
01-2000-4030	FUNDRAISING REVENUE	20,273	20,000	19,047	20,000	19,000	(1,000)	BBQ, Straw. Supper
01-2000-4100	MINOR RATE RENTAL REVENUE	45,901	45,000	54,021	45,000	54,000	9,000	
01-2000-4110	ICE RENTAL REVENUE (PRIME)	47,663	52,000	50,823	52,000	51,000	(1,000)	
01-2000-4115	ICE RENTAL REVENUE (NON-PRIME)	697	500	1,633	500	500	0	
01-2000-4120	NON-RESIDENT USER FEES	3,578	3,000	3,696	3,250	3,250	0	
01-2000-4200	BOOTH RENTAL REVENUE	3,561	4,300	2,170	5,000	2,100	(2,900)	
01-2000-4210	HALL RENTAL REVENUE	2,230	2,600	4,012	2,600	4,000	1,400	
01-2000-4220	FLOOR RENTAL REVENUE	463	-	97	-	-	0	
01-2000-4230	SIGN RENTAL REVENUE	3,980	4,160	3,840	4,160	3,800	(360)	
01-2000-4240	VENDING MACHINE REVENUE	238	250	109	-	-	0	
01-2000-4300	PENALTIES & INTEREST	773	525	869	525	850	325	
01-2000-4500	PRIOR YEAR DEFICIT			(29,582)	(29,582)	(6,342)	23,240	
<b>TOTAL REVENUE</b>		<b>180,011</b>	<b>182,888</b>	<b>223,601</b>	<b>213,500</b>	<b>239,461</b>		
<b>EXPENSES</b>								
01-2000-7000	WAGES	52,760	45,000	68,452	55,000	68,000	13,000	
01-2000-7005	BENEFITS-EI/CPP/WSIB/EHT	5,066	5,600	5,540	5,600	5,600	0	
01-2000-7010	BENEFITS-OMERS	1,740	3,000	-	-	4,950	4,950	
01-2000-7012	MILEAGE			284		300	300	
01-2000-7015	STAFF TRAINING/DUES, FEES, SUBSCRIP	1,556	300	1,149	300	1,000	700	
01-2000-7100	OFFICE/COMPUTER SUPPLIES	1,901	1,200	2,428	1,700	2,000	300	
01-2000-7110	COMMUNICATION	2,512	3,000	1,968	3,000	2,000	(1,000)	
01-2000-7115	INSURANCE	11,763	12,200	12,518	12,200	13,300	1,100	
01-2000-7120	HEALTH & SAFETY	2,087	2,800	1,903	2,800	2,000	(800)	billed at y/e
01-2000-7125	PROF FEES - AUDIT	1,403	1,188	611	1,400	611	(789)	per quote
01-2000-7130	PROF FEES - WATER TESTING	232	300	393	300	400	100	
01-2000-7150	BANK CHARGES	388	500	772	400	500	100	
01-2000-7200	HYDRO	55,360	60,000	50,085	60,000	58,000	(2,000)	
01-2000-7210	FURNACE FUEL/ZAMB PROPANE	15,067	12,000	14,712	12,000	15,000	3,000	
01-2000-7220	BLDG/GROUNDS MAINTENANCE	23,665	15,000	18,293	20,000	18,500	(1,500)	
01-2000-7230	BOOTH MAINTENANCE	4,462	1,300	1,918	1,300	3,300	2,000	\$1,600 roller shutter
01-2000-7240	ICE PLANT/MACH MAINT	18,771	9,000	18,153	12,000	18,000	6,000	
01-2000-7300	FUNDRAISING EXPENSE	10,859	10,500	10,993	10,500	11,000	500	
01-2000-7400	BAD DEBT	0	-	399	-	-	0	
01-2000-7500	CAPITAL PURCHASES	0		19,372	15,000	15,000	0	
<b>TOTAL EXPENSES</b>		<b>209,593</b>	<b>182,888</b>	<b>229,943</b>	<b>213,500</b>	<b>239,461</b>	<b>25,961</b>	<b>12.16%</b>
<b>Net Income/(Deficit)</b>		<b>(29,582)</b>	<b>0</b>	<b>(6,342)</b>	<b>0</b>	<b>0</b>		

Operating Reserve Continuity	2018	2019	2020
Opening Reserve Balance	-	40,000	40,000
Operating Levy Mulmur	20,000	-	-
Operating Levy Melancthon	20,000	-	-
<b>Ending Reserve Balance</b>	<b>40,000</b>	<b>40,000</b>	<b>40,000</b>

