



THE CORPORATION OF THE TOWNSHIP OF PUSLINCH
MARCH 1, 2023 COUNCIL MEETING
VIRTUAL MEETING BY ELECTRONIC PARTICIPATION &
IN-PERSON AT THE PUSLINCH COMMUNITY CENTRE –
23 BROCK RD S, PUSLINCH

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A G E N D A

DATE: Wednesday March 1, 2023

CLOSED MEETING: Directly following Section 13 Announcements

REGULAR MEETING: 10:00 A.M.

≠ Denotes resolution prepared

1. **Call the Meeting to Order**
2. **Roll Call**
3. **Moment of Reflection**
4. **Confirmation of the Agenda ≠**
5. **Disclosure of Pecuniary Interest & the General Nature Thereof**
6. **Consent Agenda ≠**
 - 6.1 Adoption and Receipt of the Minutes of the Previous Council and Committee Meetings:
 - 6.1.1 February 8, 2023 Council Meeting Minutes
 - 6.1.2 January 10, 2023 Committee of Adjustment Meeting Minutes
 - 6.1.3 January 10, 2023 Committee of Adjustment Meeting Minutes



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- 6.2 Dufferin Aggregates (5738) Monthly Monitoring Report - January 2023
- 6.3 Grand River Conservation Authority - Notification of By-Law 1-2023
- 6.4 The Spiritual Assembly of the Baha'is of Puslinch - Youth Advisory Committee
- 6.5 County of Huron - Call to Action - Review of the Cannabis Act
- 6.6 Municipality of West Nipissing - Concerns Regarding Bill 23 - More Homes Built Faster Act
- 6.7 Town of Deep River Resolution - School Board Elections
- 6.8 Town of Essex - Letter of Support - School Board Elections
- 6.9 Town of Plympton-Wyoming - Support Resolution for Petrolia - School Board Elections

7. **Delegations ≠**

- 7.1 Specific Interest (Items Listed on the Meeting Agenda)
 - 7.1.1 None
- 7.2 General Interest (Items Not Previously Listed on the Meeting Agenda)
 - 7.2.1 None

8. **Public Meetings**

- 8.1 March 22, 2023 at 7:00 p.m. Public Information Meeting held in-person at 23 Brock Rd S. and by electronic participation through Zoom regarding the following matter:

Proposed Zoning By-law Amendment D14/WEL (Wellington Motor Freight)
128 Brock Rd S., Puslinch

9. **Reports ≠**

9.1 **Puslinch Fire and Rescue Services**

- 9.1.1 None

9.2 **Finance Department**

- 9.2.1 None

9.3 **Administration Department**

- 9.3.1 Report ADM-2023-010 - ADM-2023-010- Proposed 2023 Corporate Workplan
≠
- 9.3.2 Report ADM-2023-011 - Heritage Advisory Committee Vacancy Appointment
≠
- 9.3.3 Report ADM-2023-012 2020 Monitoring Report - Lafarge McMillan Pit,
Licence No. 10671 and Peer Review≠

9.4 **Planning and Building Department**

- 9.4.1 None

9.5 **Emergency Management**

- 9.5.1 None



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9.6 Roads and Parks Department

9.6.1 None

9.7 Recreation Department

9.7.1 None

10. Correspondence ≠

10.1 County of Wellington - County Official Plan Review - Progress Report 8 ≠

10.2 County of Welling - Roads Committee Report - Lake Road Reconstruction (Wellington Road 32, Puslinch, - Project Details and Speed Limit Changes ≠

10.3 County of Wellington – Planning Report – Bill 23 – *More Homes Built Faster Act, 2022* ≠

10.3.1 Ontario Professional Planners Institute & WeirFoulds LLP – Annual Seminar –
Bill 23 – More Homes Built Faster Act, 2022

10.4 McMillan Pit (5737) 2022 Water Quality Analysis Report and Peer Review ≠

10.5 Dufferin Aberfoyle Pit 2 Application to request to increase annual tonnage limit ≠

11. Council reports ≠

11.1 Mayor' Updates

11.2 Council Member Reports (verbal or written updates from members who sit on boards/committees)

12. By-laws ≠

12.1 First, Second and Third Reading

12.1.1 BL2023-013 – Being a by-law to appoint an Integrity Commissioner for the Township of Puslinch

12.1.2 BL2023-014 – Being a by-law to appoint a Heritage Advisory Committee which repeals by-law 2023-007

13. Announcements

14. Closed Session – Pursuant to Section 239 of the Municipal Act, 2001

14.1 Confidential report prepared by Kevin Thompson, SV Law Firm LLP regarding advice that is subject to solicitor client privilege, including communications necessary for that purpose – Ontario Land Tribunal matter

14.2 Confidential report prepared by Eric Davis, SV Law Firm LLP regarding advice that is subject to solicitor client privilege, including communications necessary for that purpose and regarding the security of the property of the municipality or local board – Township lands

15. Business Arising from Closed Session



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16. **Notice of Motion**
17. **New Business**
18. **Confirmatory By-law #**
18.1 BL2023-015 Confirm By-law – March 1, 2023 #
19. **Adjournment #**



THE CORPORATION OF THE TOWNSHIP OF PUSLINCH
FEBRUARY 8, 2023 COUNCIL MEETING
VIRTUAL MEETING BY ELECTRONIC PARTICIPATION
& IN-PERSON AT 23 BROCK RD S, PUSLINCH

MINUTES

DATE: February 8, 2023

CLOSED MEETING: Directly following section 13

Announcements

COUNCIL MEETING: 10:00 A.M.

The February 8, 2023 Council Meeting was held on the above date and called to order at 10:00 a.m. via electronic participation and in-person at 23 Brock Rd S, Puslinch.

1. **CALL THE MEETING TO ORDER**

2. **ROLL CALL**

ATTENDANCE:

Councillor Sara Bailey
Councillor Russel Hurst
Councillor Jessica Goyda
Councillor John Sepulis
Mayor James Seeley

STAFF IN ATTENDANCE:

1. Glenn Schwendinger, CAO
2. Mike Fowler, Director of Public Works, Parks and Facilities
3. Mary Hasan, Director of Finance/Treasurer
4. Courtenay Hoytfox, Municipal Clerk
5. Justine Brotherston, Deputy Clerk
6. Mirela Oltean, Deputy Treasurer
7. Tom Mulvey, Fire Chief
8. Andrew Hartholt, Chief Building Official

3. **MOMENT OF REFLECTION**

4. **CONFIRMATION OF THE AGENDA**

Resolution No. 2023-028:

Moved by Councillor Sepulis and
Seconded by Councillor Hurst

That Council approves the February 8, 2023 Agenda and Addendum as circulated; and

That Council approves the additions to the agenda as follows:

Consent Item 6.1.4 Questions received from Council seeking additional information and the corresponding responses provided by staff regarding the February 8, 2023 Council agenda;

Consent Item 6.1.5 January 18, 2023 Council meeting minutes.

CARRIED

5. **DISCLOSURE OF PECUNIARY INTEREST & THE GENERAL NATURE THEREOF:**

Mayor Seeley declared a potential conflict of interest related to item 14.1 as I was previously employed by the Township of Puslinch.

Councillor Goyda declared potential conflict of interest related to item 9.3.3 as a family member owns property in the Fox Run Phase 2 Condominium.

Councillor Sepulis declared a potential conflict of interest related to item 9.3.1, 7.1.3 and 7.1.4 as I reside on Sideroad 20N which will be impacted by the Estill Development should it proceed. As such my property value may be affected which requires that I declare a pecuniary interest as defined in the Municipal Conflict of Interest Act.

Resolution No. 2023-029:

Moved by Councillor Goyda and
Seconded by Councillor Hurst

That Council approves the change to the order of business for the February 8, 2023 agenda.

CARRIED

6. CONSENT AGENDA

6.1 Adoption and Receipt of the Minutes of the Previous Council and Committee Meetings:

6.1.1 January 25, 2023 Proposed Budget Public Information Meeting Minutes

6.1.2 December 13, 2022 Committee of Adjustment Meeting Minutes

6.1.3 December 13, 2022 Planning and Development Advisory Committee Meeting Minutes

6.1.3 February 8, 2023 Council questions and Staff Responses

6.1.4 January 18, 2023 Council Meeting Minutes

6.2 Grand River Conservation Authority - January 2023 General Membership Meeting

6.3 Grand River Conservation Authority - Budget and Levy Meeting

6.4 Association of Municipalities Ontario - Policy Update - Call for Provincial Action on Property Assessments

6.5 City of Hamilton - Impacts of Bill 23, More Homes Built Faster Act, 2022

6.6 City of Kitchener - Ontario's Big City Mayors (OBCM) Bill 23, More Homes Built Faster Act, 2022

6.7 Town of Halton Hills - Repeal Bill 23

6.8 The Township of Montague - Support for Renfrew Inquest Resolution

6.9 The Township of Montague - World Thinking Day

6.10 City of Thunder Bay Council Resolution - Bill 42 - Gender Affirming Healthcare Act

6.11 Lanark Highlands - Violence Against Women

6.12 Improvements to Boreham Park Citizen Letter

6.13 ERO Posting 0196196 Proposed Changes to the Heritage Act and its regulation Bill 23 Decision

Resolution No. 2023-030:

Moved by Councillor Sepulis and
Seconded by Councillor Bailey

That the Consent Agenda items with the exception of items 6.12 listed for FEBRUARY 8, 2023 Council meeting be received for information.

CARRIED

Resolution No. 2023-031:

Moved by Councillor Goyda and
Seconded by Councillor Sepulis

That the Consent Agenda item 6.12 listed for FEBRUARY 8, 2023 Council meeting be received for information.

CARRIED

7. DELEGATIONS:

(a) Specific Interest (Items Listed on the Meeting Agenda)

7.1.1 **10:05 AM** Delegation by Fred Taylor and Steve Edwards regarding 6678 Wellington Road 34 ≠

Resolution No. 2023-032:

Moved by Councillor Bailey and
Seconded by Councillor Hurst

That Council receives the Delegation by Fred Taylor and Steve Edwards regarding 6678 Wellington Road 34 for information.

CARRIED

- 7.1.2 **10:15 AM** Delegation by Gillian Smith regarding support of application 128 Brock Road South ≠

Resolution No. 2023-033:

Moved by Councillor Sepulis and
Seconded by Councillor Goyda

That Council receives the Delegation by Gillian Smith regarding support of application 128 Brock Road South for information.

CARRIED

Councillor Sepulis declared a potential conflict of interest related to item 9.3.1 7.1.3 and 7.1.4 as I reside on Sideroad 20N which will be impacted by the Estill Development should it proceed. As such my property value may be affected which requires that I declare a pecuniary interest as defined in the Municipal Conflict of Interest Act and refrained from discussions and voting on that item.

- 7.1.3 **10:25 AM** Delegation by Jim Estill and Rob Wigood to provide Council with comments regarding Agenda Item 9.3.1 Report ADM-2023-005 - Community Infrastructure and Housing Accelerator (CIHA) Request – Estill Innovation Community Development ≠

Resolution No. 2023-034:

Moved by Councillor Goyda and
Seconded by Councillor Hurst

That Council receives the Delegation by Jim Estill and Rob Wigood to provide Council with comments regarding Agenda Item 9.3.1 Report ADM-2023-005 - Community Infrastructure and Housing Accelerator (CIHA) Request – Estill Innovation Community Development for information.

CARRIED

Councillor Sepulis declared a potential conflict of interest related to item 9.3.1 7.1.3 and 7.1.4 as I reside on Sideroad 20N which will be impacted by the Estill Development should it proceed. As such my property value may be affected which requires that I declare a pecuniary interest as defined in the Municipal Conflict of Interest Act and refrained from discussions and voting on that item.

- 7.1.4 **10:35 AM** Delegation by Dan Forestell and Dan Neundorf to provide Council with comments regarding Agenda Item 9.3.1 Report ADM-2023-005 - Community Infrastructure and Housing Accelerator (CIHA) Request – Estill Innovation Community Development ≠

Resolution No. 2023-035:

Moved by Councillor Goyda and
Seconded by Councillor Bailey

That Council approves a modification to meeting procedural and permit three delegates to address Council at one time.

CARRIED

Resolution No. 2023-036:

Moved by Councillor Goyda and
Seconded by Councillor Bailey

That Council receives the Delegation by Dan Forestell and Dan Neundorf and Angie Mason to provide Council with comments regarding Agenda Item 9.3.1 Report ADM-2023-005 - Community Infrastructure and Housing Accelerator (CIHA) Request – Estill Innovation Community Development for information.

CARRIED

7.2 General Interest (Items Not Previously Listed on the Meeting Agenda)

7.2.1 None

8. **PUBLIC MEETINGS:**

None

9. **REPORTS:**

9.1 Puslinch Fire and Rescue Services

9.1.1 None

9.2 Finance Department

9.2.1 Report FIN-2023-003 - 2022 Completed Capital Projects

Resolution No. 2023-037:

Moved by Councillor Hurst and
Seconded by Councillor Bailey

That Report FIN-2023-003 entitled 2022 Completed Capital Projects be received for information.

CARRIED

9.2.2 Report FIN-2023-004 - Balances in Discretionary and Restricted Reserves

Resolution No. 2023-038:

Moved by Councillor Sepulis and
Seconded by Councillor Hurst

That Report FIN-2023-004 entitled Balances in Discretionary and Restricted Reserves be received for information.

CARRIED

9.2.3 Report FIN-2023-005 - Ontario Regulation 284-09 2023 Budget

Resolution No. 2023-039:

Moved by Councillor Bailey and
Seconded by Councillor Hurst

That Report FIN-2023-005 entitled Ontario Regulation 284/09 – 2023 Budget be received; and

That Council adopts Report FIN-2023-005 which meets the requirements of Ontario Regulation 284/09 and outlines the preparation of the 2023 Operating and Capital Budgets to a Public Sector Accounting Board compliant format.

CARRIED

9.2.4 Report FIN-2023-006 - 2023 Budget – Final

Resolution No. 2023-040:

Moved by Councillor Sepulis and
Seconded by Councillor Hurst

That Report FIN-2023-006 entitled 2023 Budget – Final be received; and

That Council give 3 readings to By-law No. 2023-009 being a by-law to adopt the Budget for the Corporation of the Township of Puslinch for the year 2023.

CARRIED

9.2.4 Report FIN-2023-007 - Shop Local Puslinch Gift Certificate Program

Resolution No. 2023-041:

Moved by Councillor Sepulis and
Seconded by Councillor Goyda

THAT Report FIN-2023-007 entitled Shop Local Puslinch Gift Certificate Program be received; and

THAT Council directs staff to discontinue the program effective April 1, 2023 due to the program's underutilization; and

Whereas the Township would not have been able to provide the Shop Local Gift Certificate Program without the support of Wellington-Waterloo Community Futures; and

Whereas the Township remains committed to promoting local businesses and recognizes the value in partnering and/or participating in programs that promote shopping local;

Therefore, Council directs staff to prepare a letter to Wellington-Waterloo Community Futures to express Council's appreciation for the assistance with the Shop Local Gift Certificate Program as this initiative would not have been possible without their support.

CARRIED

9.3 Administration Department

Councillor Sepulis declared a potential conflict of interest related to item 9.3.1 7.1.3 and 7.1.4 as I reside on Sideroad 20N which will be impacted by the Estill Development should it proceed. As such my property value may be affected which requires that I declare a pecuniary interest as defined in the Municipal Conflict of Interest Act and refrained from discussions and voting on that item.

9.3.1 Report ADM-2023-005 - Community Infrastructure and Housing Accelerator (CIHA) Request – Estill Innovation Community Development – Revised to include additional public comments

Resolution No. 2023-042:

Moved by Councillor Goyda and
Seconded by Councillor Hurst

That Report ADM-2023-005 entitled Community Infrastructure and Housing Accelerator (CIHA) Request – Estill Innovation Community (hereinafter the “developer”) Development Proposal be received; and

That Council does not support the developer's request for a municipally requested Minister's Order under Subsection 34.1 of the Planning Act, known as a CIHA.

CARRIED

Council recessed from 11:25 am to 11:40 am

Roll Call

Councillor Goyda
Councillor Sepulis
Councillor Bailey
Councillor Bulmer
Mayor Seeley

9.3.2 Report ADM-2023-006 - Badger Daylighting Zoning Amendment Application Status Update
Revised to include additional peer review comments

Resolution No. 2023-043:

Moved by Councillor Sepulis and
Seconded by Councillor Hurst

That Report ADM-2023-006 entitled Badger Daylighting Zoning By-law Amendment Application Status Update be received; and

That Council direct staff to forward the report and schedules to the property owner and agent for a response and that the response be included in the Planning recommendation report to be considered by Council at a March 2023 Council meeting; and

That Council direct staff to forward this report and schedules to the local Ministry of the Environment Conservation and Parks office for comment.

CARRIED

Councillor Goyda declared potential conflict of interest related to item 9.3.3 as a family member owns property in the Fox Run Phase 2 Condominium and refrained from discussions and voting on that item.

9.3.3 Report ADM-2023-007 - Fox Run Phase 2 Condominium Plan Revision

Resolution No. 2023-044:

Moved by Councillor Hurst and
Seconded by Councillor Sepulis

That Report ADM-2023-007 entitled Fox Run Phase 2 Condominium Plan Revision be received; and

Whereas the application to revise the Condo agreement to consolidate the lots has been withdrawn;

Where any similar future applications are made, that Council direct staff to proceed with a peer review as determined by staff and to prepare a staff report with recommendations to Council once the peer review has taken place.

CARRIED

9.3.5 Report ADM-2023-008 - 2022 Annual Water Report

Resolution No. 2023-045:

Moved by Councillor Bailey and
Seconded by Councillor Hurst

That Report ADM-2023-008 regarding the 2022 Annual Water Report – Drinking Water System Number 260021034 be received; and

That the 2022 Annual Water Report be submitted to the Ministry and the applicable agencies as outlined in Report ADM-2023-008.

CARRIED

9.4 Planning and Building Department

9.4.1 Report PD-2023-001 – Wellington Motor Freight Zoning By-law Amendment Application – Request to deem application complete

Resolution No. 2023-046:

Moved by Councillor Goyda and
Seconded by Councillor Sepulis

That Report PD-2023-001 entitled Zoning By-law Amendment Application (D14/WEL) be received;

That Council deem the application to be complete based on the advice and information provided in the staff report, for the purpose of proceeding to the Statutory Public Information Meeting; and

That Council authorize the holding of a Statutory Public Meeting on Wednesday, March 22, 2023, at 7:00 pm at the Puslinch Community Center; and

That Council direct staff to notify the residents of the Aberfoyle Meadows subdivision of the upcoming public meeting.

CARRIED

Resolution No. 2023-047:

Moved by Councillor Sepulis and
Seconded by Councillor Bailey

That Council direct staff to prepare a report regarding the process and potential to amend the Township Zoning By-law to eliminate specific uses in the Industrial zone, being a transport terminal and construction yard.

CARRIED

9.4.2 Report BLD-2023-001 – Building Department Fourth Quarter Update – October to December 2022

Resolution No. 2023-048:

Moved by Councillor Hurst and
Seconded by Councillor Sepulis

That Report BLD-2023-001 entitled Building Department Fourth Quarter Update – October to December 2022 be received for information.

CARRIED

9.5 Emergency Management

9.5.1 None

9.6 Roads and Parks Department

9.6.1 None

9.7 Recreation Department

9.7.1 None

10. CORRESPONDENCE:

10.1 Mini Lakes 2021 Annual Waste Water and Water Monitoring Reports and Peer Review – revised to include OCWA comments.

Resolution No. 2023-049:

Moved by Councillor Sepulis and
Seconded by Councillor Hurst

That correspondence item 10.1 regarding Mini Lakes 2021 Annual Waste Water and Water Monitoring Reports and Peer Review be received for information; and

That Mini Lakes be requested to incorporate the comments made by GM BluePlan and the corresponding responses made by OCWA in their 2022 annual report and specifically discuss the process or lack of progress that has been made; and

That Mini Lakes be requested to attend the Council meeting where the report is presented and be available for questions.

CARRIED

10.2 CBM Aggregates - Roszell Pit (625189) - 2022 Ecological and Aquatic Monitoring Report Peer Review – revised to include Grand River Conservation Authority Comments

Resolution No. 2023-050:

Moved by Councillor Goyda and
Seconded by Councillor Sepulis

That correspondence item 10.2 regarding CBM Aggregates - Roszell Pit (625189) - 2022 Ecological and Aquatic Monitoring Report Peer Review be received; and

That Council direct staff to forward the report and peer review to the MNRF and pit operator for review and comment once the Annual Water Monitoring report is received and peer reviewed; and

That Council direct staff to highlight the concerns and corresponding recommendations within the Aboud & Associates peer review and specifically the following comment:

“Based on our review of the provided information, Aboud & Associates find the monitoring report continues to lack in discussion and analysis of the provided data, with no updates to the report or its methodology per the same or similar comments provided on the 2021 report. In particular, the following components should be reviewed and continue to require addressing in an updated report”

And That Council direct staff to include in the correspondence a timeline of Council’s requests with respect to these issues and the lack of response and action from the pit operator.

CARRIED

11. COUNCIL REPORTS:

11.1 Mayor’ Updates

11.1.1 Mayor Seeley gave an update on his recent discussions in respect to TAPMO and their desire to hire an Executive Director.

11.1.2 Mayor Seeley provided an update on a meeting that he attended with the Township County Councillor and the University of Guelph in respect to their strategic plan for their land holdings.

11.1.3 Mayor Seeley remarked on the ROMA conference.

11.2 Council Member Reports

11.2.1 Councillor Bailey remarked on the ROMA conference and the value of the networking that took place.

11.2.2 Councillor Bailey provided an update on the first Youth Advisory Committee meeting.

Resolution No. 2023-051:

Moved by Councillor Hurst and
Seconded by Councillor Sepulis

That Council receive the Mayors and Council member updates for information.

CARRIED

12. BY-LAWS:

12.1.1 BL2023-009 – Being a By-law to adopt the budget for the Corporation of the Township of Puslinch for the year 2023

12.1.2 BL2023-010 – Being a By-law to appoint a Deputy Clerk for the Corporation of the Township of Puslinch

12.1.3 BL2023-011 – Being a By-law to appoint Fence Viewers for the Corporation of the Township of Puslinch

Resolution No. 2023-052:

Moved by Councillor Sepulis and
Seconded by Councillor Bailey

That the following By-laws be taken as read three times and finally passed in open Council:

12.1.1 BL2023-009 – Being a By-law to adopt the budget for the Corporation of the Township of Puslinch for the year 2023

12.1.2 BL2023-010 – Being a By-law to appoint a Deputy Clerk for the Corporation of the Township of Puslinch

12.1.3 BL2023-011 – Being a By-law to appoint Fence Viewers for the Corporation of the Township of Puslinch

CARRIED

13. ANNOUNCEMENTS:

None

Council recessed from 1:18 pm to 1:32 pm

Roll Call

**Councillor Goyda
Councillor Sepulis
Councillor Bailey
Councillor Hurst
Mayor Seeley**

Mayor Seeley declared a potential conflict of interest related to item 14.1 as I was previously employed by the Township of Puslinch and passed the Chair to the alternate Mayor Councillor Goyda and was not in attendance during the discussions.

14. CLOSED SESSION:

Council was in closed session from 1:33 p.m. to 2:25 p.m.

The Clerk stopped the recording and removed all public attendees from the webinar. The webinar was then 'locked' so no new participants are able to join.

Resolution No. 2023-053:

Moved by Councillor Bailey and
Seconded by Councillor Sepulis

That Council shall go into closed session under Section 239 of the Municipal Act for the purpose of:

14.1 Confidential report prepared by the Township solicitor regarding advice that is subject to solicitor-client privilege, including communications necessary for that purpose – human resource matter.

CARRIED

Resolution No. 2023-054:

Moved by Councillor Sepulis and
Seconded by Councillor Bailey

THAT Council moves into open session at 2:25 pm

CARRIED

Council resumed into open session at 2:25 p.m.

Resolution No. 2023-055:

Moved by Councillor Hurst and
Seconded by Councillor Bailey

That Council receives the:

14.1 Confidential report prepared by the Township solicitor regarding advice that is subject to solicitor-client privilege, including communications necessary for that purpose – human resource matter; and

That staff proceed as directed.

CARRIED

Mayor Seeley returned to the meeting and Councillor Goyda passed the Chair back to Mayor Seeley.

Council was in closed session from 2:26 p.m. to 2:43 p.m.

The Clerk stopped the recording and removed all public attendees from the webinar. The webinar was then 'locked' so no new participants are able to join.

Resolution No. 2023-056:

Moved by Councillor Hurst and
Seconded by Councillor Sepulis

That Council shall go into closed session under Section 239 of the Municipal Act for the purpose of:

14.2 Confidential report prepared by the Municipal Clerk regarding a position, plan, procedure, criteria or instruction to be applied to any negotiations carried on or to be carried on by or on behalf of the municipality or local board – contract negotiations;

14.3 Confidential verbal report regarding personal matters about an identifiable individual, including municipal or local board employees – Heritage Committee Appointment Vacancy.

CARRIED

Resolution No. 2023-057:

Moved by Councillor Hurst and
Seconded by Councillor Bailey

THAT Council moves into open session at 2:43 pm

CARRIED

Council resumed into open session at 2:43 p.m.

Resolution No. 2023-058:

Moved by Councillor Hurst and
Seconded by Councillor Sepulis

That Council receives the:

14.2 Confidential report prepared by the Municipal Clerk regarding a position, plan, procedure, criteria or instruction to be applied to any negotiations carried on or to be carried on by or on behalf of the municipality or local board – contract negotiations;



14.3 Confidential verbal report regarding personal matters about an identifiable individual, including municipal or local board employees – Heritage Committee Appointment Vacancy; and

That staff proceed as directed.

CARRIED

15. BUSINESS ARISING FROM CLOSED SESSION:

None

16. NOTICE OF MOTION:

None

17. NEW BUSINESS:

The Mayor inquired as to whether aggregate operators need to be in compliance with the Township Property Standards by-law. Requested that staff look into this and report back to Council.

18. CONFIRMATORY BY-LAW:

(a) By-Law to confirm the proceedings of Council for the Corporation of the Township of Puslinch

Resolution No. 2023-059:

Moved by Councillor Goyda and
Seconded by Councillor Bailey

That the following By-law be taken as read three times and finally passed in open Council:

By-Law 2023-012 being a by-law to confirm the proceedings of Council for the Corporation of the Township of Puslinch at its meeting held on the 8 day of February 2023.

CARRIED

19. ADJOURNMENT:

Resolution No. 2023-060:

Moved by Councillor Hurst and
Seconded by Councillor Sepulis

That Council hereby adjourns at 2:46 p.m.

CARRIED

James Seeley, Mayor

Courtenay Hoytfox, Clerk



THE CORPORATION OF THE TOWNSHIP OF PUSLINCH
COMMITTEE OF ADJUSTMENT
VIRTUAL MEETING BY ELECTRONIC PARTICIPATION &
IN-PERSON AT THE PUSLINCH COMMUNITY CENTRE –
23 BROCK RD S, PUSLINCH
JANUARY 10, 2023
7:00 p.m

MINUTES

1. CALL THE MEETING TO ORDER

The January 10, 2023 Committee of Adjustment Meeting was held on the above date and called to order at 7:00 p.m. via electronic participation and in-person at the Puslinch Community Centre.

2. ROLL CALL

MEMBERS IN ATTENDANCE

Councilor John Sepulis, Chair
Dan Kennedy
Dennis O'Connor
Deep Basi
Paul Sadhra

MEMBERS ABSENT

None

STAFF IN ATTENDANCE

Lynne Banks, Development and Legislative Coordinator
Courtenay Hoytfox, Municipal Clerk
Joanna Salsberg, Planner, County of Wellington

3. OPENING REMARKS

The Chair welcomed those attending the meeting to the Committee of Adjustment and informed the attendees that Township Staff would present the application, then the applicant would have the opportunity to present the purpose and details of the application and provide any further relevant information. Following this, the public can obtain clarification, ask questions and express their views on the proposal. The members of the Committee can then obtain clarification, ask questions and express their views on the proposal. All application decisions are subject to a 20 day appeal period.

4. DISCLOSURE OF CONFLICT OF INTEREST

None

5. APPROVAL OF MINUTES

Moved by: Dan Kennedy

Seconded by: Deep Basi

That the Minutes of the Committee of Adjustment meeting held Tuesday, December 13, 2022, be adopted.

CARRIED

6. APPLICATIONS FOR MINOR VARIANCE OR PERMISSION under section 45 of the Planning Act to be heard by the Committee this date.

None

7. OTHER MATTERS

None

8. ADJOURNMENT

Moved by: Paul Sadhra

Seconded by: Dan Kennedy

The Committee of Adjustment meeting adjourned at 7:02 p.m.

CARRIED



THE CORPORATION OF THE TOWNSHIP OF PUSLINCH
PLANNING & DEVELOPMENT ADVISORY COMMITTEE
VIRTUAL MEETING BY ELECTRONIC PARTICIPATION &
IN-PERSON AT THE PUSLINCH COMMUNITY CENTRE –
23 BROCK RD S, PUSLINCH
JANUARY 10, 2023
7:00 p.m

MINUTES

1. CALL THE MEETING TO ORDER

The January 10, 2023 Planning & Development Advisory Committee Meeting was held on the above date and called to order at 7:02 p.m. via electronic participation.

2. OPENING REMARKS

The Chair advised that the following portion of the Committee meeting will be for the Committee to review and provide comments on development planning applications.

3. ROLL CALL

MEMBERS IN ATTENDANCE

Councilor John Sepulis, Chair
Dan Kennedy
Dennis O'Connor
Deep Basi
Paul Sadhra

MEMBERS ABSENT

None

STAFF IN ATTENDANCE

Lynne Banks, Development and Legislative Coordinator
Courtenay Hoytfox, Municipal Clerk
Joanna Salsberg, Planner, County of Wellington

4. DISCLOSURE OF CONFLICT OF INTEREST

None

5. APPROVAL OF MINUTES

Moved by: Dennis O'Connor

Seconded by: Deep Basi

That the Minutes of the Planning & Development Advisory Committee Meeting held Tuesday, December 13, 2022, be adopted.

CARRIED

6. APPLICATION FOR SITE PLAN URBAN DESIGN REVIEW

None

7. ZONING BY-LAW AMENDMENT

None

8. LAND DIVISION

8(a) Severance application B143-22 (D10-GEI) – Audrey Geier – Part Lot 1, Concession 3, municipally known as 4851 Townline Rd, Township of Puslinch.



THE CORPORATION OF THE TOWNSHIP OF PUSLINCH
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23 BROCK RD S, PUSLINCH
JANUARY 10, 2023
7:00 p.m

Proposed severance is 0.64 hectares with 37.5m frontage, vacant land for proposed rural residential use.

Retained parcel is 0.4 hectares with 33.7m frontage, existing and proposed rural residential use with existing dwelling and garage.

- Jennifer Voss, agent for the applicant, provided an overview of the application.
- Dan Kennedy asked if there are any concerns or comments from agencies regarding the overhead hydro lines shown on the severed parcel on the sketch provided by the applicant.
- Jennifer Voss advised that she is not aware of any issues with the hydro lines.
- Dan Kennedy asked if there were any flooding issues with respect to the 30 metre buffer from the wetlands located on the property.
- Jennifer Voss advised that the wetland is considered a provincially significant wetland that requires a 30 meter buffer to protect the wetland feature.
- Dan Kennedy if the lot's proximity to the City of Cambridge would require consultation with the City of Cambridge.
- Joanna Salsberg advised the Committee that the City of Cambridge would be included in the circulation of the consent application by the County of Wellington for any comments they might have regarding the application.
- Dennis O'Connor asked if there is an easement in place for the overhead hydro lines.
- Jennifer Voss advised that there is currently no easement in place and she is not sure who the owner is for the lines.
- Joanna Salsberg advised that Hydro One is usually the owner of the lines but she will confirm who was circulated and if there were any comments or concerns received that would impact the lines.
- John Sepulis stated that a condition be added to the comments that the owner provide confirmation that Hydro One or the current owner of the hydro has no concerns.
- Paul Sadhra asked if the County planning has any concerns regarding the irregular shape of the proposed severed and retained lot lines.
- Joanna Salsberg advised that there are certain criteria that is looked at for a severance and that the County will be recommending a regularized lot line.
- Paul Sadhra asked that a condition be added with respect to the lot lines.
- John Sepulis asked if there are any shipping containers on the property.
- Jennifer Voss advised that the owner has indicated that there are storage bins on the property.
- Lynne Banks advised that the owner has confirmed in an email that there are 2 sea cans located on the back of the property.
- John Sepulis asked if the containers were in compliance with the Township's zoning by-law.
- Lynne Banks advised that this would be confirmed when a zoning review is done for the property.
- Joanna Salsberg noted that the County would ask the applicant to confirm the information for the zoning compliance and that a condition can be added to confirm zoning compliance for the shipping containers.
- There were no further questions or comments from the Committee.

The Committee supports the application with the **following conditions** imposed:

1. That the Owner satisfy all the requirements of the Township of Puslinch, financial and otherwise (including taxes paid in full and Consent Review/Condition Clearance fee) which the Township may deem to be necessary at the time of issuance of the Certificate of Consent for the property and orderly development of the subject lands. Any fees incurred by the Township for the review of this application will be the responsibility of the applicant; and further that the Township of Puslinch file with the Secretary-Treasurer of the Planning and Land Division Committee a letter of clearance of this condition.



THE CORPORATION OF THE TOWNSHIP OF PUSLINCH
PLANNING & DEVELOPMENT ADVISORY COMMITTEE
VIRTUAL MEETING BY ELECTRONIC PARTICIPATION &
IN-PERSON AT THE PUSLINCH COMMUNITY CENTRE –
23 BROCK RD S, PUSLINCH
JANUARY 10, 2023
7:00 p.m

2. If the County of Wellington Land Division Committee requires the lot line between the severed and retained lands to be regularized, the Owner will need to obtain zoning compliance for the reduced lot area of the retained parcel; and further that the Township file with the Secretary-Treasurer of the Planning and Land Division Committee a letter of clearance of this condition.
3. If the County of Wellington Land Division Committee requires the lot line between the severed and retained lands to be regularized, the Owner will be required to provide a Hydrogeological Study, at the Owner's expense, to the Township of Puslinch for the purpose of a peer review by the Township's Hydrogeologist; and further that the Township file with the Secretary-Treasurer of the Planning and Land Division Committee, a letter of clearance of this condition.
4. That the Owner shall be required to enter into an agreement with the Township for the purpose of having the Hydrogeological Study peer reviewed to the satisfaction of the Township of Puslinch and that the owner shall be responsible for any Township costs associated with the review of the Hydrogeological Study; and further that Township of Puslinch file with the Secretary-Treasurer of the Planning and Land Division Committee a letter of clearance of this condition.
5. That the Owner obtain zoning compliance for the garage located on the retained parcel to ensure that it meets the maximum permitted lot coverage for accessory buildings to the satisfaction of the Township; and further that the Township of Puslinch file with the Secretary-Treasurer of the Planning and Land Division Committee a letter of clearance of this condition.
6. That the owner obtain zoning compliance for the shipping containers located on the retained lands to the satisfaction of the Township; and further that the Township of Puslinch file with the Secretary-Treasurer of the Planning and Land Division Committee a letter of clearance of this condition.
7. That the owner confirm the well type (drilled/dug) on the lands to be retained to the satisfaction of the Township; and further that the Township of Puslinch file with the Secretary-Treasurer of the Planning and Land Division Committee a letter of clearance of this condition.
8. That the owner confirm that Hydro One or the owner of the hydro lines has no concerns with the overhead hydro lines on the severed lands, and/or if there is an existing easement to the satisfaction of the Township; and further that the Township of Puslinch file with the Secretary-Treasurer of the Planning and Land Division Committee a letter of clearance of this condition.
- 9.. That the owner confirm the soil permeability in the area of the future septic bed to ensure it can be serviced by septic within the envelope proposed to the satisfaction of the Township; and further that the Township of Puslinch file with the Secretary-Treasurer of the Planning and Land Division Committee a letter of clearance of this condition.

CARRIED

8(b) Severance application B146-22 (D10-KAN) – Baljit, Harbir and Gurmukh Kang – Part Lot 9, Concession 1, municipally known as 6705 Concession 2, Township of Puslinch.

Proposed severance is 70m fr x 127 m = 0.9 hectares, vacant land for rural residential use.

Retained parcel is 39.5 hectares with 175m frontage, existing and proposed agricultural use with existing dwelling, garage and shed. Drive shed and barn to be removed.

- Jeff Buisman, agent for the applicant, provided an overview of the application.
- There were no questions or concerns from the Committee.



THE CORPORATION OF THE TOWNSHIP OF PUSLINCH
PLANNING & DEVELOPMENT ADVISORY COMMITTEE
VIRTUAL MEETING BY ELECTRONIC PARTICIPATION &
IN-PERSON AT THE PUSLINCH COMMUNITY CENTRE –
23 BROCK RD S, PUSLINCH
JANUARY 10, 2023
7:00 p.m

The Committee supports the application with the **following conditions** imposed:

1. That the Owner satisfy all the requirements of the Township of Puslinch, financial and otherwise (including taxes paid in full and Consent Review/Condition Clearance fee) which the Township may deem to be necessary at the time of issuance of the Certificate of Consent for the property and orderly development of the subject lands. Any fees incurred by the Township for the review of this application will be the responsibility of the applicant; and further that the Township of Puslinch file with the Secretary-Treasurer of the Planning and Land Division Committee a letter of clearance of this condition.
2. That safe access to the proposed severed lands can be accommodated to the satisfaction of the Township; and further that the Township file with the Secretary-Treasurer of the Planning and Land Division Committee a letter of clearance of this condition.
3. That the barn and driveshed located on the retained parcel be removed to the satisfaction of the Township; and further, that the Township file with the Secretary-Treasurer of the Planning and Land Division Committee a letter of clearance of this condition.

CARRIED

9. OTHER MATTERS

None

10. CLOSED MEETING

None

11. NEXT MEETING

Next Regular Meeting will be held on Tuesday, February 14, 2023 @ 7:00 p.m.

12. ADJOURNMENT

Moved by: Paul Sadhra

Seconded by: Dan Kennedy

That the Planning & Development Advisory Committee is adjourned at 7:27 p.m.

CARRIED



Dufferin Aggregates
2300 Steeles Ave W, 4th Floor
Concord, ON L4K 5X6
Canada

February 10, 2023

Seana Richardson
Aggregates Technical Specialist
Ministry of Natural Resources and Forestry
Guelph District
1 Stone Road West
Guelph, Ontario
N1G 4Y2

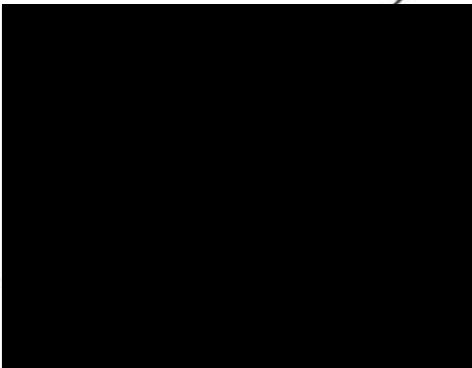
RECEIVED
FEB 10 2023
Township of Puslinch

Attention: Ms. Richardson

Re: Monthly Monitoring Report – January 2023
Mill Creek Pit, License #5738
Township of Puslinch, Wellington County

Please find enclosed the required monitoring data for the month of January 2023 for those monitoring wells that could be measured. There were no exceedances to report.

If you have any questions, please do not hesitate to call.



CC: Township of Puslinch
Sonja Strynatka (GRCA)
Kevin Mitchell (Dufferin Aggregates)
University of Guelph



Monthly Reporting
Mill Creek Aggregates Pit
January 2023

| Date | DP21 (mASL) | Threshold Value (mASL) | Exceedance | Date | BH13 (mASL) | DP21 (mASL) | Head Difference (m) | Threshold Value (m) | Exceedance |
|-----------|--------------|------------------------|------------|-----------|----------------|--------------|---------------------|---------------------|------------|
| 6-Jan-23 | 305.87 | 305.66 | NO | 6-Jan-23 | 306.10 | 305.87 | 0.23 | 0.11 | NO |
| 12-Jan-23 | 305.75 | 305.66 | NO | 12-Jan-23 | 306.00 | 305.75 | 0.25 | 0.11 | NO |
| 18-Jan-23 | 305.76 | 305.66 | NO | 18-Jan-23 | 306.03 | 305.76 | 0.27 | 0.11 | NO |
| 25-Jan-23 | 305.74 | 305.66 | NO | 25-Jan-23 | 306.005 | 305.74 | 0.26 | 0.11 | NO |
| Date | DP17 (mASL) | Threshold Value (mASL) | Exceedance | Date | BH92-12 (mASL) | DP17 (mASL) | Head Difference (m) | Threshold Value (m) | Exceedance |
| 6-Jan-23 | 305.37 | 305.17 | NO | 6-Jan-23 | 305.66 | 305.37 | 0.29 | 0.07 | NO |
| 12-Jan-23 | 305.28 | 305.17 | NO | 12-Jan-23 | 305.53 | 305.28 | 0.25 | 0.07 | NO |
| 18-Jan-23 | 305.29 | 305.17 | NO | 18-Jan-23 | 305.54 | 305.29 | 0.26 | 0.07 | NO |
| 25-Jan-23 | 305.28 | 305.17 | NO | 25-Jan-23 | 305.53 | 305.28 | 0.25 | 0.07 | NO |
| Date | DP3 (mASL) | Threshold Value (mASL) | Exceedance | Date | DP6 (mASL) | DP3 (mASL) | Head Difference (m) | Threshold Value (m) | Exceedance |
| 6-Jan-23 | 304.92 | 304.54 | NO | 6-Jan-23 | 305.70 | 304.92 | 0.78 | 0.57 | NO |
| 12-Jan-23 | 304.75 | 304.54 | NO | 12-Jan-23 | 305.55 | 304.75 | 0.80 | 0.57 | NO |
| 18-Jan-23 | 304.77 | 304.54 | NO | 18-Jan-23 | 305.55 | 304.77 | 0.78 | 0.57 | NO |
| 25-Jan-23 | 304.74 | 304.54 | NO | 25-Jan-23 | 305.54 | 304.74 | 0.80 | 0.57 | NO |
| Date | DP2 (mASL) | Threshold Value (mASL) | Exceedance | Date | BH92-27 (mASL) | DP2 (mASL) | Head Difference (m) | Threshold Value (m) | Exceedance |
| 6-Jan-23 | 303.95 | 303.65 | NO | 6-Jan-23 | 304.58 | 303.95 | 0.63 | 0.43 | NO |
| 12-Jan-23 | 304.06 | 303.65 | NO | 12-Jan-23 | 304.54 | 304.06 | 0.48 | 0.43 | NO |
| 18-Jan-23 | 303.95 | 303.65 | NO | 18-Jan-23 | 304.53 | 303.95 | 0.57 | 0.43 | NO |
| 25-Jan-23 | Frozen | 303.65 | NO | 25-Jan-23 | 304.54 | Frozen | - | 0.43 | NO |
| Date | DP1 (mASL) | Threshold Value (mASL) | Exceedance | Date | BH92-29 (mASL) | DP1 (mASL) | Head Difference (m) | Threshold Value (m) | Exceedance |
| 6-Jan-23 | Frozen | 303.88 | NO | 6-Jan-23 | 304.65 | Frozen | - | 0.29 | NO |
| 12-Jan-23 | Frozen | 303.88 | NO | 12-Jan-23 | 304.57 | Frozen | - | 0.29 | NO |
| 18-Jan-23 | 304.23 | 303.88 | NO | 18-Jan-23 | 304.59 | 304.23 | 0.36 | 0.29 | NO |
| 25-Jan-23 | Frozen | 303.88 | NO | 25-Jan-23 | 304.61 | Frozen | - | 0.29 | NO |
| Date | DP5CR (mASL) | Threshold Value (mASL) | Exceedance | Date | OW5-84 (mASL) | DP5CR (mASL) | Head Difference (m) | Threshold Value (m) | Exceedance |
| 6-Jan-23 | 303.45 | 302.88 | NO | 6-Jan-23 | 303.72 | 303.45 | 0.27 | 0.20 | NO |
| 12-Jan-23 | 303.36 | 302.88 | NO | 12-Jan-23 | 303.62 | 303.36 | 0.27 | 0.20 | NO |
| 18-Jan-23 | 303.41 | 302.88 | NO | 18-Jan-23 | 303.67 | 303.41 | 0.26 | 0.20 | NO |
| 25-Jan-23 | Frozen | 302.88 | NO | 25-Jan-23 | 303.61 | Frozen | - | 0.20 | NO |

Note: No exceedances to report for the month of January.