GB#7.1.4  
FEB 12 2020



# 2020 FARMLAND FORUM

The Shifting Landscapes of Farmland Protection



## FEATURING



**KEVIN EBY**

*On...*

- The potential impact of changing growth forecasts and housing preferences on the need for urban expansions
- The potential impacts on urban land needs and municipal infrastructure financing



**PHILLY MARKOWITZ**

*On...*

- Grey County's efforts to map the local agri-food system to complement federal and provincial data sets and mapping
- How the agri-food system overlaps with the county's economic development priorities

**And panels on...**

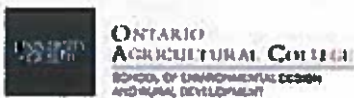
- The shifting landscapes of farming and farmland protection
- The Agricultural System in Ontario

**MARCH 26, 2020**  
**THE GRAND BANQUET & EVENT CENTRE**  
**8:30 AM - 4:00 PM**

*A day of sharing, networking, and exploring policy and land-use planning innovation for the changing landscapes of farmland protection in Ontario.*

**TICKETS: [www.ontariofarmlandtrust.ca](http://www.ontariofarmlandtrust.ca), [info@ontariofarmlandtrust.ca](mailto:info@ontariofarmlandtrust.ca)**

**Thank you to our supporters....**



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**RAYMOND JAMES**



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# Main Street Revitalization Funding

## SCHEDULE B ELIGIBLE PROJECTS

Funding is to be directed to Eligible Projects to support revitalization activities within main street areas, as defined through an existing Community Improvement Plan or any other municipal land use planning policy. Funding can be used in one or both of the following categories:

1. **Community Improvement Plan** – construction, renewal, renovation or redevelopment or material enhancement activities that implement priority financial incentives in existing Community Improvement Plans such as:
  - a. Commercial building façade improvements
  - b. Preservation and adaptive reuse of heritage and industrial buildings
  - c. Provision of affordable housing
  - d. Space conversion for residential and commercial uses
  - e. Structural improvements to buildings (e.g. Building Code upgrades)
  - f. Improvement of community energy efficiency
  - g. Accessibility enhancements
2. **Other Municipal Land Use Planning Policy** – construction, renewal or material enhancement activities to fund strategic Municipal Physical Infrastructure and promotional projects such as:
  - a. Signage – wayfinding/directional, and gateway.
  - b. Streetscaping and landscape improvements – lighting, banners, murals, street furniture, interpretive elements, public art, urban forestation, accessibility, telecommunications/broadband equipment, parking, active transportation infrastructure (e.g. bike racks/storage, cycling lanes and paths) and pedestrian walkways/trails.
  - c. Marketing plan implementation – business attraction and promotion activities, special events.

## NOTICE OF A PUBLIC MEETING FOR AN OFFICIAL PLAN AMENDMENT

### NOTICE OF COMPLETE APPLICATION

**TAKE NOTICE** that the Township of Melancthon has received a complete application to amend the Township's Official Plan. The application affects lands located in Part of West Half of Lots 7 and 8, Concession 2 O.S, (3rd Line) in the Township of Melancthon (see attached Key Map). The purpose of the application is to create a policy exception to permit the re-severance of 6 lots which inadvertently merged in title.

**AND PURSUANT** to Section 22 (6.4) of the Planning Act, the application file is available for review at the Municipal Office. Please contact the Clerk to arrange to review this file.

### NOTICE OF A PUBLIC MEETING WITH COUNCIL

**TAKE NOTICE** that further to the notice of complete application, the Township of Melancthon is scheduling a public meeting under Section 22 of the Planning Act for the purpose of hearing public comments on a proposed amendment to the Township's Official Plan. The application affects lands located in Part of West Half of Lots 7 and 8, Concession 2 O.S, (3rd Line) in the Township of Melancthon (see attached Key Map). The purpose of the application is to establish a policy exemption to permit 6 parcels which have inadvertently merged in title to be re-severed.

### DATE AND LOCATION OF PUBLIC MEETING

Date: Thursday, February 20, 2020  
Time: 5:20 pm  
Location: Township of Melancthon Municipal Office – 157101 Highway 10

### DETAILS OF THE APPLICATIONS FOR OFFICIAL PLAN AND ZONING BY-LAW AMENDMENT

The purpose of the proposed amendment is to establish an Official Plan policy exemption for lands located in Part of West Half of Lots 7 and 8, Concession 2 O.S, (3rd Line) in the Township of Melancthon (see attached Key Map). The purpose of the application is to establish a policy exemption to permit 6 parcels which have inadvertently merged in title to be re-subdivided into 6 separate parcels of land. It is noted that the applicant has also submitted concurrent applications for zoning by-law amendment and consent to sever but these applications will not be processed until a decision is made with respect to this Official Plan Amendment.