Monthly Reporting
Mill Creek Aggregates Pit
January 2023

| Max. Allowable as per PTTW- Main Pond | | |
|---------------------------------------|------------|-----------|
| (Imperial Gallons) | | (Litres) |
| 2,500 | per minute | 11,365 |
| 1,800,000 | per day | 8,183,000 |

| Max. Allowable as per PTTW- Silt Pond | | |
|---------------------------------------|------------|------------|
| (Imperial Gallons) | | (Litres) |
| 2,597 | per minute | 11,806 |
| 3,739,477 | per day | 17,000,000 |

| | | |
|--|------|--|
| Total Monthly Precipitation (mm): | 38.2 | Kitchener/Waterloo (Actual) |
| Total Monthly Normal Precipitation (mm): | 65.2 | Waterloo-Wellington A (30-year Normal) |

| Date | Below Water Table Extraction Phase 5 | Below Water Table Extraction Phase 6 | Water Pumped from Main Pond (gals) | Water Pumped from Active Silt Pond (gals) | Main Pond Level (mASL) | Exceedance Y/N (BELOW 305.5 mASL) | Phase 2 Pond Level (mASL) | Exceedance Y/N (BELOW 305.0 mASL) | Phase 3 Pond Level (mASL) | Exceedance Y/N (BELOW 303.85 mASL) | Phase 4 Pond Level (mASL) | Exceedance Y/N (BELOW 304.5 mASL) |
|-----------|--------------------------------------|--------------------------------------|------------------------------------|---|------------------------|-----------------------------------|---------------------------|-----------------------------------|---------------------------|------------------------------------|---------------------------|-----------------------------------|
| 1-Jan-23 | - | - | - | - | - | - | - | - | - | - | - | - |
| 2-Jan-23 | 0 | 0 | 0 | 0 | - | - | - | - | - | - | - | - |
| 3-Jan-23 | 0 | 0 | 0 | 0 | - | - | - | - | - | - | - | - |
| 4-Jan-23 | 0 | 0 | 0 | 0 | - | - | - | - | - | - | - | - |
| 5-Jan-23 | 0 | 0 | 0 | 0 | - | - | - | - | - | - | - | - |
| 6-Jan-23 | 0 | 0 | 0 | 0 | - | - | - | - | - | - | - | - |
| 7-Jan-23 | - | - | - | - | - | - | - | - | - | - | - | - |
| 8-Jan-23 | - | - | - | - | - | - | - | - | - | - | - | - |
| 9-Jan-23 | 0 | 0 | 0 | 0 | - | - | - | - | - | - | - | - |
| 10-Jan-23 | 0 | 0 | 0 | 0 | - | - | - | - | - | - | - | - |
| 11-Jan-23 | 0 | 0 | 0 | 0 | - | - | - | - | - | - | - | - |
| 12-Jan-23 | 0 | 0 | 0 | 0 | - | - | - | - | - | - | - | - |
| 13-Jan-23 | 0 | 0 | 0 | 0 | - | - | - | - | - | - | - | - |
| 14-Jan-23 | - | - | - | - | - | - | - | - | - | - | - | - |
| 15-Jan-23 | - | - | - | - | - | - | - | - | - | - | - | - |
| 16-Jan-23 | 0 | 0 | 0 | 0 | - | - | - | - | - | - | - | - |
| 17-Jan-23 | 0 | 0 | 0 | 0 | - | - | - | - | - | - | - | - |
| 18-Jan-23 | 0 | 0 | 0 | 0 | - | - | - | - | - | - | - | - |
| 19-Jan-23 | 0 | 0 | 0 | 0 | - | - | - | - | - | - | - | - |
| 20-Jan-23 | 0 | 0 | 0 | 0 | - | - | - | - | - | - | - | - |
| 21-Jan-23 | - | - | - | - | - | - | - | - | - | - | - | - |
| 22-Jan-23 | - | - | - | - | - | - | - | - | - | - | - | - |
| 23-Jan-23 | 0 | 0 | 0 | 0 | - | - | - | - | - | - | - | - |
| 24-Jan-23 | 0 | 0 | 0 | 0 | - | - | - | - | - | - | - | - |
| 25-Jan-23 | 0 | 0 | 0 | 0 | - | - | - | - | - | - | - | - |
| 26-Jan-23 | 0 | 0 | 0 | 0 | - | - | - | - | - | - | - | - |
| 27-Jan-23 | 0 | 0 | 0 | 0 | - | - | - | - | - | - | - | - |
| 28-Jan-23 | - | - | - | - | - | - | - | - | - | - | - | - |
| 29-Jan-23 | - | - | - | - | - | - | - | - | - | - | - | - |
| 30-Jan-23 | 0 | 0 | 0 | 0 | - | - | - | - | - | - | - | - |
| 31-Jan-23 | 0 | 0 | 0 | 0 | - | - | - | - | - | - | - | - |
| Total | 0 | 0 | 0 | 0 | - | - | - | - | - | - | - | - |

Note: No exceedances to report. All ponds are frozen

From: Eowyn Spencer <espencer@grandriver.ca>
Sent: Tuesday, February 14, 2023 12:09 PM
To: ca.office@ontario.ca; minister.mnrf@ontario.ca
Cc: Angela Coleman; 'bfox@conservationontario.ca'; Admin; Amanda Knight - Township of Guelph/Eramosa (aknight@get.on.ca); Andrea Holland (clerk@hamilton.ca); acarter@pertheast.ca; Chloe Senior; County of Brant Clerk's Office; dholmes@melancthontownship.ca; Evelyn Eichenbaum; Graham Milne (Graham.Milne@halton.ca); Karren Wallace; Kerri O'Kane; Larry Wheeler; Lindsay Cline (lcline@northperth.ca); lgreen@southgate.ca; Lisa Campion; mtownsend@townofgrandvalley.ca; nmartin@amaranth.ca; Office of the Clerk (clerks@brantford.ca); Regional Clerk; Stephen.O'Brien@guelph.ca; Susan Stone (sstone@eastgarafraxa.ca); Teresa Olsen
Subject: Notification of GRCA By-Law 1-2023

To: Ministry of Natural Resources and Forestry, Conservation Ontario, and Grand River watershed participating municipal Clerk's offices:

Please be advised that at the regular meeting held on January 27, 2023, the General Membership of the Grand River Conservation Authority passed the following resolution:

THAT By-law 1-2023 be read a first, second, and third time and adopted by the General Membership, to take effect on January 27, 2023;

AND THAT By-law 1-2022 be repealed on January 27, 2023;

AND THAT a copy of By-law 1-2023 be forwarded to the Ministry of Natural Resources and Forestry, and posted publicly on the Grand River Conservation Authority's website.

[GRCA By-law 1-2023](#) has been made available to members of the public and can be viewed on our Governance webpage.

Kind regards,

Eowyn Spencer

Executive Assistant | Grand River Conservation Authority
400 Clyde Road, P.O. Box 729, Cambridge ON N1R 5W6
519-621-2763, ext. 2200
www.grandriver.ca

Eowyn Spencer

Executive Assistant

Grand River Conservation Authority

400 Clyde Road, PO Box 729
Cambridge, ON N1R 5W6
Office: 519-621-2763 ext. 2200
Toll-free: 1-866-900-4722

www.grandriver.ca | [Connect with us on social](#)

The Spiritual Assembly of the Bahá'ís of Puslinch

c/o 18 Badenoch Street
Morrison, ON N0B 2C0
www.bahaisofpuslinch.ca

RECEIVED

FEB 06 2023

Township of Puslinch

6 February 2023

Township of Puslinch Council
7404 Wellington Road 34
Puslinch, ON N0B 2J0

Dear Council,

Establishment of Youth Advisory Committee

With the call for applications for appointments to the various Township of Puslinch Advisory Committees shared in mid-December, the Puslinch Bahá'í Assembly became aware of the Council's decision to establish a new committee, the Youth Advisory Committee.

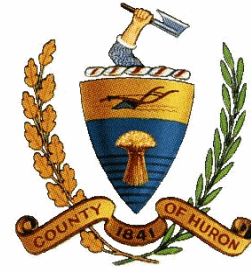
The Assembly commends the Council for taking this concrete action to engage the youth of the Township through this opportunity. We offer our support and sincere best wishes that this Committee will become a vibrant voice for the youth in building a vibrant community of the future. This is the sort of innovative and inclusive leadership that is critical to making Puslinch a better community for everyone.

Sincerely,

*The Spiritual Assembly
of the Bahá'ís of Puslinch*

OFFICE OF THE WARDEN

Corporation of the County of Huron
1 Courthouse Square
Goderich, Ontario N7A 1M2
www.HuronCounty.ca
Phone: 519.524.8394
Toll Free: 1.888.524.8394



February 1, 2023

Sent via email.

Re: Call to Action: Review of the Cannabis Act

Please note that on February 1, 2023 Huron County Council passed the following motion:

Moved by: Councillor G. Finch and Seconded by: Councillor M. Anderson

THAT:

The Council of the County of Huron approve the report by CAO Meighan Wark dated February 1, 2023 titled Report to Council: Cannabis Act Information as presented;
AND FURTHER THAT:

The Council of the County of Huron advocate for improvements to the Cannabis Act and current legislative framework for cannabis in Canada by sending the report titled *Report for Council: Cannabis Act Information*, including the correspondence found in the appendices, to the Western Ontario Warden's Caucus (WOWC) for discussion and consideration;

AND FURTHER THAT:

The Council of the County of Huron approve forwarding Call to Action Letters to the following for support:

- Federation of Canadian Municipalities (FCM)
- All Municipalities in Ontario
- Ministry of Agriculture, Food and Rural Affairs (OMAFRA)
- Premier of Ontario
- Provincial Minister of the Environment, Conservation and Parks
- Provincial Minister of Agriculture
- Provincial Minister of Municipal Affairs and Housing
- Member of Parliament
- Federal Minister of Agriculture and Agri-Food
- Federal Minister of Health

CARRIED

The County of Huron calls for a review and amendments to the Cannabis Act and the current legislative framework for cannabis in Canada.

To be clear, the County of Huron is not against or opposed to cannabis and we appreciate the role that both the federal and provincial governments provide in assisting municipalities. However, when new legislation is implemented, it is often at the municipal level that the impacts of change can be observed, and notations can be made for areas of improvement. It is vital that municipal governments pay attention and provide information and recommendations to higher levels of government so that continual improvements can be made over time.

It is in this spirit that we provide the following recommendation:

As a municipal government for one of Canada's most agriculturally productive regions and a popular tourism destination, we have been in the position to observe the last several years of legal cannabis production under the Cannabis Act as managed by Health Canada.

Under the current legislative and regulatory framework, we have observed, and continue to observe, serious odour impacts on local communities and residents from cannabis production facilities; including concerns from local medical practitioners about these impacts. Most often, these odour impacts arise from properties used for 'The Production of Cannabis for Own Medical Purposes by a Designated Person'.

In our local municipal experience, these facilities are often established without complying with local municipal zoning and nuisance by-laws, often contain hundreds of cannabis plants for each of the four assigned individuals, and usually do not include adequate odour controls to manage impacts on surrounding homes, public facilities, and the community at large.

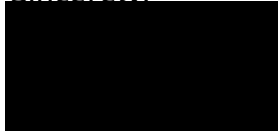
To help manage public impacts of cannabis production facilities, we request that all production facilities, including facilities used by a designated person to produce cannabis for an individual's medical purposes, to require confirmation from the local municipality that the facility/site selected complies with all local municipal by-laws and regulations prior to an application being approved by Health Canada. We also request that Health Canada implement a system of minimum setbacks between cannabis production facilities and sensitive odour receptors, including homes and public facilities.

As an agricultural community, we have had extensive experience with the Ontario Ministry of Agriculture, Food and Rural Affairs' Minimum Distance Separation (MDS) Formula, an approach which has been used to successfully manage land use conflicts resulting from odour between livestock facilities and sensitive receptors for almost 50 years. We believe a system based on MDS would be appropriate to manage the

impacts of Health Canada's approved cannabis facilities, including both licensed commercial producers and designated growers for individuals.

In conclusion, we strongly recommend further notice and enhanced consultation with municipal governments when drafting and implementing legislation and regulations related to cannabis production, as there is a direct impact on local municipal operations, local residents, and in some cases, serious issues of non-compliance with local municipal by-laws.

Sincerely,



Glen McNeil
Warden, Huron County
On behalf of Huron County Council



Report for Council: Cannabis Act Information

Prepared: January 2023

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Background

On January 18, 2023, Huron County Council passed the following motion:

THAT:

The Council of the County of Huron request staff to prepare a report for Council on the Federal Cannabis Legislation Review with recommendations on options for Huron County to address their concerns with this legislation.

Cannabis Act: Information For Municipalities

According to The Government of Canada's *Information for Municipalities - Medical Use of Cannabis* there are two approved ways medical cannabis can be grown: *Licensed Producers* and *Personal and Designate Production*

1. Licensed Producers

Licensed producers are individuals or companies licensed by Health Canada to produce and sell cannabis for medical purposes. Licensed producers must meet stringent health and safety security requirements before producing and selling cannabis.

When applying to be a licensed producer under the Access to Cannabis for Medical Purposes Regulations (ACMPR), or when applying to amend a licence, an applicant must notify:

- The municipality
- Local fire officials
- Local law enforcement

Licensed producers must also notify these local authorities, within 30 days, after the issuance of a licence or the renewal, amendment, suspension, reinstatement, or revocation of their licence. These notification requirements are intended to provide local authorities with information about activities with cannabis conducted in their jurisdiction to allow them to take appropriate measures, as applicable.

Licensed producers are expected to obey all relevant federal, provincial and municipal laws and by-laws, including municipal zoning by-laws.

2. Personal and Designated Production

If a person wants to produce a limited amount of cannabis for his/her own medical purposes, he/she needs to register with Health Canada. He/she can also choose to designate another person to produce a limited amount of cannabis for him/her. A person can produce a limited number of marijuana plants under a maximum of two registrations (for one other person and him/herself, or two other people). Marijuana plants may be produced under a maximum of four registrations at one address.

A registered or designated person is permitted to produce marijuana plants indoors and/or outdoors, but not both at the same time. If a person wishes to produce marijuana plants outdoors, the boundary of the land on which the production site is located cannot have any points in common with the boundary of the land on which a school, public playground, day care facility or other public place frequented mainly by persons under 18 years of age.

The number of plants a person can grow is determined by the daily amount recommended by their health care practitioner and a set of formulas in the regulations.

Health Canada also recommends that registered and designated persons be discreet with their production.

Individuals who are registered with Health Canada to produce a limited amount of cannabis for medical purposes are expected to obey all federal, provincial and municipal laws and by-laws.

Community Expressed Concerns

Recently, some concerns regarding the Cannabis Act and local growing practices have been expressed by community members. Some of the topics of concern expressed have included:

- Excessive noise produced by ventilation units
- Serious odour impacts from production
- Health concerns from neighbouring property owners
- Questions regarding zoning requirements for Cannabis operations, particularly in regards to areas zoned residential
- The current lack of a Minimum Distance Separation (MDS) between licensed facilities/designate growers, and homes, public facilities

Impact to the Municipality

Community concerns regarding the Cannabis Act have an impact on the municipality. These impacts include the costs associated with Council and staff time and legal fees. There is also a potential for community disruption pertaining to licenses issued under the Federal Medical Cannabis Registration process.

It is important to note that the municipality's concerns expressed in this report are not against or opposed to cannabis. The County of Huron appreciates the role that both the federal and provincial governments provide in assisting municipalities. However, when new legislation is implemented, it is often at the municipal level that the impacts of change can be observed and notations can be made for areas of improvement. It is vital that municipal governments pay attention and provide information and recommendations to other levels of government so that continual improvements can be made over time.

Advocacy Efforts to Date

On October 5, 2022 a letter was sent to the Cannabis Act Legislative Review Secretariat of Health Canada. The letter offered requested feedback on the Cannabis Act and a recommendation for a Minimum Distance Separation to protect residential areas.

See Appendix A.

Recommendations for Further Advocacy

Report for Council: Cannabis Act Information (this report)

Further advocacy could be accomplished by sending this report, including the correspondence found in the appendices, to the Western Ontario Warden's Caucus (WOWC) for discussion and consideration.

A Call to Action Letter could be sent on behalf of WOWC, and all WOWC member municipalities could be invited to send similar letters to the agencies and individuals outlined below.

Call to Action Letter

A sample Call to Action Letter for Huron County can be found in Appendix B. Once approved by Council, letters could be sent to:

- Federation of Canadian Municipalities (FCM)
- All Municipalities in Ontario
- Ministry of Agriculture, Food and Rural Affairs (OMAFRA)
- Premier of Ontario: Doug Ford
- Provincial Minister of the Environment, Conservation and Parks: David Piccini
- Provincial Minister of Agriculture: Lisa Thompson
- Provincial Minister of Municipal Affairs and Housing: Steve Clark
- Member of Parliament: Ben Lobb
- Federal Minister of Agriculture and Agri-Food: Marie-Claude Bibeau
- Federal Minister of Health: Jean-Yves Duclos

Further Resources

The Cannabis Act: The Facts

<https://www.canada.ca/en/health-canada/news/2018/06/backgrounder-the-cannabis-act-the-facts.html>

The Cannabis Act

https://laws-lois.justice.gc.ca/eng/annualstatutes/2018_16/FullText.html#:~:text=The%20objectives%20of%20the%20Act,operating%20outside%20the%20legal%20framework

Cannabis Information for Municipalities

<https://www.canada.ca/en/health-canada/services/drugs-medication/cannabis/information-municipalities.html>

Ontario: Cannabis Control Act

<https://www.ontario.ca/laws/statute/17c26>

Correspondence Received by Council

Correspondence to Council, January 2023: Bonnie Shackelton

<https://agendas.huroncounty.ca/agendapublic/AttachmentViewer.ashx?AttachmentID=7134&ItemID=5394>

Appendix A

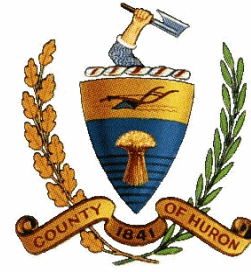
Copy of the letter sent to the Cannabis Act Legislative Review Secretariat of Health Canada on October 5, 2022

Appendix B

Sample Call to Action Letter

OFFICE OF THE WARDEN

Corporation of the County of Huron
1 Courthouse Square
Goderich, Ontario N7A 1M2
www.HuronCounty.ca
Phone: 519.524.8394
Toll Free: 1.888.524.8394



October, 5, 2022

To: Cannabis Act Legislative Review Secretariat
Health Canada
Address locator 03021
Ottawa, Ontario
K1A 0K9

On October 5, 2022, Huron County Council passed the following motion:

THAT:

The Council of the County of Huron send correspondence to Health Canada requesting consultation when implementing legislation on cannabis regulation as there is a direct impact on municipal operations and sometimes non compliancy to municipal by-laws;

AND FURTHER THAT:

The Council of the County of Huron recommends the inclusion of a system of Minimum Distance Separation to protect residential areas;

AND FURTHER THAT:

This correspondence be circulated to Huron County local municipalities for support.

Thank you for requesting feedback on the Cannabis Act and the current legislative framework for cannabis in Canada. As a municipal government for one of Canada's most agriculturally productive regions, and a popular tourism destination, we have been in the position to observe areas for improvement during the last several years of legal cannabis production under the Cannabis Act as managed by Health Canada.

Under the current legislative and regulatory framework, we have observed, and continue to observe, serious odour impacts on local communities and residents from cannabis production facilities; including concerns from local medical practitioners about these impacts. Most often, these odour impacts arise from properties used for 'The Production of Cannabis for Own Medical Purposes by a Designated Person'.

In our local municipal experience, these facilities are often established without complying with local municipal zoning and nuisance by-laws, often contain hundreds

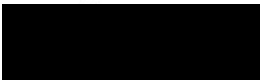
of cannabis plants for each of the four assigned individuals, and usually do not include adequate odour controls to manage impacts on surrounding homes, public facilities, and the community at large.

To help manage public impacts of cannabis production facilities, we request that all production facilities, including facilities used by a designated person to produce cannabis for an individual's medical purposes, require confirmation from the local municipality that the facility/site selected complies with all local municipal by-laws and regulations prior to an application being approved by Health Canada. We also request that Health Canada implement a system of minimum setbacks between cannabis production facilities and sensitive odour receptors, including homes and public facilities.

As an agricultural community we have had extensive experience with the Ontario Ministry of Agriculture, Food and Rural Affairs Minimum Distance Separation (MDS) Formula, an approach which has been used to successfully manage land use conflicts resulting from odour between livestock facilities and sensitive receptors for almost fifty years. We believe a system based on MDS would be appropriate to manage the impacts of Health Canada's approved cannabis facilities, including both licensed commercial producers and designated growers for individuals.

In conclusion, we strongly recommend enhanced consultation with municipal governments and request further notice and consultation with the County of Huron when drafting and implementing legislation and regulations dealing with matters related to cannabis production, as there is a direct impact on local municipal operations, local residents, and in some cases serious issues of non-compliance with local municipal by-laws.

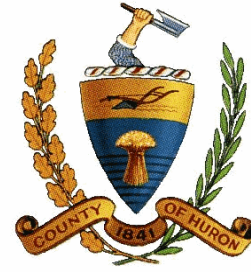
Sincerely,

A solid black rectangular box used to redact the signature of Glen McNeil.

Glen McNeil
Warden, Huron County
On behalf of Huron County Council

OFFICE OF THE WARDEN

Corporation of the County of Huron
1 Courthouse Square
Goderich, Ontario N7A 1M2
www.HuronCounty.ca
Phone: 519.524.8394
Toll Free: 1.888.524.8394



{insert date}

To: {insert recipient}

Re: Call to Action: Review of the Cannabis Act

On {insert date}, Huron County Council passed the following motion:

THAT:

{insert motion}

AND FURTHER THAT:

{insert motion}

The County of Huron calls for a review and amendments to the Cannabis Act and the current legislative framework for cannabis in Canada.

To be clear, the County of Huron is not against or opposed to cannabis and we appreciate the role that both the federal and provincial governments provide in assisting municipalities. However, when new legislation is implemented, it is often at the municipal level that the impacts of change can be observed, and notations can be made for areas of improvement. It is vital that municipal governments pay attention and provide information and recommendations to higher levels of government so that continual improvements can be made over time.

It is in this spirit that we provide the following recommendation:

As a municipal government for one of Canada's most agriculturally productive regions and a popular tourism destination, we have been in the position to observe the last several years of legal cannabis production under the Cannabis Act as managed by Health Canada.

Under the current legislative and regulatory framework, we have observed, and continue to observe, serious odour impacts on local communities and residents from cannabis production facilities; including concerns from local medical practitioners about these impacts. Most often, these odour impacts arise from properties used for 'The Production of Cannabis for Own Medical Purposes by a Designated Person'.

In our local municipal experience, these facilities are often established without complying with local municipal zoning and nuisance by-laws, often contain hundreds of cannabis plants for each of the four assigned individuals, and usually do not include adequate odour controls to manage impacts on surrounding homes, public facilities, and the community at large.

To help manage public impacts of cannabis production facilities, we request that all production facilities, including facilities used by a designated person to produce cannabis for an individual's medical purposes, to require confirmation from the local municipality that the facility/site selected complies with all local municipal by-laws and regulations prior to an application being approved by Health Canada. We also request that Health Canada implement a system of minimum setbacks between cannabis production facilities and sensitive odour receptors, including homes and public facilities.

As an agricultural community, we have had extensive experience with the Ontario Ministry of Agriculture, Food and Rural Affairs' Minimum Distance Separation (MDS) Formula, an approach which has been used to successfully manage land use conflicts resulting from odour between livestock facilities and sensitive receptors for almost 50 years. We believe a system based on MDS would be appropriate to manage the impacts of Health Canada's approved cannabis facilities, including both licensed commercial producers and designated growers for individuals.

In conclusion, we strongly recommend further notice and enhanced consultation with municipal governments when drafting and implementing legislation and regulations related to cannabis production, as there is a direct impact on local municipal operations, local residents, and in some cases, serious issues of non-compliance with local municipal by-laws.

Sincerely,

A black rectangular box redacting the signature of Glen McNeil.

Glen McNeil
Warden, Huron County
On behalf of Huron County Council

February 9, 2023

Honourable Doug Ford
Premier of Ontario
Legislative Building
Queen's Park
Toronto ON M7A 1A1

SENT VIA E-MAIL

Honourable Premier Ford:

SUBJECT: BILL 23 – MORE HOMES BUILT FASTER ACT

At its meeting held on February 7, 2023, Council for the Municipality of West Nipissing passed resolution **2023/38**, a copy of which is attached hereto. The resolution supports the concerns expressed by municipalities throughout the province as it relates to the negative impacts of *Bill 23 – More Homes Built Faster Act*.

We trust the enclosed is self-explanatory.

Respectfully,

Janice R. Dupuis

Deputy Clerk / Assistant to the
Chief Administrative Officer

\Encl.

cc: Minister of Municipal Affairs and Housing
MPP for Nipissing Timiskaming
Association of Municipalities of Ontario
all Ontario municipalities



CORPORATION OF THE MUNICIPALITY OF WEST NIPISSING

Council and Committee of the Whole Meeting

Resolution # 2023/38
Title: Support resolution for Bill 23
Date: February 7, 2023

Moved by: Councillor Jérôme Courchesne

Seconded by: Councillor Anne Tessier

WHEREAS the Government of Ontario recently passed Bill 23, More Homes Built Faster Act, 2022 without providing meaningful or adequate opportunity for municipalities to provide input on ways to increase the supply of housing and to improve housing affordability in Ontario while ensuring the financial capacity of municipalities to support growth and protection of the environment;

AND WHEREAS Bill 23 will have significant negative impact on, green standards, environmental protection of wetlands, conservation, social housing and other significant areas of concern;

AND WHEREAS Bill 23 will negatively impact municipalities' ability to manage growth, fund essential services and provide new infrastructure for the community resulting in fewer affordable housing units and putting pressure on the municipal tax rate by freezing, reducing, and exempting fees and development charges;

AND WHEREAS Bill 23 will have a negative environmental impact by removing the Conservation Authority's ability to review and consult on developments impacting natural heritage and conservation;

AND WHEREAS Bill 23 will result in reduced parkland for municipalities;

AND WHEREAS Bill 23 will open up the Greenbelt for development when the Greenbelt should remain an environmentally protected area so it can continue to help with flood control, provide clean air, and protect us from natural disasters;

AND WHEREAS a preliminary analysis of Bill 23 by the Association of Municipalities of Ontario (AMO) indicates the transfer of up to \$1 billion a year in costs from private sector developers to property taxpayers without any likelihood of improved housing affordability while also undermining environmental protection;

AND WHEREAS a growing number of municipalities have joined in expressing their concern with the negative impacts of Bill 23;

NOW THEREFORE BE IT RESOLVED:

1. That the Municipality of West Nipissing formally express its opposition to Bill 23 in its current form and that this resolution be forwarded to the Premier of Ontario, the Minister of Municipal Affairs and Housing Steve Clark, and MPP for Nipissing Timiskaming, John Vanthof;
2. That a copy of this resolution also be sent to the Association of Municipalities of Ontario, and all Ontario municipalities.

CARRIED

THE CORPORATION OF THE TOWN OF DEEP RIVER



P.O. BOX 400 • 100 DEEP RIVER ROAD • DEEP RIVER, ONTARIO K0J 1P0
Tel: (613) 584-2000 • www.deepriver.ca • Fax: (613) 584-3237

February 16, 2023

Via: Email

The Honourable Stephen Lecce, Minister of Education
Ministry of Education

Re: Ontario School Board Elections

Dear Honourable Stephen Lecce,

Please be advised that Council of the Town of Deep River, at the Regular Meeting of Council on February 1st, 2023, adopted the following Resolution:

- 6.1.1 School Board Elections Correspondence
Mandi Pearson, Clerk / Operations Clerk, Town of Petrolia

RESOLUTION 2023 29

MOVED BY: Councillor Fitton

SECONDED BY: Councillor Myers

BE IT RESOLVED THAT the correspondence from Ms. Mandi Pearson of the Town of Petrolia, regarding School Board Elections, be received,

THAT Council of the Town of Deep River supports the Resolution passed by the Town of Petrolia Council to request that School Boards become responsible for conducting their own Trustee elections, or at minimum municipalities be compensated by the School Boards for overseeing such Trustee elections; and

THAT staff forward this Resolution to the Honourable Stephen Lecce, Minister of Education, and to Ontario Municipal Councils.

CARRIED

Best Regards

Jackie Mellon
Clerk
Town of Deep River

cc: Ontario Municipal Councils



CORPORATION OF THE TOWN OF ESSEX

33 Talbot Street South, Essex, Ontario, N8M 1A8
p: 519.776.7336 f: 519.776.8811 | essex.ca

February 14, 2023

Honourable Steven Lecce, Minister of Education

Ministry of Education
315 Front Street West, 14th Floor
Toronto, ON M7A 0B8

RE: Ontario School Board Elections

Dear Minister Lecce,

At its Regular Meeting on February 6, 2023, Council received correspondence from the Town of Petrolia regarding School Board Elections in Ontario. Through discussion, Council determined that organizing, hosting, and promoting School Board Elections requires an extensive use of municipal resources and co-ordination. It was further discussed that the act of conducting School Board Elections, without compensation or re-imbursement, places a significant financial burden on municipalities.

As a result of that discussion, Council passed the following resolution:

R23-02-034

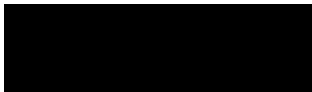
Moved by: Deputy Mayor Shepley
Seconded by: Councillor Allard

That the correspondence dated January 23, 2023 from the Town of Petrolia regarding School Board Elections be received and supported; and

That a letter of support be sent to the Town of Petrolia, the Honourable Steven Lecce, Minister of Education, MPP Anthony Leardi, the County of Essex and all other municipalities.

Carried

Yours truly,



Shelley Brown

Acting Clerk, Legal and Legislative Services
sbrown@essex.ca



CORPORATION OF THE TOWN OF ESSEX

33 Talbot Street South, Essex, Ontario, N8M 1A8
p: 519.776.7336 f: 519.776.8811 | **essex.ca**

c.c. Mandi Pearson, Clerk/Operations Clerk, Town of Petrolia
mpearson@petrolia.ca

Anthony Leardi, MPP
Anthony.Leardi@pc.ola.org

Mary Birch, Acting CAO, County of Essex
m.birch@countyofessex.ca

All 444 Municipalities of Ontario



Mandi Pearson, Clerk/Operations Clerk
Town of Petrolia
411 Greenfield Street
Petrolia, ON N0N 1R0
mpearson@petrolia.ca

DELIVERED VIA EMAIL

February 17th 2023

Re: School Board Elections

Dear Ms. Pearson,

Please be advised that at the Regular Council Meeting on February 8th 2023, the Town of Plympton-Wyoming Council passed the following motion, supporting the resolution from the Council of the Town of Petrolia regarding *School Board Elections*.

Motion 14

Moved by Councillor Mike Vasey

Seconded by Councillor John van Klaveren

That Council support item 'M' of correspondence from the Town of Petrolia regarding compensation for School Board Elections.

Motion Carried.

If you have any questions regarding the above motion, please do not hesitate to contact me by phone or email at dgiles@plympton-wyoming.ca.

Sincerely,

[Redacted Signature]
Denny Giles
Deputy Clerk
Town of Plympton-Wyoming

cc: Hon. Stephen Lecce, Minister of Education
MPP Bob Bailey, Sarnia-Lambton
All Ontario Municipalities

January 25, 2023

Hon. Steven Lecce, Minister of Education
MPP Bob Bailey, Sarnia-Lambton
County of Lambton
Municipalities of Lambton County and Ontario

Via email

During the December 12, 2022, regular meeting of council, the following resolution was passed:

Moved: Bill Clark Seconded: Debb Pitel

WHEREAS in the Province of Ontario, municipalities are responsible to conduct the election process on behalf of the school boards; and


WHEREAS an extensive amount of resources, time and management to advertise, co-ordinate and complete these trustee elections is placed on the municipality; and

WHEREAS municipalities do not receive any compensation or re-imbursement for use of orchestration of the school board trustee elections.

THEREFORE BE IT RESOLVED THAT the Council of the Corporation of the Town of Petrolia request that staff forward this motion to the Hon. Steven Lecce, Minister of Education, MPP Bob Bailey, Ontario Municipal Councils and the County of Lambton requesting that school boards become responsible for conducting their own trustee elections or at minimum municipalities be compensated by the school boards for overseeing such trustee elections;

Carried

Kind regards,


Mandi Pearson
Clerk/Operations Clerk

Phone: (519)882-2350 • Fax: (519)882-3373 • Theatre: (800)717-7694

411 Greenfield Street, Petrolia, ON, N0N 1R0

www.town.petrolia.on.ca





REPORT ADM-2023-010

TO: Mayor and Members of Council

FROM: Glenn Schwendinger CAO

MEETING DATE: March 1, 2023

SUBJECT: Proposed 2023 Corporate Workplan
File: A02-COR

RECOMMENDATIONS

THAT Report ADM-2023-010 regarding the Proposed 2023 Corporate Workplan be received; and

THAT the Township of Puslinch Council directs staff to proceed with finalizing the document as presented [as amended] and report back to Council.

DISCUSSION

Purpose

The purpose of the Corporate Workplan is to provide a summary of all projects and undertakings planned for the corporation for the coming year. This is the one document that summarizes the plans for the entire year for all departments makes it easier to keep track of and monitor progress all projects. The purpose of this report is to provide the proposed workplan to Council for their information and to then subsequently have Council endorse the workplan.

Background

This document is a useful tool for Council and staff to have a one stop shop for all projects and current estimates of the timing for each project throughout the year. Staff will use it on a regular basis to monitor progress of projects, plan workloads, plan for reporting, submissions, tenders, etc.

This is a living document, and will be reviewed regularly by the CAO and the Leadership Team. The information presented is the latest available based on the current information. As conditions change, projects may need to be adjusted for various reasons. Typically the Workplan is presented at the beginning of the year at or right after budget approval. The Workplan is then presented to council for endorsement. A mid-year update will be provided as well as a year end summary. Staff are here to help. If any questions come up as to clarification of what a specific project is staff will be pleased to respond.

The Proposed 2023 Workplan consists of 124 identified projects which include:

- Annually reoccurring projects (i.e. tenders, annual reports, annual maintenance /construction activities);
- Projects identified as part of the 2023 Budget Process and recommended by Council to move forward;
- Initiatives recommended by Department Heads;
- Projects that were deferred from the 2022 Workplan; and
- Projects that were listed on the 2022 Workplan but not completed.

Projects that are completed are highlighted in green. Projects which were carried forward from 2022 to 2023 are highlighted in yellow. Projects planned for 2023 are highlighted in grey. Approximately 60% of the projects planned for in 2022 have been completed. Of the projects being carried forward, approximately 25% will be completed in the first quarter of 2023.

FINANCIAL IMPLICATIONS

None

APPLICABLE LEGISLATION AND REQUIREMENTS

None

ATTACHMENTS

- 1) Proposed 2023 Workplan

| | | | | | | | | | | | | | |
|---|--|--|--|---|---|---|--|--|--|---|--|---|--|
| Finance | Complete - 2022 Interim Tax Levy Rates Report and By-law | | | | Complete - 2022 Final Tax Levy Rates Report and By-law (after County sets tax policy) | | | | | | | | |
| Finance | Complete - 2023 Interim Tax Levy Rates Report and By-law | | | | 2023 Final Tax Levy Rates Report and By-law (after County sets tax policy) | | | | | | | | |
| Finance | Carry forward - Insurance Request for Proposal - to be commenced in 2024 | | | | | | | | | | | Complete - 2023 Annual Insurance Renewal | |
| Finance | | | | | | | | | | | | 2024 Annual Insurance Renewal | |
| Finance (collaboration with responsible department) | | | Complete - 2021 Fourth Quarter Financial Report | | | Complete - 2022 First Quarter Financial Report | | | | | | Complete - 2022 Second Quarter Financial Report | Complete - 2022 Third Quarter Financial Report |
| Finance (collaboration with responsible department) | | | 2022 Fourth Quarter Financial Report | | 2023 First Quarter Financial Report | | | 2023 Second Quarter Financial Report | | | | 2023 Third Quarter Financial Report | |
| Clerks | Carry forward - Highway and Boulevard Obstruction By-law | | | | | | | | | | | | |
| Clerks | Complete - Publicized Displays By-law | | | | | | | | | | | | |
| Clerks | Carry forward - Fill Bylaw Review and Update - on-going | | | | | | | | | | | | |
| CAO | Continued engagement and partnership with Community groups relating to service delivery | | | | | | | | | | | | |
| CAO | Carry forward - Township Broadband Service - on-going | | | | | | | | | | | | |
| CAO | Carry forward - Community Growth Options for Township - on-going | | | | | | | | | | | | |
| Finance | | Complete - 2021 Balances in Discretionary Reserves and Restricted Reserves | | | | | | | | | | | |
| Finance | | Complete - 2022 Balances in Discretionary Reserves and Restricted Reserves | | | | | | | | | | | |
| Finance | | Complete - 2021 Completed Capital Projects | | | | | | | | | | | |
| Finance | | Complete - 2022 Completed Capital Projects | | | | | | | | | | | |
| Finance | | Complete - 2021 Public Sector Salary Disclosure and Issuing of T4's | | | | | | | | | | | |
| Finance | | 2022 Public Sector Salary Disclosure and Issuing of T4's | | | | | | | | | | | |
| Clerks | Complete - Upgrading emails to Microsoft 365 | | | | | | | | | | | | |
| Finance | | | Complete - 2021 Annual Legislative Financial Reporting to Council (ie. Council Remuneration, Temporary | | | | | | | | | | |
| Finance | | | 2022 Annual Legislative Financial Reporting to Council (ie. Council Remuneration, Temporary Borrowing, | | | | | | | | | | |
| Public Works | | | | | | | | Leslie Road West from Watson Road South to Puslinch Flamborough Townline | | | | | |
| Public Works | Carry Forward - Roads Management Plan including Condition Index Updates and strong focus on road speed and safety | | | | | | | | | | | | |
| Public Works | | | | | Complete - Roadside Mower for Grader - purchase | | | | | | | | |
| Clerks | Social Media and Advertising reporting | | | | | | | | | | | | |
| Clerks | Legislative reporting including Small Drinking Water System, AODA, Municipal Freedom of Information and Protection of Privacy Act (MFIPPA), Cemetery reporting, etc. | | | | | | | | | | | | |
| Clerks | Fibre internet implementation | | | | | | | | | | | | |
| Clerks | Cloudpermit implementation - Planning and By-law Modules | | | | | | | | | | | | |
| Clerks | Heritage Designation Analysis due to Bill 23 Legislative Changes | | | | | | | | | | | | |
| Clerks | Heritage Student Grant funding application and reporting | | | | | | | | | | | | |
| Clerks | Social Media and Advertising reporting | | | | | | | | | | | | |
| Clerks | Complete - Website review and improvements - Accessibility, menu items, links, etc. | | | | | | | | | | | | |
| Clerks | Complete - Update and expand Minor Variance , Site plan, ZBA, and Property Standards Appeals Guidelines on the website to be more customer friendly | | | | | | | | | | | | |
| Clerks | | | | | | Complete - Heritage Student Website Project related to the Heritage register - subject to grant funding | | | | | | | |
| Finance (Public Works assist) | | | | Complete - 2021/2022 Canada Community-Building Fund Reporting | | | | | | | | | |
| Finance (Public Works assist) | | | | 2022/2023 Canada Community-Building Fund Reporting | | | | | | | | | |
| Finance (Public Works assist) | Complete - 2022 Ontario Community Infrastructure Fund Reporting | | | 2023 Ontario Community Infrastructure Fund Reporting | | | | | | | | | |
| Finance (Clerks assist) | | | | 2023 Approved Budget and 2024 Proposed Budget - | | | | | | | | | |
| Finance (Public Works assist) | | | | | | Complete - Marketing and Branding Signage Implementation | | | | | | | |
| Clerks | | | | | | Carry forward - Short Term Accommodation Licensing By-law | | | | | | | |
| Finance (collaboration with responsible department) | | | | | | Carry forward - Asset Management System Implementation | | | | | | | |
| Parks | Carry forward - Puslinch Community Centre Park Renovation and Upgrade | | | | | | | | | | | | |
| Parks | Complete - Purchase Kubota Lawn Tractor | | | | | | | | | | | | |
| Parks | Complete - Purchase Landscape Trailer | | | | | | | | | | | | |
| Parks | | | | | | | | Old Morriston two (2) new sets of bleachers | | | | | |
| Parks | | | | | | | | | | Parking lot and associated enhancements at the front of the Puslinch Community Centre | | | |
| Parks | Increase service levels around parks. More frequent mowing, flower bed/garden maintenance | | | | | | | | | | | | |
| Parks | | | | | | Complete - Replacement of Morriston Meadows Bleachers and 6 Seat High Bleachers | | | | | | | |

[illegible]

| | | | | | | | | | | | | |
|---------------------|--|--|---|--|--|--|---|---|--|---|--|--|
| | | | | | | | | Carry forward - Optimist Rec Centre Building Condition Assessment | | | | |
| Facilities | | | | | | | | Carry forward - Zoning By-law Housekeeping Amendments No. 2 - carry forward to 2024 | | | | |
| Planning | | | | | | | | Carry forward - Cannabis Policy Development with County | | | | |
| Planning | | | | | | | | | Complete - Panic button installation at services counter | | | |
| Facilities | | | | | | | | | | | | |
| CAO (Clerks assist) | | | Carry forward - Boundary Agreement Review | | | | | | | | | |
| Fire | | | | | | | Community Risk Assessment- Ontario Regulation 378/18 | | | | | |
| Fire | | | | | | | Structural Firefighter gear replacement | | | | | |
| Fire | | | | | | | Carry Forward - Radio Upgrades (Supply Chain Issues) | | | | | |
| Public Works | | | | | | | | | | | Complete - Little's Bridge - Engineering | |
| | | | | | | | | | Carry forward - Concession 1 Culvert - rehab | | | |
| Public Works | | | | | | | | | | | | |
| Public Works | | Carry forward - Carriage Lane - Stormwater Management Facility - Storm Pon Rehab | | | | | | | | | | |
| Finance | | | | | | | | | | Complete - Target aggregate levy allocations between operating and capital budget | | |
| CAO | | | Carry forward - Township Strategic Plan - Defer to 2023 | | | | | | | | | |
| Facilities | | Complete - PCC LED Lighting upgrades | | | | | | | | | | |
| Facilities | | | | | | Pickleball Line Painting and Floor Refinishing | | | | | | |
| Facilities | | Complete - ORC gym Led Lighting upgrades | | | | | | | | | | |
| Finance | | | | | | | | | | | | Complete - 2023 Annual Indexing of Development Charges |
| CAO | | | | | | | Joint Purchasing Opportunities | | | | | |
| CAO | | | | | | | gravel extraction study | | | | | |
| CAO | | | | | | | Update Mission Statement | | | | | |
| Clerks | | | | | | | Inventory of municipal properties for other uses | | | | | |
| CAO | | | | | | | Natural Gas to un-serviced areas | | | | | |
| CAO | | | | | | | Continued engagement with the City of Guelph regarding Guelph Junction Rail Road Issues | | | | | |
| Finance | | | | | | | | | | | | 2024 Annual Indexing of Development Charges |



REPORT ADM-2023-011

TO: Mayor and Members of Council

PREPARED BY: Justine Brotherston, Deputy Clerk

PRESENTED BY: Justine Brotherston, Deputy Clerk

MEETING DATE: March 1, 2023

SUBJECT: Heritage Advisory Committee Vacancy Appointment

RECOMMENDATION

That Report ADM-2023-011 entitled Heritage Advisory Committee Vacancy Appoint be received; and,

That Council give 3 (three) regarding to By-law 2023-014 being a by-law to appoint citizen members to the Heritage Advisory Committee.