The Township has been provided with the following studies which are available for review by attending the Township office during regular office hours:

1. Environment Impact Study
2. Agricultural Impact Evaluation
3. Planning Report

### ADDITIONAL INFORMATION AND MAP OF LAND SUBJECT TO THE APPLICATION

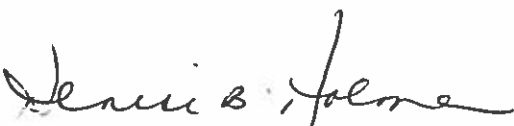
A key map showing the land to which the proposed amendments apply is provided on this notice.

If you wish to be notified of the decision of the Council for the Corporation of the Township of Melancthon in respect to the proposed amendment, you must submit a written request (with forwarding addresses) to the Clerk of the Township of Melancthon at 157101 Highway 10, Melancthon, Ontario, L9V 2E6, email - [dholmes@melancthontownship.ca](mailto:dholmes@melancthontownship.ca).

If a person or public body does not make oral submissions at a public meeting or make written submissions to Council before the proposed amendment is approved, the person or public body is not entitled to appeal the decision of Council or the County of Dufferin to the Local Planning Appeal Tribunal.

If a person or public body does not make oral submissions at a public meeting or make written submissions to Council before the proposed amendments are approved, the person or public body may not be added as a party to the hearing of an appeal before the Local Planning Appeal Tribunal unless, in the opinion of the Board, there are reasonable grounds to do so.

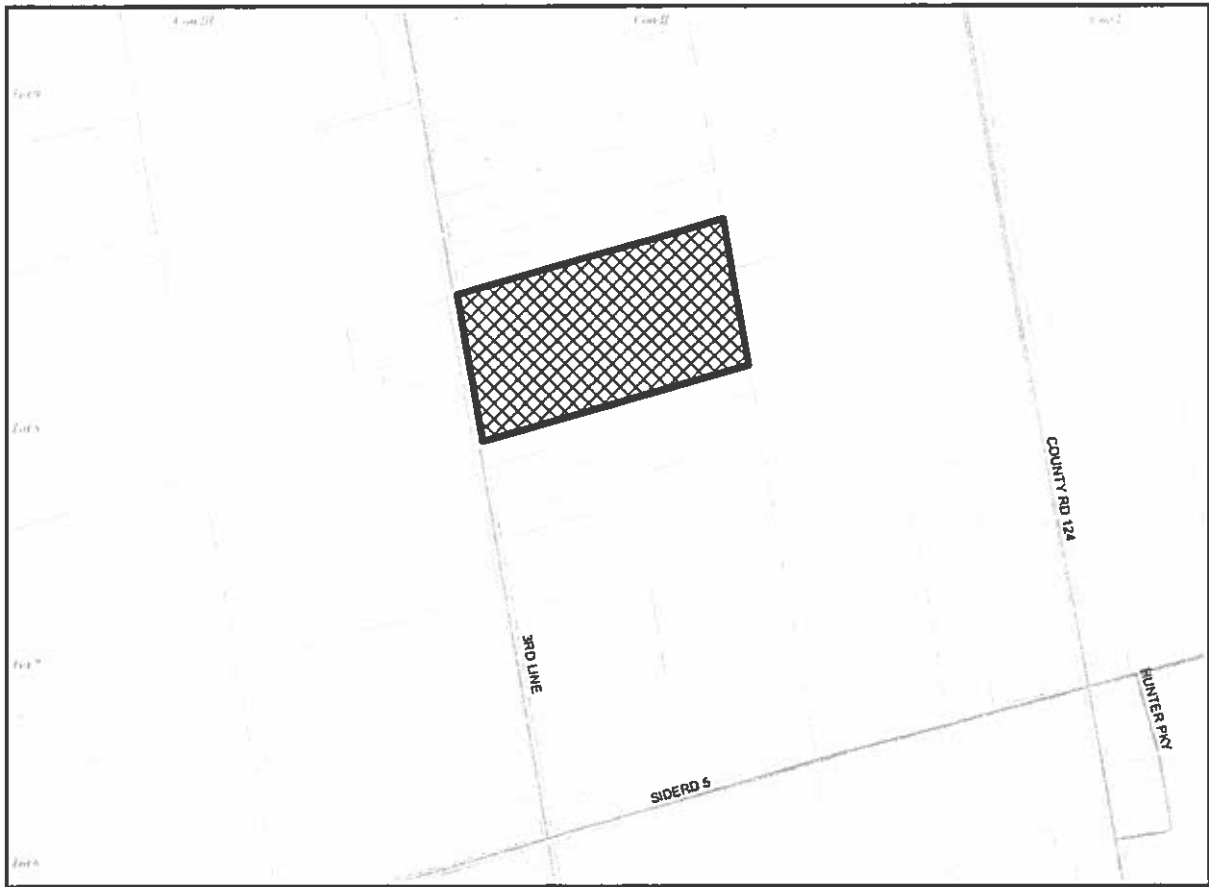
Mailing Date of this Notice: January 24, 2020