Purpose

The purpose of this report is to seek Council direction regarding an appointment to fill a vacancy on the Heritage Advisory Committee.

Background

Following the appointment of members to the Heritage Advisory Committee on January 18, 2023, staff received notice from a member vacating their seat on the Committee. Because the vacancy occurred shortly after recruitment completion and given that the Committee has not yet met, staff recommend that the vacancy be filled by reviewing applications submitted during the initial recruitment period. Based on this review, staff recommend that Mr. Josh Heller be appointed to the Heritage Advisory Committee effective March 1, 2023.

Financial Implications

None

Applicable Legislation and Requirements

None

Engagement Opportunities

None

Attachments

Attachment 1 – Draft By-law 2023-014 By-law to Appoint a Heritage Advisory Committee

Respectfully submitted,

Reviewed by:

**Justine Brotherston,
Deputy Clerk**

**Courtenay Hoytfox,
Municipal Clerk**



REPORT ADM-2023-012

TO: Mayor and Members of Council

PREPARED BY: Courtenay Hoytfox, Municipal Clerk

PRESENTED BY: Courtenay Hoytfox, Municipal Clerk

MEETING DATE: March 1, 2023

SUBJECT: 2020 Monitoring Report – Lafarge McMillan Pit, Licence No. 10671 and Peer Review

RECOMMENDATION

That Report ADM-2023-012 entitled 2020 Monitoring Report – Lafarge McMillan Pit, Licence No. 10671 and Peer Review be received; and

That Council direct staff to forward the staff report and schedules to the resident requesting the information.

Purpose

The purpose of this report is to provide Council with information relating to a delegation that was heard by Council on May 25, 2022.

Background

Council directed staff to follow up with the pit operator to request access to the annual monitoring data in order to facilitate a peer review by the Township hydrogeologist based on the concerns raised by the delegation on May 25, 2022. The delegation is attached to this report as Schedule “A”.

The pit operator advised that they would not release the records to the Township. Subsequent to this, staff submitted a Freedom of Information request to the Ministry of Natural Resources and Forestry, as staff are of the opinion that the water monitoring data is not exempt under the Freedom of Information and Protection of Privacy Act, and therefore should be available to the public. Staff made the request for the release of the information on July 5, 2022 and access to

the records was granted on December 22, 2022. The monitoring report is attached as Schedule "B".

Harden Environmental prepared the peer review attached as Schedule "C".

Financial Implications

The cost incurred by the Township for the peer review is not recoverable from the pit operator.

Applicable Legislation and Requirements

None

Engagement Opportunities

None

Attachments

Schedule "A" Delegation from May 25, 2022

Schedule "B" 2020 Monitoring Report – Lafarge McMillan Pit, Licence No. 10671

Schedule "C" Harden Environmental Peer Review

Respectfully submitted,

Reviewed by:

**Courtenay Hoytfox,
Municipal Clerk**

**Glenn Schwendinger,
CAO**

Jeff Bunn

To: Justine Brotherston
Subject: RE: Written Delegation to be presented to Puslinch Council on May 25, 2022

From: Wayne Madden <[REDACTED]>

Sent: Monday, May 23, 2022 11:52 AM

To: Glenn Schwendinger <gschwendinger@puslinch.ca>

Cc: [REDACTED]; James Seeley <jseeley@puslinch.ca>; Justine Brotherston <jbrotherston@puslinch.ca>; jshuttleworth@wellingtonadvertiser.com; [REDACTED]

Subject: Written Delegation to be presented to Puslinch Council on May 25, 2022

To: Glenn Schwendinger
Chief Administrative Officer
Township of Puslinch

Mr. Glenn Schwendinger

*Thank you for presenting our written delegation to the Puslinch Council **on May 25, 2022**. We request a hydrogeologist review the facts we are giving, covering the past four years. Our farm is located at [REDACTED]. Extensive aggregate mining operations on Concession 2 border our north property line. We believe these mining operations have adversely affected the groundwater on our property and our surrounding neighbours' properties.*

Honoured members of our Puslinch Council

Please help us, our neighbours, and all of the Puslinch environment stop the effects of Aggregate Mining on groundwater, wetlands, wildlife, and farming.

The case before you regarding Roszell Pit in Puslinch and its effect on Roszell Wetland is only an example of what is happening throughout the entire township.

The reports presented in the agenda addendum on May 4, 2022, do not mention the number of species that died because of the *dry wetland* and the effect on the insects and wild animals who depend on the wetlands and support the farms throughout Puslinch.

We need the aggregate industry, but we also need the industry to be respectful of people and animals and active participants in improving our environment, not destroying it.

It is well-known that digging below the waterline affects groundwater within a one-kilometre radius of the dig site. This fact takes in most of Puslinch. It should be the mining companies' responsibility to immediately mitigate any adverse effects without the public having to monitor and ensure compliance.

I hope our Puslinch Council lobbies the Provincial Government for total control of the Aggregate Industry in Puslinch. We deserve to be stewards of our local properties.

Our farm is on Concession 1. Lafarge is excavating aggregate just north on Concession 2. I have been trying to get hydro-geological reports from the provincial government and Lafarge. Both parties are claiming the information is not public. I find it hard to believe that activity affecting surrounding properties is not public information. The groundwater on our property and neighbouring properties has dropped substantially in the last four years. We know that the aggregate mining companies are digging below the waterline. We also know that

this activity can affect groundwater up to a 1 Km radius from the mine site. I have spoken to David BAZARGAN <david.bazargan@lafargeholcim.com> and Carol SIEMIGINOWSKI <carol.siemiginowski@lafargeholcim.com> but have received limited information.

The attached pictures give a visual account of the water receding over the last four years. The first picture shows the third generation in 2018 standing on the dock with a plank (over water) to the dock. Today, the overhead maps show the receding water lines around the 10-acre pond and smaller ponds that now do not exist. The other photos show the receding water line and the total weed infestation due to shallow water warmed by the sun. You do not see the dried-up wetlands, which ran throughout the cedar forest on the north end of the property. Our land is part of the Ontario Managed Forest Program (MFTIP) sponsored by the Ministry of Natural Resources. Changes in the forest are documented yearly. There have been substantial changes in the areas, which used to be a wetland.

"The 2022 World Water Day {March 22} highlighted Groundwater - Making the Invisible Visible. Municipal groundwater systems service rural-urban communities. This precious water resource is managed utilizing the provincial regulatory requirements, which evolved from the Walkerton Water tragedy. A multi-barrier approach ensures safe drinking water is provided by source water protection, water treatment, inspection, testing, and distribution."

We are asking for independent inspection and testing to be done by Puslinch to verify the claims of the aggregate industry located along Concession 2.

Farm owners:

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Wayne Madden

[REDACTED]



Oct 24, 2020 – quite a drastic difference. Plank and supporting boards no longer in the water. The dock is very sloped, with the end of it in the water. The orange fence was underwater previously as part of the system holding the dock afloat.



May 2021 – no recovery.



These two images are essentially the same with different saturation. I provided two as the greener image is from google maps and the second from the Grand River Conservation authority (GRCA). The GRCA has a copyright disclaimer when you use the site, so wondering if it's okay to use for this purpose.

**Most wetland
through forest
dry
2020/2021**

**Pond like wet land
initially,
completely dry
2020/2021**



An aerial photograph showing a landscape with a large, irregularly shaped pond in the upper left. The pond is surrounded by a light-colored, sandy or silty area. The rest of the image is covered in dense, green vegetation, likely wetland plants. In the lower right, there are some lighter-colored patches that appear to be bare ground or different types of vegetation. A red circle and a red checkmark are drawn at the bottom of the image, pointing towards the text.

**Wet land pond
like initially,
completely dry
2020 and 2021,
minimal water
there today**

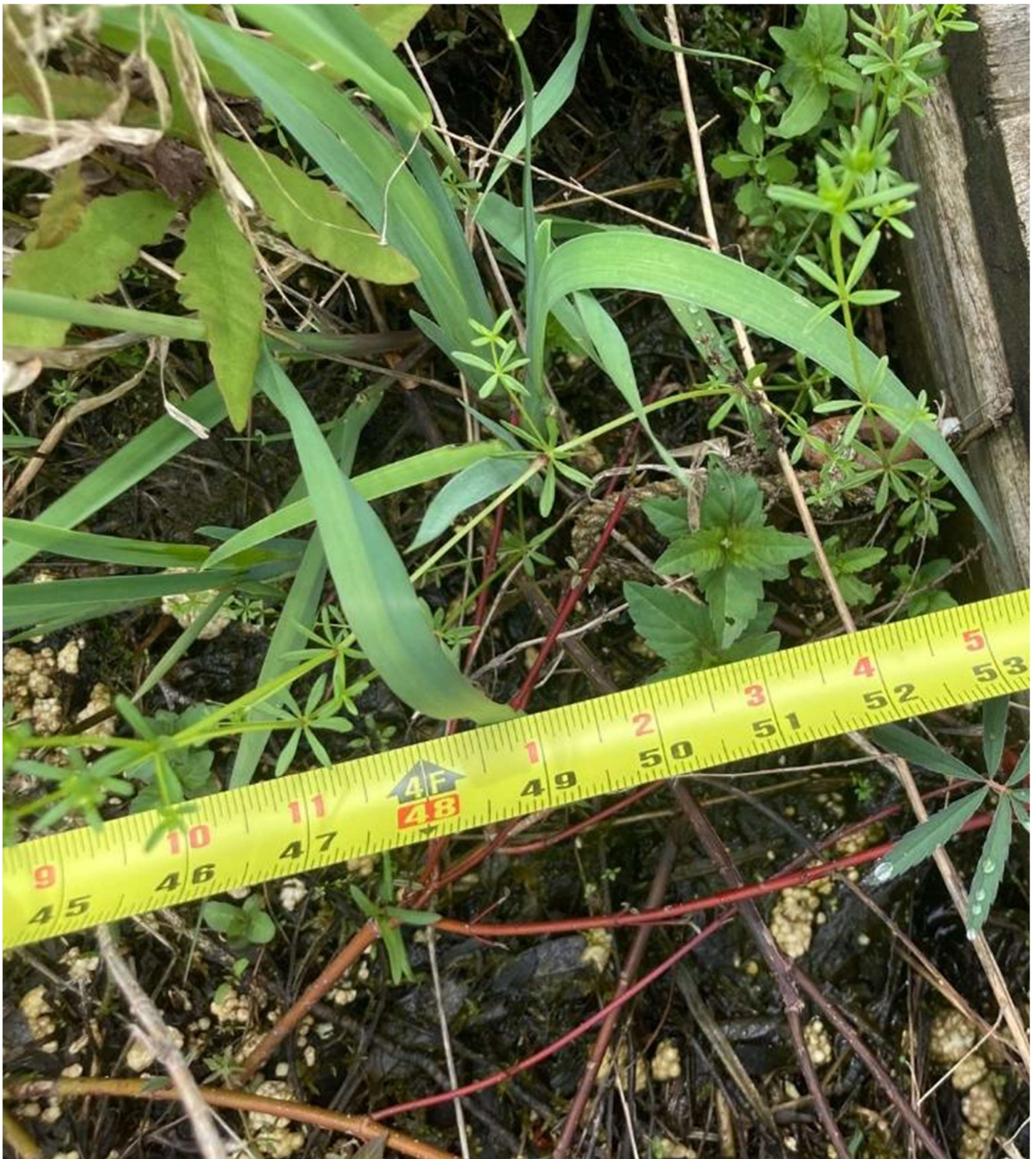
Dock today – water level is slightly higher this year so far, but the plank and boards are still far out of the water.



Distance from the supporting board to the dock. I've never intentionally moved this board.

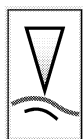


Closeup of the distance – 4.5 ft



Weeds in 2020 – have been the same or worse the past couple years – wasn't like this when the water level was higher.





*Groundwater
Science Corp.*

Unit 2, 465 Kingscourt
Waterloo, ON N2K 3R5
phone: (519) 746-6916
groundwaterscience.ca

**2020 Monitoring Report
Lafarge McMillan Pit
Licence No. 10671
North Half of Lot 23, Con. 1
Township of Puslinch**

Prepared For:

Lafarge Canada Inc.
6509 Airport Road
Mississauga, Ontario
L4V 1S7

Prepared By:

Dave Nahrgang, P.Geo.
Andrew Pentney, P.Geo.
Groundwater Science Corp.

January 2021

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1.0 INTRODUCTION

1.1 Background

This report presents the results of the 2020 groundwater monitoring completed at the Lafarge McMillan Pit (Licence No. 10671), located on North Half Lot 23, Concession 1, Township of Puslinch, Ontario. The study site location is shown on **Figure 1**. The 2020 monitoring program was completed by Groundwater Science Corp. for Lafarge Canada Inc. in order to satisfy the conditions of the existing Licence.

Below water extraction at the site began in 2010. Operations in 2020 consisted primarily of below water table extraction and site rehabilitation. In November 2020 all excavation at the site was complete, no further extraction operations are expected. The general extraction area and extent of extraction ponds is shown in **Figure 2**.

The site is surrounded by several other Licenced properties, as shown in **Figure 1**.

1.2 Approved Groundwater Monitoring Program

The monitoring program requirements are outlined in Licence Conditions 8 and 9, as follows:

Condition 8

The licensee shall, prior to the start of excavation operations, provide the Wellington Area Supervisor, Ministry of Natural Resources, with a comprehensive groundwater monitoring report which shall include a description of monitoring equipment, monitoring locations, method of data collection and recording, action thresholds, calculations to be carried out (e.g., baseflow calculations), frequency of data collection, a proposed reporting schedule and any other details required by the Area Supervisor. The licensee shall maintain the monitoring programs described above, and shall comply with all requirements set out in the groundwater monitoring report throughout the operating life of the extraction and during the site rehabilitation period and beyond, until such time the Ministry of Natural Resources agrees to termination of, or reduction in, the monitoring program.

Condition 9

Groundwater monitoring results collected by the Licensee shall be submitted to the local office of the Ministry of the Environment and Energy for its information and any action deemed necessary by that Ministry.

The site was originally owned and Licenced by Warren Bitulithic Limited. It is our understanding that the *comprehensive groundwater monitoring report* referenced in Condition 8 was proposed to consist of the October 11, 1996 report by Morrison Environmental Limited for Planning Initiatives Limited entitled: *Groundwater Monitoring Program, Warren Bitulithic Limited McMillan Pit, Township of Puslinch*. A copy of the 1996 monitoring program recommendations was included in previous annual reports, please refer to those reports for specific details.

Action thresholds were included in the October 11, 1996 report however at that time it was noted that the thresholds were established prior to the detailed monitoring program (and installation of BH4, BH5 or BH6) and prior to the determination of typical seasonal water level fluctuation for

the site. It is also noted that the thresholds were proposed for locations are along the centre of the site (i.e. do not accurately reflect the water table slope across the site), and, one threshold location (BH3) will be destroyed by extraction.

The 1996 action thresholds are not in appropriate locations and do not represent "natural" or "pre-extraction" conditions at the site. As recommended previously, the Action Thresholds for this program have been revised to the following based on a review of the historical data now available:

| <u>Monitoring Location</u> | <u>Water Level Action Threshold Elevation (mAMSL)</u> |
|----------------------------|---|
| BH4 (or MCA BH12) | 304.80 |
| Pond | 304.65 |
| BH5 | 304.50 |

The current monitoring results have been assessed based on the revised thresholds.

1.3 Historical Monitoring Activities

All of the data for the site reported in the previous annual reports has been incorporated into the present assessment. In addition we have incorporated some relevant water level elevation data available for the adjacent CBM McMillan Pit and Mill Creek (MC) Pit.

The existing monitoring wells at the Lafarge McMillan Pit were installed prior to 1997, as shown on **Figure 2**. The pond staff (SW1) gauge was installed in 2011 and removed in October 2020 as extraction was nearing completion and safe access was no longer available. Groundwater monitoring and reporting since 2003 has been completed by Groundwater Science Corp.

2.0 MONITORING COMPLETED IN 2020

The reported elevations of the ground surface and reference points (top of well) at each monitor are shown in **Table 1**. The calculated elevation of the bottom of each monitor, based on total depth (field) measurements, is also shown.

The program requirements indicate that the monitoring results should be compared to precipitation data. For comparison a precipitation analysis for reported rainfall data from 2001 to present is included in **Appendix A**. The analysis shows the total reported monthly and annual precipitation minus the respective (monthly or annual) 30-year “normal”. Positive values indicate above average precipitation occurred during the respective period and negative values indicate below average precipitation.

2.1 Water Level Monitoring

In 2020 water levels were measured on a generally monthly basis (as accessible due to weather conditions) at monitors BH1, BH2, BH5, BH6 and SW1. Historically CBM BH3 has been monitored as needed to augment data available for BH6. Permission to obtain measurements at CBM BH3 was granted in 2003.

Former location BH4 (approximate mid-point along north site boundary) was destroyed during stripping and berm construction in 2005. Permission was obtained in 2010, prior to below water extraction, to access MCA BH12 data as a replacement for BH4. Location BH3 became inaccessible due to extraction operations in 2011; it has been removed during extraction and will not be replaced. In August 2016, MCA BH12 was also removed during extraction operations. SW1 was removed due to excavation on October 8, 2020.

Measurements are taken using an electronic (Heron Instruments®) water level meter as depth below top of the PVC well casing and recorded in the field. Water level elevations were subsequently calculated for each location using the field measurements and reported reference point elevations. The 2020 water level elevation data for the site is summarized in **Table 2**. The water level elevations are shown in graphical form (as hydrographs) in **Appendix A**.

2.2 Water Quality Monitoring

In 2020 water quality samples were obtained at BH2 and BH5 on April 17th, June 19th and November 27th. The samples were obtained using standard sampling protocol, using Waterra® high density polyethylene tubing and foot valve. Each well was purged (approx. 3 to 5 bore-volumes) to a relatively sand-free state prior to sampling. The samples were kept cool and submitted to ALS Laboratory Group (Waterloo) for analysis within 24 hours. The laboratory analysis reports are included in **Appendix B**.

2.3 Temperature Monitoring

Water temperatures were measured within the screened interval at all of the on-site wells on a generally monthly basis in 2020. Temperatures were measured using an electronic temperature probe, integrated into the water level tape probe, and with a reported accuracy to 0.1 C. The temperature monitoring results are summarized in **Table 3**.

3.0 MONITORING RESULTS

3.1 Discussion

The 2020 monitoring results are consistent with recent results (e.g. 2001 to 2019). Active below water table extraction has created 1 large pond encompassing the entire site, however based on the monitoring results and overall setting there is limited potential for the completed extraction to significantly affect groundwater conditions in the area.

Precipitation

For comparison to the hydrographs, a plot of the reported monthly and annual precipitation compared to the current 30-year monthly and annual precipitation Normals (1981-2010) reported by Environment Canada for the Kitchener/Waterloo (former Waterloo-Wellington) Airport Station (and overall area) for the years 2001 to 2020 is attached to this report. In 2020 the total reported precipitation of 710.6 mm is approximately 205.9 mm below the annual Normal value of 916.5 mm. As indicated by the graph, very dry spring conditions were followed by below average conditions throughout most of the year, with the exception of August.

Groundwater Levels

The current monitoring requirements include one monitor on the upgradient edge of the site and two monitors on the downgradient edge of the site once extraction proceeds below the water table. Monitors BH4, BH5 and BH6 were installed to satisfy this condition. BH4 has been destroyed and is replaced by data available for MCA BH12. As noted earlier, MCA BH12 was also removed in 2016.

Water levels at the site remain within the historical range established by the monitoring program, including conditions prior to 2010. Under existing conditions, water levels at the site are controlled primarily by precipitation levels and overall flow within the regional outwash channel groundwater system, and may also be affected by any potential influences associated with existing or historical below water table extraction at adjacent operations.

In 2020 the water table elevation within the extraction area (BH2, BH5 and BH6) and overall gradient across the site remained consistent with historical values. Based on the water level elevations on-site, groundwater flow is primarily westward, toward the adjacent CBM McMillan property. The water level monitoring results indicate that extraction at the site has not significantly affected local groundwater conditions.

The groundwater levels measured on-site are consistent with the known regional pattern of groundwater flow. Groundwater flows across the Lafarge McMillan Pit site from east to west, however the overall water table gradient across the site is low. Groundwater flows from the Mill Creek Pit Phase II area onto the Lafarge McMillan site, then slowly across the site and onto the CBM McMillan Pit. Groundwater flow then continues west from the CBM McMillan Pit toward Mill Creek. Based on the overall flow system and location of planned extraction ponds in the area, this local pattern of flow will be maintained after extraction operations are complete at these three sites.

Groundwater Temperatures

The 2020 groundwater temperature monitoring results are generally consistent with previous results, which indicate some increased groundwater temperatures likely as a result of a combination of upgradient pond creation and removal of the unsaturated zone on-site. In general the seasonal water temperature fluctuation at the site has increased due to the size of the on-site ponds.

The groundwater temperature monitoring program has limited usefulness given the low potential for thermal impact due to extraction on the site to reach any downgradient sensitive receptors. The major downgradient temperature sensitive receptor is Mill Creek, at a distance of approximately 875 metres from the Lafarge McMillan Pit.

Groundwater Quality

Based on the water quality data gathered at BH2 and BH5, there is no evidence of significant changes to groundwater quality as a result of extraction activities on-site or in the area. A review of the historical data indicates nitrate levels have declined since agricultural activities were discontinued at the site.

Low concentrations of Phenols were reported for BH2 and BH5 in the summer sampling event (only) in 2020. Phenols have been detected sporadically at very low levels in both BH2 and BH5 since 2015. According to the Environment Canada February 2000 *Canadian Environmental Protection Act Priority Substances List Assessment Report: Phenol*, there are a number of industrial sources of Phenols, however: *Phenol may occur naturally in water and soil as the decomposition product of plants, vegetation and animal waste (Dobbins et al., 1987). It is released to the environment by these natural sources, mostly in trace amounts of phenolic substances (CCREM, 1987). In addition: Phenol is an abundant naturally occurring chemical that tends to biodegrade rapidly in the environment (Baker and Mayfield, 1980; Dobbins et al., 1987; Howard, 1989).*

The Phenols detections at the site are not considered significant to the environment, or to off-site features, given that:

- the Phenol concentrations detected occasionally at the site are very low (just above detection limit);
- there are no sources of Phenol at the site; and,
- Phenols are not expected to persist in the environment (including groundwater).

No phenols were detected in the final sampling event.

4.0 RECOMMENDATIONS

Excavation of the site is now complete. Historical monitoring has shown no significant impact to groundwater levels, temperature or quality. It is our recommendation that the groundwater monitoring program can be terminated at any time.

All of which is respectfully submitted,

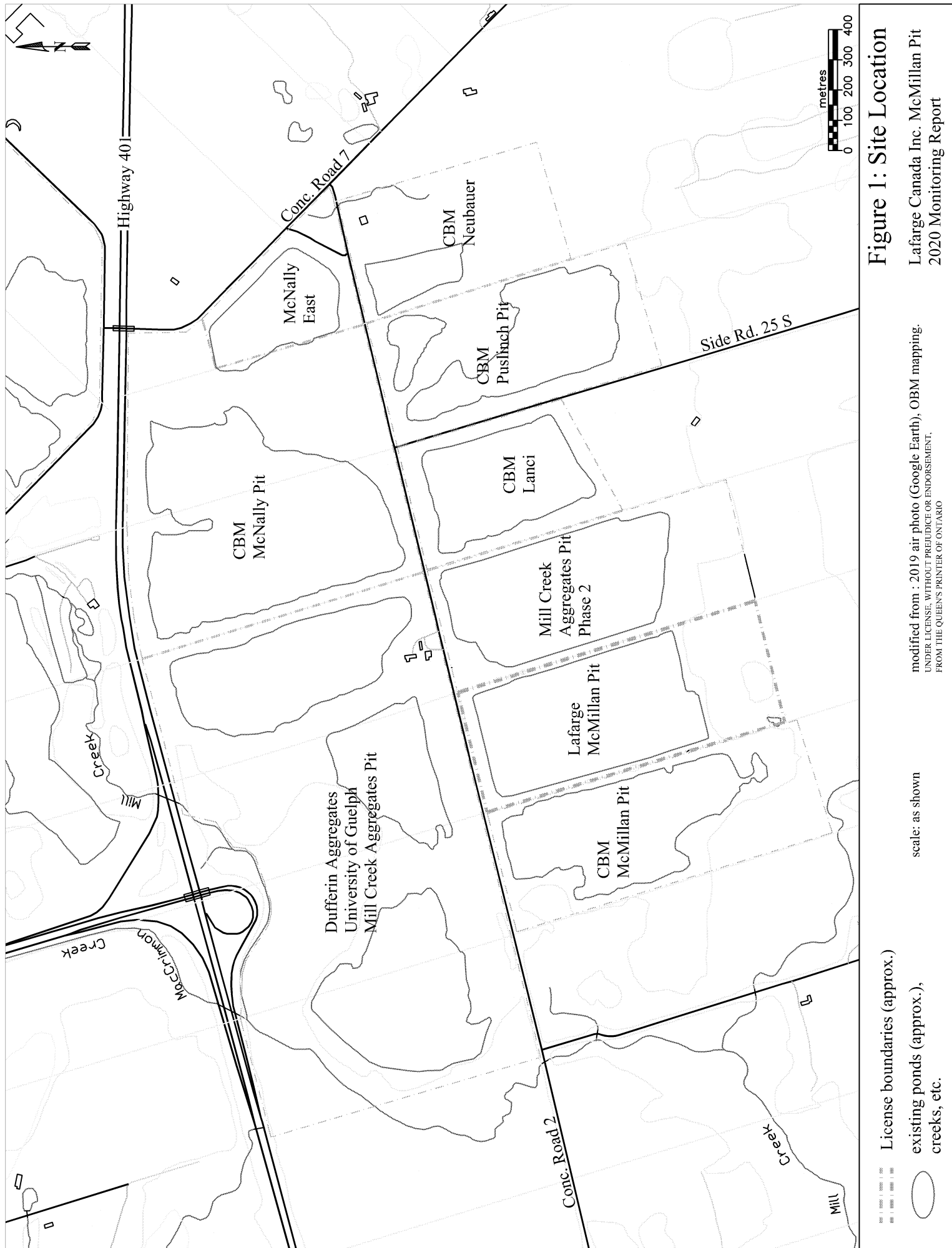


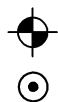
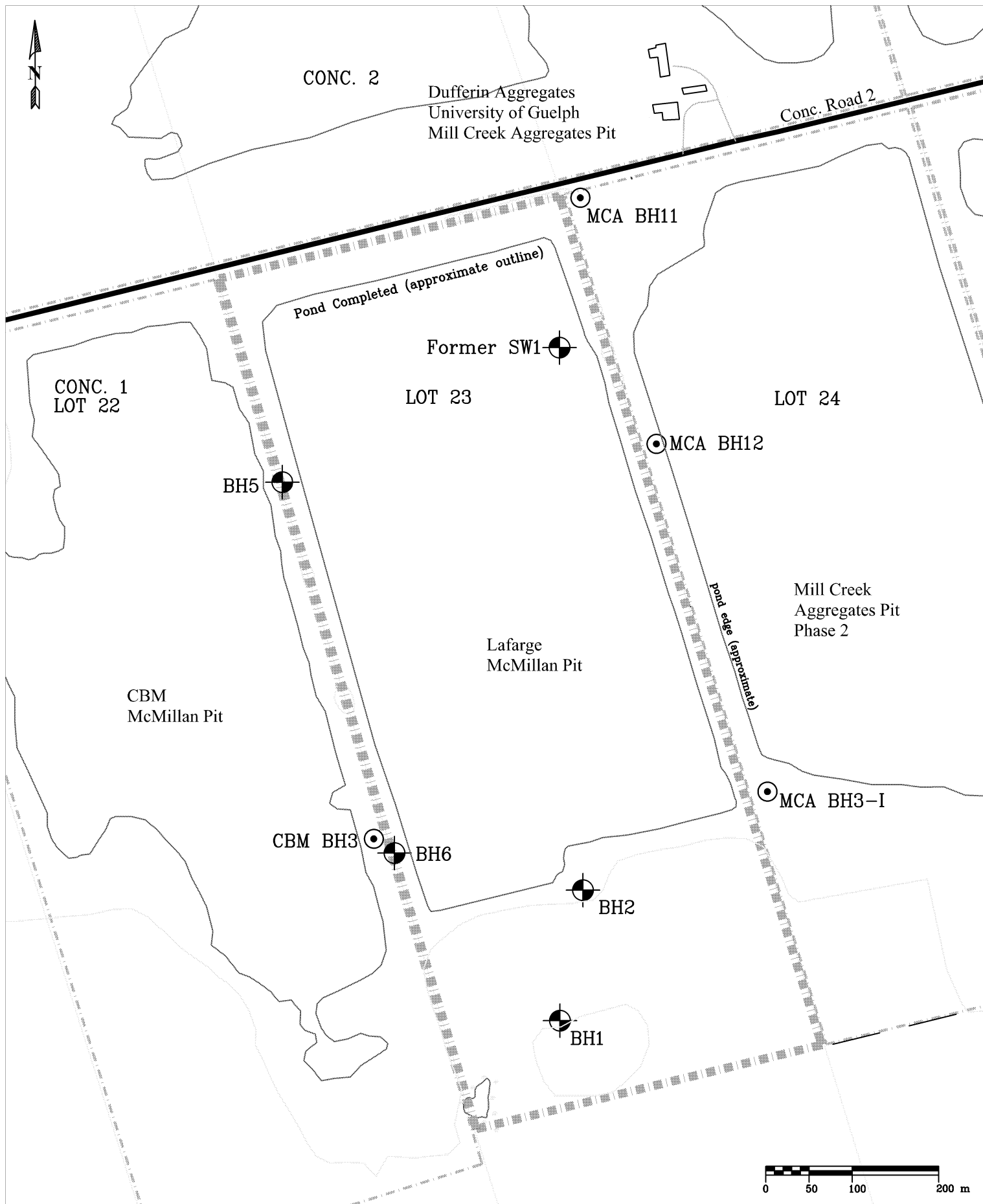
Dave Nahrgang, P.Geo.
Project Hydrogeologist



Andrew Pentney, P.Geo.
Senior Hydrogeologist

Figures





monitoring well location

scale: as shown
modified from : 2019 air photo (Google Earth),
Site Plans (PEIL), and, OBM mapping
UNDER LICENSE, WITHOUT PREJUDICE OR ENDORSEMENT,
FROM THE QUEEN'S PRINTER OF ONTARIO

Figure 2: Site Details

Lafarge Canada Inc. McMillan Pit
2020 Monitoring Program

Tables

Table 1: Monitor Installation Details

| Location | Elevations (mAMSL) | | | |
|---|--------------------|-------------|-------------------|----------|
| | Ground Surface | Top of Well | Screened Interval | |
| | | | Top* | Bottom** |
| BH1 | 311.4 | 311.87 | 304.4 | 302.88 |
| BH2 | 314.1 | 314.65 | 302.36 | 300.84 |
| BH3*** | 311.7 | 311.84 | 303.93 | 302.41 |
| BH4*** | 312.6 | 313.61 | 306.79 | 305.27 |
| BH5 | 309.4 | 310.57 | 303.61 | 302.09 |
| BH6 | 311.1 | 312.11 | 306.52 | 305 |
| SW1 | 307 | 307.8 | - | - |
| CBM BH3 | 311.04 | 311.63 | 302.64 | 299.64 |
| MCA BH12*** | 310.43 | 311.61 | 307.43 | 301.23 |
| Notes: * - assumed, based on 1.5 m screen ** - calculated, based on field measurement of total monitor depth *** - no longer exists SW1 elevations estimated CBM / MCA elevations as reported | | | | |

Table 2: 2020 Groundwater Elevations

| Date Ref. Pt. Elev. | Water Level Elevation (mASL) | | | | |
|------------------------|---|--------|--------|--------|--------|
| | BH1 | BH2 | BH5 | BH6 | SW1 |
| | 311.87 | 314.65 | 310.57 | 312.11 | 307.80 |
| 31-Jan-20 | 307.18 | 306.12 | 305.97 | 305.88 | #N/A |
| 26-Feb-20 | 307.26 | 306.20 | 306.05 | 305.93 | 306.06 |
| 17-Apr-20 | 307.34 | 306.27 | 306.12 | 306.01 | #N/A |
| 22-May-20 | 307.30 | 306.25 | 306.09 | 305.98 | 306.12 |
| 19-Jun-20 | 307.21 | 306.19 | 306.03 | 305.93 | 306.08 |
| 31-Jul-20 | 307.01 | 306.02 | 305.87 | 305.77 | 305.92 |
| 27-Aug-20 | 306.89 | 305.91 | 305.78 | 305.67 | 305.81 |
| 23-Sep-20 | 306.74 | 305.77 | 305.64 | 305.52 | 305.68 |
| 07-Oct-20 | 306.69 | 305.72 | 305.61 | 305.49 | 305.65 |
| 27-Nov-20 | 306.62 | 305.63 | 305.49 | 305.37 | - |
| 28-Dec-20 | 306.57 | 305.61 | 305.54 | 305.38 | - |
| Notes: | Ref. Pt. = top of well (measuring point) #N/A = no access to well SW1 removed due to excavation October 8, 2020 | | | | |

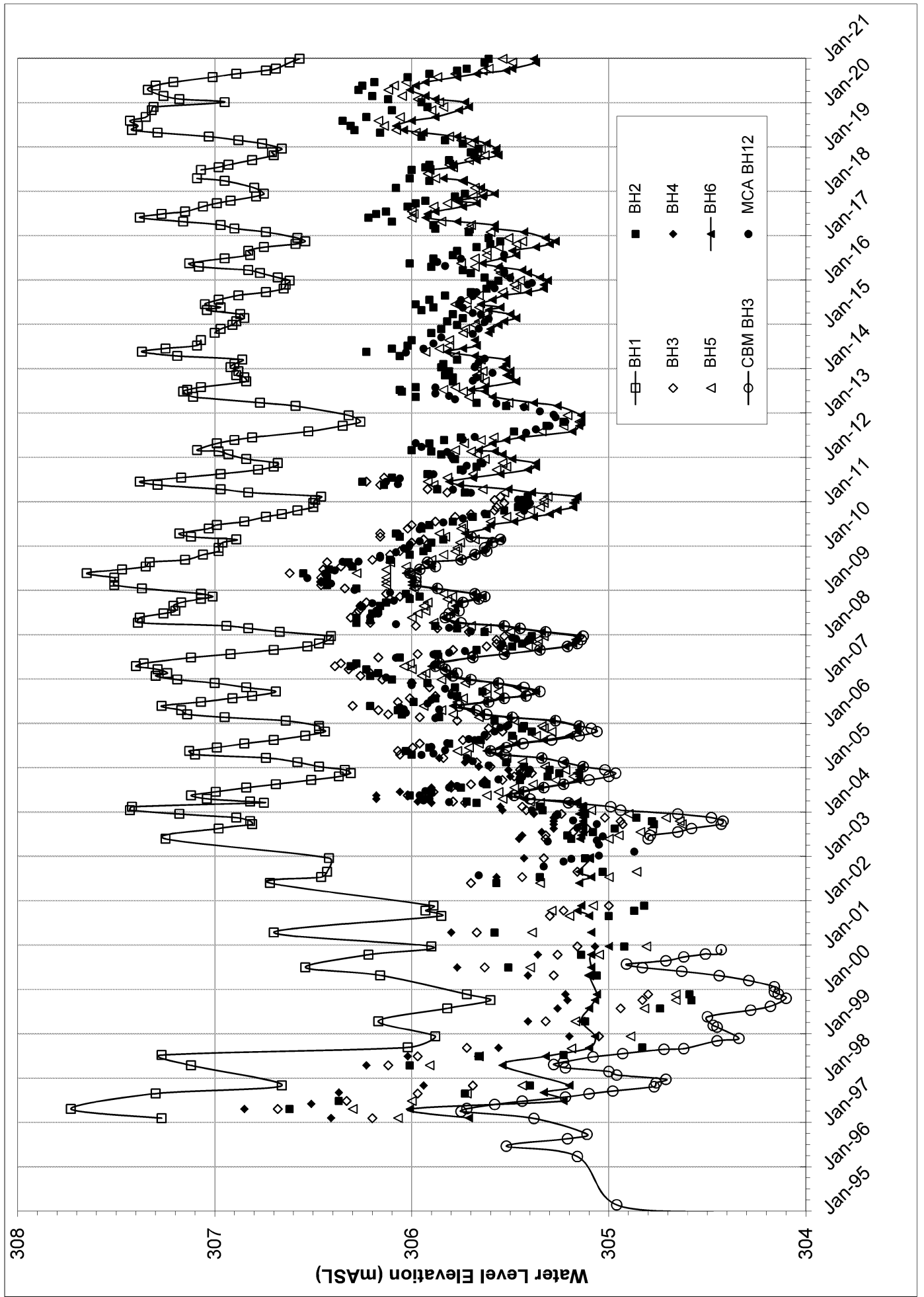
Table 3: Temperature Monitoring Summary

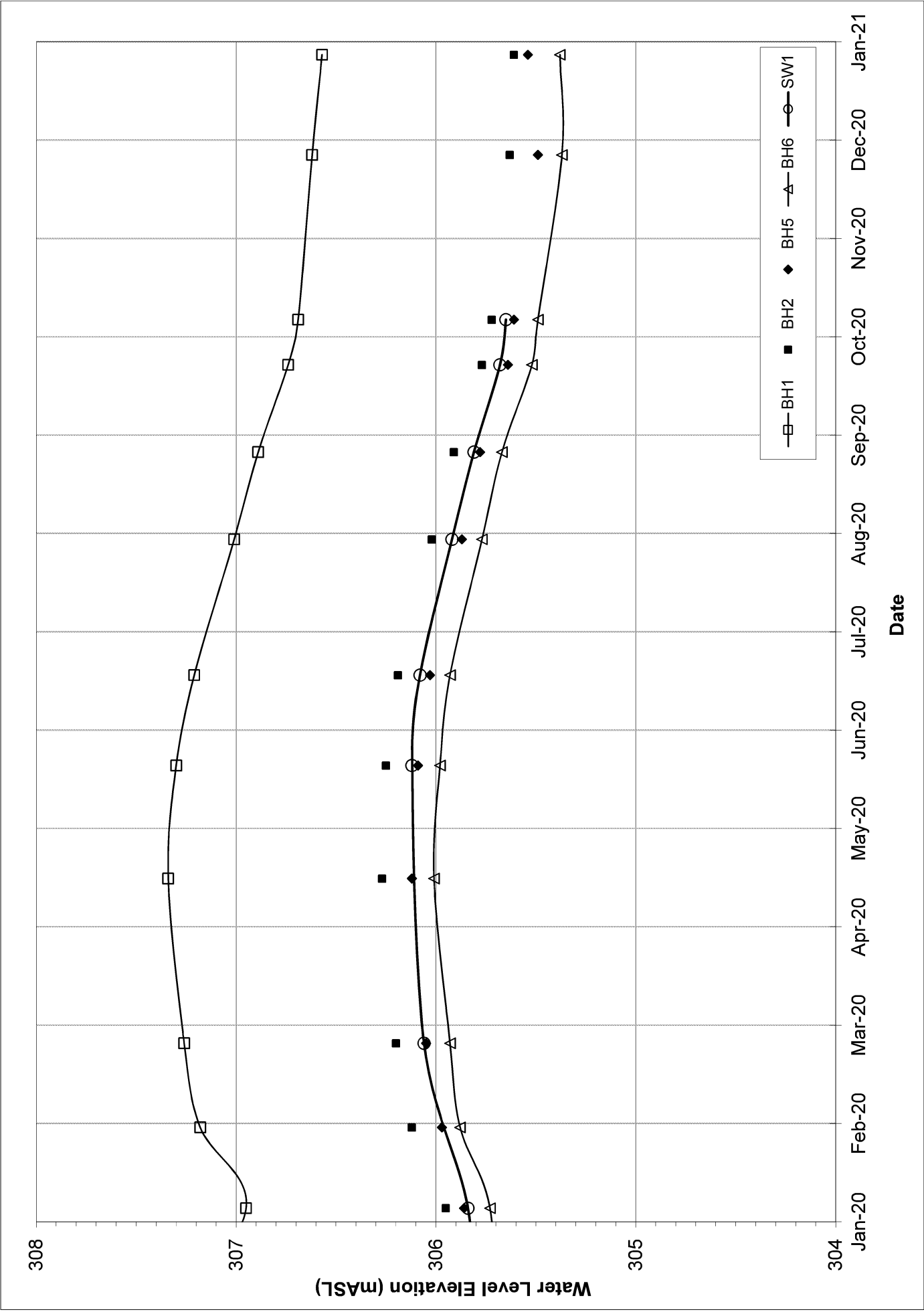
| Date: | Air | Well 1 9.0 m | Well 2 12.0 m | Well 5 8.5 m | Well 6 6.9 m | SW1 2.9 m |
|---|------|-----------------|------------------|-----------------|-----------------|--------------|
| 6-Jan-20 | -2.2 | 9.5 | 12.3 | 5.6 | 2.2 | 3.3 |
| 31-Jan-20 | -2.3 | 8.5 | 10.8 | 2.7 | 1.5 | n/a |
| 26-Feb-20 | -2.3 | 8.0 | 10.1 | 3.4 | 3.1 | 1.8 |
| 17-Apr-20 | -1.1 | 7.6 | 9.5 | 4.1 | 4.9 | n/a |
| 22-May-20 | 23.6 | 9.3 | 10.1 | 9.3 | 9.5 | 8.8 |
| 19-Jun-20 | 22.2 | 11.1 | 8.8 | 11.3 | 18.4 | 16.4 |
| 31-Jul-20 | 23.8 | 12.0 | 7.5 | 17.9 | 23.6 | 20.8 |
| 27-Aug-20 | 24.2 | 11.4 | 11.9 | 20.9 | 23.9 | 21.8 |
| 23-Sep-20 | 22.4 | 12.0 | 12.7 | 21.6 | 22.2 | 19.5 |
| 7-Oct-20 | 18.7 | 11.3 | 12.0 | 20.4 | 19.3 | 17.3 |
| 27-Nov-20 | 6.4 | 10.7 | 13.4 | 15.5 | 15.1 | - |
| 28-Dec-20 | 0.1 | 9.9 | 14.2 | 8.3 | 6.4 | - |
| n/a = well inaccessible or equipment malfunction SW1 removed October 8, 2020 due to excavation | | | | | | |