Denise Holmes, Clerk/CAO - Township of Melancthon

DEL# 1  
FEB 20 2020

**LANDS SUBJECT TO APPLICATION FOR  
OFFICIAL PLAN AMENDMENT**



 Subject Lands

**MEMORANDUM**

**To:** Mayor White and Members of Council  
**Copy:** Ms. Denise Holmes, CAO  
**From:** Chris Jones MCIP, RPP  
**Date:** February 13, 2020  
**Re:** Application for OPA – West Part Lots 7 and 8, Concession 2 O.S.

---

**BACKGROUND**

The Township is in receipt of an application for an official plan amendment for lands located in the West Part of Lots 7 and 8, Concession 2 O.S. The subject lands have a lot area of 24.3 hectares (60 acres), a road frontage of 363.7 metres (1,193 feet) and are currently occupied by a detached dwelling and several accessory buildings. The location of the subject lands is shown in Figure 1.

**Figure 1 – Location of Subject Lands**



## **PURPOSE OF OFFICIAL PLAN AMENDMENT (OPA)**

At one time, the lands subject to the application existed as 6 separate parcels of land, each with a lot area of 4 ha (10 acres) and a road frontage of 60 metres (196.8 feet). It is understood that a transfer of the parcels that occurred in 2013 resulted in an inadvertent merger of the 6 parcels into a single parcel. Notwithstanding the merger, the owner continued to receive separate property tax bills for each lot given that neither the Township nor MPAC was aware or advised of the inadvertent merger.

The current owner would like to re-establish the parcels as six 10 acre lots and in order to do so will require a consent to sever, however, the Township's Official Plan lacks a policy basis to allow the Township to consider a severance approval. On this basis, the purpose of the proposed OPA is to establish a site-specific policy to allow the Township to consider the proposed consents.

## **PRE-CONSULTATION**

This application was the subject of extensive pre-consultation meetings and discussions throughout 2018. Attached at Appendix 1 is a pre-consultation memo that reflected my consideration of the applicant's issue and issues to be addressed.

## **RELATED PLANNING APPLICATIONS**

The applicant has also submitted applications for zoning by-law amendment and consent to sever, however, these applications have been set aside for now as they cannot be processed in the absence of an Official Plan policy basis to support the proposed severances.

## **INFORMATION ACCOMPANYING THE APPLICATION FOR OPA**

As a result of pre-consultations with myself and County staff the applicant prepared and submitted the following technical reports:

### ***Planning Justification Report***

The Planning Justification Report, prepared by Cuesta Planning Consultants concluded the proposed OPA to allow the re-creation of six - 10 acre lots was consistent with the Provincial Policy Statement and the Provincial Growth Plan. As part of the planning report, the issue of Minimum Distance Separation (MDS) was considered and on the basis of MDS calculations and analysis, the proposed re-creation of the lots were concluded not to have any impact on adjacent agricultural uses.

### ***Environmental Impact Study (EIS)***



The EIS was prepared by SAAR Environmental Limited. SAAR attended the site on seven occasions in 2019 from April to October to describe the location and nature of significant ecology, assess the possible effects of residential development on ecology, and recommend mitigation and monitoring if/as required to lessen the effects of noise, night lighting, potential sediment carry during rain events and human persistence on the observed ecology. Site inspections confirmed the extent of key natural areas and whether they could achieve adequate setbacks from development.

As a result of fieldwork SAAR confirmed that the site supports a nesting Bobolink (Species at Risk), and recommended a 240m setback of this Habitat of Threatened Species which can be met and exceeded, as well as for a foraging Eastern Meadowlark.

SAAR concluded that the parcel is also large enough to separate roadside residential dwellings from the backlot central pond and contributing intermittent swale (15m+) since the pond is Significant Wildlife Habitat (SWH) for a terrestrial chimney crayfish with contributing waters meeting Growth Plan definition of a Key Hydrologic Feature (KHF).

As part of the field work SAAR also assessed the abandoned barn and outbuildings for Barn Swallows and confirmed no nest structures.