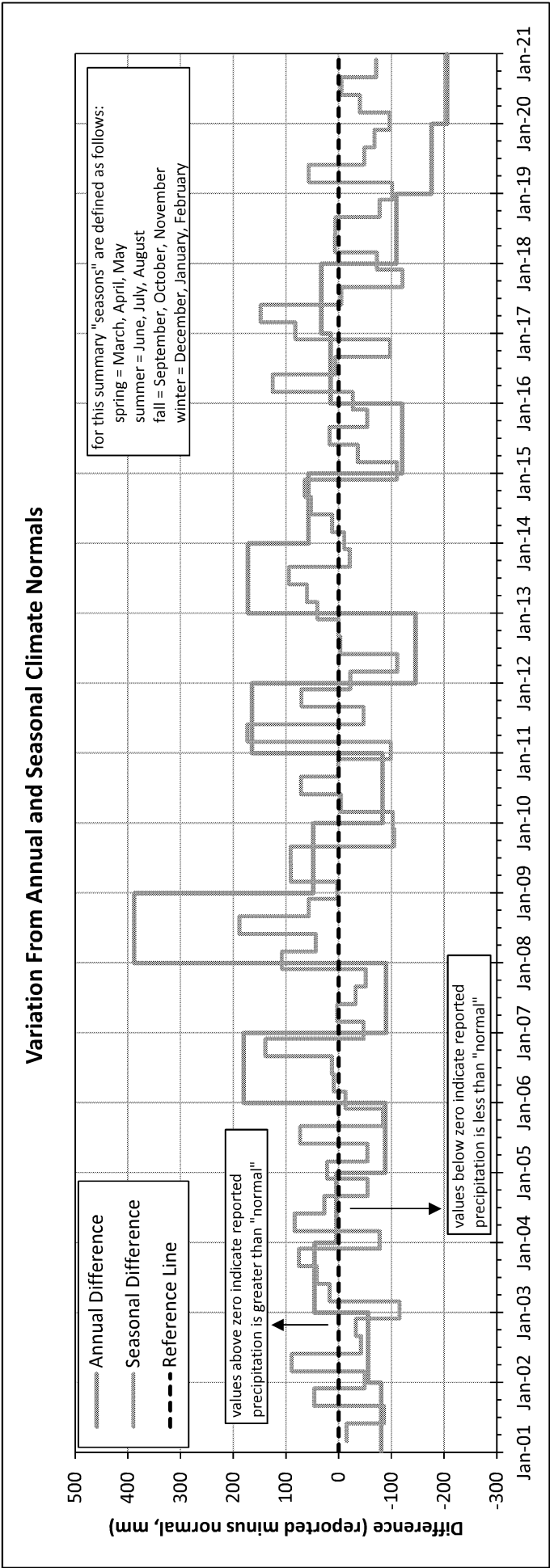
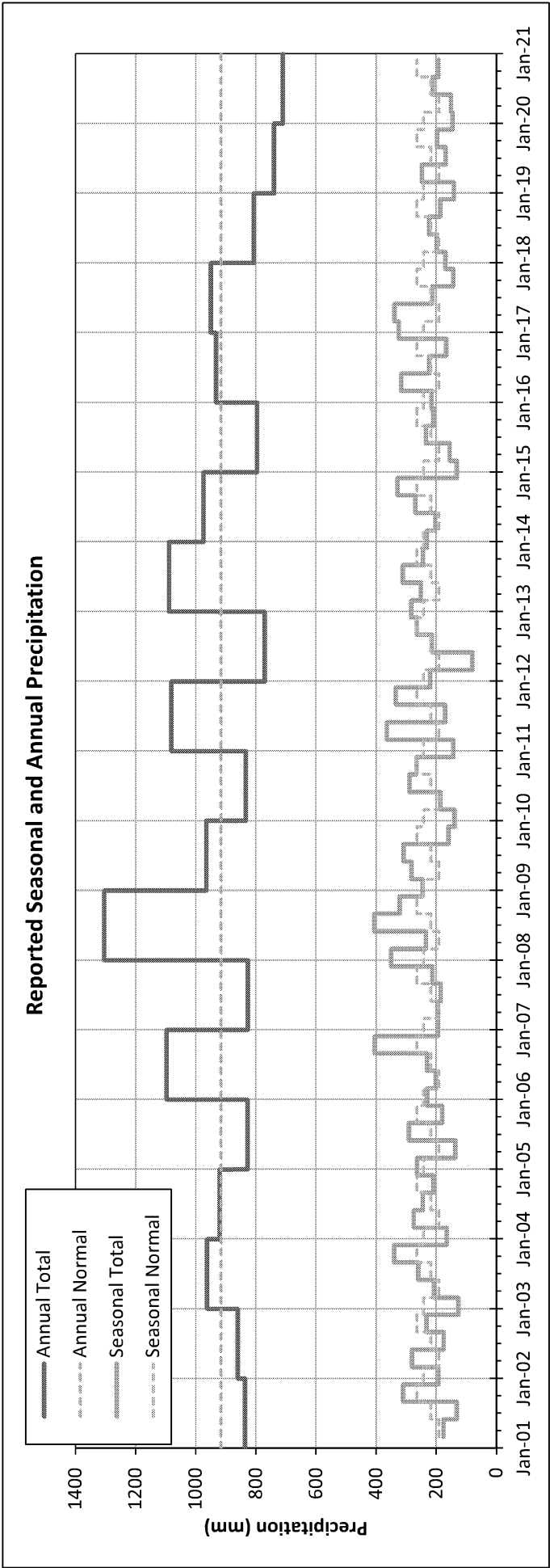
Appendix A

Precipitation Analysis

Groundwater Level Hydrographs







Appendix B

Water Quality Reports



GROUNDWATER SCIENCE CORP. (Waterloo)
ATTN: ANDREW PENTNEY
465 Kingscourt Drive
UNIT 2
WATERLOO ON N2K 3R5

Date Received: 17-APR-20
Report Date: 24-APR-20 13:11 (MT)
Version: FINAL

Client Phone: 519-746-6916

Certificate of Analysis

Lab Work Order #: L2437971
Project P.O. #: NOT SUBMITTED
Job Reference: MCMILLAN
C of C Numbers: 17-795454
Legal Site Desc:

Nellie Gudzak
Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 60 Northland Road, Unit 1, Waterloo, ON N2V 2B8 Canada | Phone: +1 519 886 6910 | Fax: +1 519 886 9047
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A0378827_21-000021

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Version: FINAL

ALS ENVIRONMENTAL ANALYTICAL REPORT

| Sample Details/Parameters | Result | Qualifier* | D.L. | Units | Extracted | Analyzed | Batch |
|---|-----------|------------|----------|----------|-----------|-----------|----------|
| L2437971-1 BH2 | | | | | | | |
| Sampled By: D.NAHRGANG on 17-APR-20 @ 11:15 | | | | | | | |
| Matrix: WATER | | | | | | | |
| Physical Tests | | | | | | | |
| Conductivity | 653 | | 3.0 | umhos/cm | | 20-APR-20 | R5058935 |
| pH | 8.00 | | 0.10 | pH units | | 20-APR-20 | R5058935 |
| Turbidity | 20.9 | | 0.10 | NTU | | 18-APR-20 | R5058264 |
| Anions and Nutrients | | | | | | | |
| Alkalinity, Total (as CaCO3) | 119 | | 10 | mg/L | | 20-APR-20 | R5058935 |
| Bromide (Br) | 0.14 | | 0.10 | mg/L | | 21-APR-20 | R5061072 |
| Chloride (Cl) | 114 | | 0.50 | mg/L | | 21-APR-20 | R5061072 |
| Fluoride (F) | 0.167 | | 0.020 | mg/L | | 21-APR-20 | R5061072 |
| Nitrate (as N) | 0.199 | | 0.020 | mg/L | | 21-APR-20 | R5061072 |
| Nitrite (as N) | <0.010 | | 0.010 | mg/L | | 21-APR-20 | R5061072 |
| Sulfate (SO4) | 45.5 | | 0.30 | mg/L | | 21-APR-20 | R5061072 |
| Dissolved Metals | | | | | | | |
| Dissolved Metals Filtration Location | FIELD | | | | | 20-APR-20 | R5058390 |
| Aluminum (Al)-Dissolved | <0.0050 | | 0.0050 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Antimony (Sb)-Dissolved | <0.00010 | | 0.00010 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Arsenic (As)-Dissolved | <0.00010 | | 0.00010 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Barium (Ba)-Dissolved | 0.0478 | | 0.00010 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Beryllium (Be)-Dissolved | <0.00010 | | 0.00010 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Bismuth (Bi)-Dissolved | <0.000050 | | 0.000050 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Boron (B)-Dissolved | 0.016 | | 0.010 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Cadmium (Cd)-Dissolved | 0.0000739 | | 0.000050 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Calcium (Ca)-Dissolved | 40.9 | | 0.050 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Cesium (Cs)-Dissolved | <0.000010 | | 0.000010 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Chromium (Cr)-Dissolved | <0.00050 | | 0.00050 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Cobalt (Co)-Dissolved | <0.00010 | | 0.00010 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Copper (Cu)-Dissolved | 0.00058 | | 0.00020 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Iron (Fe)-Dissolved | <0.010 | | 0.010 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Lead (Pb)-Dissolved | 0.000077 | | 0.000050 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Lithium (Li)-Dissolved | 0.0022 | | 0.0010 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Magnesium (Mg)-Dissolved | 29.8 | | 0.0050 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Manganese (Mn)-Dissolved | <0.00050 | | 0.00050 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Molybdenum (Mo)-Dissolved | 0.00193 | | 0.000050 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Nickel (Ni)-Dissolved | <0.00050 | | 0.00050 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Phosphorus (P)-Dissolved | <0.050 | | 0.050 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Potassium (K)-Dissolved | 1.80 | | 0.050 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Rubidium (Rb)-Dissolved | 0.00195 | | 0.00020 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Selenium (Se)-Dissolved | 0.000177 | | 0.000050 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Silicon (Si)-Dissolved | 1.23 | | 0.050 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Silver (Ag)-Dissolved | <0.000050 | | 0.000050 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Sodium (Na)-Dissolved | 54.5 | | 0.050 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Strontium (Sr)-Dissolved | 0.0901 | | 0.0010 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

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Version: FINAL

ALS ENVIRONMENTAL ANALYTICAL REPORT

| Sample Details/Parameters | Result | Qualifier* | D.L. | Units | Extracted | Analyzed | Batch |
|---|-----------|------------|-----------|----------|-----------|-----------|----------|
| L2437971-1 BH2 Sampled By: D.NAHRGANG on 17-APR-20 @ 11:15 Matrix: WATER | | | | | | | |
| Dissolved Metals | | | | | | | |
| Sulfur (S)-Dissolved | 16.6 | | 0.50 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Tellurium (Te)-Dissolved | <0.00020 | | 0.00020 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Thallium (Tl)-Dissolved | 0.000011 | | 0.000010 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Thorium (Th)-Dissolved | <0.00010 | | 0.00010 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Tin (Sn)-Dissolved | <0.00010 | | 0.00010 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Titanium (Ti)-Dissolved | <0.00030 | | 0.00030 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Tungsten (W)-Dissolved | <0.00010 | | 0.00010 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Uranium (U)-Dissolved | 0.000376 | | 0.000010 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Vanadium (V)-Dissolved | <0.00050 | | 0.00050 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Zinc (Zn)-Dissolved | 0.0527 | | 0.0010 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Zirconium (Zr)-Dissolved | <0.00020 | | 0.00020 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Aggregate Organics | | | | | | | |
| Phenols (4AAP) | <0.0010 | | 0.0010 | mg/L | | 21-APR-20 | R5059009 |
| L2437971-2 BH5 Sampled By: D.NAHRGANG on 17-APR-20 @ 10:30 Matrix: WATER | | | | | | | |
| Physical Tests | | | | | | | |
| Conductivity | 629 | | 3.0 | umhos/cm | | 20-APR-20 | R5058935 |
| pH | 8.01 | | 0.10 | pH units | | 20-APR-20 | R5058935 |
| Turbidity | 4.88 | | 0.10 | NTU | | 18-APR-20 | R5058264 |
| Anions and Nutrients | | | | | | | |
| Alkalinity, Total (as CaCO3) | 114 | | 10 | mg/L | | 20-APR-20 | R5058935 |
| Bromide (Br) | 0.13 | | 0.10 | mg/L | | 21-APR-20 | R5061072 |
| Chloride (Cl) | 109 | | 0.50 | mg/L | | 21-APR-20 | R5061072 |
| Fluoride (F) | 0.145 | | 0.020 | mg/L | | 21-APR-20 | R5061072 |
| Nitrate (as N) | 0.132 | | 0.020 | mg/L | | 21-APR-20 | R5061072 |
| Nitrite (as N) | <0.010 | | 0.010 | mg/L | | 21-APR-20 | R5061072 |
| Sulfate (SO4) | 43.4 | | 0.30 | mg/L | | 21-APR-20 | R5061072 |
| Dissolved Metals | | | | | | | |
| Dissolved Metals Filtration Location | FIELD | | | | | 20-APR-20 | R5058390 |
| Aluminum (Al)-Dissolved | <0.0050 | | 0.0050 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Antimony (Sb)-Dissolved | <0.00010 | | 0.00010 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Arsenic (As)-Dissolved | 0.00010 | | 0.00010 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Barium (Ba)-Dissolved | 0.0274 | | 0.00010 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Beryllium (Be)-Dissolved | <0.00010 | | 0.00010 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Bismuth (Bi)-Dissolved | <0.000050 | | 0.000050 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Boron (B)-Dissolved | 0.020 | | 0.010 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Cadmium (Cd)-Dissolved | 0.0000570 | | 0.0000050 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Calcium (Ca)-Dissolved | 39.1 | | 0.050 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Cesium (Cs)-Dissolved | <0.000010 | | 0.000010 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Chromium (Cr)-Dissolved | <0.00050 | | 0.00050 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Cobalt (Co)-Dissolved | <0.00010 | | 0.00010 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

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Version: FINAL

ALS ENVIRONMENTAL ANALYTICAL REPORT

| Sample Details/Parameters | Result | Qualifier* | D.L. | Units | Extracted | Analyzed | Batch |
|--|-----------|------------|----------|-------|-----------|-----------|----------|
| L2437971-2 BH5 Sampled By: D.NAHRGANG on 17-APR-20 @ 10:30 Matrix: WATER | | | | | | | |
| Dissolved Metals | | | | | | | |
| Copper (Cu)-Dissolved | 0.00041 | | 0.00020 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Iron (Fe)-Dissolved | <0.010 | | 0.010 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Lead (Pb)-Dissolved | <0.000050 | | 0.000050 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Lithium (Li)-Dissolved | 0.0015 | | 0.0010 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Magnesium (Mg)-Dissolved | 30.4 | | 0.0050 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Manganese (Mn)-Dissolved | <0.00050 | | 0.00050 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Molybdenum (Mo)-Dissolved | 0.00181 | | 0.000050 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Nickel (Ni)-Dissolved | <0.00050 | | 0.00050 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Phosphorus (P)-Dissolved | <0.050 | | 0.050 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Potassium (K)-Dissolved | 1.54 | | 0.050 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Rubidium (Rb)-Dissolved | 0.00106 | | 0.00020 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Selenium (Se)-Dissolved | 0.000170 | | 0.000050 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Silicon (Si)-Dissolved | 0.971 | | 0.050 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Silver (Ag)-Dissolved | <0.000050 | | 0.000050 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Sodium (Na)-Dissolved | 53.1 | | 0.050 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Strontium (Sr)-Dissolved | 0.0775 | | 0.0010 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Sulfur (S)-Dissolved | 16.4 | | 0.50 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Tellurium (Te)-Dissolved | <0.00020 | | 0.00020 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Thallium (Tl)-Dissolved | <0.000010 | | 0.000010 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Thorium (Th)-Dissolved | <0.00010 | | 0.00010 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Tin (Sn)-Dissolved | <0.00010 | | 0.00010 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Titanium (Ti)-Dissolved | <0.00030 | | 0.00030 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Tungsten (W)-Dissolved | <0.00010 | | 0.00010 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Uranium (U)-Dissolved | 0.000273 | | 0.000010 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Vanadium (V)-Dissolved | <0.00050 | | 0.00050 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Zinc (Zn)-Dissolved | 0.0285 | | 0.0010 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Zirconium (Zr)-Dissolved | <0.00020 | | 0.00020 | mg/L | 20-APR-20 | 20-APR-20 | R5058884 |
| Aggregate Organics | | | | | | | |
| Phenols (4AAP) | <0.0010 | | 0.0010 | mg/L | | 21-APR-20 | R5059009 |
| | | | | | | | |

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

QC Samples with Qualifiers & Comments:

| QC Type Description | Parameter | Qualifier | Applies to Sample Number(s) |
|---------------------|--------------------------|-----------|-----------------------------|
| Matrix Spike | Chloride (Cl) | MS-B | L2437971-1, -2 |
| Matrix Spike | Barium (Ba)-Dissolved | MS-B | L2437971-1, -2 |
| Matrix Spike | Calcium (Ca)-Dissolved | MS-B | L2437971-1, -2 |
| Matrix Spike | Magnesium (Mg)-Dissolved | MS-B | L2437971-1, -2 |
| Matrix Spike | Silicon (Si)-Dissolved | MS-B | L2437971-1, -2 |
| Matrix Spike | Sodium (Na)-Dissolved | MS-B | L2437971-1, -2 |
| Matrix Spike | Strontium (Sr)-Dissolved | MS-B | L2437971-1, -2 |
| Matrix Spike | Sulfur (S)-Dissolved | MS-B | L2437971-1, -2 |
| Matrix Spike | Uranium (U)-Dissolved | MS-B | L2437971-1, -2 |
| Matrix Spike | Zinc (Zn)-Dissolved | MS-B | L2437971-1, -2 |

Sample Parameter Qualifier key listed:

| Qualifier | Description |
|-----------|--|
| MS-B | Matrix Spike recovery could not be accurately calculated due to high analyte background in sample. |

Test Method References:

| ALS Test Code | Matrix | Test Description | Method Reference** |
|---------------|--------|------------------------------|--------------------|
| ALK-WT | Water | Alkalinity, Total (as CaCO3) | APHA 2320B |

This analysis is carried out using procedures adapted from APHA Method 2320 "Alkalinity". Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint.

| | | | |
|--|-------|------------------------|-----------------|
| BR-IC-N-WT | Water | Bromide in Water by IC | EPA 300.1 (mod) |
| Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. | | | |
| CL-IC-N-WT | Water | Chloride by IC | EPA 300.1 (mod) |
| Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. | | | |
| Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011). | | | |

| | | | |
|--|-------|---|------------------------|
| EC-SCREEN-WT | Water | Conductivity Screen (Internal Use Only) | APHA 2510 |
| Qualitative analysis of conductivity where required during preparation of other tests - e.g. TDS, metals, etc. | | | |
| EC-WT | Water | Conductivity | APHA 2510 B |
| Water samples can be measured directly by immersing the conductivity cell into the sample. | | | |
| F-IC-N-WT | Water | Fluoride in Water by IC | EPA 300.1 (mod) |
| Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. | | | |
| MET-D-CCMS-WT | Water | Dissolved Metals in Water by CRC ICPMS | APHA 3030B/6020A (mod) |

Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by CRC ICPMS.

Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).

| | | | |
|--|-------|------------------------|-----------------------|
| NO2-IC-WT | Water | Nitrite in Water by IC | EPA 300.1 (mod) |
| Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. | | | |
| NO3-IC-WT | Water | Nitrate in Water by IC | EPA 300.1 (mod) |
| Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. | | | |
| PH-WT | Water | pH | APHA 4500 H-Electrode |
| Water samples are analyzed directly by a calibrated pH meter. | | | |

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011). Holdtime for samples under this regulation is 28 days

Reference Information

PHENOLS-4AAP-WT Water Phenol (4AAP) EPA 9066

An automated method is used to distill the sample. The distillate is then buffered to pH 9.4 which reacts with 4AAP and potassium ferricyanide to form a red complex which is measured colorimetrically.

SO4-IC-N-WT Water Sulfate in Water by IC EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

TURBIDITY-WT Water Turbidity APHA 2130 B

Sample result is based on a comparison of the intensity of the light scattered by the sample under defined conditions with the intensity of light scattered by a standard reference suspension under the same conditions. Sample readings are obtained from a Nephelometer.

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

| Laboratory Definition Code | Laboratory Location |
|----------------------------|---|
| WT | ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA |

Chain of Custody Numbers:

17-795454

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

- mg/kg - milligrams per kilogram based on dry weight of sample
- mg/kg wwt - milligrams per kilogram based on wet weight of sample
- mg/kg lwt - milligrams per kilogram based on lipid weight of sample
- mg/L - unit of concentration based on volume, parts per million.
- < - Less than.
- D.L. - The reporting limit.
- N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



GROUNDWATER SCIENCE CORP. (Waterloo)
ATTN: ANDREW PENTNEY
465 Kingscourt Drive
UNIT 2
WATERLOO ON N2K 3R5

Date Received: 19-JUN-20
Report Date: 26-JUN-20 08:14 (MT)
Version: FINAL

Client Phone: 519-746-6916

Certificate of Analysis

Lab Work Order #: L2463306
Project P.O. #: NOT SUBMITTED
Job Reference: MCMILLAN PIT
C of C Numbers: 17-801929
Legal Site Desc:

Aaron Payne
Account Manager

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MCMILLAN PIT

L2463306 CONTD....

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Version: FINAL

ALS ENVIRONMENTAL ANALYTICAL REPORT

| Sample Details/Parameters | Result | Qualifier* | D.L. | Units | Extracted | Analyzed | Batch |
|--|-----------|------------|----------|----------|-----------|-----------|----------|
| L2463306-1 BH5 Sampled By: DN on 19-JUN-20 @ 10:30 Matrix: WATER | | | | | | | |
| Physical Tests | | | | | | | |
| Conductivity | 645 | HTD | 3.0 | umhos/cm | 20-JUN-20 | 24-JUN-20 | R5131812 |
| pH | 8.01 | | 0.10 | pH units | | 24-JUN-20 | R5131812 |
| Turbidity | 5.35 | | 0.10 | NTU | | 20-JUN-20 | R5126492 |
| Anions and Nutrients | | | | | | | |
| Alkalinity, Total (as CaCO3) | 123 | | 10 | mg/L | | 24-JUN-20 | R5131812 |
| Bromide (Br) | 0.15 | | 0.10 | mg/L | | 24-JUN-20 | R5132207 |
| Chloride (Cl) | 114 | | 0.50 | mg/L | | 24-JUN-20 | R5132207 |
| Fluoride (F) | 0.155 | | 0.020 | mg/L | | 24-JUN-20 | R5132207 |
| Nitrate (as N) | 0.168 | | 0.020 | mg/L | | 24-JUN-20 | R5132207 |
| Nitrite (as N) | <0.010 | | 0.010 | mg/L | | 24-JUN-20 | R5132207 |
| Sulfate (SO4) | 44.1 | | 0.30 | mg/L | | 24-JUN-20 | R5132207 |
| Dissolved Metals | | | | | | | |
| Dissolved Metals Filtration Location | FIELD | | | | | 23-JUN-20 | R5128433 |
| Aluminum (Al)-Dissolved | <0.0050 | | 0.0050 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Antimony (Sb)-Dissolved | <0.00010 | | 0.00010 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Arsenic (As)-Dissolved | <0.00010 | | 0.00010 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Barium (Ba)-Dissolved | 0.0339 | | 0.00010 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Beryllium (Be)-Dissolved | <0.00010 | | 0.00010 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Bismuth (Bi)-Dissolved | <0.000050 | | 0.000050 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Boron (B)-Dissolved | 0.030 | | 0.010 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Cadmium (Cd)-Dissolved | 0.0000673 | | 0.000050 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Calcium (Ca)-Dissolved | 41.1 | | 0.050 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Cesium (Cs)-Dissolved | <0.000010 | | 0.000010 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Chromium (Cr)-Dissolved | <0.00050 | | 0.00050 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Cobalt (Co)-Dissolved | <0.00010 | | 0.00010 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Copper (Cu)-Dissolved | 0.00042 | | 0.00020 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Iron (Fe)-Dissolved | 0.015 | | 0.010 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Lead (Pb)-Dissolved | 0.000073 | | 0.000050 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Lithium (Li)-Dissolved | 0.0035 | | 0.0010 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Magnesium (Mg)-Dissolved | 27.4 | | 0.0050 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Manganese (Mn)-Dissolved | <0.00050 | | 0.00050 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Molybdenum (Mo)-Dissolved | 0.00219 | | 0.000050 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Nickel (Ni)-Dissolved | <0.00050 | | 0.00050 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Phosphorus (P)-Dissolved | <0.050 | | 0.050 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Potassium (K)-Dissolved | 2.47 | | 0.050 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Rubidium (Rb)-Dissolved | 0.00173 | | 0.00020 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Selenium (Se)-Dissolved | 0.000169 | | 0.000050 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Silicon (Si)-Dissolved | 1.10 | | 0.050 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Silver (Ag)-Dissolved | <0.000050 | | 0.000050 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Sodium (Na)-Dissolved | 54.4 | | 0.050 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Strontium (Sr)-Dissolved | 0.0936 | | 0.0010 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

MCMILLAN PIT

L2463306 CONTD....

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Version: FINAL

ALS ENVIRONMENTAL ANALYTICAL REPORT

| Sample Details/Parameters | Result | Qualifier* | D.L. | Units | Extracted | Analyzed | Batch |
|---|-----------|------------|-----------|----------|-----------|-----------|----------|
| L2463306-1 BH5 Sampled By: DN on 19-JUN-20 @ 10:30 Matrix: WATER | | | | | | | |
| Dissolved Metals | | | | | | | |
| Sulfur (S)-Dissolved | 16.3 | | 0.50 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Tellurium (Te)-Dissolved | <0.00020 | | 0.00020 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Thallium (Tl)-Dissolved | <0.000010 | | 0.000010 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Thorium (Th)-Dissolved | <0.00010 | | 0.00010 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Tin (Sn)-Dissolved | <0.00010 | | 0.00010 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Titanium (Ti)-Dissolved | <0.00030 | | 0.00030 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Tungsten (W)-Dissolved | <0.00010 | | 0.00010 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Uranium (U)-Dissolved | 0.000315 | | 0.000010 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Vanadium (V)-Dissolved | <0.00050 | | 0.00050 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Zinc (Zn)-Dissolved | 0.0294 | | 0.0010 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Zirconium (Zr)-Dissolved | <0.00020 | | 0.00020 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Aggregate Organics | | | | | | | |
| Phenols (4AAP) | 0.0018 | | 0.0010 | mg/L | | 22-JUN-20 | R5129857 |
| L2463306-2 BH2 Sampled By: DN on 19-JUN-20 @ 11:30 Matrix: WATER | | | | | | | |
| Physical Tests | | | | | | | |
| Conductivity | 642 | | 3.0 | umhos/cm | | 24-JUN-20 | R5131812 |
| pH | 8.04 | HTD | 0.10 | pH units | | 24-JUN-20 | R5131812 |
| Turbidity | 12.6 | | 0.10 | NTU | 20-JUN-20 | 20-JUN-20 | R5126492 |
| Anions and Nutrients | | | | | | | |
| Alkalinity, Total (as CaCO3) | 125 | | 10 | mg/L | | 24-JUN-20 | R5131812 |
| Bromide (Br) | 0.15 | | 0.10 | mg/L | | 24-JUN-20 | R5132207 |
| Chloride (Cl) | 114 | | 0.50 | mg/L | | 24-JUN-20 | R5132207 |
| Fluoride (F) | 0.142 | | 0.020 | mg/L | | 24-JUN-20 | R5132207 |
| Nitrate (as N) | 0.168 | | 0.020 | mg/L | | 24-JUN-20 | R5132207 |
| Nitrite (as N) | <0.010 | | 0.010 | mg/L | | 24-JUN-20 | R5132207 |
| Sulfate (SO4) | 44.4 | | 0.30 | mg/L | | 24-JUN-20 | R5132207 |
| Dissolved Metals | | | | | | | |
| Dissolved Metals Filtration Location | FIELD | | | | | 23-JUN-20 | R5128433 |
| Aluminum (Al)-Dissolved | <0.0050 | | 0.0050 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Antimony (Sb)-Dissolved | <0.00010 | | 0.00010 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Arsenic (As)-Dissolved | <0.00010 | | 0.00010 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Barium (Ba)-Dissolved | 0.0454 | | 0.00010 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Beryllium (Be)-Dissolved | <0.00010 | | 0.00010 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Bismuth (Bi)-Dissolved | <0.000050 | | 0.000050 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Boron (B)-Dissolved | 0.020 | | 0.010 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Cadmium (Cd)-Dissolved | 0.0000648 | | 0.0000050 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Calcium (Ca)-Dissolved | 41.4 | | 0.050 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Cesium (Cs)-Dissolved | <0.000010 | | 0.000010 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Chromium (Cr)-Dissolved | <0.00050 | | 0.00050 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Cobalt (Co)-Dissolved | <0.00010 | | 0.00010 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

MCMILLAN PIT

L2463306 CONTD....

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Version: FINAL

ALS ENVIRONMENTAL ANALYTICAL REPORT

| Sample Details/Parameters | Result | Qualifier* | D.L. | Units | Extracted | Analyzed | Batch |
|--|-----------|------------|----------|-------|-----------|-----------|----------|
| L2463306-2 BH2 Sampled By: DN on 19-JUN-20 @ 11:30 Matrix: WATER | | | | | | | |
| Dissolved Metals | | | | | | | |
| Copper (Cu)-Dissolved | 0.00045 | | 0.00020 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Iron (Fe)-Dissolved | 0.030 | | 0.010 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Lead (Pb)-Dissolved | 0.000126 | | 0.000050 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Lithium (Li)-Dissolved | 0.0034 | | 0.0010 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Magnesium (Mg)-Dissolved | 28.6 | | 0.0050 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Manganese (Mn)-Dissolved | <0.00050 | | 0.00050 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Molybdenum (Mo)-Dissolved | 0.00189 | | 0.000050 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Nickel (Ni)-Dissolved | <0.00050 | | 0.00050 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Phosphorus (P)-Dissolved | <0.050 | | 0.050 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Potassium (K)-Dissolved | 1.66 | | 0.050 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Rubidium (Rb)-Dissolved | 0.00163 | | 0.00020 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Selenium (Se)-Dissolved | 0.000138 | | 0.000050 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Silicon (Si)-Dissolved | 1.01 | | 0.050 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Silver (Ag)-Dissolved | <0.000050 | | 0.000050 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Sodium (Na)-Dissolved | 53.6 | | 0.050 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Strontium (Sr)-Dissolved | 0.0946 | | 0.0010 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Sulfur (S)-Dissolved | 16.8 | | 0.50 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Tellurium (Te)-Dissolved | <0.00020 | | 0.00020 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Thallium (Tl)-Dissolved | <0.000010 | | 0.000010 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Thorium (Th)-Dissolved | <0.00010 | | 0.00010 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Tin (Sn)-Dissolved | <0.00010 | | 0.00010 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Titanium (Ti)-Dissolved | <0.00030 | | 0.00030 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Tungsten (W)-Dissolved | <0.00010 | | 0.00010 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Uranium (U)-Dissolved | 0.000432 | | 0.000010 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Vanadium (V)-Dissolved | <0.00050 | | 0.00050 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Zinc (Zn)-Dissolved | 0.0517 | | 0.0010 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Zirconium (Zr)-Dissolved | <0.00020 | | 0.00020 | mg/L | 23-JUN-20 | 24-JUN-20 | R5131971 |
| Aggregate Organics | | | | | | | |
| Phenols (4AAP) | 0.0022 | | 0.0010 | mg/L | | 22-JUN-20 | R5129857 |
| | | | | | | | |

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

QC Samples with Qualifiers & Comments:

| QC Type Description | Parameter | Qualifier | Applies to Sample Number(s) |
|---------------------|---------------|-----------|-----------------------------|
| Matrix Spike | Chloride (Cl) | MS-B | L2463306-1, -2 |

Sample Parameter Qualifier key listed:

| Qualifier | Description |
|-----------|---|
| HTD | Hold time exceeded for re-analysis or dilution, but initial testing was conducted within hold time. |
| MS-B | Matrix Spike recovery could not be accurately calculated due to high analyte background in sample. |

Test Method References:

| ALS Test Code | Matrix | Test Description | Method Reference** |
|---------------|--------|------------------|--------------------|
|---------------|--------|------------------|--------------------|

ALK-WT Water Alkalinity, Total (as CaCO3) APHA 2320B

This analysis is carried out using procedures adapted from APHA Method 2320 "Alkalinity". Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint.

BR-IC-N-WT Water Bromide in Water by IC EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

CL-IC-N-WT Water Chloride by IC EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).

EC-SCREEN-WT Water Conductivity Screen (Internal Use Only) APHA 2510

Qualitative analysis of conductivity where required during preparation of other tests - e.g. TDS, metals, etc.

EC-WT Water Conductivity APHA 2510 B

Water samples can be measured directly by immersing the conductivity cell into the sample.

F-IC-N-WT Water Fluoride in Water by IC EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

MET-D-CCMS-WT Water Dissolved Metals in Water by CRC ICPMS APHA 3030B/6020A (mod)

Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by CRC ICPMS.

Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).

NO2-IC-WT Water Nitrite in Water by IC EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

NO3-IC-WT Water Nitrate in Water by IC EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

PH-WT Water pH APHA 4500 H-Electrode

Water samples are analyzed directly by a calibrated pH meter.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011). Holdtime for samples under this regulation is 28 days

PHENOLS-4AAP-WT Water Phenol (4AAP) EPA 9066

An automated method is used to distill the sample. The distillate is then buffered to pH 9.4 which reacts with 4AAP and potassium ferricyanide to form a red complex which is measured colorimetrically.

SO4-IC-N-WT Water Sulfate in Water by IC EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

TURBIDITY-WT Water Turbidity APHA 2130 B

Reference Information

Sample result is based on a comparison of the intensity of the light scattered by the sample under defined conditions with the intensity of light scattered by a standard reference suspension under the same conditions. Sample readings are obtained from a Nephelometer.

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

| Laboratory Definition Code | Laboratory Location |
|----------------------------|---|
| WT | ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA |

Chain of Custody Numbers:

17-801929

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg ww - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid weight of sample

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



GROUNDWATER SCIENCE CORP. (Waterloo)
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465 Kingscourt Drive
UNIT 2
WATERLOO ON N2K 3R5

Date Received: 27-NOV-20
Report Date: 04-DEC-20 07:23 (MT)
Version: FINAL

Client Phone: 519-746-6916

Certificate of Analysis

Lab Work Order #: L2534383
Project P.O. #: NOT SUBMITTED
Job Reference: MCMILLAN PIT
C of C Numbers: 17-794636
Legal Site Desc:

Aaron Payne
Account Manager

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MCMILLAN PIT

L2534383 CONTD....

PAGE 2 of 6

Version: FINAL

ALS ENVIRONMENTAL ANALYTICAL REPORT

| Sample Details/Parameters | Result | Qualifier* | D.L. | Units | Extracted | Analyzed | Batch |
|--|-----------|------------|----------|----------|-----------|-----------|----------|
| L2534383-1 BH5 Sampled By: D.NAHRGANG on 27-NOV-20 @ 10:45 Matrix: WATER | | | | | | | |
| Physical Tests | | | | | | | |
| Conductivity | 672 | | 3.0 | umhos/cm | | 01-DEC-20 | R5300359 |
| pH | 8.17 | | 0.10 | pH units | | 01-DEC-20 | R5300359 |
| Turbidity | 4.15 | | 0.10 | NTU | 28-NOV-20 | 28-NOV-20 | R5301848 |
| Anions and Nutrients | | | | | | | |
| Alkalinity, Total (as CaCO3) | 168 | | 10 | mg/L | | 01-DEC-20 | R5300359 |
| Bromide (Br) | 0.19 | | 0.10 | mg/L | | 01-DEC-20 | R5301397 |
| Chloride (Cl) | 122 | | 0.50 | mg/L | | 01-DEC-20 | R5301397 |
| Fluoride (F) | 0.195 | | 0.020 | mg/L | | 01-DEC-20 | R5301397 |
| Nitrate (as N) | 0.146 | | 0.020 | mg/L | | 01-DEC-20 | R5301397 |
| Nitrite (as N) | <0.010 | | 0.010 | mg/L | | 01-DEC-20 | R5301397 |
| Sulfate (SO4) | 46.9 | | 0.30 | mg/L | | 01-DEC-20 | R5301397 |
| Dissolved Metals | | | | | | | |
| Dissolved Metals Filtration Location | FIELD | | | | | 30-NOV-20 | R5300011 |
| Aluminum (Al)-Dissolved | <0.0050 | | 0.0050 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Antimony (Sb)-Dissolved | <0.00010 | | 0.00010 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Arsenic (As)-Dissolved | <0.00010 | | 0.00010 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Barium (Ba)-Dissolved | 0.0358 | | 0.00010 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Beryllium (Be)-Dissolved | <0.00010 | | 0.00010 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Bismuth (Bi)-Dissolved | <0.000050 | | 0.000050 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Boron (B)-Dissolved | 0.015 | | 0.010 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Cadmium (Cd)-Dissolved | 0.0000785 | | 0.000050 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Calcium (Ca)-Dissolved | 44.3 | | 0.050 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Cesium (Cs)-Dissolved | <0.000010 | | 0.000010 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Chromium (Cr)-Dissolved | <0.00050 | | 0.00050 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Cobalt (Co)-Dissolved | <0.00010 | | 0.00010 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Copper (Cu)-Dissolved | 0.00063 | | 0.00020 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Iron (Fe)-Dissolved | <0.010 | | 0.010 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Lead (Pb)-Dissolved | 0.000062 | | 0.000050 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Lithium (Li)-Dissolved | 0.0026 | | 0.0010 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Magnesium (Mg)-Dissolved | 26.1 | | 0.0050 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Manganese (Mn)-Dissolved | <0.00050 | | 0.00050 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Molybdenum (Mo)-Dissolved | 0.00228 | | 0.000050 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Nickel (Ni)-Dissolved | <0.00050 | | 0.00050 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Phosphorus (P)-Dissolved | <0.050 | | 0.050 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Potassium (K)-Dissolved | 2.38 | | 0.050 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Rubidium (Rb)-Dissolved | 0.00210 | | 0.00020 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Selenium (Se)-Dissolved | 0.000168 | | 0.000050 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Silicon (Si)-Dissolved | 1.26 | | 0.050 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Silver (Ag)-Dissolved | <0.000050 | | 0.000050 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Sodium (Na)-Dissolved | 50.2 | | 0.050 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Strontium (Sr)-Dissolved | 0.115 | | 0.0010 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

| Sample Details/Parameters | | Result | Qualifier* | D.L. | Units | Extracted | Analyzed | Batch |
|--------------------------------------|---------------------------------|--------|------------|-----------|----------|-----------|-----------|----------|
| L2534383-1 | BH5 | | | | | | | |
| Sampled By: | D.NAHRGANG on 27-NOV-20 @ 10:45 | | | | | | | |
| Matrix: | WATER | | | | | | | |
| Dissolved Metals | | | | | | | | |
| Sulfur (S)-Dissolved | 15.3 | | | 0.50 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Tellurium (Te)-Dissolved | <0.00020 | | | 0.00020 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Thallium (Tl)-Dissolved | 0.000011 | | | 0.000010 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Thorium (Th)-Dissolved | <0.00010 | | | 0.00010 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Tin (Sn)-Dissolved | <0.00010 | | | 0.00010 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Titanium (Ti)-Dissolved | <0.00030 | | | 0.00030 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Tungsten (W)-Dissolved | <0.00010 | | | 0.00010 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Uranium (U)-Dissolved | 0.000265 | | | 0.000010 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Vanadium (V)-Dissolved | <0.00050 | | | 0.00050 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Zinc (Zn)-Dissolved | 0.0279 | | | 0.0010 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Zirconium (Zr)-Dissolved | <0.00020 | | | 0.00020 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Aggregate Organics | | | | | | | | |
| Phenols (4AAP) | <0.0010 | | | 0.0010 | mg/L | | 30-NOV-20 | R5300076 |
| L2534383-2 | BH2 | | | | | | | |
| Sampled By: | D.NAHRGANG on 27-NOV-20 @ 11:15 | | | | | | | |
| Matrix: | WATER | | | | | | | |
| Physical Tests | | | | | | | | |
| Conductivity | 684 | | | 3.0 | umhos/cm | | 01-DEC-20 | R5300359 |
| pH | 8.15 | | | 0.10 | pH units | | 01-DEC-20 | R5300359 |
| Turbidity | 10.4 | | | 0.10 | NTU | 28-NOV-20 | 28-NOV-20 | R5301848 |
| Anions and Nutrients | | | | | | | | |
| Alkalinity, Total (as CaCO3) | 123 | | | 10 | mg/L | | 01-DEC-20 | R5300359 |
| Bromide (Br) | 0.19 | | | 0.10 | mg/L | | 01-DEC-20 | R5301397 |
| Chloride (Cl) | 121 | | | 0.50 | mg/L | | 01-DEC-20 | R5301397 |
| Fluoride (F) | 0.192 | | | 0.020 | mg/L | | 01-DEC-20 | R5301397 |
| Nitrate (as N) | 0.128 | | | 0.020 | mg/L | | 01-DEC-20 | R5301397 |
| Nitrite (as N) | <0.010 | | | 0.010 | mg/L | | 01-DEC-20 | R5301397 |
| Sulfate (SO4) | 46.7 | | | 0.30 | mg/L | | 01-DEC-20 | R5301397 |
| Dissolved Metals | | | | | | | | |
| Dissolved Metals Filtration Location | FIELD | | | | | | 30-NOV-20 | R5300011 |
| Aluminum (Al)-Dissolved | <0.0050 | | | 0.0050 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Antimony (Sb)-Dissolved | <0.00010 | | | 0.00010 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Arsenic (As)-Dissolved | <0.00010 | | | 0.00010 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Barium (Ba)-Dissolved | 0.0664 | | | 0.00010 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Beryllium (Be)-Dissolved | <0.00010 | | | 0.00010 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Bismuth (Bi)-Dissolved | <0.000050 | | | 0.000050 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Boron (B)-Dissolved | 0.023 | | | 0.010 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Cadmium (Cd)-Dissolved | 0.000101 | | | 0.0000050 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Calcium (Ca)-Dissolved | 46.4 | | | 0.050 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Cesium (Cs)-Dissolved | 0.000013 | | | 0.000010 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Chromium (Cr)-Dissolved | <0.00050 | | | 0.00050 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Cobalt (Co)-Dissolved | <0.00010 | | | 0.00010 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

MCMILLAN PIT

L2534383 CONTD....