SAAR concluded that the proposed six dwellings that would be constructed by the re-creation of the lots would be sustainable on the landscape, subject to mitigation measures and formalized building envelopes.

#### ***Agricultural Impact Assessment***

The Agricultural Impact Assessment was prepared by Stovel and Associates Inc. The report provided the following findings:

- The lands in question are designated Rural;
- The Rural designation in the Township of Melancthon represents, on a whole, lower priority rural land in the Municipality;
- The subject lands have not been cultivated for an extended period of time;
- There is one agricultural building onsite, a wooden barn, that is in poor condition and is incapable of housing livestock;
- Based on MDS 1 calculation provided by Cuesta Planning Consultant, there are no MDS conflicts with the proposed use;
- There are no anticipated impacts on the agricultural community related to traffic or water-taking; and,
- In conclusion, it is (the author's opinion) that the proposed consents do not result in a significant impact on the agricultural resource base or agricultural community.

**GROWTH PLAN**

Pursuant to the Provincial Growth Plan, the Township of Melancthon is subject to the Provincial Ag. Lands System which applies to the entire Township, save and except settlement areas and the Provincial Natural Heritage System. However, the Provincial "system mapping" has been set aside as per Section 4.2.6.8 of the Growth Plan, pending the completion of a conformity exercise by the County of Dufferin. Given that the Provincial Ag. System mapping is not in effect, it allows the Township to consider planning applications under the lens of rural land use. Although the re-creation of inadvertently merged lands is not specifically authorized by the Growth Plan, I believe the proposed amendment is consistent with Section 2.2.9 of the Growth Plan as the OPA applies to lands located in a rural land use designation and will result in development that is appropriate and compatible with the surrounding rural area.

**PROVINCIAL POLICY STATEMENT (PPS 2014)**

I have reviewed the summary and analysis of the PPS provided in the Cuesta Planning Justification Report and I am in agreement with the analysis of this report as it relates to the matter of the proposed OPA and consistency with the PPS.

**OFFICIAL PLAN**

The subject lands are designated Rural. Under the Rural consent policies lot creation is permitted but is limited to 3 lots from an original Township lot or lot creation which meets the definition of "residential infilling".

The proposed OPA would provide a site-specific policy addition or exemption to the Rural lot creation policies that would enable 6 parcels of land which existed for many years but were inadvertently merged in title to be re-created and subsequently conveyed and utilized as individual lots.

**ANALYSIS**

The issue of inadvertent mergers is not uncommon and some municipalities that have encountered the issue with more frequency have elected to create official plan policies and criteria to address the issue on a Township-wide basis.

In this case it appears the merger was inadvertent and the lands are located in the midst of an area which is highly fragmented making it unlikely that this area will ever become an efficient and/or viable agricultural area. On this basis, I see nothing to be gained in leaving the subject lands as a consolidated 60-acre parcel. I am therefore supportive of the proposed OPA.

---

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Barrie, Ontario  
(705) 725-8133

**RECOMMENDATION**

If Council concurs with the finding and analyses of this report I have attached an official plan amendment for Council's consideration and would recommend it for approval.

Respectfully Submitted,



---

Chris Jones MCIP, RPP

# • Appendix 1 •

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• Municipal Planning Services Ltd. •

**MEMORANDUM**

**To:** Ms. Genevieve Scott, Cuesta Planning Consultants  
**Copy:** Ms. Denise Holmes, CAO  
**From:** Chris D. Jones MCIP, RPP  
**Date:** September 17, 2018  
**Re:** Preconsultation Memo – West Part Lots 7 and 8, Concession 2 O.S

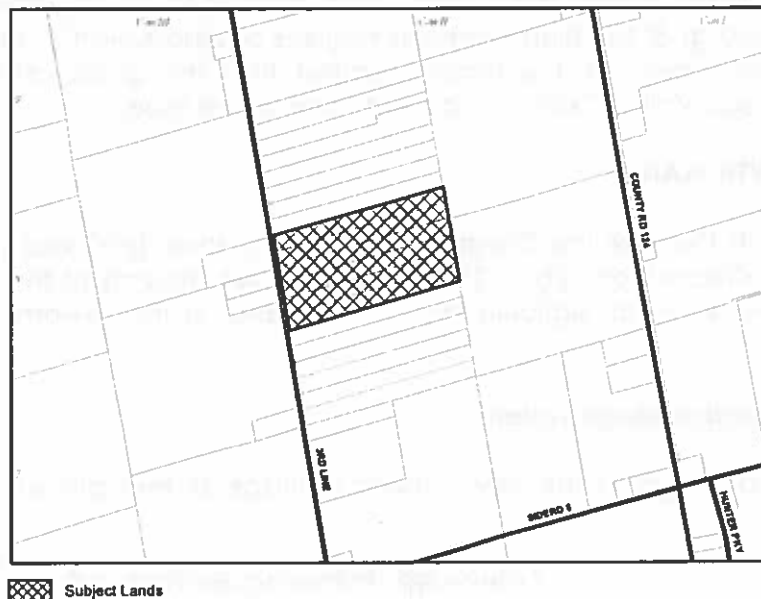
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**BACKGROUND**

Further to pre-consultation meetings held at the Township office on March 22 and June 21, 2018, with respect to lands described legally as PCL 7, 8, 9, 10, 11 and 12 located in the West Part Lots 7 and 8, Concession 2 O.S, this memo has been prepared to summarize the current owner's objective and the planning issues and policies that would need to be addressed to fulfill this objective.

The subject lands currently exist as one conveyable parcel with a frontage of 364 metres (1,200 feet) on 3<sup>rd</sup> Line and a lot area of approximately 24 hectares (59.3 acres). A dwelling and at least two out-buildings (barn and workshop) are currently located in the central area of the subject lands. The location of the subject lands is shown in Figure 1.

**Figure 1 – Location of Subject Lands**



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Chris D. Jones BES, MCIP, RPP  
51 Churchill Drive, Unit 1  
Barrie, Ontario  
(705) 725-8133

It is understood the subject lands at one time existed as 6 separate parcels of land. While this has not been confirmed through a title search, Figure 1 supports this notion and it is also noted that the Municipal Property Assessment Corporation (MPAC) assesses the subject lands as individual parcels of land.

The subject lands were transferred to a numbered company known as 2577791 Ontario Inc in 2018. Prior to the transfer the lands were held for a number of years by Mr. and Mrs. Baldasarra. At the time of this transfer it is understood the transferee was aware the subject lands existed as one parcel and not as 6 individual parcels.

## **OFFICIAL PLAN**

The subject lands are located in the Rural designation of the Official Plan. The lands may also be marginally located in or adjacent to the Environmental Conservation designation by virtue of proximity to wetland features.

The consent policies for lands in the Rural designation are found at Section 5.3.3. In summary, sub-sections (d) and (e) are the primary policies that address lot creation in the Rural designation, but neither of these policies would facilitate lot creation in the manner required.

Section 7.2 also provides a number of technical policies and criteria with respect to consents to convey land. It is noted that item iv) permits the consent process to be used for "legal or technical reasons" however this policy states that such applications shall not result in the creation of a new lot.

It is noted that item v) also discourages strip development in rural areas.

As was indicated earlier, the subject lands appear to be adjacent to wetland features. Section 5.5.2 g) of the Plan generally requires an assessment of environmental impact in such cases, however it is recommended that the proponent pre-consult with the Nottawasaga Valley Conservation Authority on this issue.

## **THE GROWTH PLAN**

The Growth Plan for the Greater Golden Horseshoe (GP) was recently updated and became effective on July 1, 2017. There are two aspects of the new Growth Plan that have implications on agricultural and rural lands in the Township of Melancthon. They are:

### ***1. The Natural Heritage System***

Lands located within the new natural heritage system are subject to policies under

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Section 4.2.2 of the GP. Based on my review of the GP mapping, it does not appear the subject lands are located in the new natural heritage system, however, this should be confirmed and notwithstanding, the GP has other policies in Section 4.2.3 and 4.2.4 which relate to the identification and protection of key hydrologic features or areas.

## **2. The Agricultural System**

The new Agricultural System has identified virtually the entire land base of the Township as a prime agricultural area. It is understood that the implication of this Provincial designation under the GP is that the rural land use designation has effectively been over-ridden and the policies of the Provincial Policy Statement (2014) apply. This means that applications for lot creation would not be permitted except for the creation of a parcel to be used for agricultural purposes or for the severance of a surplus farm dwelling.

## **THE COUNTY OF DUFFERIN OFFICIAL PLAN**

The County of Dufferin Official Plan was approved in 2015. The County Plan recognizes a distinction between prime agricultural lands and rural lands which generally reflects the land use designations in the Melancthon Official Plan. It is understood the County has initiated a strategy aimed at updating the County Plan to reflect the updated Growth Plan.