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| Sample Details/Parameters | Result | Qualifier* | D.L. | Units | Extracted | Analyzed | Batch |
|--|-----------|------------|----------|-------|-----------|-----------|----------|
| L2534383-2 BH2 Sampled By: D.NAHRGANG on 27-NOV-20 @ 11:15 Matrix: WATER | | | | | | | |
| Dissolved Metals | | | | | | | |
| Copper (Cu)-Dissolved | 0.00097 | | 0.00020 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Iron (Fe)-Dissolved | <0.010 | | 0.010 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Lead (Pb)-Dissolved | 0.000164 | | 0.000050 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Lithium (Li)-Dissolved | 0.0025 | | 0.0010 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Magnesium (Mg)-Dissolved | 26.6 | | 0.0050 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Manganese (Mn)-Dissolved | <0.00050 | | 0.00050 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Molybdenum (Mo)-Dissolved | 0.00234 | | 0.000050 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Nickel (Ni)-Dissolved | <0.00050 | | 0.00050 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Phosphorus (P)-Dissolved | <0.050 | | 0.050 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Potassium (K)-Dissolved | 2.67 | | 0.050 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Rubidium (Rb)-Dissolved | 0.00352 | | 0.00020 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Selenium (Se)-Dissolved | 0.000133 | | 0.000050 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Silicon (Si)-Dissolved | 1.71 | | 0.050 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Silver (Ag)-Dissolved | <0.000050 | | 0.000050 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Sodium (Na)-Dissolved | 51.4 | | 0.050 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Strontium (Sr)-Dissolved | 0.106 | | 0.0010 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Sulfur (S)-Dissolved | 15.3 | | 0.50 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Tellurium (Te)-Dissolved | <0.00020 | | 0.00020 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Thallium (Tl)-Dissolved | 0.000017 | | 0.000010 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Thorium (Th)-Dissolved | <0.00010 | | 0.00010 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Tin (Sn)-Dissolved | <0.00010 | | 0.00010 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Titanium (Ti)-Dissolved | <0.00030 | | 0.00030 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Tungsten (W)-Dissolved | <0.00010 | | 0.00010 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Uranium (U)-Dissolved | 0.000317 | | 0.000010 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Vanadium (V)-Dissolved | <0.00050 | | 0.00050 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Zinc (Zn)-Dissolved | 0.0538 | | 0.0010 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Zirconium (Zr)-Dissolved | <0.00020 | | 0.00020 | mg/L | 30-NOV-20 | 01-DEC-20 | R5300777 |
| Aggregate Organics | | | | | | | |
| Phenols (4AAP) | <0.0010 | | 0.0010 | mg/L | | 30-NOV-20 | R5300076 |
| | | | | | | | |

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

QC Samples with Qualifiers & Comments:

| QC Type Description | Parameter | Qualifier | Applies to Sample Number(s) |
|---------------------|---------------------------|-----------|-----------------------------|
| Matrix Spike | Fluoride (F) | MS-B | L2534383-1, -2 |
| Matrix Spike | Barium (Ba)-Dissolved | MS-B | L2534383-1, -2 |
| Matrix Spike | Boron (B)-Dissolved | MS-B | L2534383-1, -2 |
| Matrix Spike | Calcium (Ca)-Dissolved | MS-B | L2534383-1, -2 |
| Matrix Spike | Iron (Fe)-Dissolved | MS-B | L2534383-1, -2 |
| Matrix Spike | Magnesium (Mg)-Dissolved | MS-B | L2534383-1, -2 |
| Matrix Spike | Manganese (Mn)-Dissolved | MS-B | L2534383-1, -2 |
| Matrix Spike | Molybdenum (Mo)-Dissolved | MS-B | L2534383-1, -2 |
| Matrix Spike | Potassium (K)-Dissolved | MS-B | L2534383-1, -2 |
| Matrix Spike | Silicon (Si)-Dissolved | MS-B | L2534383-1, -2 |
| Matrix Spike | Sodium (Na)-Dissolved | MS-B | L2534383-1, -2 |
| Matrix Spike | Strontium (Sr)-Dissolved | MS-B | L2534383-1, -2 |
| Matrix Spike | Sulfur (S)-Dissolved | MS-B | L2534383-1, -2 |
| Matrix Spike | Uranium (U)-Dissolved | MS-B | L2534383-1, -2 |

Qualifiers for Sample Submission Listed:

| Qualifier | Description |
|-----------|--|
| CINT | Cooling initiated. Samples were received packed with ice or ice packs and were sampled the same day as received. |

Sample Parameter Qualifier key listed:

| Qualifier | Description |
|-----------|--|
| MS-B | Matrix Spike recovery could not be accurately calculated due to high analyte background in sample. |

Test Method References:

| ALS Test Code | Matrix | Test Description | Method Reference** |
|---------------|--------|------------------------------|--------------------|
| ALK-WT | Water | Alkalinity, Total (as CaCO3) | APHA 2320B |

This analysis is carried out using procedures adapted from APHA Method 2320 "Alkalinity". Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint.

| | | | |
|--|-------|------------------------|-----------------|
| BR-IC-N-WT | Water | Bromide in Water by IC | EPA 300.1 (mod) |
| Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. | | | |
| CL-IC-N-WT | Water | Chloride by IC | EPA 300.1 (mod) |
| Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. | | | |

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).

| | | | |
|--|-------|---|-----------|
| EC-SCREEN-WT | Water | Conductivity Screen (Internal Use Only) | APHA 2510 |
| Qualitative analysis of conductivity where required during preparation of other tests - e.g. TDS, metals, etc. | | | |

| | | | |
|--|-------|--------------|-------------|
| EC-WT | Water | Conductivity | APHA 2510 B |
| Water samples can be measured directly by immersing the conductivity cell into the sample. | | | |

| | | | |
|--|-------|-------------------------|-----------------|
| F-IC-N-WT | Water | Fluoride in Water by IC | EPA 300.1 (mod) |
| Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. | | | |

| | | | |
|--|-------|--|------------------------|
| MET-D-CCMS-WT | Water | Dissolved Metals in Water by CRC ICPMS | APHA 3030B/6020A (mod) |
| Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by CRC ICPMS. | | | |

Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).

| | | | |
|-----------|-------|------------------------|-----------------|
| NO2-IC-WT | Water | Nitrite in Water by IC | EPA 300.1 (mod) |
|-----------|-------|------------------------|-----------------|

Reference Information

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

| | | | |
|-----------|-------|------------------------|-----------------|
| NO3-IC-WT | Water | Nitrate in Water by IC | EPA 300.1 (mod) |
|-----------|-------|------------------------|-----------------|

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

| | | | |
|-------|-------|----|-----------------------|
| PH-WT | Water | pH | APHA 4500 H-Electrode |
|-------|-------|----|-----------------------|

Water samples are analyzed directly by a calibrated pH meter.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011). Holdtime for samples under this regulation is 28 days

| | | | |
|-----------------|-------|---------------|----------|
| PHENOLS-4AAP-WT | Water | Phenol (4AAP) | EPA 9066 |
|-----------------|-------|---------------|----------|

An automated method is used to distill the sample. The distillate is then buffered to pH 9.4 which reacts with 4AAP and potassium ferricyanide to form a red complex which is measured colorimetrically.

| | | | |
|-------------|-------|------------------------|-----------------|
| SO4-IC-N-WT | Water | Sulfate in Water by IC | EPA 300.1 (mod) |
|-------------|-------|------------------------|-----------------|

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

| | | | |
|--------------|-------|-----------|-------------|
| TURBIDITY-WT | Water | Turbidity | APHA 2130 B |
|--------------|-------|-----------|-------------|

Sample result is based on a comparison of the intensity of the light scattered by the sample under defined conditions with the intensity of light scattered by a standard reference suspension under the same conditions. Sample readings are obtained from a Nephelometer.

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

| Laboratory Definition Code | Laboratory Location |
|----------------------------|---|
| WT | ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA |

Chain of Custody Numbers:

17-794636

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

- mg/kg - milligrams per kilogram based on dry weight of sample*
- mg/kg ww - milligrams per kilogram based on wet weight of sample*
- mg/kg lwt - milligrams per kilogram based on lipid weight of sample*
- mg/L - unit of concentration based on volume, parts per million.*
- < - Less than.*
- D.L. - The reporting limit.*
- N/A - Result not available. Refer to qualifier code and definition for explanation.*

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



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**2021 Monitoring Report
Lafarge McMillan Pit
Licence No. 10671
North Half of Lot 23, Con. 1
Township of Puslinch**

Prepared For:

Lafarge Canada Inc.
6509 Airport Road
Mississauga, Ontario
L4V 1S7

Prepared By:

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Andrew Pentney, P.Geo.
Groundwater Science Corp.

January 2022

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APPENDICIES

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| Appendix B | Water Quality Reports |

1.0 INTRODUCTION

1.1 Background

This report presents the results of the 2021 groundwater monitoring completed at the Lafarge McMillan Pit (Licence No. 10671), located on North Half Lot 23, Concession 1, Township of Puslinch, Ontario. The study site location is shown on **Figure 1**. The 2021 monitoring program was completed by Groundwater Science Corp. for Lafarge Canada Inc. in order to satisfy the conditions of the existing Licence.

Below water extraction at the site began in 2010. In November 2020 all excavation at the site was complete. No extraction occurred in 2021 and no further extraction operations are expected. The general extraction area and extent of extraction ponds is shown in **Figure 2**.

The site is surrounded by several other Licenced properties, as shown in **Figure 1**.

1.2 Approved Groundwater Monitoring Program

The monitoring program requirements are outlined in Licence Conditions 8 and 9, as follows:

Condition 8

The licensee shall, prior to the start of excavation operations, provide the Wellington Area Supervisor, Ministry of Natural Resources, with a comprehensive groundwater monitoring report which shall include a description of monitoring equipment, monitoring locations, method of data collection and recording, action thresholds, calculations to be carried out (e.g., baseflow calculations), frequency of data collection, a proposed reporting schedule and any other details required by the Area Supervisor. The licensee shall maintain the monitoring programs described above, and shall comply with all requirements set out in the groundwater monitoring report throughout the operating life of the extraction and during the site rehabilitation period and beyond, until such time the Ministry of Natural Resources agrees to termination of, or reduction in, the monitoring program.

Condition 9

Groundwater monitoring results collected by the Licensee shall be submitted to the local office of the Ministry of the Environment and Energy for its information and any action deemed necessary by that Ministry.

The site was originally owned and Licenced by Warren Bitulithic Limited. It is our understanding that the *comprehensive groundwater monitoring report* referenced in Condition 8 was proposed to consist of the October 11, 1996 report by Morrison Environmental Limited for Planning Initiatives Limited entitled: *Groundwater Monitoring Program, Warren Bitulithic Limited McMillan Pit, Township of Puslinch*. A copy of the 1996 monitoring program recommendations was included in previous annual reports, please refer to those reports for specific details.

Action thresholds were included in the October 11, 1996 report however at that time it was noted that the thresholds were established prior to the detailed monitoring program (and installation of BH4, BH5 or BH6) and prior to the determination of typical seasonal water level fluctuation for the site. It is also noted that the thresholds were proposed for locations are along the centre of the

site (i.e. do not accurately reflect the water table slope across the site), and, one threshold location (BH3) will be destroyed by extraction.

The 1996 action thresholds are not in appropriate locations and do not represent "natural" or "pre-extraction" conditions at the site. As recommended previously, the Action Thresholds for this program have been revised to the following based on a review of the historical data now available:

| <u>Monitoring Location</u> | <u>Water Level Action Threshold Elevation (mAMSL)</u> |
|----------------------------|---|
| BH4 (or MCA BH12) | 304.80 |
| Pond | 304.65 |
| BH5 | 304.50 |

The current monitoring results have been assessed based on the revised thresholds.

1.3 Historical Monitoring Activities

All of the data for the site reported in the previous annual reports has been incorporated into the present assessment.

The existing monitoring wells at the Lafarge McMillan Pit were installed prior to 1997, as shown on **Figure 2**. A pond staff (SW1) gauge was installed in 2011 and removed in October 2020 as extraction was nearing completion and safe access was no longer available. Groundwater monitoring and reporting since 2003 has been completed by Groundwater Science Corp.

2.0 MONITORING COMPLETED IN 2021

The reported elevations of the ground surface and reference points (top of well) at each monitor are shown in **Table 1**. The calculated elevation of the bottom of each monitor, based on total depth (field) measurements, is also shown.

The program requirements indicate that the monitoring results should be compared to precipitation data. For comparison a precipitation analysis for reported rainfall data from 2001 to present is included in **Appendix A**. The analysis shows the total reported monthly and annual precipitation minus the respective (monthly or annual) 30-year “normal”. Positive values indicate above average precipitation occurred during the respective period and negative values indicate below average precipitation.

2.1 Water Level Monitoring

In 2021 water levels were measured on a generally monthly basis (as accessible due to weather conditions or safety concerns) at monitors BH1, BH2, BH5 and BH6.

Measurements are taken using an electronic (Heron Instruments®) water level meter as depth below top of the PVC well casing and recorded in the field. Water level elevations were subsequently calculated for each location using the field measurements and reported reference point elevations.

The 2021 water level elevation data for the site is summarized in **Table 2**. The water level elevations are shown in graphical form (as hydrographs) in **Appendix A**.

2.2 Water Quality Monitoring

In 2021 water quality samples were obtained at BH2 (background) and BH5 (downgradient) on March 30th, August 5th and November 19th.

The samples were obtained using standard sampling protocol, using Waterra® high density polyethylene tubing and foot valve. Each well was purged (approx. 3 to 5 bore-volumes) to a relatively sand-free state prior to sampling. The samples were kept cool and submitted to ALS Laboratory Group (Waterloo) for analysis within 24 hours. The laboratory analysis reports are included in **Appendix B**.

2.3 Temperature Monitoring

Water temperatures were measured within the screened interval at the on-site wells at each monitoring event in 2021. Temperatures were measured using an electronic temperature probe, integrated into the water level tape probe, and with a reported accuracy to 0.1 C. The temperature monitoring results are summarized in **Table 3**.

3.0 MONITORING RESULTS

3.1 Discussion

The 2021 monitoring results are generally consistent with recent results (e.g. 2001 to 2020). Active below water table extraction has created a large pond encompassing the entire site, however based on the monitoring results and overall setting there is limited potential for the completed extraction to significantly affect groundwater conditions in the area.

Precipitation

For comparison to the hydrographs, a plot of the reported monthly and annual precipitation compared to the current 30-year monthly and annual precipitation Normals (1981-2010) reported by Environment Canada for the Kitchener/Waterloo (former Waterloo-Wellington) Airport Station (and overall area) for the years 2001 to 2021 is attached to this report.

In 2021 the total reported precipitation of 82.0 mm is approximately 134.5 mm below the annual Normal value of 916.5 mm. As indicated by the graph, dry to very dry conditions occurred from the fall of 2020 to the spring of 2021. Of note, the spring 2021 reported precipitation was the lowest on record since 2001. Slightly above average precipitation was reported in summer and fall 2021. However, in general dry to very dry annual conditions persisted from 2018 to 2021.

Groundwater Levels

The current monitoring requirements include one monitor on the upgradient edge of the site and two monitors on the downgradient edge of the site once extraction proceeds below the water table. A number of historical monitoring locations have been destroyed through extraction, both on-site and on adjacent sites. Given the current monitor configuration, BH1 and BH2 represent upgradient locations, and, BH5 and BH6 represent downgradient monitors.

Under existing conditions, water levels at the site are controlled primarily by precipitation levels and overall flow within the regional outwash channel groundwater system, and may also be affected by any potential influences associated with existing or historical below water table extraction at adjacent operations.

In 2021 the water table elevation immediately around the extraction area (BH2, BH5 and BH6) and overall gradient across the site remained within historical values. However we note that, consistent with precipitation conditions, spring water table elevations were relatively low.

Based on the water level elevations on-site, groundwater flow is primarily westward, toward the adjacent CBM McMillan property. The water level monitoring results indicate that extraction at the site has not significantly affected local groundwater conditions.

The groundwater levels measured on-site are consistent with the known regional pattern of groundwater flow. Groundwater flows across the Lafarge McMillan Pit site from east to west, however the overall water table gradient across the site is low. Groundwater flows from the Mill Creek Pit Phase II area onto the Lafarge McMillan site, then slowly across the site and onto the CBM McMillan Pit. Groundwater flow then continues west from the CBM McMillan Pit toward Mill Creek. Based on the overall flow system and location of planned extraction ponds in the

area, this local pattern of flow will be maintained after extraction operations are complete at these three sites.

Groundwater Temperatures

The 2021 groundwater temperature monitoring results are generally consistent with previous results, which indicate some increased groundwater temperatures likely as a result of a combination of upgradient pond creation and removal of the unsaturated zone on-site. In general the seasonal water temperature fluctuation at the site has increased due to the size of the on-site ponds.

The groundwater temperature monitoring program has limited usefulness given the low potential for thermal impact due to extraction on the site to reach any downgradient sensitive receptors. The major downgradient temperature sensitive receptor is Mill Creek, at a distance of approximately 875 metres from the Lafarge McMillan Pit.

Groundwater Quality

Based on the water quality data gathered at BH2 and BH5, there is no evidence of significant changes to groundwater quality as a result of extraction activities on-site or in the area. A review of the historical data indicates nitrate levels have declined since agricultural activities were discontinued at the site.

Low concentrations (at or just above detection level) of Phenols were reported at BH5 in the spring and summer samples (only) in 2021. Phenols were not reported at BH5 in the fall samples. Phenols have been detected sporadically at very low levels in both BH2 and BH5 since 2015. According to the Environment Canada February 2000 *Canadian Environmental Protection Act Priority Substances List Assessment Report: Phenol*, there are a number of industrial sources of Phenols, however: *Phenol may occur naturally in water and soil as the decomposition product of plants, vegetation and animal waste (Dobbins et al., 1987). It is released to the environment by these natural sources, mostly in trace amounts of phenolic substances (CCREM, 1987). In addition: Phenol is an abundant naturally occurring chemical that tends to biodegrade rapidly in the environment (Baker and Mayfield, 1980; Dobbins et al., 1987; Howard, 1989).*

The Phenols detections at the site are not considered significant to the environment, or to off-site features, given that:

- the Phenol concentrations detected occasionally at the site are very low (just above detection limit);
- there are no sources of Phenol at the site; and,
- Phenols are not expected to persist in the environment (including groundwater).

No phenols were reported at BH2 in 2021.

4.0 RECOMMENDATIONS

Excavation of the site is now complete. Historical monitoring has shown no significant impact to groundwater levels, temperature or quality. It is our recommendation that the groundwater monitoring program can be terminated at any time.

All of which is respectfully submitted,

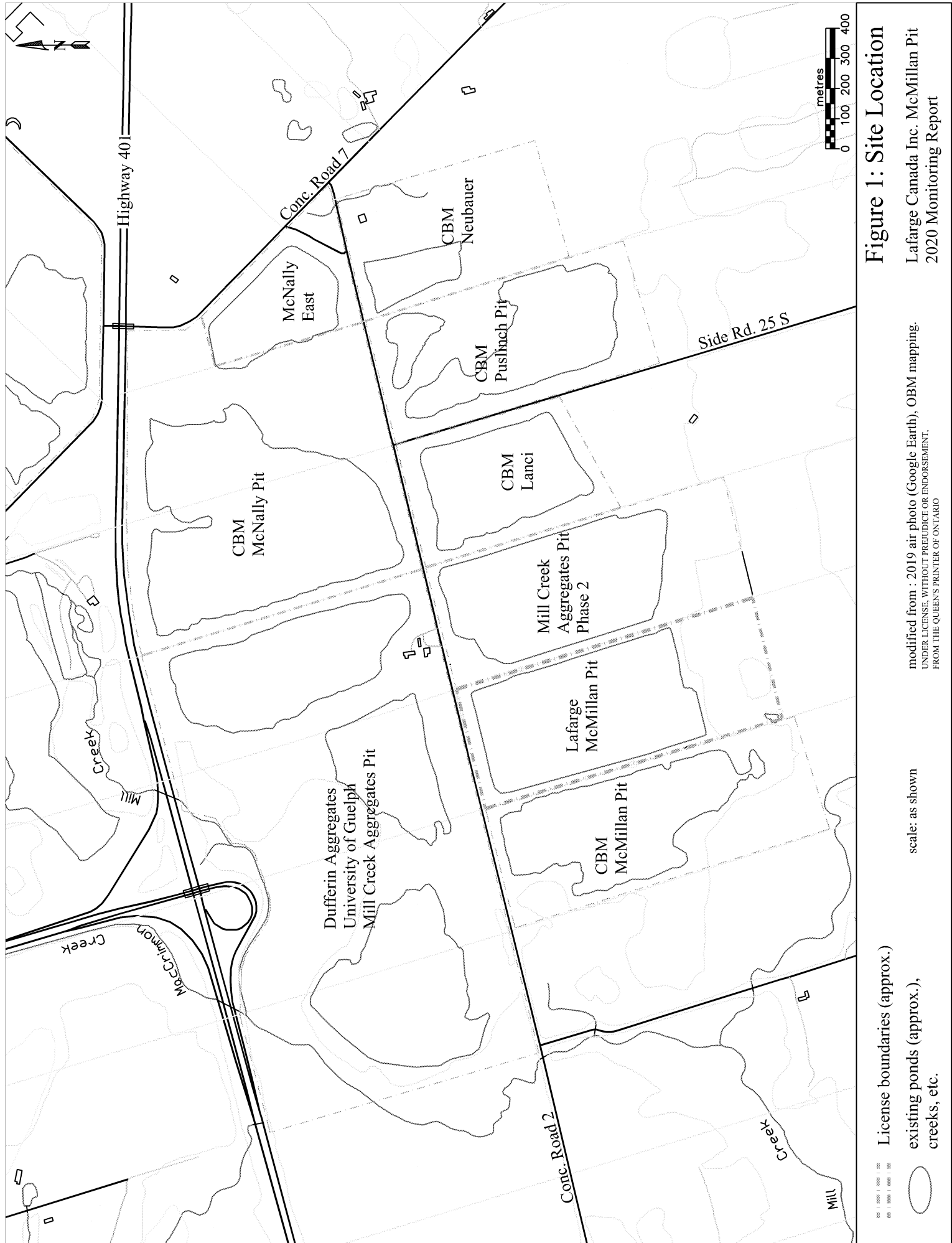


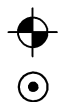
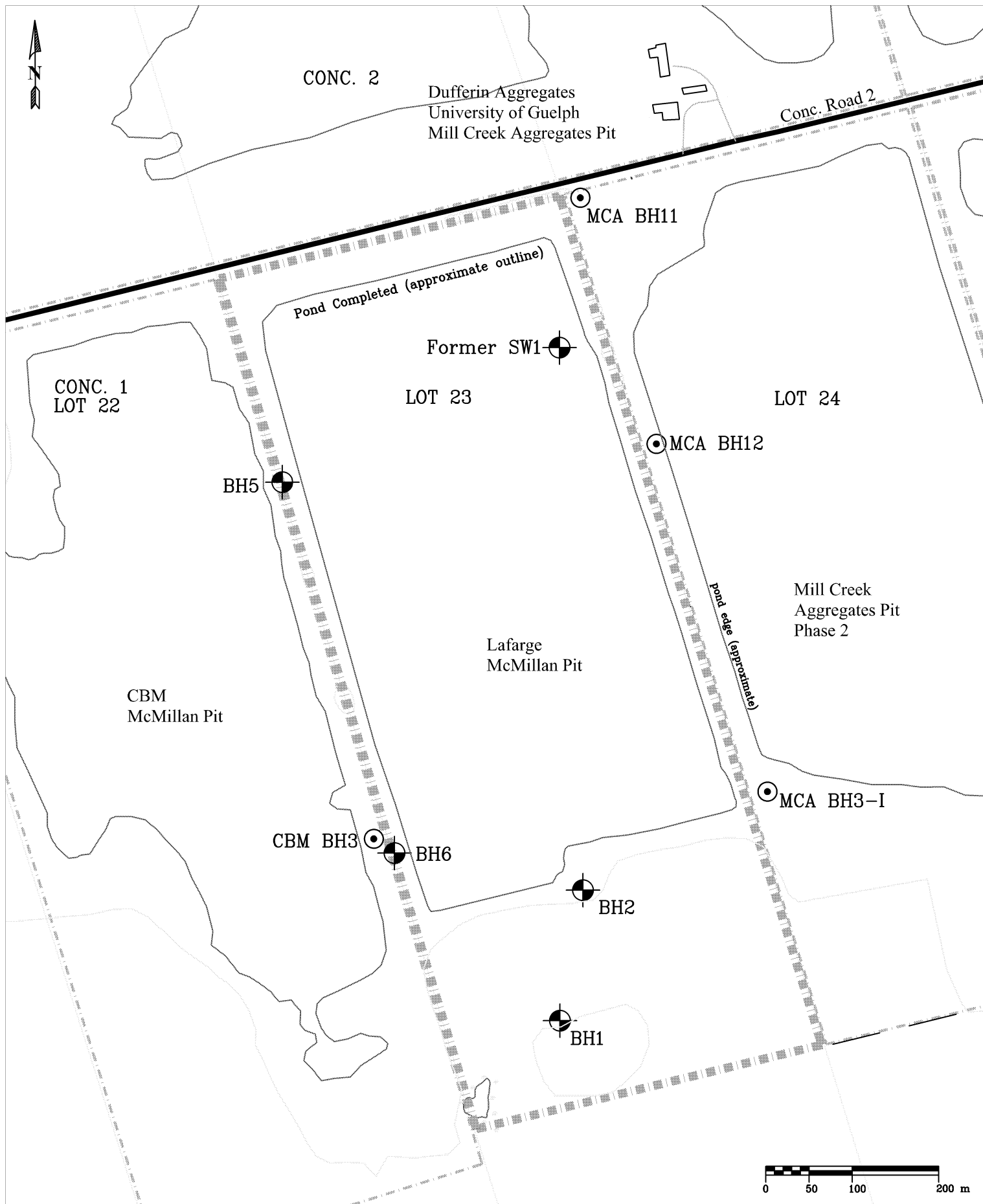
Dave Nahrgang, P.Geo.
Project Hydrogeologist



Andrew Pentney, P.Geo.
Senior Hydrogeologist

Figures





monitoring well location

scale: as shown
modified from : 2019 air photo (Google Earth),
Site Plans (PEIL), and, OBM mapping
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FROM THE QUEEN'S PRINTER OF ONTARIO

Figure 2: Site Details

Lafarge Canada Inc. McMillan Pit
2020 Monitoring Program

Tables

Table 1: Monitor Installation Details

| Location | Elevations (mASL) | | | |
|---|-------------------|----------------|-------------------|----------|
| | Ground Surface | Top of Well | Screened Interval | |
| | | | Top* | Bottom** |
| BH1 | 311.40 | 311.87 | 304.40 | 302.88 |
| BH2 | 314.10 | 314.65 | 302.36 | 300.84 |
| BH5 | 309.40 | 310.57 | 303.61 | 302.09 |
| BH6 | 311.10 | 312.11 | 306.52 | 305.00 |
| Notes: mASL = metres above sea level * - assumed, based on 1.5 m screen ** - calculated, based on field measurement of total monitor depth | | | | |

Table 2: 2020 Groundwater Elevations

| Date Ref. Pt. Elev: | Water Level Elevation (mASL) | | | |
|---|------------------------------|--------|--------|--------|
| | BH1 | BH2 | BH5 | BH6 |
| | 311.87 | 314.65 | 310.57 | 312.11 |
| 30-Mar-21 | 306.65 | 305.64 | 305.53 | 305.40 |
| 19-Apr-21 | 306.71 | 305.69 | 305.55 | 305.43 |
| 05-Aug-21 | 306.54 | 305.55 | 305.42 | 305.26 |
| 30-Sep-21 | 306.51 | 305.52 | 305.34 | 305.23 |
| 30-Oct-21 | 306.53 | 305.55 | 305.37 | 305.25 |
| 19-Nov-21 | 306.56 | 305.54 | 305.41 | 305.26 |
| 03-Jan-22 | 306.62 | 305.57 | 305.45 | 305.29 |
| mASL = metres above sea level | | | | |
| SW1 removed due to excavation October 8, 2019 | | | | |

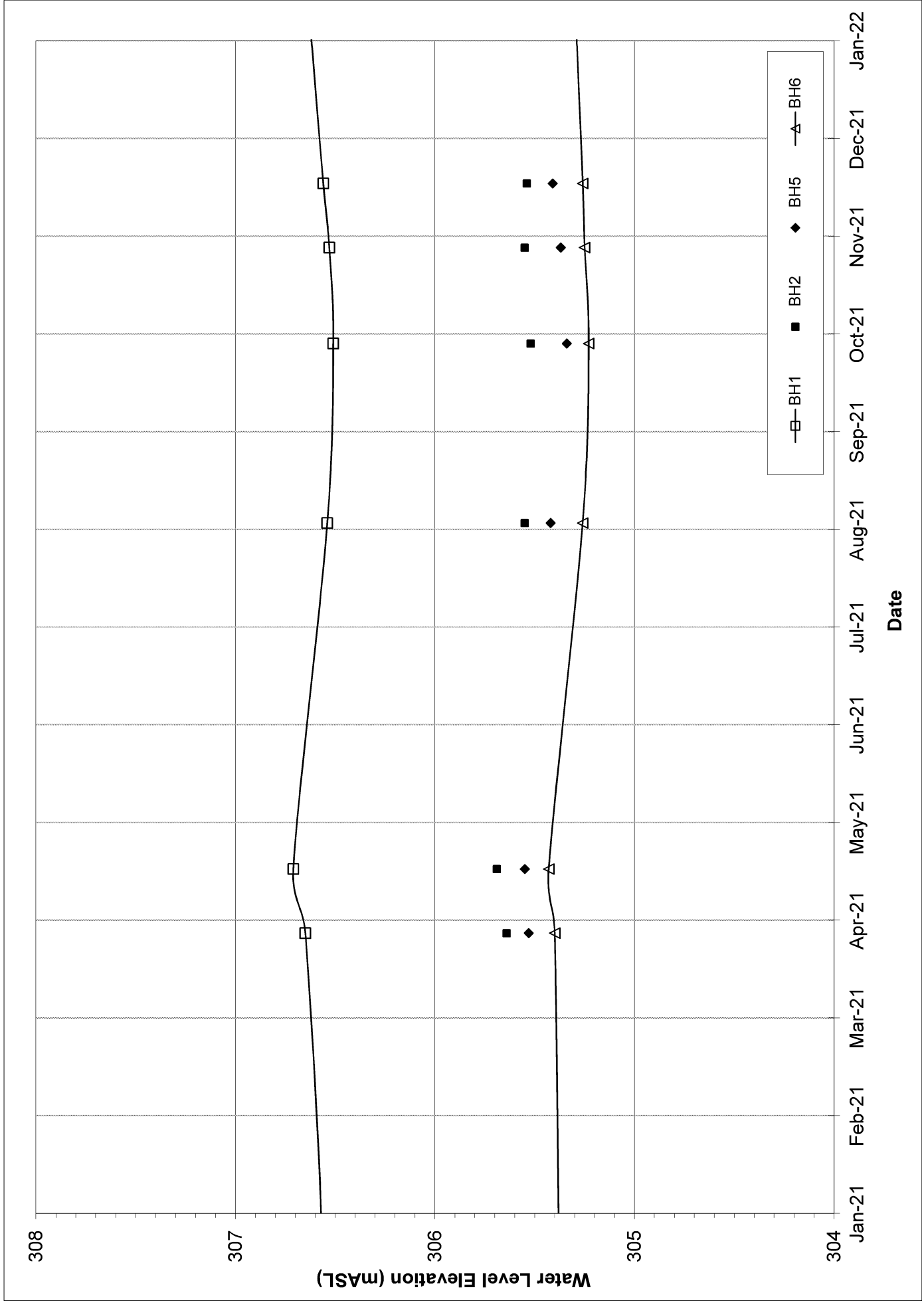
Table 3: Temperature Monitoring Summary

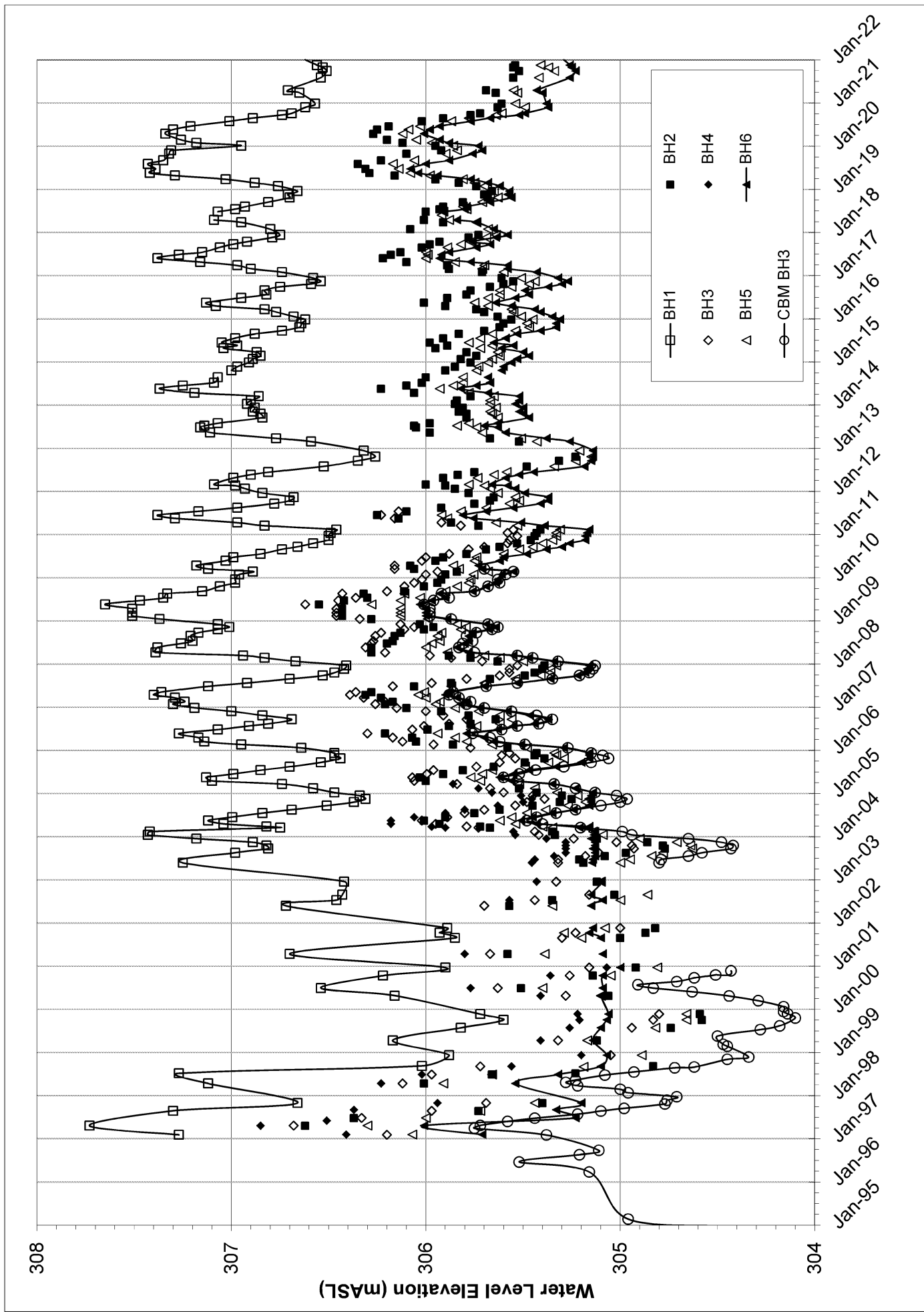
| Date | Temperatures (°C) | | | | |
|-----------------------------|-------------------|-----------------------|------------------------|-----------------------|-----------------------|
| | Air | Well 1 9.0 m depth | Well 2 12.0 m depth | Well 5 8.5 m depth | Well 6 6.9 m depth |
| 30-Mar-21 | 10.9 | 9.8 | 8.0 | 1.1 | 3.2 |
| 19-Apr-21 | 10.2 | 9.5 | 7.6 | 2.9 | 2.9 |
| 5-Aug-21 | 26.4 | 12.1 | 8.8 | 21.2 | 22.5 |
| 30-Sep-21 | 12.9 | 11.8 | 13.4 | 22.4 | 21.4 |
| 28-Oct-21 | 6.9 | 11.0 | 14.6 | 20.0 | 18.1 |
| 19-Nov-21 | 1.8 | 10.7 | 14.9 | 16.4 | 13.6 |
| 3-Jan-22 | -11.3 | 10.0 | 14.1 | 6.4 | 5.9 |
| measurement depths in mBTOW | | | | | |

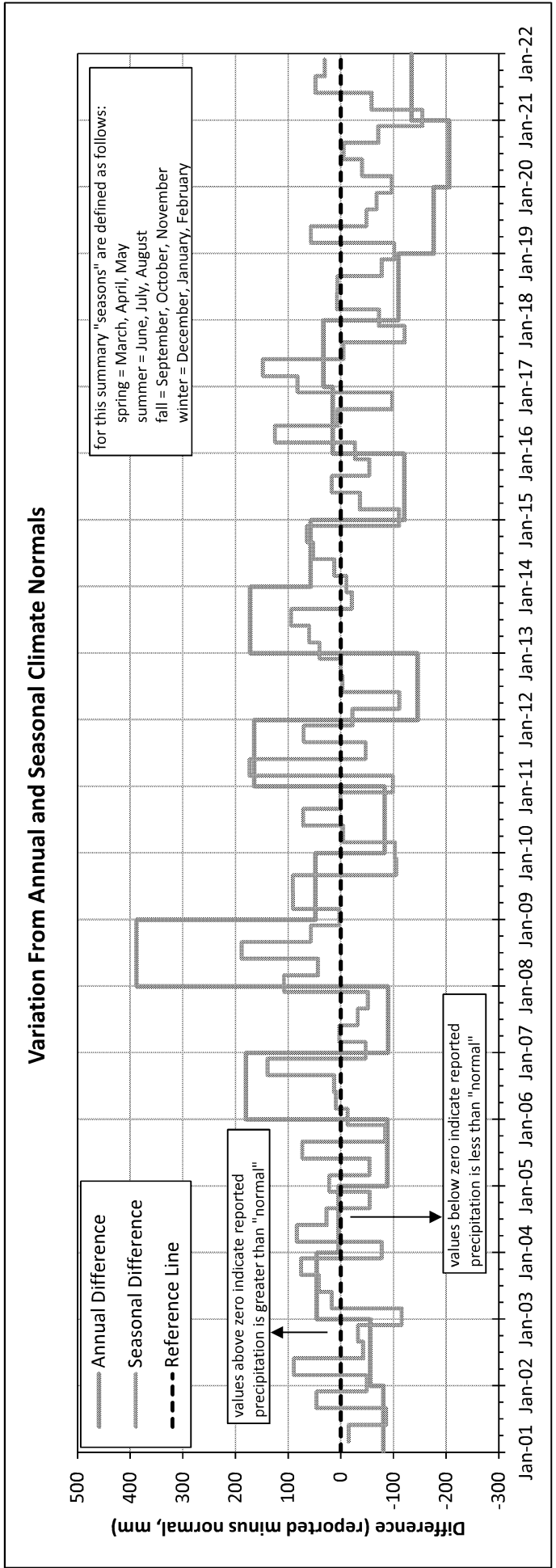
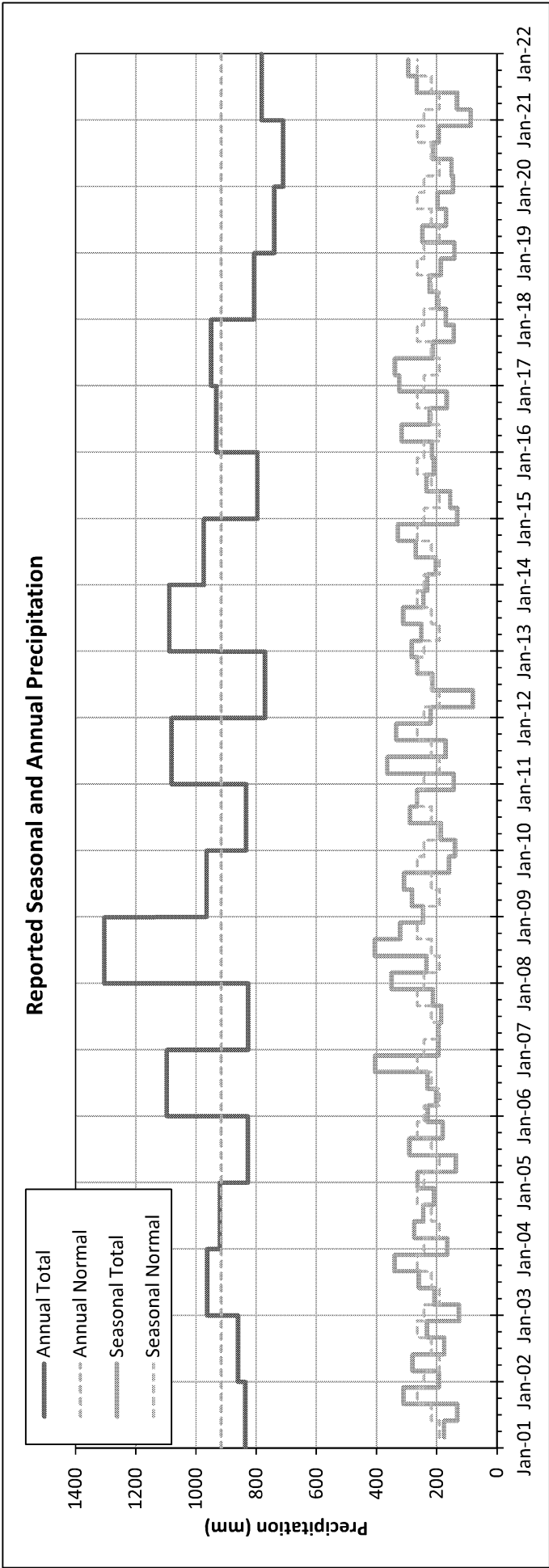
Appendix A

Precipitation Analysis

Groundwater Level Hydrographs







Appendix B

Water Quality Reports



GROUNDWATER SCIENCE CORP. (Waterloo)
ATTN: ANDREW PENTNEY
465 Kingscourt Drive
UNIT 2
WATERLOO ON N2K 3R5

Date Received: 30-MAR-21
Report Date: 07-APR-21 07:32 (MT)
Version: FINAL

Client Phone: 519-746-6916

Certificate of Analysis

Lab Work Order #: L2571642
Project P.O. #: NOT SUBMITTED
Job Reference: MCMILLAN
C of C Numbers: 17-872425
Legal Site Desc:

Aaron Payne
Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 60 Northland Road, Unit 1, Waterloo, ON N2V 2B8 Canada | Phone: +1 519 886 6910 | Fax: +1 519 886 9047
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Version: FINAL

ALS ENVIRONMENTAL ANALYTICAL REPORT

| Sample Details/Parameters | Result | Qualifier* | D.L. | Units | Extracted | Analyzed | Batch |
|---|-----------|------------|----------|----------|-----------|-----------|----------|
| L2571642-1 BH5 Sampled By: D. NAHRGANG on 30-MAR-21 @ 11:00 Matrix: WATER | | | | | | | |
| Physical Tests | | | | | | | |
| Conductivity | 318 | | 3.0 | umhos/cm | | 01-APR-21 | R5418708 |
| pH | 8.14 | | 0.10 | pH units | | 01-APR-21 | R5418708 |
| Turbidity | 6.09 | | 0.10 | NTU | 31-MAR-21 | 31-MAR-21 | R5417785 |
| Anions and Nutrients | | | | | | | |
| Alkalinity, Total (as CaCO3) | 106 | | 10 | mg/L | | 02-APR-21 | R5419077 |
| Bromide (Br) | <0.10 | | 0.10 | mg/L | | 01-APR-21 | R5419144 |
| Chloride (Cl) | 35.9 | | 0.50 | mg/L | | 01-APR-21 | R5419144 |
| Fluoride (F) | 0.198 | | 0.020 | mg/L | | 01-APR-21 | R5419144 |
| Nitrate (as N) | 0.072 | | 0.020 | mg/L | | 01-APR-21 | R5419144 |
| Nitrite (as N) | <0.010 | | 0.010 | mg/L | | 01-APR-21 | R5419144 |
| Sulfate (SO4) | 13.7 | | 0.30 | mg/L | | 01-APR-21 | R5419144 |
| Dissolved Metals | | | | | | | |
| Dissolved Metals Filtration Location | FIELD | | | | | 31-MAR-21 | R5417461 |
| Aluminum (Al)-Dissolved | <0.0050 | | 0.0050 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Antimony (Sb)-Dissolved | <0.00010 | | 0.00010 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Arsenic (As)-Dissolved | <0.00010 | | 0.00010 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Barium (Ba)-Dissolved | 0.0188 | | 0.00010 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Beryllium (Be)-Dissolved | <0.00010 | | 0.00010 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Bismuth (Bi)-Dissolved | <0.000050 | | 0.000050 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Boron (B)-Dissolved | 0.016 | | 0.010 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Cadmium (Cd)-Dissolved | 0.0000281 | | 0.000050 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Calcium (Ca)-Dissolved | 20.3 | | 0.050 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Cesium (Cs)-Dissolved | <0.000010 | | 0.000010 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Chromium (Cr)-Dissolved | <0.00050 | | 0.00050 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Cobalt (Co)-Dissolved | <0.00010 | | 0.00010 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Copper (Cu)-Dissolved | 0.00071 | | 0.00020 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Iron (Fe)-Dissolved | <0.010 | | 0.010 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Lead (Pb)-Dissolved | <0.000050 | | 0.000050 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Lithium (Li)-Dissolved | <0.0010 | | 0.0010 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Magnesium (Mg)-Dissolved | 13.7 | | 0.0050 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Manganese (Mn)-Dissolved | <0.00050 | | 0.00050 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Molybdenum (Mo)-Dissolved | 0.00290 | | 0.000050 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Nickel (Ni)-Dissolved | <0.00050 | | 0.00050 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Phosphorus (P)-Dissolved | <0.050 | | 0.050 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Potassium (K)-Dissolved | 1.43 | | 0.050 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Rubidium (Rb)-Dissolved | 0.00084 | | 0.00020 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Selenium (Se)-Dissolved | 0.000073 | | 0.000050 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Silicon (Si)-Dissolved | 0.454 | | 0.050 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Silver (Ag)-Dissolved | <0.000050 | | 0.000050 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Sodium (Na)-Dissolved | 23.6 | | 0.050 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Strontium (Sr)-Dissolved | 0.0459 | | 0.0010 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

L2571642 CONTD....

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Version: FINAL

ALS ENVIRONMENTAL ANALYTICAL REPORT

| Sample Details/Parameters | | Result | Qualifier* | D.L. | Units | Extracted | Analyzed | Batch |
|--------------------------------------|----------------------------------|-----------|------------|-----------|----------|-----------|-----------|----------|
| L2571642-1 | BH5 | | | | | | | |
| Sampled By: | D. NAHRGANG on 30-MAR-21 @ 11:00 | | | | | | | |
| Matrix: | WATER | | | | | | | |
| Dissolved Metals | | | | | | | | |
| Sulfur (S)-Dissolved | | 5.14 | | 0.50 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Tellurium (Te)-Dissolved | | <0.00020 | | 0.00020 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Thallium (Tl)-Dissolved | | <0.000010 | | 0.000010 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Thorium (Th)-Dissolved | | <0.00010 | | 0.00010 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Tin (Sn)-Dissolved | | <0.00010 | | 0.00010 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Titanium (Ti)-Dissolved | | <0.00030 | | 0.00030 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Tungsten (W)-Dissolved | | <0.00010 | | 0.00010 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Uranium (U)-Dissolved | | 0.000322 | | 0.000010 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Vanadium (V)-Dissolved | | <0.00050 | | 0.00050 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Zinc (Zn)-Dissolved | | 0.0135 | | 0.0010 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Zirconium (Zr)-Dissolved | | <0.00020 | | 0.00020 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Aggregate Organics | | | | | | | | |
| Phenols (4AAP) | | 0.0025 | | 0.0010 | mg/L | | 31-MAR-21 | R5418318 |
| L2571642-2 | BH2 | | | | | | | |
| Sampled By: | D. NAHRGANG on 30-MAR-21 @ 11:45 | | | | | | | |
| Matrix: | WATER | | | | | | | |
| Physical Tests | | | | | | | | |
| Conductivity | | 659 | | 3.0 | umhos/cm | | 01-APR-21 | R5418708 |
| pH | | 8.15 | | 0.10 | pH units | | 01-APR-21 | R5418708 |
| Turbidity | | 8.76 | | 0.10 | NTU | 31-MAR-21 | 31-MAR-21 | R5417785 |
| Anions and Nutrients | | | | | | | | |
| Alkalinity, Total (as CaCO3) | | 137 | | 10 | mg/L | | 02-APR-21 | R5419077 |
| Bromide (Br) | | 0.14 | | 0.10 | mg/L | | 01-APR-21 | R5419144 |
| Chloride (Cl) | | 107 | | 0.50 | mg/L | | 01-APR-21 | R5419144 |
| Fluoride (F) | | 0.141 | | 0.020 | mg/L | | 01-APR-21 | R5419144 |
| Nitrate (as N) | | 0.176 | | 0.020 | mg/L | | 01-APR-21 | R5419144 |
| Nitrite (as N) | | <0.010 | | 0.010 | mg/L | | 01-APR-21 | R5419144 |
| Sulfate (SO4) | | 42.2 | | 0.30 | mg/L | | 01-APR-21 | R5419144 |
| Dissolved Metals | | | | | | | | |
| Dissolved Metals Filtration Location | | FIELD | | | | | 31-MAR-21 | R5417461 |
| Aluminum (Al)-Dissolved | | <0.0050 | | 0.0050 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Antimony (Sb)-Dissolved | | <0.00010 | | 0.00010 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Arsenic (As)-Dissolved | | 0.00010 | | 0.00010 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Barium (Ba)-Dissolved | | 0.0453 | | 0.00010 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Beryllium (Be)-Dissolved | | <0.00010 | | 0.00010 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Bismuth (Bi)-Dissolved | | <0.000050 | | 0.000050 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Boron (B)-Dissolved | | 0.016 | | 0.010 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Cadmium (Cd)-Dissolved | | 0.0000663 | | 0.0000050 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Calcium (Ca)-Dissolved | | 37.0 | | 0.050 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Cesium (Cs)-Dissolved | | <0.000010 | | 0.000010 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Chromium (Cr)-Dissolved | | <0.00050 | | 0.00050 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Cobalt (Co)-Dissolved | | <0.00010 | | 0.00010 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

A0378828_23-000061

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Version: FINAL

ALS ENVIRONMENTAL ANALYTICAL REPORT

| Sample Details/Parameters | Result | Qualifier* | D.L. | Units | Extracted | Analyzed | Batch |
|---|-----------|------------|----------|-------|-----------|-----------|----------|
| L2571642-2 BH2 Sampled By: D. NAHRGANG on 30-MAR-21 @ 11:45 Matrix: WATER | | | | | | | |
| Dissolved Metals | | | | | | | |
| Copper (Cu)-Dissolved | 0.00093 | | 0.00020 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Iron (Fe)-Dissolved | 0.013 | | 0.010 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Lead (Pb)-Dissolved | 0.000157 | | 0.000050 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Lithium (Li)-Dissolved | 0.0013 | | 0.0010 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Magnesium (Mg)-Dissolved | 27.5 | | 0.0050 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Manganese (Mn)-Dissolved | <0.00050 | | 0.00050 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Molybdenum (Mo)-Dissolved | 0.00188 | | 0.000050 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Nickel (Ni)-Dissolved | <0.00050 | | 0.00050 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Phosphorus (P)-Dissolved | <0.050 | | 0.050 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Potassium (K)-Dissolved | 1.66 | | 0.050 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Rubidium (Rb)-Dissolved | 0.00170 | | 0.00020 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Selenium (Se)-Dissolved | 0.000164 | | 0.000050 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Silicon (Si)-Dissolved | 0.917 | | 0.050 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Silver (Ag)-Dissolved | <0.000050 | | 0.000050 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Sodium (Na)-Dissolved | 54.9 | | 0.050 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Strontium (Sr)-Dissolved | 0.0855 | | 0.0010 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Sulfur (S)-Dissolved | 15.5 | | 0.50 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Tellurium (Te)-Dissolved | <0.00020 | | 0.00020 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Thallium (Tl)-Dissolved | 0.000010 | | 0.000010 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Thorium (Th)-Dissolved | <0.00010 | | 0.00010 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Tin (Sn)-Dissolved | <0.00010 | | 0.00010 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Titanium (Ti)-Dissolved | <0.00030 | | 0.00030 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Tungsten (W)-Dissolved | <0.00010 | | 0.00010 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Uranium (U)-Dissolved | 0.000495 | | 0.000010 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Vanadium (V)-Dissolved | <0.00050 | | 0.00050 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Zinc (Zn)-Dissolved | 0.0501 | | 0.0010 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Zirconium (Zr)-Dissolved | <0.00020 | | 0.00020 | mg/L | 31-MAR-21 | 31-MAR-21 | R5418169 |
| Aggregate Organics | | | | | | | |
| Phenols (4AAP) | <0.0010 | | 0.0010 | mg/L | | 31-MAR-21 | R5418318 |
| | | | | | | | |

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

QC Samples with Qualifiers & Comments:

| QC Type Description | Parameter | Qualifier | Applies to Sample Number(s) |
|---------------------|---------------------------|-----------|-----------------------------|
| Matrix Spike | Barium (Ba)-Dissolved | MS-B | L2571642-1, -2 |
| Matrix Spike | Boron (B)-Dissolved | MS-B | L2571642-1, -2 |
| Matrix Spike | Calcium (Ca)-Dissolved | MS-B | L2571642-1, -2 |
| Matrix Spike | Lithium (Li)-Dissolved | MS-B | L2571642-1, -2 |
| Matrix Spike | Magnesium (Mg)-Dissolved | MS-B | L2571642-1, -2 |
| Matrix Spike | Manganese (Mn)-Dissolved | MS-B | L2571642-1, -2 |
| Matrix Spike | Molybdenum (Mo)-Dissolved | MS-B | L2571642-1, -2 |
| Matrix Spike | Potassium (K)-Dissolved | MS-B | L2571642-1, -2 |
| Matrix Spike | Rubidium (Rb)-Dissolved | MS-B | L2571642-1, -2 |
| Matrix Spike | Silicon (Si)-Dissolved | MS-B | L2571642-1, -2 |
| Matrix Spike | Sodium (Na)-Dissolved | MS-B | L2571642-1, -2 |
| Matrix Spike | Strontium (Sr)-Dissolved | MS-B | L2571642-1, -2 |
| Matrix Spike | Sulfur (S)-Dissolved | MS-B | L2571642-1, -2 |
| Matrix Spike | Uranium (U)-Dissolved | MS-B | L2571642-1, -2 |

Sample Parameter Qualifier key listed:

| Qualifier | Description |
|-----------|--|
| MS-B | Matrix Spike recovery could not be accurately calculated due to high analyte background in sample. |

Test Method References:

| ALS Test Code | Matrix | Test Description | Method Reference** |
|---------------|--------|------------------|--------------------|
|---------------|--------|------------------|--------------------|

| | | | |
|--------|-------|------------------------------|------------|
| ALK-WT | Water | Alkalinity, Total (as CaCO3) | APHA 2320B |
|--------|-------|------------------------------|------------|

This analysis is carried out using procedures adapted from APHA Method 2320 "Alkalinity". Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint.

| | | | |
|------------|-------|------------------------|-----------------|
| BR-IC-N-WT | Water | Bromide in Water by IC | EPA 300.1 (mod) |
|------------|-------|------------------------|-----------------|

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

| | | | |
|------------|-------|----------------|-----------------|
| CL-IC-N-WT | Water | Chloride by IC | EPA 300.1 (mod) |
|------------|-------|----------------|-----------------|

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).

| | | | |
|--------------|-------|---|-----------|
| EC-SCREEN-WT | Water | Conductivity Screen (Internal Use Only) | APHA 2510 |
|--------------|-------|---|-----------|

Qualitative analysis of conductivity where required during preparation of other tests - e.g. TDS, metals, etc.

| | | | |
|-------|-------|--------------|-------------|
| EC-WT | Water | Conductivity | APHA 2510 B |
|-------|-------|--------------|-------------|

Water samples can be measured directly by immersing the conductivity cell into the sample.

| | | | |
|-----------|-------|-------------------------|-----------------|
| F-IC-N-WT | Water | Fluoride in Water by IC | EPA 300.1 (mod) |
|-----------|-------|-------------------------|-----------------|

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

| | | | |
|---------------|-------|--|------------------------|
| MET-D-CCMS-WT | Water | Dissolved Metals in Water by CRC ICPMS | APHA 3030B/6020A (mod) |
|---------------|-------|--|------------------------|

Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by CRC ICPMS.

Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).

| | | | |
|-----------|-------|------------------------|-----------------|
| NO2-IC-WT | Water | Nitrite in Water by IC | EPA 300.1 (mod) |
|-----------|-------|------------------------|-----------------|

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

| | | | |
|-----------|-------|------------------------|-----------------|
| NO3-IC-WT | Water | Nitrate in Water by IC | EPA 300.1 (mod) |
|-----------|-------|------------------------|-----------------|

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.



GROUNDWATER SCIENCE CORP. (Waterloo)
ATTN: ANDREW PENTNEY
465 Kingscourt Drive
UNIT 2
WATERLOO ON N2K 3R5

Date Received: 05-AUG-21
Report Date: 10-AUG-21 11:22 (MT)
Version: FINAL

Client Phone: 519-746-6916

Certificate of Analysis

Lab Work Order #: L2622835
Project P.O. #: NOT SUBMITTED
Job Reference: MCMILLAN PIT
C of C Numbers: 20-897480
Legal Site Desc:

Costas Farassoglou
Account Manager

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L2622835 CONTD....

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Version: FINAL

ALS ENVIRONMENTAL ANALYTICAL REPORT

| Sample Details/Parameters | Result | Qualifier* | D.L. | Units | Extracted | Analyzed | Batch |
|---|-----------|------------|-----------|----------|-----------|-----------|----------|
| L2622835-1 BH5 Sampled By: D. NAHRGANG on 05-AUG-21 @ 09:55 Matrix: WATER | | | | | | | |
| Physical Tests | | | | | | | |
| Conductivity | 685 | | 1.0 | umhos/cm | | 05-AUG-21 | R5545210 |
| pH | 8.03 | | 0.10 | pH units | | 05-AUG-21 | R5545210 |
| Turbidity | 1.50 | | 0.10 | NTU | 06-AUG-21 | 06-AUG-21 | R5545547 |
| Anions and Nutrients | | | | | | | |
| Alkalinity, Total (as CaCO3) | 127 | | 1.0 | mg/L | | 06-AUG-21 | R5545973 |
| Bromide (Br) | 0.18 | | 0.10 | mg/L | | 08-AUG-21 | R5546535 |
| Chloride (Cl) | 114 | | 0.50 | mg/L | | 08-AUG-21 | R5546535 |
| Fluoride (F) | 0.202 | | 0.020 | mg/L | | 08-AUG-21 | R5546535 |
| Nitrate (as N) | 0.084 | | 0.020 | mg/L | | 08-AUG-21 | R5546535 |
| Nitrite (as N) | <0.010 | | 0.010 | mg/L | | 06-AUG-21 | R5546535 |
| Orthophosphate-Dissolved (as P) | <0.0030 | | 0.0030 | mg/L | | 06-AUG-21 | R5545619 |
| Sulfate (SO4) | 41.6 | | 0.30 | mg/L | | 08-AUG-21 | R5546535 |
| Dissolved Metals | | | | | | | |
| Dissolved Metals Filtration Location | FIELD | | | | | 05-AUG-21 | R5545144 |
| Aluminum (Al)-Dissolved | <0.0050 | | 0.0050 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Antimony (Sb)-Dissolved | <0.00010 | | 0.00010 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Arsenic (As)-Dissolved | 0.00010 | | 0.00010 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Barium (Ba)-Dissolved | 0.0374 | | 0.00010 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Beryllium (Be)-Dissolved | <0.00010 | | 0.00010 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Bismuth (Bi)-Dissolved | <0.000050 | | 0.000050 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Boron (B)-Dissolved | 0.024 | | 0.010 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Cadmium (Cd)-Dissolved | 0.0000990 | | 0.0000050 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Calcium (Ca)-Dissolved | 38.2 | | 0.050 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Cesium (Cs)-Dissolved | 0.000011 | | 0.000010 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Chromium (Cr)-Dissolved | <0.00050 | | 0.00050 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Cobalt (Co)-Dissolved | <0.00010 | | 0.00010 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Copper (Cu)-Dissolved | 0.00260 | | 0.00020 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Iron (Fe)-Dissolved | <0.010 | | 0.010 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Lead (Pb)-Dissolved | 0.000089 | | 0.000050 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Lithium (Li)-Dissolved | 0.0032 | | 0.0010 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Magnesium (Mg)-Dissolved | 24.2 | | 0.0050 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Manganese (Mn)-Dissolved | <0.00050 | | 0.00050 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Molybdenum (Mo)-Dissolved | 0.00246 | | 0.000050 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Nickel (Ni)-Dissolved | <0.00050 | | 0.00050 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Phosphorus (P)-Dissolved | <0.050 | | 0.050 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Potassium (K)-Dissolved | 3.21 | | 0.050 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Rubidium (Rb)-Dissolved | 0.00300 | | 0.00020 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Selenium (Se)-Dissolved | 0.000138 | | 0.000050 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Silicon (Si)-Dissolved | 1.13 | | 0.050 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Silver (Ag)-Dissolved | <0.000050 | | 0.000050 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Sodium (Na)-Dissolved | 51.3 | | 0.050 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

| Sample Details/Parameters | | Result | Qualifier* | D.L. | Units | Extracted | Analyzed | Batch |
|--------------------------------------|----------------------------------|--------|------------|-----------|----------|-----------|-----------|----------|
| L2622835-1 | BH5 | | | | | | | |
| Sampled By: | D. NAHRGANG on 05-AUG-21 @ 09:55 | | | | | | | |
| Matrix: | WATER | | | | | | | |
| Dissolved Metals | | | | | | | | |
| Strontium (Sr)-Dissolved | 0.0988 | | | 0.0010 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Sulfur (S)-Dissolved | 14.1 | | | 0.50 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Tellurium (Te)-Dissolved | <0.00020 | | | 0.00020 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Thallium (Tl)-Dissolved | 0.000018 | | | 0.000010 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Thorium (Th)-Dissolved | <0.00010 | | | 0.00010 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Tin (Sn)-Dissolved | <0.00010 | | | 0.00010 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Titanium (Ti)-Dissolved | <0.00030 | | | 0.00030 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Tungsten (W)-Dissolved | <0.00010 | | | 0.00010 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Uranium (U)-Dissolved | 0.000379 | | | 0.000010 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Vanadium (V)-Dissolved | <0.00050 | | | 0.00050 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Zinc (Zn)-Dissolved | 0.0282 | | | 0.0010 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Zirconium (Zr)-Dissolved | <0.00020 | | | 0.00020 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Aggregate Organics | | | | | | | | |
| Phenols (4AAP) | 0.0014 | | | 0.0010 | mg/L | | 09-AUG-21 | R5547261 |
| L2622835-2 | BH2 | | | | | | | |
| Sampled By: | D. NAHRGANG on 05-AUG-21 @ 10:40 | | | | | | | |
| Matrix: | WATER | | | | | | | |
| Physical Tests | | | | | | | | |
| Conductivity | 726 | | | 1.0 | umhos/cm | | 05-AUG-21 | R5545211 |
| pH | 8.07 | | | 0.10 | pH units | | 05-AUG-21 | R5545211 |
| Turbidity | 12.5 | | | 0.10 | NTU | 06-AUG-21 | 06-AUG-21 | R5545547 |
| Anions and Nutrients | | | | | | | | |
| Alkalinity, Total (as CaCO3) | 137 | | | 1.0 | mg/L | | 06-AUG-21 | R5545973 |
| Bromide (Br) | 0.19 | | | 0.10 | mg/L | | 08-AUG-21 | R5546535 |
| Chloride (Cl) | 120 | | | 0.50 | mg/L | | 08-AUG-21 | R5546535 |
| Fluoride (F) | 0.170 | | | 0.020 | mg/L | | 08-AUG-21 | R5546535 |
| Nitrate (as N) | 0.104 | | | 0.020 | mg/L | | 08-AUG-21 | R5546535 |
| Nitrite (as N) | <0.010 | | | 0.010 | mg/L | | 08-AUG-21 | R5546535 |
| Orthophosphate-Dissolved (as P) | <0.0030 | | | 0.0030 | mg/L | | 06-AUG-21 | R5545619 |
| Sulfate (SO4) | 44.2 | | | 0.30 | mg/L | | 08-AUG-21 | R5546535 |
| Dissolved Metals | | | | | | | | |
| Dissolved Metals Filtration Location | FIELD | | | | | | 05-AUG-21 | R5545144 |
| Aluminum (Al)-Dissolved | <0.0050 | | | 0.0050 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Antimony (Sb)-Dissolved | <0.00010 | | | 0.00010 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Arsenic (As)-Dissolved | <0.00010 | | | 0.00010 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Barium (Ba)-Dissolved | 0.0575 | | | 0.00010 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Beryllium (Be)-Dissolved | <0.00010 | | | 0.00010 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Bismuth (Bi)-Dissolved | <0.000050 | | | 0.000050 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Boron (B)-Dissolved | 0.030 | | | 0.010 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Cadmium (Cd)-Dissolved | 0.0000766 | | | 0.0000050 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Calcium (Ca)-Dissolved | 43.1 | | | 0.050 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Cesium (Cs)-Dissolved | <0.000010 | | | 0.000010 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

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ALS ENVIRONMENTAL ANALYTICAL REPORT

| Sample Details/Parameters | | Result | Qualifier* | D.L. | Units | Extracted | Analyzed | Batch |
|---------------------------|----------------------------------|--------|------------|----------|-------|-----------|-----------|----------|
| L2622835-2 | BH2 | | | | | | | |
| Sampled By: | D. NAHRGANG on 05-AUG-21 @ 10:40 | | | | | | | |
| Matrix: | WATER | | | | | | | |
| Dissolved Metals | | | | | | | | |
| Chromium (Cr)-Dissolved | <0.00050 | | | 0.00050 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Cobalt (Co)-Dissolved | <0.00010 | | | 0.00010 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Copper (Cu)-Dissolved | 0.00131 | | | 0.00020 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Iron (Fe)-Dissolved | <0.010 | | | 0.010 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Lead (Pb)-Dissolved | 0.000166 | | | 0.000050 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Lithium (Li)-Dissolved | 0.0027 | | | 0.0010 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Magnesium (Mg)-Dissolved | 29.0 | | | 0.0050 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Manganese (Mn)-Dissolved | <0.00050 | | | 0.00050 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Molybdenum (Mo)-Dissolved | 0.00218 | | | 0.000050 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Nickel (Ni)-Dissolved | <0.00050 | | | 0.00050 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Phosphorus (P)-Dissolved | <0.050 | | | 0.050 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Potassium (K)-Dissolved | 3.12 | | | 0.050 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Rubidium (Rb)-Dissolved | 0.00313 | | | 0.00020 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Selenium (Se)-Dissolved | 0.000149 | | | 0.000050 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Silicon (Si)-Dissolved | 1.08 | | | 0.050 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Silver (Ag)-Dissolved | <0.000050 | | | 0.000050 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Sodium (Na)-Dissolved | 61.9 | | | 0.050 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Strontium (Sr)-Dissolved | 0.102 | | | 0.0010 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Sulfur (S)-Dissolved | 17.2 | | | 0.50 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Tellurium (Te)-Dissolved | <0.00020 | | | 0.00020 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Thallium (Tl)-Dissolved | 0.000016 | | | 0.000010 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Thorium (Th)-Dissolved | <0.00010 | | | 0.00010 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Tin (Sn)-Dissolved | <0.00010 | | | 0.00010 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Titanium (Ti)-Dissolved | <0.00030 | | | 0.00030 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Tungsten (W)-Dissolved | <0.00010 | | | 0.00010 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Uranium (U)-Dissolved | 0.000501 | | | 0.000010 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Vanadium (V)-Dissolved | <0.00050 | | | 0.00050 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Zinc (Zn)-Dissolved | 0.0551 | | | 0.0010 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Zirconium (Zr)-Dissolved | <0.00020 | | | 0.00020 | mg/L | 05-AUG-21 | 06-AUG-21 | R5545943 |
| Aggregate Organics | | | | | | | | |
| Phenols (4AAP) | <0.0010 | | | 0.0010 | mg/L | | 09-AUG-21 | R5547261 |
| | | | | | | | | |

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

A0378828 29-000067

Reference Information

QC Samples with Qualifiers & Comments:

| QC Type Description | Parameter | Qualifier | Applies to Sample Number(s) |
|---------------------|---------------------------|-----------|-----------------------------|
| Matrix Spike | Chloride (Cl) | MS-B | L2622835-1, -2 |
| Matrix Spike | Barium (Ba)-Dissolved | MS-B | L2622835-1, -2 |
| Matrix Spike | Boron (B)-Dissolved | MS-B | L2622835-1, -2 |
| Matrix Spike | Calcium (Ca)-Dissolved | MS-B | L2622835-1, -2 |
| Matrix Spike | Lithium (Li)-Dissolved | MS-B | L2622835-1, -2 |
| Matrix Spike | Magnesium (Mg)-Dissolved | MS-B | L2622835-1, -2 |
| Matrix Spike | Manganese (Mn)-Dissolved | MS-B | L2622835-1, -2 |
| Matrix Spike | Molybdenum (Mo)-Dissolved | MS-B | L2622835-1, -2 |
| Matrix Spike | Potassium (K)-Dissolved | MS-B | L2622835-1, -2 |
| Matrix Spike | Rubidium (Rb)-Dissolved | MS-B | L2622835-1, -2 |
| Matrix Spike | Sodium (Na)-Dissolved | MS-B | L2622835-1, -2 |
| Matrix Spike | Strontium (Sr)-Dissolved | MS-B | L2622835-1, -2 |
| Matrix Spike | Sulfur (S)-Dissolved | MS-B | L2622835-1, -2 |
| Matrix Spike | Tungsten (W)-Dissolved | MS-B | L2622835-1, -2 |
| Matrix Spike | Uranium (U)-Dissolved | MS-B | L2622835-1, -2 |

Sample Parameter Qualifier key listed:

| Qualifier | Description |
|-----------|--|
| MS-B | Matrix Spike recovery could not be accurately calculated due to high analyte background in sample. |

Test Method References:

| ALS Test Code | Matrix | Test Description | Method Reference** |
|---------------|--------|------------------|--------------------|
|---------------|--------|------------------|--------------------|

| | | | |
|--------|-------|------------------------------|------------|
| ALK-WT | Water | Alkalinity, Total (as CaCO3) | APHA 2320B |
|--------|-------|------------------------------|------------|

This analysis is carried out using procedures adapted from APHA Method 2320 "Alkalinity". Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint.

| | | | |
|------------|-------|------------------------|-----------------|
| BR-IC-N-WT | Water | Bromide in Water by IC | EPA 300.1 (mod) |
|------------|-------|------------------------|-----------------|

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

| | | | |
|------------|-------|----------------|-----------------|
| CL-IC-N-WT | Water | Chloride by IC | EPA 300.1 (mod) |
|------------|-------|----------------|-----------------|

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).

| | | | |
|--------------|-------|---|-----------|
| EC-SCREEN-WT | Water | Conductivity Screen (Internal Use Only) | APHA 2510 |
|--------------|-------|---|-----------|

Qualitative analysis of conductivity where required during preparation of other tests - e.g. TDS, metals, etc.

| | | | |
|-------|-------|--------------|-------------|
| EC-WT | Water | Conductivity | APHA 2510 B |
|-------|-------|--------------|-------------|

Water samples can be measured directly by immersing the conductivity cell into the sample.

| | | | |
|-----------|-------|-------------------------|-----------------|
| F-IC-N-WT | Water | Fluoride in Water by IC | EPA 300.1 (mod) |
|-----------|-------|-------------------------|-----------------|

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

| | | | |
|---------------|-------|--|------------------------|
| MET-D-CCMS-WT | Water | Dissolved Metals in Water by CRC ICPMS | APHA 3030B/6020A (mod) |
|---------------|-------|--|------------------------|

Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by CRC ICPMS.

Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).

| | | | |
|-----------|-------|------------------------|-----------------|
| NO2-IC-WT | Water | Nitrite in Water by IC | EPA 300.1 (mod) |
|-----------|-------|------------------------|-----------------|

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

| | | | |
|-----------|-------|------------------------|-----------------|
| NO3-IC-WT | Water | Nitrate in Water by IC | EPA 300.1 (mod) |
|-----------|-------|------------------------|-----------------|

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L2622835 CONTD....

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Reference Information

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

| | | | |
|-------|-------|----|-----------------------|
| PH-WT | Water | pH | APHA 4500 H-Electrode |
|-------|-------|----|-----------------------|

Water samples are analyzed directly by a calibrated pH meter.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011). Holdtime for samples under this regulation is 28 days

| | | | |
|-----------------|-------|---------------|----------|
| PHENOLS-4AAP-WT | Water | Phenol (4AAP) | EPA 9066 |
|-----------------|-------|---------------|----------|

An automated method is used to distill the sample. The distillate is then buffered to pH 9.4 which reacts with 4AAP and potassium ferricyanide to form a red complex which is measured colorimetrically.

| | | | |
|---------------|-------|---|------------------------|
| PO4-DO-COL-WT | Water | Diss. Orthophosphate in Water by Colour | APHA 4500-P PHOSPHORUS |
|---------------|-------|---|------------------------|

This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Dissolved Orthophosphate is determined colourimetrically on a sample that has been lab or field filtered through a 0.45 micron membrane filter.

| | | | |
|-------------|-------|------------------------|-----------------|
| SO4-IC-N-WT | Water | Sulfate in Water by IC | EPA 300.1 (mod) |
|-------------|-------|------------------------|-----------------|

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

| | | | |
|--------------|-------|-----------|-------------|
| TURBIDITY-WT | Water | Turbidity | APHA 2130 B |
|--------------|-------|-----------|-------------|

Sample result is based on a comparison of the intensity of the light scattered by the sample under defined conditions with the intensity of light scattered by a standard reference suspension under the same conditions. Sample readings are obtained from a Nephelometer.

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

| Laboratory Definition Code | Laboratory Location |
|----------------------------|---|
| WT | ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA |

Chain of Custody Numbers:

20-897480

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg ww - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid weight of sample

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



GROUNDWATER SCIENCE CORP. (Waterloo)
ATTN: ANDREW PENTNEY
465 Kingscourt Drive
UNIT 2
WATERLOO ON N2K 3R5

Date Received: 19-NOV-21
Report Date: 24-NOV-21 14:01 (MT)
Version: FINAL

Client Phone: 519-746-6916

Certificate of Analysis

Lab Work Order #: L2664558
Project P.O. #: NOT SUBMITTED
Job Reference: MCMILLAN PIT
C of C Numbers: 20-953577
Legal Site Desc:

Costas Farassoglou
Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

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MCMILLAN PIT

L2664558 CONTD....

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Version: FINAL

ALS ENVIRONMENTAL ANALYTICAL REPORT

| Sample Details/Parameters | Result | Qualifier* | D.L. | Units | Extracted | Analyzed | Batch |
|---|-----------|------------|-----------|----------|-----------|-----------|----------|
| L2664558-1 BH5 Sampled By: D. NAHRGANG on 19-NOV-21 @ 11:45 Matrix: WATER | | | | | | | |
| Physical Tests | | | | | | | |
| Conductivity | 715 | | 1.0 | umhos/cm | | 20-NOV-21 | R5656556 |
| pH | 8.38 | | 0.10 | pH units | | 20-NOV-21 | R5656556 |
| Turbidity | 2.64 | | 0.10 | NTU | 20-NOV-21 | 20-NOV-21 | R5656338 |
| Anions and Nutrients | | | | | | | |
| Alkalinity, Total (as CaCO3) | 129 | | 1.0 | mg/L | | 20-NOV-21 | R5656556 |
| Bromide (Br) | 0.20 | | 0.10 | mg/L | | 23-NOV-21 | R5656492 |
| Chloride (Cl) | 126 | | 0.50 | mg/L | | 23-NOV-21 | R5656492 |
| Fluoride (F) | 0.175 | | 0.020 | mg/L | | 23-NOV-21 | R5656492 |
| Nitrate (as N) | 0.046 | | 0.020 | mg/L | | 23-NOV-21 | R5656492 |
| Nitrite (as N) | <0.010 | | 0.010 | mg/L | | 23-NOV-21 | R5656492 |
| Orthophosphate-Dissolved (as P) | <0.0030 | | 0.0030 | mg/L | | 22-NOV-21 | R5655366 |
| Sulfate (SO4) | 45.1 | | 0.30 | mg/L | | 23-NOV-21 | R5656492 |
| Dissolved Metals | | | | | | | |
| Dissolved Metals Filtration Location | FIELD | | | | | 22-NOV-21 | R5655282 |
| Aluminum (Al)-Dissolved | <0.0050 | | 0.0050 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Antimony (Sb)-Dissolved | <0.00010 | | 0.00010 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Arsenic (As)-Dissolved | <0.00010 | | 0.00010 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Barium (Ba)-Dissolved | 0.0334 | | 0.00010 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Beryllium (Be)-Dissolved | <0.00010 | | 0.00010 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Bismuth (Bi)-Dissolved | <0.000050 | | 0.000050 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Boron (B)-Dissolved | 0.015 | | 0.010 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Cadmium (Cd)-Dissolved | 0.0000847 | | 0.0000050 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Calcium (Ca)-Dissolved | 36.5 | | 0.050 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Cesium (Cs)-Dissolved | <0.000010 | | 0.000010 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Chromium (Cr)-Dissolved | <0.00050 | | 0.00050 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Cobalt (Co)-Dissolved | <0.00010 | | 0.00010 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Copper (Cu)-Dissolved | 0.00089 | | 0.00020 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Iron (Fe)-Dissolved | <0.010 | | 0.010 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Lead (Pb)-Dissolved | 0.000062 | | 0.000050 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Lithium (Li)-Dissolved | 0.0017 | | 0.0010 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Magnesium (Mg)-Dissolved | 26.7 | | 0.0050 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Manganese (Mn)-Dissolved | <0.00050 | | 0.00050 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Molybdenum (Mo)-Dissolved | 0.00221 | | 0.000050 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Nickel (Ni)-Dissolved | <0.00050 | | 0.00050 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Phosphorus (P)-Dissolved | <0.050 | | 0.050 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Potassium (K)-Dissolved | 1.92 | | 0.050 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Rubidium (Rb)-Dissolved | 0.00190 | | 0.00020 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Selenium (Se)-Dissolved | 0.000118 | | 0.000050 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Silicon (Si)-Dissolved | 0.981 | | 0.050 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Silver (Ag)-Dissolved | <0.000050 | | 0.000050 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Sodium (Na)-Dissolved | 53.8 | | 0.050 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

| Sample Details/Parameters | | Result | Qualifier* | D.L. | Units | Extracted | Analyzed | Batch |
|--------------------------------------|----------------------------------|-----------|------------|-----------|----------|-----------|-----------|----------|
| L2664558-1 | BH5 | | | | | | | |
| Sampled By: | D. NAHRGANG on 19-NOV-21 @ 11:45 | | | | | | | |
| Matrix: | WATER | | | | | | | |
| Dissolved Metals | | | | | | | | |
| Strontium (Sr)-Dissolved | | 0.0909 | | 0.0010 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Sulfur (S)-Dissolved | | 14.4 | | 0.50 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Tellurium (Te)-Dissolved | | <0.00020 | | 0.00020 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Thallium (Tl)-Dissolved | | 0.000012 | | 0.000010 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Thorium (Th)-Dissolved | | <0.00010 | | 0.00010 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Tin (Sn)-Dissolved | | <0.00010 | | 0.00010 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Titanium (Ti)-Dissolved | | <0.00030 | | 0.00030 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Tungsten (W)-Dissolved | | <0.00010 | | 0.00010 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Uranium (U)-Dissolved | | 0.000415 | | 0.000010 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Vanadium (V)-Dissolved | | <0.00050 | | 0.00050 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Zinc (Zn)-Dissolved | | 0.0260 | | 0.0010 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Zirconium (Zr)-Dissolved | | <0.00020 | | 0.00020 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Aggregate Organics | | | | | | | | |
| Phenols (4AAP) | | <0.0010 | | 0.0010 | mg/L | | 23-NOV-21 | R5656081 |
| L2664558-2 | BH2 | | | | | | | |
| Sampled By: | D. NAHRGANG on 19-NOV-21 @ 12:20 | | | | | | | |
| Matrix: | WATER | | | | | | | |
| Physical Tests | | | | | | | | |
| Conductivity | | 745 | | 1.0 | umhos/cm | | 20-NOV-21 | R5656574 |
| pH | | 8.36 | | 0.10 | pH units | | 20-NOV-21 | R5656574 |
| Turbidity | | 13.7 | | 0.10 | NTU | 20-NOV-21 | 20-NOV-21 | R5656338 |
| Anions and Nutrients | | | | | | | | |
| Alkalinity, Total (as CaCO3) | | 145 | | 1.0 | mg/L | | 20-NOV-21 | R5656574 |
| Bromide (Br) | | 0.20 | | 0.10 | mg/L | | 23-NOV-21 | R5656492 |
| Chloride (Cl) | | 124 | | 0.50 | mg/L | | 23-NOV-21 | R5656492 |
| Fluoride (F) | | 0.191 | | 0.020 | mg/L | | 23-NOV-21 | R5656492 |
| Nitrate (as N) | | 0.091 | | 0.020 | mg/L | | 23-NOV-21 | R5656492 |
| Nitrite (as N) | | <0.010 | | 0.010 | mg/L | | 23-NOV-21 | R5656492 |
| Orthophosphate-Dissolved (as P) | | <0.0030 | | 0.0030 | mg/L | | 22-NOV-21 | R5655366 |
| Sulfate (SO4) | | 46.1 | | 0.30 | mg/L | | 23-NOV-21 | R5656492 |
| Dissolved Metals | | | | | | | | |
| Dissolved Metals Filtration Location | | FIELD | | | | | 22-NOV-21 | R5655282 |
| Aluminum (Al)-Dissolved | | <0.0050 | | 0.0050 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Antimony (Sb)-Dissolved | | <0.00010 | | 0.00010 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Arsenic (As)-Dissolved | | <0.00010 | | 0.00010 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Barium (Ba)-Dissolved | | 0.0631 | | 0.00010 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Beryllium (Be)-Dissolved | | <0.00010 | | 0.00010 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Bismuth (Bi)-Dissolved | | <0.000050 | | 0.000050 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Boron (B)-Dissolved | | 0.025 | | 0.010 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Cadmium (Cd)-Dissolved | | 0.0000925 | | 0.0000050 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Calcium (Ca)-Dissolved | | 41.0 | | 0.050 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Cesium (Cs)-Dissolved | | 0.000013 | | 0.000010 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

MCMILLAN PIT

L2664558 CONTD....

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Version: FINAL

ALS ENVIRONMENTAL ANALYTICAL REPORT

| Sample Details/Parameters | Result | Qualifier* | D.L. | Units | Extracted | Analyzed | Batch |
|---|-----------|------------|----------|-------|-----------|-----------|----------|
| L2664558-2 BH2 Sampled By: D. NAHRGANG on 19-NOV-21 @ 12:20 Matrix: WATER | | | | | | | |
| Dissolved Metals | | | | | | | |
| Chromium (Cr)-Dissolved | <0.00050 | | 0.00050 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Cobalt (Co)-Dissolved | <0.00010 | | 0.00010 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Copper (Cu)-Dissolved | 0.00075 | | 0.00020 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Iron (Fe)-Dissolved | <0.010 | | 0.010 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Lead (Pb)-Dissolved | 0.000204 | | 0.000050 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Lithium (Li)-Dissolved | 0.0024 | | 0.0010 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Magnesium (Mg)-Dissolved | 26.7 | | 0.0050 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Manganese (Mn)-Dissolved | <0.00050 | | 0.00050 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Molybdenum (Mo)-Dissolved | 0.00251 | | 0.000050 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Nickel (Ni)-Dissolved | <0.00050 | | 0.00050 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Phosphorus (P)-Dissolved | <0.050 | | 0.050 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Potassium (K)-Dissolved | 2.75 | | 0.050 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Rubidium (Rb)-Dissolved | 0.00384 | | 0.00020 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Selenium (Se)-Dissolved | 0.000104 | | 0.000050 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Silicon (Si)-Dissolved | 1.58 | | 0.050 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Silver (Ag)-Dissolved | <0.000050 | | 0.000050 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Sodium (Na)-Dissolved | 55.8 | | 0.050 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Strontium (Sr)-Dissolved | 0.103 | | 0.0010 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Sulfur (S)-Dissolved | 15.3 | | 0.50 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Tellurium (Te)-Dissolved | <0.00020 | | 0.00020 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Thallium (Tl)-Dissolved | 0.000020 | | 0.000010 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Thorium (Th)-Dissolved | <0.00010 | | 0.00010 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Tin (Sn)-Dissolved | <0.00010 | | 0.00010 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Titanium (Ti)-Dissolved | <0.00030 | | 0.00030 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Tungsten (W)-Dissolved | <0.00010 | | 0.00010 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Uranium (U)-Dissolved | 0.000398 | | 0.000010 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Vanadium (V)-Dissolved | <0.00050 | | 0.00050 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Zinc (Zn)-Dissolved | 0.0559 | | 0.0010 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Zirconium (Zr)-Dissolved | <0.00020 | | 0.00020 | mg/L | 22-NOV-21 | 22-NOV-21 | R5655646 |
| Aggregate Organics | | | | | | | |
| Phenols (4AAP) | <0.0010 | | 0.0010 | mg/L | | 23-NOV-21 | R5656081 |
| | | | | | | | |

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

QC Samples with Qualifiers & Comments:

| QC Type Description | Parameter | Qualifier | Applies to Sample Number(s) |
|---------------------|------------------------------|-----------|-----------------------------|
| Method Blank | Alkalinity, Total (as CaCO3) | B | L2664558-2 |
| Matrix Spike | Barium (Ba)-Dissolved | MS-B | L2664558-1, -2 |
| Matrix Spike | Calcium (Ca)-Dissolved | MS-B | L2664558-1, -2 |
| Matrix Spike | Magnesium (Mg)-Dissolved | MS-B | L2664558-1, -2 |
| Matrix Spike | Potassium (K)-Dissolved | MS-B | L2664558-1, -2 |
| Matrix Spike | Silicon (Si)-Dissolved | MS-B | L2664558-1, -2 |
| Matrix Spike | Sodium (Na)-Dissolved | MS-B | L2664558-1, -2 |
| Matrix Spike | Strontium (Sr)-Dissolved | MS-B | L2664558-1, -2 |
| Matrix Spike | Sulfur (S)-Dissolved | MS-B | L2664558-1, -2 |
| Matrix Spike | Uranium (U)-Dissolved | MS-B | L2664558-1, -2 |
| Matrix Spike | Nitrite (as N) | MS-B | L2664558-1, -2 |

Sample Parameter Qualifier key listed:

| Qualifier | Description |
|-----------|--|
| B | Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable. |
| MS-B | Matrix Spike recovery could not be accurately calculated due to high analyte background in sample. |

Test Method References:

| ALS Test Code | Matrix | Test Description | Method Reference** |
|---------------|--------|------------------------------|--------------------|
| ALK-WT | Water | Alkalinity, Total (as CaCO3) | APHA 2320B |

This analysis is carried out using procedures adapted from APHA Method 2320 "Alkalinity". Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint.

| | | | |
|--|-------|------------------------|-----------------|
| BR-IC-N-WT | Water | Bromide in Water by IC | EPA 300.1 (mod) |
| Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. | | | |

| | | | |
|--|-------|----------------|-----------------|
| CL-IC-N-WT | Water | Chloride by IC | EPA 300.1 (mod) |
| Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. | | | |

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).

| | | | |
|--------------|-------|---|-----------|
| EC-SCREEN-WT | Water | Conductivity Screen (Internal Use Only) | APHA 2510 |
|--------------|-------|---|-----------|

Qualitative analysis of conductivity where required during preparation of other tests - e.g. TDS, metals, etc.

| | | | |
|--|-------|--------------|-------------|
| EC-WT | Water | Conductivity | APHA 2510 B |
| Water samples can be measured directly by immersing the conductivity cell into the sample. | | | |

| | | | |
|--|-------|-------------------------|-----------------|
| F-IC-N-WT | Water | Fluoride in Water by IC | EPA 300.1 (mod) |
| Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. | | | |

| | | | |
|---------------|-------|--|------------------------|
| MET-D-CCMS-WT | Water | Dissolved Metals in Water by CRC ICPMS | APHA 3030B/6020A (mod) |
|---------------|-------|--|------------------------|

Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by CRC ICPMS.

Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).

| | | | |
|--|-------|------------------------|-----------------|
| NO2-IC-WT | Water | Nitrite in Water by IC | EPA 300.1 (mod) |
| Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. | | | |

| | | | |
|--|-------|------------------------|-----------------|
| NO3-IC-WT | Water | Nitrate in Water by IC | EPA 300.1 (mod) |
| Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. | | | |

| | | | |
|-------|-------|----|-----------------------|
| PH-WT | Water | pH | APHA 4500 H-Electrode |
|-------|-------|----|-----------------------|

Reference Information

Water samples are analyzed directly by a calibrated pH meter.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011). Holdtime for samples under this regulation is 28 days

PHENOLS-4AAP-WT Water Phenol (4AAP) EPA 9066

An automated method is used to distill the sample. The distillate is then buffered to pH 9.4 which reacts with 4AAP and potassium ferricyanide to form a red complex which is measured colorimetrically.

PO4-DO-COL-WT Water Diss. Orthophosphate in Water by Colour APHA 4500-P PHOSPHORUS

This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Dissolved Orthophosphate is determined colourimetrically on a sample that has been lab or field filtered through a 0.45 micron membrane filter.

SO4-IC-N-WT Water Sulfate in Water by IC EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

TURBIDITY-WT Water Turbidity APHA 2130 B

Sample result is based on a comparison of the intensity of the light scattered by the sample under defined conditions with the intensity of light scattered by a standard reference suspension under the same conditions. Sample readings are obtained from a Nephelometer.