## **ANALYSIS**

The following points represent my preliminary thoughts and suggestions with respect to objective of subdividing the subject lands to create 6 parcels of land in an effort to replicate the manner in which the parcels are identified and assessed by MPAC:

1. The Township (and potentially other agencies) will need to understand why the subject lands exist in their current state. Perhaps they were the subject of an inadvertent merger or an error in registration. A search of title should reveal this.
2. The Township's Official Plan lacks any policy basis to facilitate the conveyances that would be required. On this basis, an official plan amendment to establish the requisite policy basis would be necessary. Apart from the primary policy issue of lot creation, such an OPA would also need to potentially address impacts on natural heritage features, strip development and impacts on surrounding land uses.
3. The County of Dufferin is the approval authority for local official plan amendments. On this basis I would suggest a pre-consultation meeting be arranged with the County staff.

---

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4. The prime agricultural area established through the new Provincial Growth Plan represents a very significant hurdle to the approval of the requisite OPA. The effect of the Provincial Agricultural System is that it appears to supersede the Township's existing rural land use designation and policies. In order for an approval authority to adopt/approve an OPA, they will need to be satisfied that the OPA is "consistent with" the Growth Plan. On this basis, it is suggested that pre-consultation also occur with either the MMA or OMFRA to discuss the circumstances surrounding this particular land holding and determine if a workable policy amendment can be formulated in a manner which meets agency expectations.

#### **IN CLOSING**

The proposed separation of the subject lands appears to be at odds with the recent policy shift in the Growth Plan, which unilaterally converted the Township's entire rural land use designation into a prime agricultural area. It is difficult to envision how the separation of the subject lands can be authorized through a decision-making process that requires consistency with the Growth Plan. Notwithstanding, if you wish to discuss any aspect of this memo in more detail, do not hesitate to contact the Township office to arrange a meeting or telephone discussion.

Yours truly,

---

Chris Jones MCIP, RPP

---

• *Municipal Planning Services Ltd.* •

Chris D. Jones BES, MCIP, RPP  
51 Churchill Drive, Unit 1  
Barrie, Ontario  
(705) 725-8133

**AMENDMENT NO. 3  
TO THE TOWNSHIP OF MELANCTHON  
OFFICIAL PLAN**

**This Amendment applies to:**

**Lands located in Part of the West Half of Lots 7 and 8, Concession 2 O.S. in the Township  
of Melancthon**

**(Public Meeting February 20, 2020)**

## **CONSTITUTIONAL STATEMENT**

The following Amendment to the Official Plan of the Township of Melancthon consists of three parts.

**Part A** - The Preamble, consisting of the purpose, location and basis of the Amendment, does not constitute part of this Amendment.

**Part B** - The Amendment consisting of the noted text constitutes Amendment No. 2 to the Official Plan for the Township of Melancthon.

**Part C** - The Appendices.

## **PART A - THE PREAMBLE**

### **PURPOSE**

The purpose of this Amendment is to establish a special policy for lands located in the West Part of Lots 7 and 8, Concession 1 O.S. in the Township of Melancthon to permit the subject lands to be separated into six separate parcels of land.

### **LOCATION**

The Amendment affects the following specific areas in the Township of Melancthon:

1. Lands located in part of the West Half of Lots 7 and 8, Concession 2 O.S.

### **BASIS**

The basis and authority for the amendment is fundamentally derived from the following:

1. Section 17 and 22 of The *Planning Act*, which authorizes a Municipality to amend its Official Plan.
2. Section 4.2.6.8 of the Provincial Growth Plan.
3. Section 1.1.5 of the Provincial Policy Statement (2014) which permits limited residential development in rural areas and development that is compatible with the rural landscape and can be sustained by rural service levels.
4. The lands subject to this application previously existed as 6 separate lots that were inadvertently merged in title. The re-creation of these lots through the consent process is consistent with Provincial Policy and conforms with the general intent of the Township's Official Plan which recognized the subject lands as 6 separate parcel and designated the subject lands in the Rural land use designation.