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

| Laboratory Definition Code | Laboratory Location |
|----------------------------|---|
| WT | ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA |

Chain of Custody Numbers:

20-953577

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg ww - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid weight of sample
mg/L - unit of concentration based on volume, parts per million.
< - Less than.
D.L. - The reporting limit.
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Harden Environmental Services Ltd.
4622 Nassagaweya-Puslinch Townline
Moffat, Ontario, L0P 1J0
Phone: (519) 826-0099 Fax: (519) 826-9099

Groundwater Studies
Geochemistry
Phase I / II
Regional Flow Studies
Contaminant Investigations
OMB Hearings
Water Quality Sampling
Monitoring
Groundwater Protection
Studies
Groundwater Modelling
Groundwater Mapping
Permits to Take Water
Environmental Compliance
Approvals

Our File: 2307

January 26, 2023

Township of Puslinch
7404 Wellington Road 34
Guelph, ON, N1H 6H9

Attention: Glenn Schwendinger
CAO

Dear Glenn;

Re: Resolution 2022-168

We are pleased to respond to Council Resolution 2022-168. We have reviewed the delegation support documentation provided by Mr. Madden and the 2020 and 2021 monitoring reports for the Lafarge McMillan Pit. We have been involved in aggregate extraction review for the Township since 1994 however, this is the first opportunity for us to review annual monitoring reports for this site. To assist with this review, I have attached a location map and two hydrographs.

The historical record of water levels obtained at the Lafarge pit do not suggest any trend to a lower level because of aggregate extractive activities. We have been reviewing annual reports for the Mill Creek Aggregates Site, the Lanci, Puslinch and Neubauer Pits located west of the Lafarge site in Concession 2 and come to a similar conclusion. We have attached the water level history for BH3 located at the south end of Concession II (see attached map) within the Mill Creek Aggregates site adjacent to the Lafarge site. The water level history (hydrograph) starting in 1986 does not indicate an overall decline in water levels. There are seasonal changes and highs and lows over the years, however, there is no year over year decline in water levels. A similar pattern of water level history is also observed in the Township of Puslinch groundwater monitoring network.

The hydraulic conductivity of the aquifer and natural hydraulic gradient are the main factors that determine the area of influence of mining below the water table. The general groundwater flow direction in the vicinity of the aggregate extractive sites in Concession II is westward, toward Mill Creek. Even if there was a one metre water level change from east to west across the pit originally,

the maximum water level change would be in the order of 0.5 metres, at the edge of the pit pond. The water level change would decrease exponentially with distance away from the pit. Water levels would be expected to decrease in the areas east of the pit and increase west of the pits. As reviewers of aggregate extractive activities for the Township since 1994, we can say that there is no indication of water level drawdown in the areas south and west of the aggregate sites in Concession II. Conversely, we have been concerned with the southwesterly movement of additional water from the Mill Creek watershed toward the Fletcher Creek watershed. The magnitude of water level change observed by the delegate cannot be explained by the aggregate activities.

As an example of known hydrological impacts in this area, extraction occurring within the Mill Creek Aggregates site has resulted in capturing water from Mill Creek along their northern property boundary and releasing it back along the western property boundary. This effect was anticipated and approved by the Ontario Municipal Board. Nonetheless, the changes are being monitored and full reports are prepared by engineers and geoscientists for the Township's review.

The wetlands and ponds mentioned in the delegation are found in Concession I. These are on the Galt Moraine a local topographical high point. This means that hydrological support for the wetlands and ponds are derived locally and is not part of a larger supportive flow system. This hydrological sensitivity of the moraines is one of the reasons why the County initiated its County-wide Paris and Galt Moraine policies.

To illustrate this sensitivity, consider the precipitation and snow melt on the Galt Moraine as being similar to adding pancake batter to a frying pan. At first, the pancake batter mounds up and then, because it is runny (low viscosity), flows out towards the edges of the pan. Similarly, precipitation and snowmelt that infiltrates and mounds within the sediments of the Galt Moraine runs underground toward Mill Creek and Fletcher Creek. If you stop pouring in the batter, the greatest change in batter thickness occurs in the middle of the pan as it all runs away. Similarly, during times of low precipitation or snow melt, groundwater continues to flow away from the higher elevations of the Galt Moraine. This gravity induced flow away from the moraine, slows down but does not stop during droughty periods. Thus, the effects of low precipitation are most significantly felt on the higher elevations of the moraine because their support system (rainfall and snowmelt) have decreased. Whereas ponds, wetlands and streams on the flanks of the moraine are buffered by groundwater continually flowing from higher elevations. This is why protection of the amount of precipitation and snowmelt that is naturally captured on the Galt and Paris Moraines is instrumental to the health of the cold-water fisheries and riparian wetlands.

To exemplify the effects of recent precipitation patterns, I have attached another water level graph called a hydrograph to share with Council. This graph shows a blue line representing the elevation of water levels of a pond on the Waterloo Moraine. The precipitation patterns are "normal" in springtime of 2018 and 2019. However, in the winters of 2020 and 2021 there was very little water available to fill the pond to normal springtime levels. This resulted in significant declines in water levels throughout both summers leading to very low water levels in the pond.

Despite 2022 having some torrential downpours that assisted in filling ponds in the spring of 2022, drought conditions resulted in even lower water levels by the end of the summer of 2022.

It is my opinion that a similar condition occurred on the Galt and Paris Moraines. For these reasons, it is my opinion that with respect to the delegate's pond and wetland, the extractive activity occurring in Concession II is not the cause of the observed low water levels.

The delegate mentioned Roszell Pit and Council is aware that we have been carefully reviewing conditions at the upgradient side of the Roszell Pit and have expressed concerns about wetland and private pond health as a result of lower water levels. At that site, lower water levels were predicted to occur and were to be mitigated by a hydraulic barrier. The lower precipitation and lower than normal recharge conditions make it difficult to separate natural from anthropogenic effects.

We are also monitoring the conditions at Dufferin Pit No. 2 and are continuing dialogue with the operator and reviewing conditions in the wetland immediately adjacent to the pit.

We encourage Council to carefully review projects that result in the reduction of groundwater recharge on the Paris and Galt moraines including minor infilling of depressions that presently capture snowmelt and allow it to slowly infiltrate.

Harden Environmental Services Ltd.

A handwritten signature in black ink, appearing to be 'S. Denhoed', followed by a horizontal line.

Stan Denhoed, P.Eng., M.Sc.
Harden Environmental Services Ltd.



10/2017
1985 2022



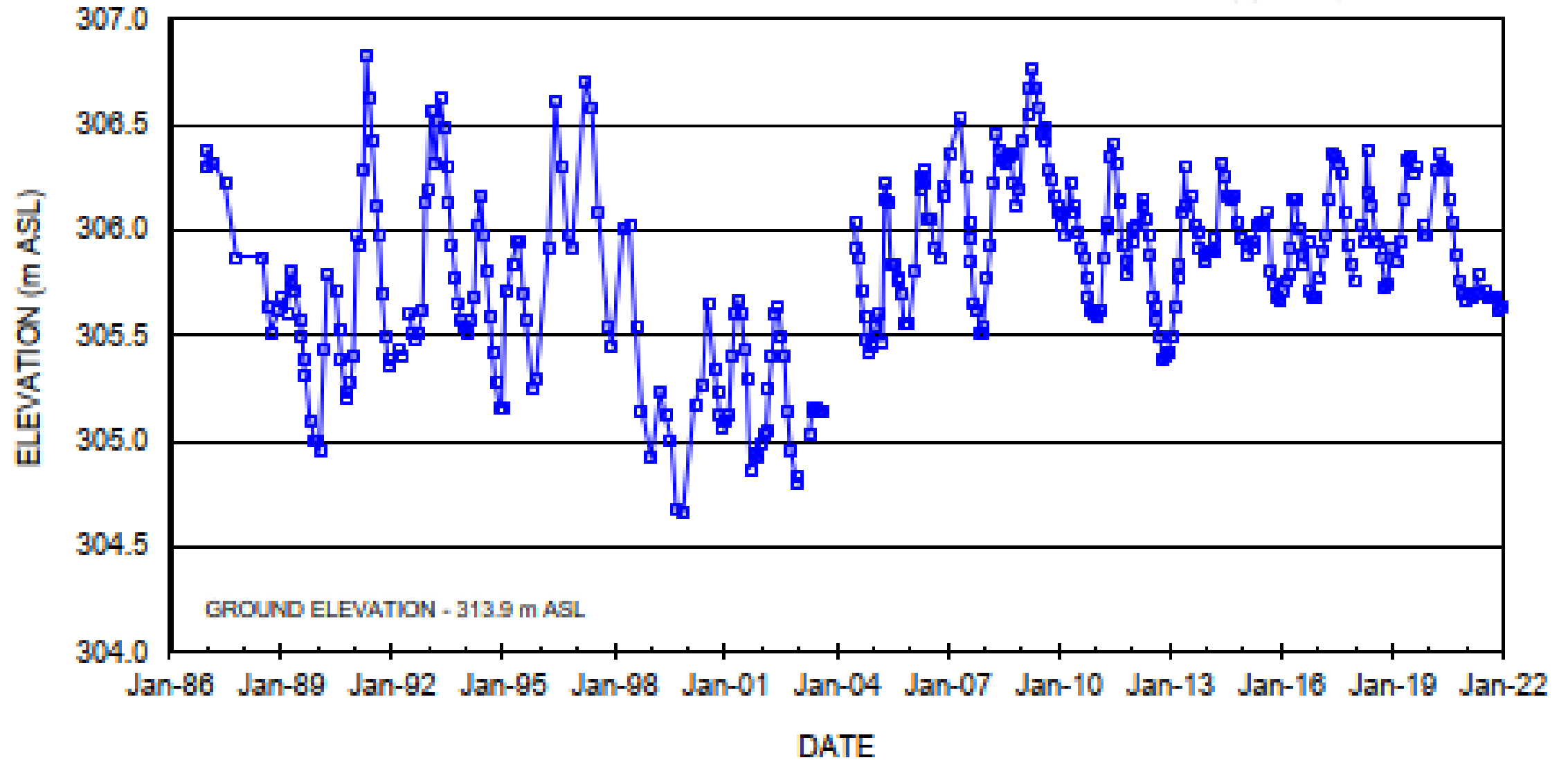
Image © 2023 Maxar Technologies

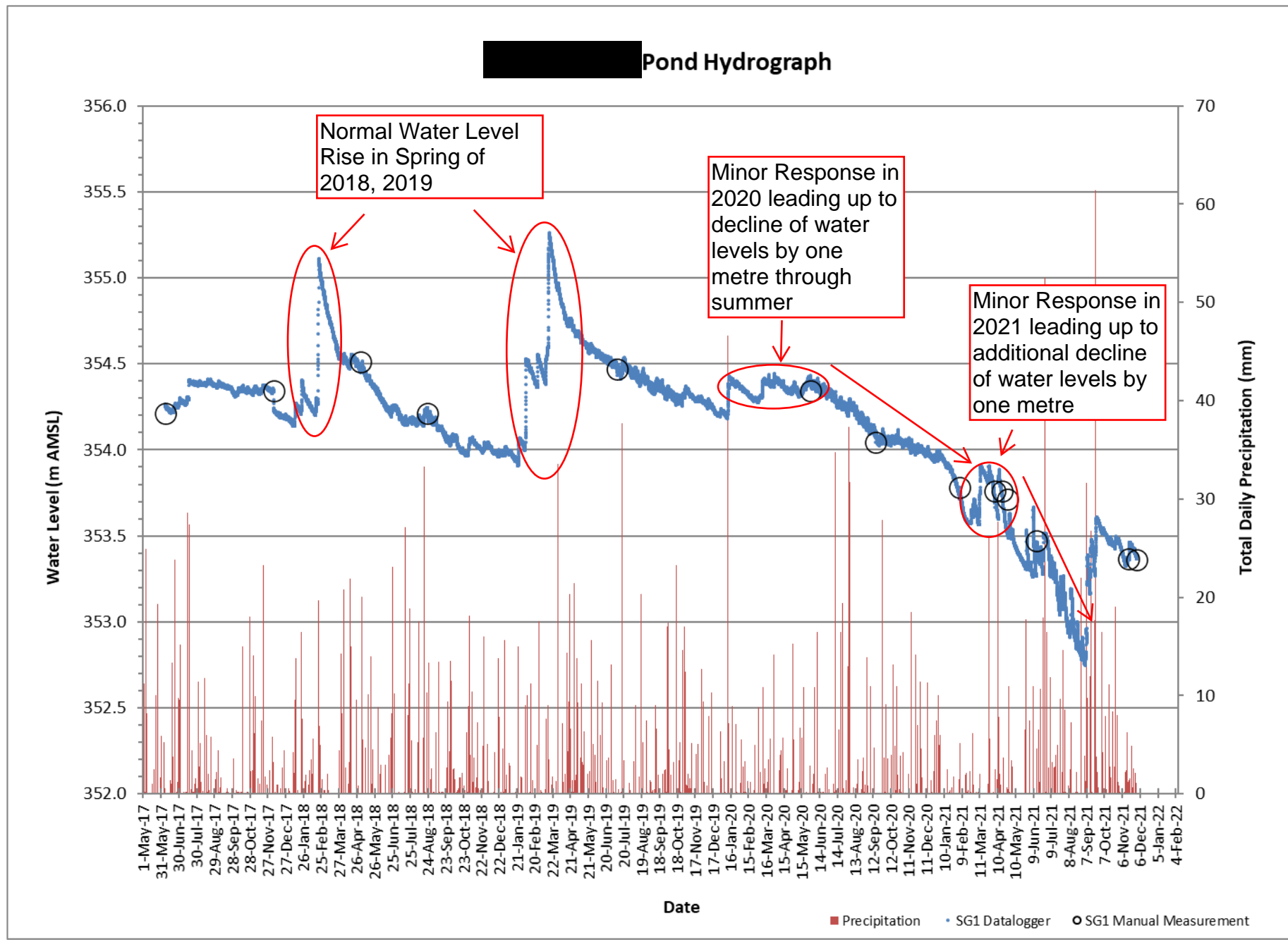
Google Earth

Images Date: 9/25/2017 17 T 567072.50 m E 4800704.02 m N elev: 314 m eye alt: 5.40 km

GROUNDWATER HYDROGRAPH BOREHOLE 3

FIGURE B-6





Harden
Environmental
Services Ltd.

Project No: 1728

Date: Dec 2021

Drawn By: AR

Hydrogeological Assessment

Figure 15: [REDACTED]

THE CORPORATION OF THE TOWNSHIP OF PUSLINCH

BY-LAW NO. 014-2023

Being a by-law to appoint a Heritage Advisory Committee which repeals by-law 2023-007.

WHEREAS Section 11 (2) of the *Municipal Act, S.O. 2001, c. 25*, authorizes a municipality to pass by-laws respecting the governance structure of the municipality and its local boards;

AND WHEREAS Section 28 of the *Ontario Heritage Act, R.S.O. 1990* provides that the council of a municipality may by by-law establish a heritage committee to advise and assist the Council on all matters relating to Parts IV and V of the *Ontario Heritage Act, R.S.O. 1990*;

AND WHEREAS the Council of the Corporation of the Township of Puslinch deems it advisable to establish such a committee and provide for the appointment of members thereto;

NOW THEREFORE the Council of The Corporation of the Township of Puslinch HEREBY ENACTS AS FOLLOWS:

1. That the following persons are hereby appointed to the Heritage Advisory Committee for the term being March 1, 2023 to January 18, 2027 or until such time as a successor has been appointed:
 - i. Andy Day;
 - ii. Chris Saunders;
 - iii. Lily Klammer-Tsuji;
 - iv. Kristine O'Brien;
 - v. Josh Heller; and
 - vi. Councillor Hurst.
2. That By-law 2023-007 is hereby repealed and replaced by this By-law as of the date and time of this By-law coming into effect.

READ THREE TIMES AND FINALLY PASSED IN OPEN COUNCIL THIS 1st DAY OF March 2023.

James Seeley, Mayor

Courtenay Hoytfox, Clerk



COUNTY OF WELLINGTON

KIM COURTS
DEPUTY CLERK
T 519.837.2600 x 2930
F 519.837.1909
E kimc@wellington.ca

74 WOOLWICH STREET
GUELPH, ONTARIO
N1H 3T9

January 27, 2023

Wellington County
Member Municipality Clerks

Amanda Knight, Township of Guelph/Eramosa
Lisa Campion, Town of Erin
Kerri O'Kane, Township of Centre Wellington
Larry Wheeler, Township of Mapleton
Annileene McRobb, Town of Minto
Karren Wallace, Township of Wellington
Courtenay Hoytfox, Township of Puslinch

aknight@get.on.ca
Lisa.campion@erin.ca
kokane@centrewellington.ca
LWheeler@mapleton.ca
annilene@town.minto.on.ca
kwallace@wellington-north.com
choytfox@puslinch.ca

Good afternoon,

At its meeting held January 26, 2023 Wellington County Council approved the following recommendation from the Planning Committee:

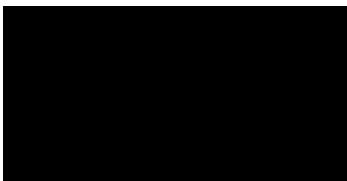
That the County Official Plan Review Report – Progress Report 8 be received for information; and

That the County Clerk forward the report to member municipalities.

Enclosed is the County Official Plan Review – Progress Report 8.

Should you have any questions, please contact Sarah Wilhelm, Manager of Policy Planning at sarahw@wellington.ca.

Sincerely,



Kim Courts
Deputy Clerk



COUNTY OF WELLINGTON

COMMITTEE REPORT

To: Chair and Members of the Planning Committee
From: Sarah Wilhelm, Manager of Policy Planning
Date: Thursday, January 12, 2023
Subject: County Official Plan Review – Progress Report #8



PLANWELL

1.0 Purpose

This progress report for the County Official Plan Review carries forward information from the last progress report in October 2022 (PD2022-23) for reference and also covers the period from October to December, 2022.

2.0 Key Updates

| June to September 2022 | October to December 2022 |
|--|--|
| <ul style="list-style-type: none">County Growth Structure Official Plan Amendment (OPA 119) was submitted to the Ministry of Municipal Affairs and Housing and deemed complete June 9, 2022.The 120-day decision deadline would have been October 7, 2022 but has been extended beyond that date by the Province. | <ul style="list-style-type: none">The Ministry of Municipal Affairs and Housing (MMAH) posted OPA 119 on the Environmental Registry of Ontario (ERO) for a 30-day comment period on September 8, 2022.MMAH reposted OPA 119 on the ERO for comments from December 5, 2022 until January 4, 2023. |
| <ul style="list-style-type: none">County Growth Forecast Official Plan Amendment (OPA 120) has been prepared in draft and circulated for comment. | <ul style="list-style-type: none">The open house for OPA 120 was held December 15, 2022 and the public meeting will be held January 12, 2023. |
| <ul style="list-style-type: none">Phase 2 Land Needs Assessment technical report has been finalized and was approved in principle by County Council on September 29, 2022. | <ul style="list-style-type: none">No further updates at this time |
| <ul style="list-style-type: none">The Agricultural Policy and Mapping Review component of the Municipal Comprehensive Review (MCR) is ongoing. Preliminary Draft Agricultural System mapping refinements are being reviewed by County planning staff. | <ul style="list-style-type: none">Draft Agricultural System mapping and accompanying refinement recommendations for the entire County are almost complete. When finished, County staff will begin the public, agency and stakeholder engagement on the proposed mapping. Unfortunately, the County has experienced consultant delays with this work. |

Further information about the Official Plan Review, including County Planning Committee Reports, is available at the project website: www.wellington.ca/planwell.

3.0 Work Plan

Together with WSP planning consultants, planning staff have begun Phase 3: the next phase of the MCR component of the Official Plan Review. Phase 3 implements and builds upon the technical work completed by Watson & Associates and approved in principle by County Council (Phase 1 - Growth Structure and Allocations and Phase 2 - Land Needs Assessment). The Phase 3 growth management work has been divided into an urban and a rural component (Phase 3A and 3B respectively). While both parts of Phase 3 are important, work on Urban Phase 3A has started first because this allows policy staff to manage in-house and consulting resources more effectively. A delay in Rural Phase 3B also allows for:

- the County to wait for the Provincial pause to be lifted on OPA 119, which has more implications for the rural growth component of the MCR (e.g. Regionally Significant Economic Development Study Area, Hamlet of Puslinch, etc.);
- the results of the Agricultural System mapping review to be considered; and
- consideration of the new Provincial planning policy framework (discussed below) which may introduce increased flexibility for rural growth.

3.1 Bill 23 and the Provincial Planning Policy Framework

Planning staff provided an overview report on the More Homes Built Faster Act, 2022 (Bill 23) in early November 2022 (PD2022-26). Much has changed since then. In a letter of December 22, 2022 (attached) Minister Clark provided an update concerning Bill 23 and other recent legislative and regulatory changes the Government has made.

As part of Bill 23, the Province is undertaking a housing-focused review and consideration of integrating the Provincial Policy Statement and Growth Plan for the Greater Golden Horseshoe. While planning staff agree that streamlining these policy documents would be beneficial, the implications of this future Provincial planning document on our work are unknown. For this reason, we do not recommend initiating the Phase 3A Policy Review at this time but have begun the Settlement Area Land Review. The main objectives of the Settlement Area Land Review are to identify, evaluate and recommend the following within Wellington's Urban Centres:

- Future Development lands to be re-designated for community area use in Wellington North, Minto and Mapleton (Erin also has lands to be re-designated, but they are part of the Town's Official Plan);
- Excess community area land and excess employment area land to be delineated in Wellington North, Mapleton and elsewhere, if applicable; and
- a possible new mixed-use commercial/residential designation County-wide.

County planning staff will continue to engage with municipal staff as part of the MCR effort, including Phase 3A kick-off meetings which focus on the individual needs of each municipality. Some meetings have been held (Wellington North and Minto), are scheduled (Mapleton) and are in the process of being scheduled (Erin, Guelph/Eramosa and Puslinch). While discussions with Centre Wellington staff

on addressing urban land need/settlement area boundary expansions are ongoing, the outcomes will follow later this year.

Staff will continue to monitor available information about the new Provincial planning policy document and other changes that might impact the MCR, engage with MMAH staff about our work plan and make necessary adjustments to our approach.

3.2 Greenbelt Expansion

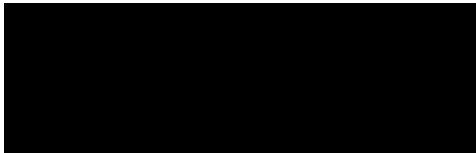
In addition to Bill 23, the Province also released a proposal to remove or re-designate 7,400 acres from the Greenbelt area for urban development. These removals were to be largely offset by adding approximately 7,000 acres of rural land in Erin to the Greenbelt. While the County requested consideration of removals from the Greenbelt (known as “whitebelt” areas) to support employment growth in Erin and rounding out of Morriston, the Province approved the Greenbelt amendments as proposed without modifications.

4.0 Recommendations

That the report “County Official Plan Review – Progress Report #8” be received for information; and

That the County Clerk forward the report to Member Municipalities.

Respectfully submitted,



Sarah Wilhelm, MCIP, RPP
Manager of Policy Planning

| | |
|---------------|--|
| Attachment #1 | December 22, 2022 letter Re: Bill 109, 2022 and Bill 23, 2022 (MMAH) |
| Attachment #2 | December 16, 2022 letter Re: Greenbelt Amendments (MMAH) |

**Ministry of
Municipal Affairs
and Housing**

Office of the Minister

777 Bay Street, 17th Floor
Toronto ON M7A 2J3
Tel.: 416 585-7000

**Ministère des
Affaires municipales
et du Logement**

Bureau du ministre

777, rue Bay, 17^e étage
Toronto (Ontario) M7A 2J3
Tél. : 416 585-7000



234-2022-6136

December 22, 2022

Dear Head of Council:

Ontario's housing supply crisis is a problem which has been decades in the making. It will take both short-term strategies and long-term commitment from all levels of government, the private sector, and not-for-profits to drive change. Each entity will have to do their part to be part of the solution.

To help support this important priority, I am pleased to provide you with an update on recent legislative and regulatory changes our government has made to help get 1.5 million homes built over the next 10 years.

Bill 109, the *More Homes for Everyone Act, 2022*

Bill 109, the More Homes for Everyone Act, 2022, was introduced on March 30, 2022 and received Royal Assent on April 14, 2022.

As part of the government's More Homes for Everyone Plan, Schedule 5 of Bill 109 made changes to the Planning Act. Consequential changes were also made to the City of Toronto Act, 2006.

Most of the Planning Act changes are now in effect except for the zoning and site plan control fee refund provisions, which are due to come into force on January 1, 2023. However, I am committed to bringing forward legislation to delay the effective date of the fee refund changes from January 1, 2023 to July 1, 2023. These legislative changes would be introduced in the new year.

In the event that any fee refunds become due to applicants before these legislative changes are made, municipalities might consider not issuing refunds in the interim given my express commitment to introduce legislation that, if passed, would retroactively cancel the requirement.

You can find more information about Bill 109 on the Environmental Registry of Ontario ([019-5284](https://www.ero.on.ca/109)), and the Ontario Legislative Assembly [website](https://www.ontario.ca/government).

Bill 23, More Homes Built Faster, 2022

Bill 23, the More Homes Built Faster Act, 2022, was introduced on October 25, 2022, and received Royal Assent on November 28, 2022.

To support More Homes Built Faster: Ontario's Housing Supply Action Plan: 2022–2023, Schedule 9 of Bill 23 made changes to the Planning Act. Schedule 1 of Bill 23 also made similar changes to the City of Toronto Act, 2006 related to site plan provisions. Schedule 3 of Bill 23 made changes to the Development Charges Act.

The planning-related and municipal development-related charges changes came into force on November 28, 2022, except for provisions related to removal of planning responsibilities from certain upper-tier municipalities, certain provisions related to parkland dedication, and exemptions from municipal development-related charges for affordable and attainable housing, which will come into force on a day in the future to be named by proclamation. Provisions related to Conservation Authorities will take effect January 1, 2023.

Bill 23 also made changes to legislation led by other ministries. Please see Appendix A for an overview of the effective dates of the Bill 23 changes by schedule.

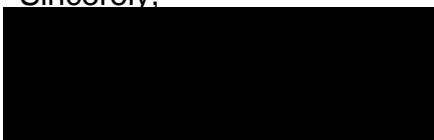
You can find more information about Bill 23 on the Environmental Registry of Ontario ([019-6163](https://www.ero.on.ca/019-6163)), and the Ontario Legislative Assembly [website](#).

Bill 3, the Strong Mayors, Building Homes Act, 2022 and Bill 39, the Better Municipal Governance Act, 2022

Bill 3, the Strong Mayors, Building Homes Act, 2022, was introduced on August 10, 2022, and received Royal Assent on September 8, 2022. Bill 3 and associated regulations ([O. Reg. 529/22](#) and [O. Reg. 530/22](#)) came into force on November 23, 2022.

Bill 39, the Better Municipal Governance Act, 2022, was introduced on November 16, 2022, and received Royal Assent on December 8, 2022. Bill 39, amendments to associated regulations ([O. Reg. 581/22](#) and [O. Reg. 583/22](#)), and additional regulations to prescribe provincial priorities ([O. Reg. 580/22](#) and [O. Reg. 582/22](#)) came into force on December 20, 2022. Additional details can be found in Appendix B and on the Ontario Legislative Assembly's website ([Bill 3](#) and [Bill 39](#)).

Sincerely,



Steve Clark
Minister

c: Chief Administrative Officer

Appendix A

Effective Dates for Bill 23, the More Homes Built Faster Act, 2022

| Schedule | Effective Date |
|---|--|
| Schedule 1: City of Toronto Act, 2006 | <p>All of the changes in Schedule 1 (City of Toronto Act) came into force on the day the bill received Royal Assent.</p> <p>Note: The legislative changes to the City of Toronto Act include amendments that give the Minister of Municipal Affairs and Housing authority to make regulations imposing limits and conditions on how municipalities can regulate the demolition and conversion of residential rental properties of six units or more. No regulations have been made at this time.</p> |
| Schedule 2: Conservation Authorities Act | <p>Changes in Schedule 2 (Conservation Authorities Act) came into force the day the bill received Royal Assent, except for:</p> <ul style="list-style-type: none"> On January 1, sections related to streamlining disposition of lands for CAs comes into force which would allow CAs to sell or lease land without Minister's approval provided they follow rules around public consultation and notifications. Also on January 1, sections that enable the Minister's ability to issue direction to freeze fees and ability to scope CA commenting on development applications and land use planning policies through regulation, would come into force but only have effect when the Minister issues direction on fees or if a regulation prescribing Act under which CA commenting roles is restricted is made. Changes related to CA permitting (including removal of "conservation of land" and "pollution", adding "unstable soil and bedrock", regulation making powers to exempt development from a CA permit where it has been authorized under the Planning Act, etc.) take effect on a later date (upon proclamation) once a new regulation under Section 28 of the CA Act is in effect. MNRF continues to consult on that regulation through the Environmental Registry (#019-2927). |
| Schedule 3: Development Charges Act, 1997 | <p>All of the changes in Schedule 3 (Development Charges Act) came into force on the day the bill received Royal Assent, with the exception of provisions relating to development charge exemptions for affordable and attainable housing units, which would take effect upon proclamation.</p> |
| Schedule 4: Municipal Act, 2001 | <p>All of the changes in Schedule 4 (Municipal Act) came into force on the day the bill received Royal Assent.</p> <p>Note: The legislative changes to the Municipal Act give the Minister of Municipal Affairs and Housing authority to make regulations imposing limits and conditions on how municipalities can regulate the demolition and conversion of residential rental properties of six units or more. No regulations have been made at this time.</p> |
| Schedule 5: New Home Construction Licensing Act, 2017 | <p>Many of the amendments in Schedule 5 (New Home Construction Licensing Act) came into force on the day the bill received Royal Assent.</p> <p>The amendments regarding the maximum fine that a court may impose for a subsequent conviction, as well as most of the amendments related</p> |

| Schedule | Effective Date |
|--|---|
| Schedule 6: Ontario Heritage Act | <p>to administrative penalties, will come into force on February 1, 2023.</p> <p>Most of the amendments to the Ontario Heritage Act (OHA) made through the bill will be proclaimed into force on January 1, 2023. These include:</p> <ul style="list-style-type: none"> • The new authorities under Part III.1 of the Act that relate to the Standards and Guidelines for Conservation of Provincial Heritage Properties. • Most of the changes to procedures related to municipal registers, including the process and requirements around inclusion of non-designated properties on the municipal registers. However, the requirement for municipalities to make their municipal registers available on a publicly accessible website will not come into force until July 1, 2023 to provide municipalities with time to ensure compliance. • Limiting the ability to issue a Notice of Intention to Designate a property subject to a prescribed event to only those properties included on a municipal register. • The authority to prescribe criteria for determining cultural heritage value or interest for the purposes of including non-designated properties on the municipal register and designating a Heritage Conservation District (HCD). • The authority to set out processes to amend and repeal HCD bylaw in regulation. Note, the Ministry of Citizenship and Multiculturalism will consult on the development of these processes to be set out in regulation in 2023. <p>Regulatory amendments to O.Reg. 9/06: Criteria for Determining Cultural Heritage Value or Interest will also come into force on January 1, 2023. These changes establish that non-designated properties included on a register must meet one or more of the criteria outlined in the regulation, and that individual properties and HCDs must meet two or more of the criteria included in the regulation in order to be designated. The regulation also includes transitional provisions to address matters underway at the time of the changes coming into force.</p> <p>The outstanding amendments to the OHA made through Bill 108, the More Homes, More Choice Act, 2019, will also be proclaimed into force on January 1, 2023. The amendments speak specifically to the demolition or removal of an attribute that is not a building or structure within an HCD.</p> <p>Regulatory amendments to O.Reg. 358/21: General will come into force on January 1, 2023. These amendments include consequential housekeeping amendments and transition provisions related to the above legislative amendments coming into force.</p> <p>Bill 23 included some minor housekeeping amendments to the OHA that came into force upon Royal Assent. These included repealing the alternative definition of “alter”.</p> |
| Schedule 7: Ontario Land Tribunal Act, 2001 | The changes in Schedule 7 (More Homes Built Faster Act, 2022) will come into force on proclamation. |

| Schedule | Effective Date |
|---|---|
| Schedule 8: Ontario Underground Infrastructure Notification System Act, 2012 | The changes in Schedule 8 (Ontario Underground Infrastructure Notification System Act, 2012) came into force on the day the bill received Royal Assent. |
| Schedule 9: Planning Act | <p>The changes in Schedule 9 (Planning Act) all came into force on the day the bill received Royal Assent, with the following exceptions:</p> <ul style="list-style-type: none"> • provisions related to removal of planning responsibilities from certain upper-tier municipalities, which would come into force on a day to be named by proclamation. • provisions related to the exemption of community benefits charge and parkland dedication requirements for affordable and attainable housing units • provisions related encumbered land to be conveyed to municipalities by developers for park or other recreational purposes • provisions related to Conservation Authorities (linked to the changes in Schedule 2) will take effect January 1, 2023 |
| Schedule 10: Supporting Growth and Housing in York and Durham Regions Act, 2022 | <p>Except as otherwise provided, the Act set out in Schedule 10 came into force on the day bill received Royal Assent.</p> <ul style="list-style-type: none"> • Sections 7 to 10, subsection 11 (5) and section 14 come into force on a day to be named by proclamation of the Lieutenant Governor. Once in force, these sections will require a prescribed municipality to develop, construct, and operate the Lake Simcoe phosphorus reduction project and allow the Ontario Clean Water Agency to undertake some or all of that project if ordered to do so by the Lieutenant Governor in Council. The project will also be exempt from the Environmental Assessment Act. • Subsection 85 (1) comes into force on the later of the day subsection 44 (1) of this Act comes into force and the day section 2 of Schedule 5 to the Accelerating Access to Justice Act, 2021 comes into force. Subsection 85 (1) makes consequential changes to the Act arising out of changes to the Expropriations Act in respect of alternative hearings processes. • Subsection 85 (2) comes into force on the later of the day section 61 of this Act comes into force and the day section 42 of Schedule 4 to the Comprehensive Ontario Police Services Act, 2019 comes into force. Subsection 85 (2) makes consequential changes to the Act arising out of the Comprehensive Ontario Police Services Act, 2019 consistent with other Ministry of the Environment, Conservation and Parks legislation. The change would allow a person undertaking an inspection to obtain the assistance of the local police force rather than the Ontario Provincial Police Force. |

Appendix B

Bill 3, the Strong Mayors, Building Homes Act, 2022 and Bill 39, the Better Municipal Governance Act, 2022

As a result of Bills 3 and 39, changes were made to the Municipal Act, 2001, City of Toronto Act, 2006 and the Municipal Conflict of Interest Act, and regulations were established to give the mayors in Toronto and Ottawa strong mayor powers to help advance shared provincial-municipal priorities, including building new homes. These powers include:

- Choosing to appoint the municipality's chief administrative officer,
- Hiring certain municipal department heads, and establish and re-organize departments,
- Creating committees of council, assigning their functions and appointing the Chairs and Vice-Chairs of committees of council, and
- Proposing the municipal budget, subject to council amendments and a head of council veto and council override process.

The mayors of Toronto and Ottawa can also use strong mayor powers related to provincial priorities. These include:

- Vetoing certain by-laws if the mayor is of the opinion that all or part of the by-law could potentially interfere with a provincial priority,
- Bringing forward matters for council consideration if the mayor is of the opinion that considering the matter could potentially advance a provincial priority, and
- Proposing certain municipal by-laws if the mayor is of the opinion that the proposed by-law could potentially advance a provincial priority. Council can pass these by-laws if more than one-third of council members vote in favour.

The provincial priorities for the purposes of strong mayor powers are prescribed in O. Reg. 580/22 and O. Reg. 582/22 and they are:

1. Building 1.5 million new residential units by December 31, 2031.
2. Constructing and maintaining infrastructure to support housing, including, transit, roads, utilities, and servicing.

Attachment #2 to PD2023-01

Ministry of Municipal Affairs and Housing

Office of the Minister

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December 16, 2022

Dear Head of Council, Municipal Chief Executive Officer and Clerk, and AMO Staff

Re: Greenbelt Amendments and Revocation of the Central Pickering Development Plan and O. Reg. 154/03

The government is committed to taking bold action to address Ontario's housing supply crisis by building 1.5 million homes over the next 10 years.

That is why the government has taken further action to support this goal by making changes to the Greenbelt and revoking the Central Pickering Development Plan and the associated Minister's Zoning Order (O. Reg. 154/03) to help build at least 50,000 new homes, while leading to an overall expansion of the Greenbelt by approximately 2,000 acres.

Further to the letters sent on Nov 4, 2022 regarding proposed amendments to the Greenbelt and the letter on October 25, 2022 regarding the proposed revocation of the CPDP, I am writing to provide an update that the government has approved Amendment No. 3 to the Greenbelt Plan (by OIC 1745/2022), amended the Greenbelt Area boundary (O. Reg. 59/05), and revoked the Central Pickering Development Plan (by OIC 1746/2022). The amendments were approved as proposed without modifications.

As Minister, I approved the related amendments to the Oak Ridges Moraine Conservation Plan (O. Reg. 140/02) and revoked the Central Pickering Development Planning Area and the related Minister's Zoning Order (O. Reg. 154/03).

Information on the Greenbelt Area boundary regulation, and the Oak Ridges Moraine Conservation Plan, and the revocation of the Central Pickering Development Plan and Minister's Zoning Order can be found at:

- Designation of Greenbelt Area (O. Reg. 567/22) - <https://www.ontario.ca/laws/regulation/r22567>
- Oak Ridges Moraine Conservation Plan (O. Reg. 568/22) - <https://www.ontario.ca/laws/regulation/r22568>
- Zoning Area - Regional Municipality of Durham, Part of The City of Pickering (O. Reg. 566/22) - <https://www.ontario.ca/laws/regulation/r22566>

Further details on these changes, including updated mapping, will be available online soon.

Thank you to those municipalities who provided feedback. The province looks forward to continued collaboration with municipal partners to get more homes built faster.

Sincerely,



Steve Clark

Minister

- c. Kate Manson-Smith, Deputy Minister, Municipal Affairs and Housing
Sean Fraser, Assistant Deputy Minister, Municipal Affairs and Housing, Planning
and Growth Division
Hannah Evans, Assistant Deputy Minister, Municipal Services Division



COUNTY OF WELLINGTON

COMMITTEE REPORT

To: Chair and Members of the Roads Committee
From: Don Kudo, P. Eng., County Engineer
Date: Tuesday, February 14, 2023
Subject: **Lake Road Reconstruction (Wellington Road 32, Puslinch) – Project Details and Speed Limit Changes**

Background:

Lake Road (Wellington Road 32) has been a focus of speeding and safety concerns within the local Puslinch community for a number of years. The County's Road Master Action Plan (RMAP) included a review of Lake Road as one of the 27 County road segments assessed in the RMAP's Speed Management Corridor review process. For Lake Road, the study recommended changes to the posted speed limits on this road segment along with recommending a number of road improvements as speed management measures.

Project Details

With the reconstruction of Lake Road scheduled to be completed this construction season, the County has the opportunity to make roadway safety improvements that were recommended in the RMAP and other design changes as follows:

- Improving the current residential area by enhancing the concrete curb and gutter cross section with a narrower road lane width of 3.25 metres
- Eliminating the right turn slip-a-round lane with a reconfigured all way stop tee intersection at the intersection of WR 32 and Concession 2
- Providing a 3.0 metre-wide paved shoulder along the north side of the residential area curbed section to the Puslinch Tract Conservation area north of the intersection of WR 32 and Concession 2
- Installing two pedestrian crossovers (PXO) along this section of road with one located in the residential area and the other located adjacent to the Puslinch Tract Conservation area

Other proposed roadway improvements based on consultant studies and recommendations include:

- Installing eco-passages and exclusion fencing to help reduce reptile and amphibian mortality rates at the wetland sections, resulting in safer and greater movement for wildlife. Road mortality has a direct impact on population size and restricts species movement, which reduces opportunities for feeding and reproduction.
- Introducing an innovative product, Cematrix, that is a lightweight cellular concrete to be used as sub base road material with the intent to extend the life cycle of the road structure. The use of the Cematrix product will be a first for a County road and will be used along the two wetland sections of Lake Road where prominent rutting and pavement fatigue have previously been experienced. The improved road base may allow for the removal of the year round reduced load restriction on Lake Road. Staff will undertake post construction monitoring to determine if a change to the reduced load restriction bylaw for Lake Road is warranted.

Road Master Action Plan

The Road Master Action plan was approved in January, 2022. As part of the RMAP, Speed Management Guidelines were developed for the County. These guidelines provide context for managing speed on County roads including some factors with respect to establishing appropriate posted speed limits as follows:

- uniformity of vehicle speeds increases safety and reduces the risks for vehicle collision
- collision potential is lowest when the difference in operating speed between vehicles in the traffic stream is the smallest
- effectiveness and credibility of the posted speed limit is enhanced by setting speed limits that are safe and reasonable for the roadway environment
- posted speed limits that are set too low result in a significant number of “reasonable” drivers operating illegally, place unnecessary burdens on law enforcement personnel, and lead to a lack of credibility of the posted speed limit

The RMAP Speed Management Guidelines are consistent with the Transportation Association of Canada (TAC) “Canadian Guidelines for Establishing Posted Speed Limits”. The TAC guidelines were adopted by the County in 2012 for setting or adjusting posted speed limits and the RMAP reconfirmed the use of these guidelines. The guidelines consider factors such as road classification, road geometry, conflict points, and pedestrian/cyclist use to establish appropriate posted speed limits.

As previously noted, 27 County road segments including Lake Road, were studied as part of the RMAP Speed Management Corridor review. The corridor review study recommended to adjust the current Lake Road posted speed limit by implementing appropriate speed limit changes to align driver behaviour with the design of the road. The following are the RMAP recommendations for the posted speed limits along this section of Lake Road as detailed in the attached Wellington RMAP – Speed Management Review memo:

- For the westerly portion, increase the posted speed limit from **50 km/h to 70 km/h**
- For the easterly portion that fronts the residential properties, increase the posted speed limit from **50 km/h to 60km/h.**

The RMAP Speed Management Corridor review for Lake Road recommended to change the current 50 km/h posted limit in the easterly residential area to 60 km/h, however, staff is not recommending this change. This would be consistent with the Roads Committee RMAP report of September 14, 2021 where staff did not recommend changing the posted speed limits when the corridor review results were +/- 10km/h of the existing posted speed limit. For the Lake Road Reconstruction project, staff have taken the extra measure of proposing to extend the 50km/h posted speed limit to across the frontage of the Puslinch Tract Conservation area, extending the 3.0 metre-wide paved shoulder and proposing to install an additional PXO at this location.

Proposed Speed Limit Bylaw Changes

Based on the above, in order to implement the posted speed limit changes, revisions to the current Consolidated Speed Limit Bylaw (Bylaw 5536-17) would be required to coincide with the completion of the road reconstruction project.

The proposed bylaw “Schedule C” would be revised for the 50 km/h limit for Wellington Road 32 (Lake Road) as follows:

- **From:** “from a point 610 metres west of the intersection with Concession 2 (Township of Puslinch)”
- **To:** “a point 150 metres north from the intersection with Concession 2 (Township of Puslinch)”

The proposed bylaw “Schedule A” would be revised to add a 70km/h limit for Wellington Road 32 (Lake Road) as follows:

- **From:** “from a point 610 metres west of the intersection with Concession 2 (Township of Puslinch)”
- **To:** “the intersection of Wellington Road 33 (Townline Road)”

Public Open House

Staff held a public open house on November 24th, 2022 as part of the consultation and communication process for the speed management plan and road reconstruction project. Proposed changes to the roadway and the posted speed limits were presented. The open house was well attended with approximately 60 attendees. Comments from the public were supportive of the improvements to the east end of the project where the 50km/h speed limit is proposed to remain and be extended but most comments were not in favour to increase the speed limit to 70km/h proposed west of the residential area. Attached to the report are the comment sheets received. Comments were also received directly on the Open House presentation map. Images of the map and comments provided are also attached.

Project Schedule

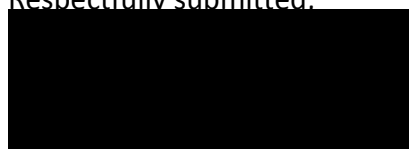
The Lake Road reconstruction project is proposed to be tendered in March, 2023 with award of the construction tender in April, 2023. The project construction is planned to commence in May, 2023 with the estimated completion of the work in September, 2023. Traffic will be maintained during construction with a full road closure needed for approximately one month this summer to complete a portion of the project work. Changes to the Consolidated Speed Limit Bylaw would be proposed to the Roads Committee for approval to coincide with the completion of the project.