## **PART B – THE AMENDMENT**

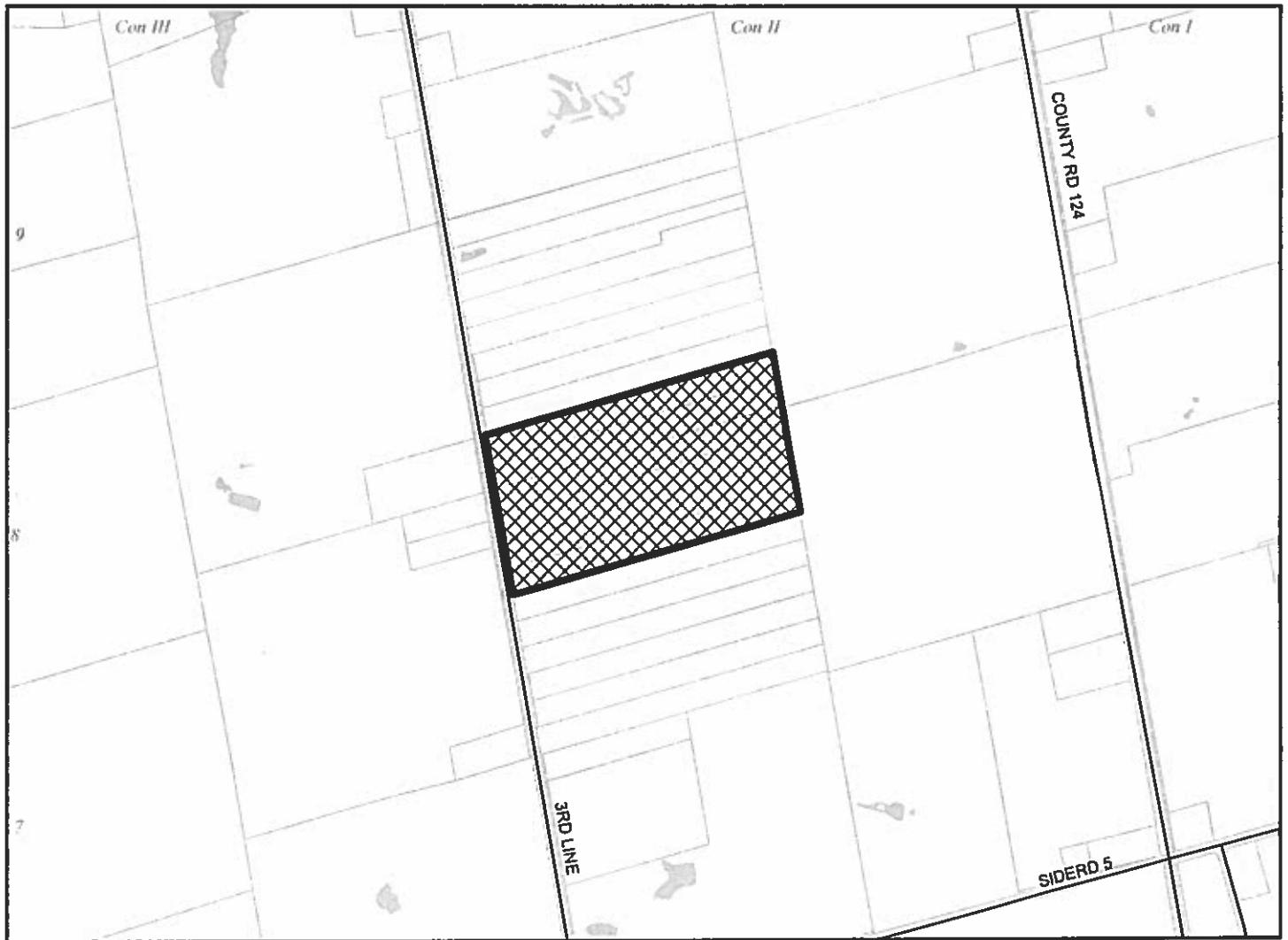
Section 5.3.3 of the Township of Melancthon Official Plan is hereby amended by adding the following new sub-section, after sub-section f):

- g) Lands described legally as PCLs 7-12 and located in the West Part of Lot 7 and 8, Concession 2 O.S, as shown on Schedule A-1, attached hereto and forming part of this Amendment at one time existed as 6 separate lots that were inadvertently merged in title. Notwithstanding subsections a) through f), these lands may be severed by consent into no more than 6 lots, each with a lot area of approximately 4 hectares and following original lot lines which existed prior to their inadvertent merger. The conditions of consent shall include but not be limited to a zoning by-law amendment and a consent agreement to implement recommendations of the Environmental Impact Study that supported the re-creation of the lots. Subsequent to the re-creation of the 6 lots, the lands subject to this policy shall not be eligible for any further lot creation.*

## **PART C - THE APPENDICES**

1. *Agricultural Impact Assessment (Stover and Associates Inc.)*
2. *Planning Justification Report (Cuesta Planning Consultants Inc.)*
3. *Environmental Impact Study (SAAR Environmental Ltd.)*

**Schedule 'A-1'**  
**Official Plan Amendment \_\_\_\_\_**  
**Part of the West Part of Lots 7 & 8, Concession 2 OS**  
**Township of Melancthon**



 Subject to sub-section 5.3.3 g) of the Official Plan