Recommendation:

That the Lake Road Reconstruction (Wellington Road 32, Puslinch) – Project Details and Speed Limit Changes report be received for information;

And that staff be directed to take appropriate action, as outlined in the staff report, to revise the Consolidated Speed Limit Bylaw and signage on Wellington Road 32 to coincide with the completion of the Lake Road Reconstruction project.

Respectfully submitted,



Don Kudo, P. Eng.
County Engineer

Attachments: Memo - Wellington RMAP – Speed Management Reviews - August 10, 2021 Lake Rd
WR32 Open House Comments
WR32 Open House Notes Maps (1 to 4)

Wellington Road 32 (Lake Road) from Wellington Road 33 (Townline Road) to Concession 2

Corridor Context

- Rural cross-section, with paved/gravel shoulders, no streetlights or sidewalks
- Rural land uses, with limited properties taking access to or fronting the corridor, except for approximately a dozen properties on the north side of the corridor closer to the east limits of the corridor
- There is an MTO Park and Ride towards the west end of the corridor.

Public Feedback

Through the Social Pinpoint exercise, we received the following feedback from the public:

- *"Lake Road is frequently used by fully loaded transport trucks as an alternative to 401. They do not adhere to the 50 speed limit."*
- *"Not many who drive thru this area adhere to the speed limits. When I'm going slightly over the limit, people are often right on my bumper."*
- *"Speed is an issue and law enforcement have continuously attempted to conduct traffic initiatives. shoulders are too narrow and steep."*
- *"A 3 way stop sign would really help with traffic issues at where this road intersects with Lake Road allowing for safe exit from Old Marina to Lake Road. It will also greatly help slow down speeders who constantly go well over the 50km speed limit if they actually are forced to come to a complete stop here."*

Traffic Data

The following traffic data was collected and used as part of the speed management analysis:

Wellington Road 32 between Seifert Driver and Butler Avenue

- Data Collection Dates: 2019-07-02
- Collected By: Wellington County
- 6,907 vehicles per day.
- Posted Speed Limit = 50 km/h
- Average Speed = 62 km/h
- 85th Percentile = 70 km/h
- 95th Percentile = 77 km/h.

Wellington Road 32 at Wellington Road 33

- Data Collection Dates: 2020-11-02 to 2020-11-04
- Collected By: OPP
- 11,849 vehicles recorded over two days (average 5,925 vehicles per day)
- Posted Speed Limit = 50 km/h
- Average Speed = 63 km/h
- 85th Percentile = 72 km/h
- 95th Percentile = 80 km/h
- Six collisions in the last 10 years, two collisions in the last three years.

3.13.4 Problem Statements

- Average and 85th Percentile speeds are measured to be much higher than the posted speed limit of 50 km/h
- No amenities for pedestrians.

3.13.5 Posted Speed Limit Review

The TAC Canadian Guidelines for Establishing Posted Speed Limits was used to conduct a speed management review on each corridor segment. The following were the results.

Wellington Road 32 from Wellington Road 33 to Concession 2

- Consider as a Major Rural Arterial Road with one lane per direction
 - Horizontal Geometry = Medium Risk
 - Vertical Geometry = Lower Risk
 - Average Lane Width = Medium Risk
 - Roadside Hazards = Medium Risk
 - Pedestrian Exposure = Higher Risk
 - Cyclist Exposure = Higher Risk
 - Pavement Surface = Lower Risk
 - One signalized intersections
 - Four side-street STOP controlled intersections
 - 24 driveway accesses
 - On-Street Parking = Lower Risk.

Current Posted Speed Limit = 50 km/h

TAC Recommended Posted Speed Limit = 70 km/h

- If considered as a Major Urban Arterial Road with 1 lane per direction.

TAC Recommended Posted Speed Limit = 60 km/h

Described options and their specific relevance or context in this segment:

- **Regulatory Modifications** – Implementing segment-appropriate speed limit changes align the driver behaviour with the design of the road. Consistent design results in less variation in driver behaviour which makes the expectations of all users more homogenous. Less variation in behaviour makes for greater predictability and makes the environment safer for all users. Viable option.
- **Geometric Modifications** – Controlling the speed of vehicles can be achieved by aligning the design of the road with the desired posted speed. This can be an expensive undertaking over long corridors with varied environments. Viable but expensive option, and should be targeted along some portions of the road rather than the entire corridor.
- **Education / Enforcement** – Consistent enforcement/police presence over this length of roadway a cost and resource issue. Over long sections of road, intense enforcement is typically not viable, infrequent enforcement not effective.
- **Do Nothing** – Two segments, notable speeding issues. Doing nothing is not an option.

The posted speed limit recommendations take into account the TAC recommended posted speed limit but do consider other factors such as changes to the surrounding land uses and changes to the road cross-section. As a result, the actual posted speed limit recommendation may not fully align with the TAC recommended speed limit. The following recommendations with regard to the posted speed limits for this corridor:

- For the more-westerly portion, increase the posted speed limit from **50 km/h to 70 km/h**
- For the easterly portion that is fronting the single-family properties, increase the posted speed limit from **50 km/h to 60 km/h**.

Figure 26 and **Figure 27** shows the existing and recommended posted speed limits on Wellington Road 32 between Wellington Road 33 and Concession 2, respectively.

Regardless of whether the recommendations related to the posted speed limit are endorsed, the speed management action plan along the corridor should also include the following improvements:

- In the short-term, consider the need for a **pedestrian crossover (PXO)** on Wellington Road 32 near McClintock Drive/Butler Avenue
- In the long-term, reconstruct the easterly portion of the corridor to an **urban cross-section**, which would include curbs and gutter, a multi-use pathway on the south side of the corridor as well as street lighting.

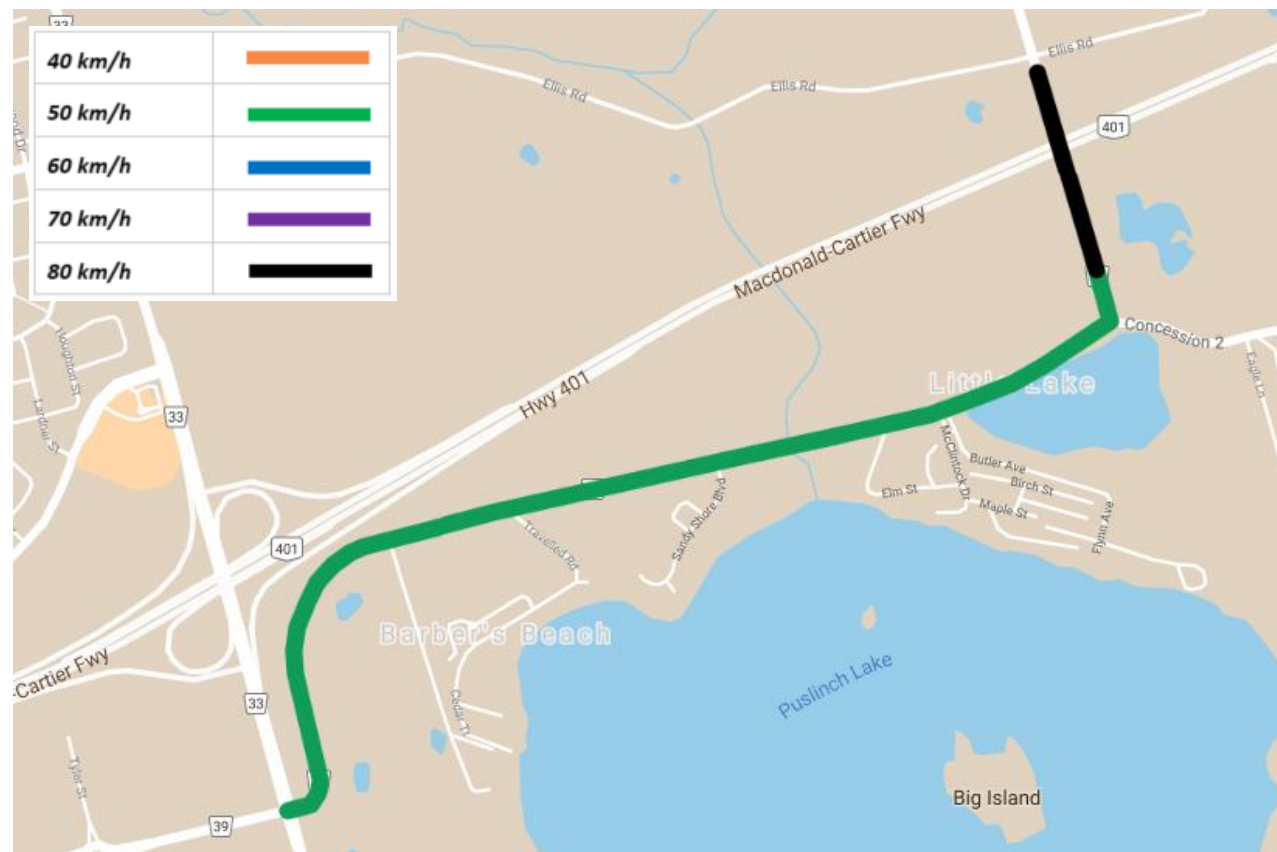


Figure 26: Existing Posted Speed Limits, Wellington Road 32 (Lake Road), Barber's Beach, Little Lake

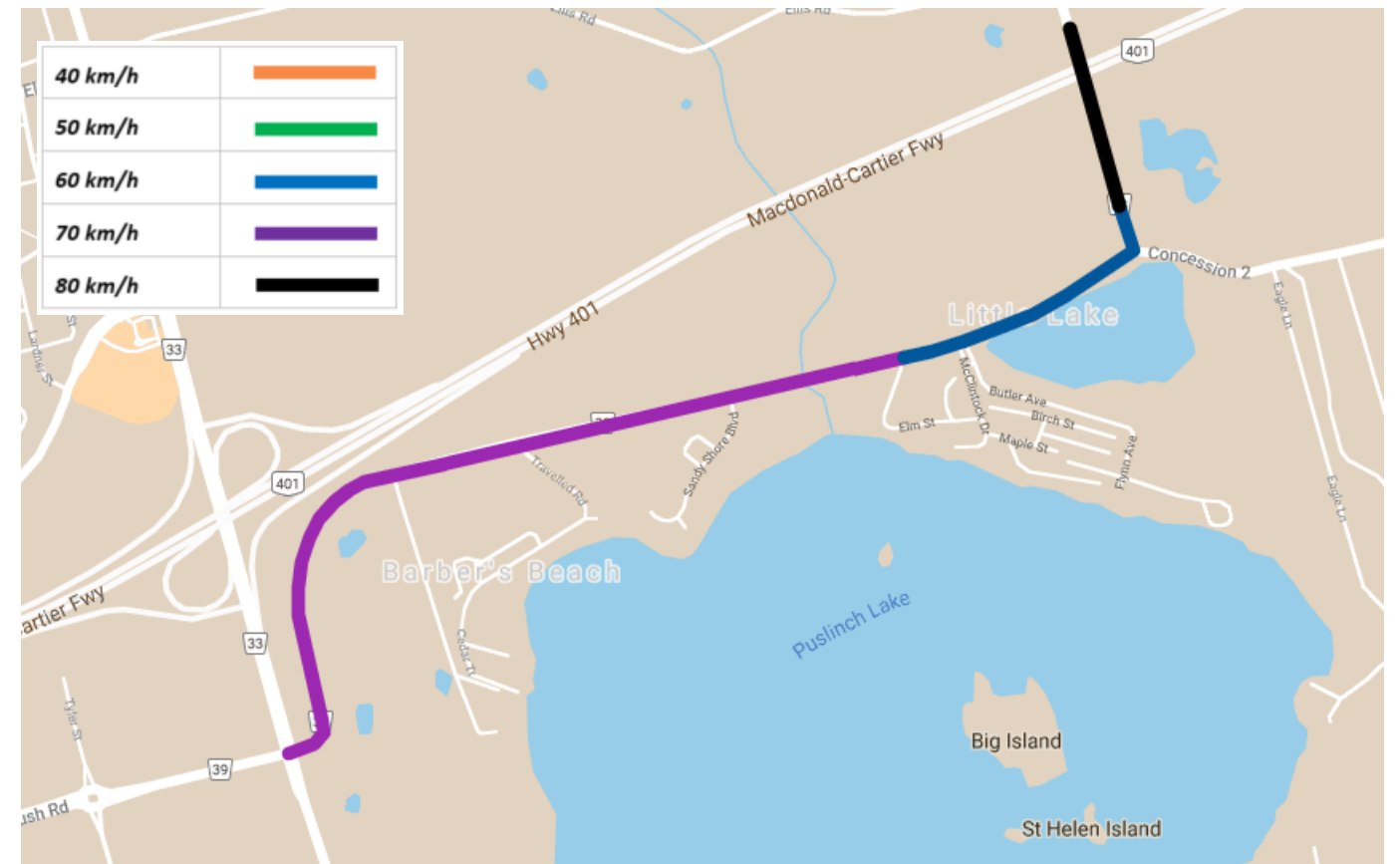


Figure 27: Recommended Posted Speed Limits, Wellington Road 32 (Lake Road), Barber's Beach, Little Lake



**County of Wellington
Wellington Road 32 (Lake Road), Wellington Road 33
to Concession 2
Township of Puslinch, Ontario**

Project Open House

Comment Sheet

The purpose of this Comment Sheet is to gather input from the community on the material presented in the Project Open House display boards that were made available on the County's website. Your input is greatly appreciated.

Please provide your comments below

Please consider fixing the safety concern at the intersections of McClintock Drive, Butler Ave. and RD32. The side-by-side roads off of Rd32 are confusing for people who do not realize they exist or that they are two separate roads (i.e. not an entrance and exit for the trailer park), this causes cross over confusion between entering and exiting vehicles and routinely creates close calls and dangerous interactions. It is my opinion that the Butler entrance from Rd32 should be removed, directing traffic from Butler onto McClintock Drive, then onto Rd32. Thanks



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Please do not increase the speed limit on Lake road. It is bad enough that people do 80-90km on our road in a 50km zone. I have seen it on the speed meter that was there during construction earlier in 2022. I have also been driven off our road and been harassed by drivers speeding and it is dangerous. There are children, families and new drivers on our road. If anything we should be lowering the speed limit to 40km. If you increase it to 70km, people will be doing 100km+. I do not feel safe or comfortable with the suggestion of 70km. I highly suggest that you reconsider increasing the speed limit, and look into lowering it. Thank you.



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Hello,

I am against the proposal to increase the speed limit on the section of the lake road. I think that there is significant risk to the significant volume of mountain bikers that are taking that road to and from the Puslinch Tract. Some of the cyclists are minors as well.

Secondly, I was early at the scene where a motor accident fatality occurred on the selfsame road in May of 2007 where a motorcyclist has veered off into the oncoming lane and was hit by a car in another lane. To this day there is a little memorial near the top of the hill.

Keep the speed limit. You are potentially saving lives and causing drivers to exercise more caution at this area of the road that has narrow road and residential areas close by.

Regards,

[Redacted Signature]



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Hello

My name is [REDACTED] i live at [REDACTED] Lake road with my husband [REDACTED]. We were both unable to attend the meetings on November 24. We have heard from other that the speed limit might be raised from 50 km to 70 km. I hope that this isnt true.

With the speed limit at 50 km vehicles are already flying pass our home at over 100 km. Its unsafe as it is now for me just to pull in or out of our drive way without someone almost hitting my vehicle. I get yelled at and sworn at on a regular basis just for pulling in my drive way. Its unsafe to make a left hand turn into my drive way because there is a passing lane right in front of my house and people feel like they dont have to wait for me to turn in they try and pass me when im tring to pull in. For one im not sure why there is a passing lane in a 50 km zone?

Its very dangerous in the winter as well we have had vehicle drive up on our front lawn due to driving to fast for road conditions. Lake road is more like the 401 no one obeys the speed limit and they act like this isnt a residential are. All day every day all i hear is horns honking at residents who are turning on travelled road trying to get to their homes and people think there going to slow to make the turn.

Somedays my home sakes due to large vehicles passing at an alarming speed. Even the plow in the winter is speeding pass our home throwing large rocks towards out vehicles so we have to make sure we park far up the drive way as possible so they dont get hit. I hope something gets done about the speeding soon so i can start to enjoy where i live like by going on walks down lake road with my dog as of now we have live here for almost 4 years and we will not walk down lake road due to the road rage and speeding. I dont understand why there isnt a speed camera or more police presence on this road. Thank you for your time. [REDACTED]



County of Wellington
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Please provide your comments below

I am opposed to Increasing the speed limit on Lake road to 70km/hr. We live at [REDACTED] Lake road and I cannot count the number of times people drive by doing 80 or more now. Increasing to 70 will make people drive to 90. It is a daily pain to have people drive close behind me and many pass angry that I'm not driving 80. Turning into my driveway is dangerous and my teenage driver is likewise always worried someone will rear end her. In the winter the ice fishing people park in front of our fence and it becomes impossible to clearly see if there is oncoming traffic from east. I need to ask someone to spot me to get out safely.

A better idea than increasing the speed limit would be to add a stop at either Holly trail or Irish Creek estates entrance. This would force people to slow down once they come down the hill from the carpool. Has any consideration been given to reducing the traffic coming down Lake road? The intersection of Townline and 34 has a stop sign but it should be a set of lights. That is the emergency alternate road and many people avoid using it because it is difficult to turn left.

The new three way stop in front of Old Marina is a welcome addition.



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Great overall progress. Would like to see flashing light crosswalks to alert drivers that pedestrians crossing the road.

With proposed speed limit increasing, would recommend as much space as possible between where the houses start and the transition from 70 to 50 as I'm sure studies will show an increased speed entering those zones. In this case children would be present due to school bus stops.



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I live in the Irish Creek Estates community on Lake Road. I do not support the proposed change of the speed limit from 50km/h to 70km/h for many reasons:

1. The road is especially dangerous and slippery in the winter.
2. Many people will see a 70 km/h speed limit as an invitation to go 80 km/h to 90 km/h as an enforced speed limit. With the speed limit at 50km/h now, there are many cars travelling at 70km/h already.
3. The bend just before the car park has had a number of fatalities already because of speed and people losing control of their cars. Increasing the speed will increase the fatalities.
4. Many people who live in the neighbourhoods on Lake Road walk and bike along it for exercise. Increasing the speed puts them in more danger.
5. During rush hour in the morning and evening Lake Road is extremely utilized and it is difficult as the speed is now to leave our neighbourhood and enter the traffic. Increasing the speed will make it more difficult.

Please do not increase the speed on Lake Road. Thank you.

[Redacted signature]



County of Wellington

Wellington Road 32 (Lake Road), Wellington Road 33 to Concession 2

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Every change you've made is going to create a worsening situation for our community. Taking away the medium at 32/concession 2, allows for greater ease of turning for transport and gravel trucks. Nobody's policing our roads to ensure that the weight restriction is enforced, so making it easier for them to use illegally is creating a more dangerous situation on our narrow road is an unsafe choice and leads to the degradation of our environment, and road stability. The speed increase will be fought by the community. We do not want to speed increased at all. Not 60 not 70. Policing is a major issue in our community, and their lack there of, we need to ensure that we're creating roadways that are safe for humans to self police. The majority of drivers are not doing that on their own already and I don't believe they should dictate the speed of which they drive on our narrow road that's bordered by waterways.

My house is on a bend where there are often multiple cars parked blocking my view as I back out. Giving my neighbours more space to park their cars is not going to help me feel safe as I back out of my driveway and walk.

In the line of houses as you approach the stop sign for Wellington Road 32 and concession 2 there is an average 1.5 children in every house. Every house has children if you were to take the amount of children on that road And divide it up in the houses. This means that you need to create a safe environment for them to get on their buses, ride their bikes and walk to the local amenities. I don't believe this plan has done anything to deter the traffic flow and speed that we're already dealing with . This road was once a side road and has been increasingly abused over the past 20 years since the road was reconstructed.



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Please provide your comments below

Good day!

I was not able to attend the meeting last evening but followed up with a few of our neighbours. They mentioned that township is looking at increasing the speed limited on lake Rd. I find this to be something i strongly disagree with. Lake rd has become a very busy street over the last several years with high volumes of traffic each day.. i want to enusre you that when i use this rd everyday i see things that would certainly make you rethink that decision/conversation.

People speed every day and most times never follow the speed limit if 50km for example you will go 10 over 20 over .. putting it to 70 km now they are going 10 over or 20 over that .. now you have people driving the same speed as the 401 down this country rd where there are homes/driveways, side st, and CHILDREN GETTING ON AND OFF SCHOOL BUSES. How on earth do you consider this a good idea or even a discussion?!

You already have to take you life in your own hands driving, walking or even cycling on Lake rd. Trucks over the weight limit using this road. Cars passing other cars ... peoples fences, mail boxes being taken out by speeders .. (which has happened many times by the way) lucky no one has been seriously hurt . I have witnesses people coming off pinebush rd crossing onto Lake and take that bend way to fast and either hitting the gravel and or knocking down that sign which indicates bend in road. Im sure you must have reciepts on how many times you have replaced it .. have you looked into the number of tickets that have been issued to speeder? I strongly hope you will reconsider this idea...

Thank you for your time

██████████



County of Wellington
Wellington Road 32 (Lake Road), Wellington Road 33
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There is no way we can accept 70 km as the speed limit on our street. We need a three-way stop at Butler and Lake Road to prevent future accidents of speeders coming westbound, as well as the highly hazardous intersection of Butler and Lake Road.

We appreciate the shoulder and the crosswalks, as well as the new three-way stop at concession 2 and Lake Road. Best improvement that can be made is reducing the speed limit overall between the stretch of butler and concession 2 to 40 km.



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Since vehicles already travel at 70km hour down this road now, by increasing the limit, people will start traveling at above new posted rate. What benefit is it to increase the speed limit on such a short distance of roadway? Plus there will be added noise due to speed increase, not to mention the safety issue to people trying to turn on to this road from their subdivisions.

This is not a good idea.



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Re: raising speed limit on lake road. Vehicles are already going too fast on this road. How would we pull out of our community into traffic going a speed of 70 km/hour, which is more like 80-90/hour?
I oppose this proposed change.

██████████



County of Wellington
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We have very significant concerns about lake road going to 70kph.

I have young children and soon to be drivers. From my understanding the turn in the road by the car pooling is already the unfortunate site of fatalities and certainly represents a risk area.

This road is currently sped on very badly. I see people everyday going well over 80kph..some worse. Residents usually go much slower and are tailgated or passed....it is brutal.

I hate slow areas when I drive through other people's neighbourhoods and I even find 50kph slow for our own area but given the children in the area it seems the responsible speed and it would be excellent if police would be able to do a bit of patrolling to ensure people slow down and are not passing....i see a lot of dangerous driving along with road.

If you have any questions or would like to contact me, my name is [REDACTED]
[REDACTED]



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Please provide your comments below

These are my comments as a seven year resident of the Irish Creek Community, who is using Lake Road year round, including at night time.

It may be discussable what speed should be the maximum on the straight part of Lake Road, east of the big curve from after the parking lot to the beginning of Concession 2.

The posted speed is 50 KM, the speed mostly driven is between 60 and 70KM, if not higher. Please consider: Whatever the posted speed is, unless OPP controlled, it will always be much higher. So going to an even higher limit, say to a 70KM limit, will lead to a 90KM race track.

However, the part of Lake Road, which is truly dangerous, is its most western part, from - and including - the sharp curve at the parking lot to - and including - the sharp curve before reaching Town Line. Both turns give the illusion that they are just regular 45 degree turns, because they lack visibility, and most drivers only find out in the middle of the turn that it continues into almost 90 degrees and that they are too fast.

Worse, the curve near the parking lot is tilting down towards the outside of the curve (something that should never happen) making staying in the lane at high speed more difficult, so many drivers cross over the median. That part of Lake Road needs a 20KM limit (leading to actual 40 and not 70) to keep accidents from happening or at least mitigating the consequences.

I have almost become a victim myself over the years and accidents are bound to happen, if speed at that part of Lake Road is not better contained.



**County of Wellington
Wellington Road 32 (Lake Road), Wellington Road 33
to Concession 2
Township of Puslinch, Ontario**

Project Open House

Comment Sheet

The purpose of this Comment Sheet is to gather input from the community on the material presented in the Project Open House display boards that were made available on the County's website. Your input is greatly appreciated.

Please provide your comments below

I am commenting on the speed limit change to 70km per hour.

I would like the speed limit to remain at 50km / hr.

Occasionally there are small or large animals that are crossing the road. If someone slows for this, a speeding vehicle may hit them from behind.

In the winter it is difficult to say where the edge of the road is. No need to increase your stress level as cars go whizzing by to overtake a careful driver. Also the corner near Townline and Lake Road has had a few cars in the ditch in years past. Slower vehicles reduce this risk.



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Please provide your comments below

To Whom It May Concern:

With respect to increasing the speed limit to 70 km/h on Lake Road, I do not support the decision for the following reasons:

In the winter, Lake Road is extremely slippery. Both the corner near the car park and the corner near Townline Road are locations of numerous car accidents each year. Increasing the speed would make the road even more dangerous than it already is all winter season.

Due to the numerous homes and communities along Lake Road, the road is often used by pedestrians and cyclists. There are no sidewalks, and there is very little space for vehicles and cyclists and pedestrians to occupy the same lanes, safely. Increasing the speeds of vehicles would make it even more dangerous.

Also, due to the popularity of the 'Twin Ponds' dog walking park just around the corner for hikers and mountain bikers especially, Lake Road is travelled often by cyclists and dog walkers. Increasing the speed along Lake Road to 70 km/h increases the risk for everyone. Even now, some motorists travel the road at 70 km/h. Increasing the legal speed limit to 70 km/h will mean that many will drive at 90 km/h.

The vegetation that grows along Lake Road in the ditches, is already making it dangerous for cars turning from Sandy Shore Blvd onto Lake Road due to the diminished visibility. Increasing the speed to 70 km/h will make it even more risky for residents and visitors exiting Sandy Shore Blvd.

Lake Road is just not wide enough to safely accommodate vehicular traffic, foot traffic and bicycles and strollers, even at 50 km/h as it is now. I have personally nearly been hit by vehicles on a number of occasions due to drivers not paying attention and their vehicles drifting onto the small shoulder of the road. At 70 km/h, the risk will be increased dramatically.

Increasing the speed limit is just not worth it in the long run. To save what, 30 seconds in time by increasing the speed limit an extra 20 km/h, when people are already speeding almost all the time anyway, is just not worth the risk to everyone's lives that live or visit the area.

Kindest regards,

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]



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Please provide your comments below

Increasing the speed would be ill advised. I fear the consequences our neighborhood would suffer. As is slowing down to turn into our gate becomes tricky at times. Increasing the speed would likely make driving in and out of our gate far more treacherous and dangerous than it already is.



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Please provide your comments below

Hello, we are deeply concerned to learn about the proposal to increase the speed limit to 70k for most of Lake Rd. As residents of Irish Creek, we drive this road many times daily and know the risk created by speeders who already drive 70k +. We have seen numerous accidents on this road where speeders end up upside down in the swamp beside the road in both sides. Slippery conditions and the turn near the parking lot only make this worse. More concerning, there are no shoulders or sidewalks on this section of road, which already puts pedestrians and cyclists at risk. Increasing the speed limit here will only increase that risk with likely fatal consequences. We are already at risk of being rear ended each time we slow down for our road by speeders who don't wish to slow down for us to make the turn. Increasing the speed limit will only increase this risk. For the health and safety of the many members of this community who live on the west end of Lake Rd in Irish Creek, and on Travelled Rd/Swastika Trail, we plead with you to reconsider raising the speed limit and certainly not to 70k.

Thank you for your careful consideration.



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Please provide your comments below

Trucks do not belong in Lake Rd. Our homes are too close to the road. They speed and have almost hit us in the corner. They are loud and cause pollution. Let them use 34.

Please do not raise the speed. I can't understand how a solution to a speeding problem would be to increase speed??

Proposed stop sign at Corner of concession 2 is a great idea.



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Please provide your comments below

Lake road should be 50kms or less. Preferably 40 Kms with speed bumps. An electronic sign to alert speeders of their speed. There are children whose houses front this road and their driveways are short and abut street. There are 3 school bus stops on this road. Children walk on this road. We walk our dogs on this road. Many joggers!!! We have seen so many vehicles end up in ditch year round as it is a dark unlit road. This is a serious safety issue . We cannot have 70 kms an hour!!!!!! This is ludicrous!



**County of Wellington
Wellington Road 32 (Lake Road), Wellington Road 33
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Please provide your comments below

We would like speed limit reduced below 50 km an hour on Lake Road. There have been numerous accidents and fatalities, especially around bend at car park. There remains the monument from the motorcyclist death at this bend. There is limited visibility due to forest and we cannot remove the trees..... it is a dark unlit road. There are 2 school bus stops where you propose increase to 70kms an hour. People bike and jog and walk on this road. It is a safety issue to increase to 70kms an hour!!!! This cannot happen. We were expecting speed enforcement like speed bumps!!!!!! Please call me at [REDACTED]. Thanks, [REDACTED]



**County of Wellington
Wellington Road 32 (Lake Road), Wellington Road 33
to Concession 2
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Please provide your comments below

I was shocked to read that there is serious consideration, and a proposal to increase the speed on Lake Road. It is already dangerous. There is no shoulder on the roads, and no traffic lights. I am very opposed to increasing the speed limit beyond 50 km/h and would have recommended reducing the speed limit. With traffic turning in and out of the park and go parking lot, the multiple residential streets, and the campground which is very busy in the summer it is insane to increase the speed beyond 50 km/h. Who is proposing this???



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Please provide your comments below

I think the proposed change to a 70 km an hour speed limit on Lake Road is very ill advised. The road is already dangerous for walkers and cyclists and given there is no shoulder, there is very little margin for error. I'm not sure which best practises of traffic management this suggested change violates but this does not seem to fall into the category of roads that would be 70 km/h. There are multiple entry points into residential areas. The cars will be slowing down to enter, or required to rapidly accelerate to exit. I'm not sure what problem you're trying to solve but the risks here seem to significantly outweigh any benefits



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Please provide your comments below

Thank you for the open house. We live at [REDACTED] Lake Rd with two very young children and I can't express how thankful I am for this walking area / trail. The fact that I can walk safely and my kids can actually ride their bikes at their home is a bigger deal than you can imagine.

I would suggest putting some of those white reflective posts intermittently along the walking area to avoid people driving up on it to pass. If you recall the median speed signs were hit daily until the township gave up on them as people were illegally passing.



PROJECT OPEN HOUSE

Thursday November 24, 2022 from 5:00 to 7:00 pm, Puslinch Community Centre

Wellington Road 32 (Lake Road) Rehabilitation
Wellington Road 33 to Concession 2

COMMENT SHEET

IF YOU BUILD IT - THEY WILL COME

A BETTER ROAD WILL RESULT IN
HIGHER TRAFFIC VOLUMES

INCREASE IN EXHAUST, SALT USE & LITTER

INCREASE TRUCK TRAFFIC

LACK OF ENFORCEMENT MEANS SAFETY
CONCERNS

CONCERN OVER ^{DETOUR} USE WHEN 401 CLOSED

NEED FOR SOUND BARRIERS

Combine McLin & Butler & three way stop.



PROJECT OPEN HOUSE

Thursday November 24, 2022 from 5:00 to 7:00 pm, Puslinch Community Centre

Wellington Road 32 (Lake Road) Rehabilitation
Wellington Road 33 to Concession 2

COMMENT SHEET

2022 Nov 24 - Section of road (Little Lake to stop sign) should have pedestrian shared space (e.g. sidewalk) to reduce conflicts between people accessing Lake (summer & winter). That should be on south side of road.



PROJECT OPEN HOUSE

Thursday November 24, 2022 from 5:00 to 7:00 pm, Puslinch Community Centre

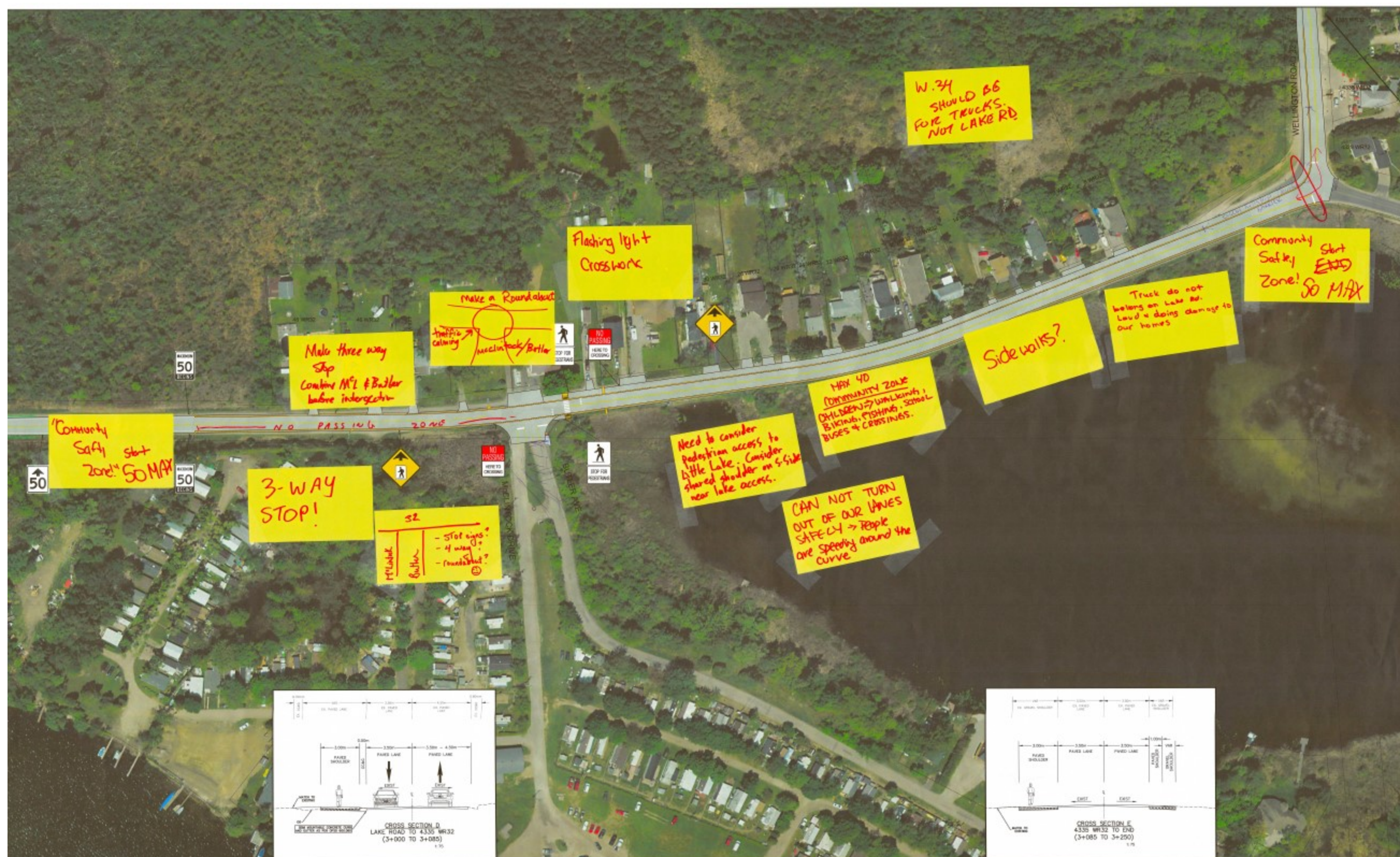
Wellington Road 32 (Lake Road) Rehabilitation
Wellington Road 33 to Concession 2

COMMENT SHEET

- LEFT TURN LANE @ CAR PARK
- Turn lanes & 3-way stop at McClintock/Butler - good
- "Brutal" curve near parking lot has a negative slope.
- STOP at ICE - unnecessary.











PLANNING REPORT 23/04 for the TOWNSHIP OF GUELPH/ERAMOSA

Prepared by the County of Wellington Planning and Development Department in our capacity as planning consultants for the Township

MEETING DATE: February 15th, 2023
TO: The Mayor and Members of Council
FROM: Meagan Ferris, Manager of Planning and Environment
SUBJECT: **Bill 23 – *More Homes Built Faster Act, 2022***

RECOMMENDATION:

That the Township of Guelph/Eramosa receive Planning Report 23/04 regarding the Bill 23 – *More Homes Built Faster Act, 2022* for information.

BACKGROUND

In October 2022, Bill 23 - *More Homes Built Faster Act, 2022* was introduced by the Province of Ontario and received Royal Assent on November 28th, 2022. This Act implemented changes to nine (9) different Acts, which includes but is not limited to the *Planning Act*, *Development Charges Act*, *Ontario Heritage Act*, *Ontario Land Tribunal Act*, *Municipal Act*, and *Conservation Authority Act*. Not all of these changes are in force and effect, with several changes, notably changes to the *Conservation Authority Act*, to be determined at a later date. Bill 23 is a part of the Province's long-term strategy to increasing housing supply in the next 10 years to meet a goal of 1.5 million homes.

The intent of this report is to provide a summary of the main changes that have occurred due to Bill 23, with a focus on the *Planning Act* changes that impacts the Township of Guelph-Eramosa's approach to certain planning application. This report does not include a detail and comprehensive review of the changes to the *Development Charges Act*, parkland dedication and amendments to the *Ontario Heritage Act*.

It is further noted that changes to the *Planning Act* were previously implemented through Bill 109 - *More Homes for Everyone Act, 2022* in April 2022. It was this previous legislation that introduced the gradual application fee refund process and enhanced the site plan approval process to align with other *Planning Act* applications. A previous summary of these legislative changes was prepared by the County for all of the local municipalities. This memo was previously on the June 20th, 2022 Council agenda.

DISCUSSION

Included below is discussion specific to key areas of changes that directly impact the Township's current process for certain *Planning Act* applications. This section also outlines some suggestions for the Township to undertake to respond to the changes created by Bill 23.

Site Plan Control

Residential Development – 10 Units or Less

The amendments to the *Planning Act* specific to site plan control are significant. One specific change includes a revision to the definition of “development” under Section 41 of the *Planning Act*, which is now in effect. This change to the definition *excludes* residential development that contains ten (10) units or less from the site plan control process. This process change will seek to bring infill development on-line faster by removing a step commonly applied to the review and approval process. Residential development with 10 units or less will now go straight to the building permit process. Zoning compliance will need to be demonstrated through the building permit review process.

All Development

For all other development types (residential over 10 units; commercial, institutional, industrial and mixed use) there are changes to the Act specifically related to what can be approved as part of the standard site plan review and approval process. The following is now excluded from site plan approval:

- Exterior Building Design - such as building materials, roof design, façade design etc.
 - Exterior building design, specific to access to a building, may still be subject to site plan approval for affordable housing projects or construction matters related to environmental design.
 - It is important to note that the Township can still request “conceptual architectural plans” and that the changes to exterior design approval does not apply to a site plans submitted prior to November 28th, 2022.
- Landscaping - such as landscaping for aesthetic purposes only
 - Landscaping can still be reviewed and approved if it assists with a development’s impacts on matters of public health, safety, accessibility, sustainable design, or the protection of adjoining lands.
 - It is important to note that it does not appear that these changes limit the collection of securities for the implementation of on-site landscaping works.

Impacts to the Township

The Township may see an uptake in infill development types. This will result in a loss in site plan application fees for these types of developments and more demand on municipal services.

Due to the aforementioned changes to the site plan process, it is suggested that the Township look at:

- (i) Updating the Township’s Site Plan Control By-law to align with the changes to site plan control, including the exemption for 10 residential units or less and changes to what site plan can cover;
- (ii) Assess how specific technical items, such as on-site storm water management and drainage issues can be addressed for infill developments that are 10 residential units or less as part of the building permit process. A review of the Building By-law is suggested. The Township may also wish to review if requirement for these items can also be addressed through other means (i.e. site alteration permits);
- (iii) Review the applicability of the Township’s Design Guidelines and determined if an amendment to the Township’s development standards is necessary; and

(iv) Review if there is an opportunity to enhance existing zoning provisions already in place specific to items such as landscaping buffering.

(v) Review the Township's existing site plan agreement template to ensure the language is still applicable.

Additional Residential Units (ARUs)

The previous sections in the Act that spoke to additional residential units have been replaced and a new definition of "urban parcel land" has also been included within the *Planning Act*. This newly defined term is used within the revised provisions that speaks to ARU's. The changes appear to provide more clarity that ARU's are permitted in urban areas where municipal services are available and that an Official Plan and Zoning By-law cannot have the effect of prohibiting ARUs on an urban parcel of land.

A total of three residential units (2 of which are ARUs) continue to be permitted and the Act allows - two (2) ARUs in the primary dwelling provided there is no ARU in an ancillary building OR a maximum of one (1) ARU in the primary dwelling if an ancillary building contains an ARU. An Official Plan and Zoning By-law cannot require more than one parking stall per ARU and cannot impose a minimum floor area.

The Minister can create additional regulations for ARU's, but at this time revised regulations have not been issued. County planning staff will be reviewing the Official Plan to determine if updates to the Plan are required to align with these changes specific to ARUs.

Impacts to the Township

No adjustments to the Zoning By-law are anticipated at this time.

Appeal Rights for Minor Variances

Due to the changes to the *Planning Act*, the appeal rights for certain planning applications – specifically consent and minor variances applications – have been amended. Appeals to the Ontario Land Tribunal (OLT) are permitted to be made by the (i) applicant; (ii) the Minister or (iii) a specified public person or body. Rights of appeal for third parties (such as a neighbour) is no longer applicable. This change is in force and effect.

Impacts to the Township

The Township should review and update any of their information that includes an overview of appeal rights for minor variances (i.e. such as notices issued for minor variance applications) and consents.

ADDITIONAL ITEMS THAT IMPACT LAND USE PLANNING

Draft Plans of Subdivision

The changes no longer *require* a public meeting to be held for a plan of subdivision application.

Ontario Land Tribunal

Updates to the Ontario Land Tribunal are not yet in force and effect; however, they primarily seek to empower the Tribunal to order an unsuccessful party to pay the costs of the successful party and increase the Tribunal's powers to dismiss an appeal if the Tribunal is of the opinion that a party is contributing to undue delays in the proceedings.

Conservation Authorities Act

Bill 23 has also proposed future amendments and has implemented a series of amendments to the *Conservation Authorities Act* that will greatly change the role of conservation authorities. Some of the key updates in effect currently include:

- Streamlining the focus of a CA by scoping their mandatory review and approvals to (i) areas of natural hazards and (ii) flooding;
- Removing the opportunity for CA's to comment on development proposals under a list of prescribed Acts. The list of prescribed Acts includes ten (10) different Acts including, but not limited to, the *Planning Act*, *Aggregate Resources Act*, *Drainage Act*, *Condominium Act* etc.;
- Requirements for a CA permit to be issue, where applicable, for orders made by the Minister under the Community Infrastructure and Housing Accelerator;
- Temporarily freezing CA fees;
- The need to identify CA lands available for potential residential development; and
- Limiting the CA's appeal rights

There are also a series of additional changes that are proposed to be implemented at a later date, which includes potentially exempting certain municipalities from permits from a CA; the creation of a single regulation for all CA's in the Province; updates to wetland evaluation and the associated CA regulation limits.

Additional discussions with the Grand River Conservation Authority (GRCA) will be required to assist in further breaking down the new Provincial directive and to outline the GRCA's modified roles within the Township's development process. It is anticipated that the GRCA will be arranging a future meeting with municipal staff to discuss their revised role, scope of work, process, transition periods etc.

Changes to Parkland Dedication, Development Charges and Heritage

The new legislative changes have also amended (or proposed to amend) the *Planning Act* specific to parkland dedication, the *Development Charges Act* and the *Ontario Heritage Act*. Planning staff have not completed a detail review of these aforementioned changes; however, some changes have been highlighted below.

- ***Parkland Dedication***
 - Changes to the alternative rate for physical parkland dedication and cash-in-lieu
 - Not applicable to ARUs;
 - Discounts for certain residential uses such as affordable housing and attainable housing (not in effect);
 - Owner to determine parkland to be dedicated and an appeal process if there is a disagreement over the land identified (not in effect)
- ***Development Charges Act***
 - Exemptions to development charges for certain residential uses (i.e. adding units to an existing rental development; affordable rental units; attainable housing; ARUs; and non-profit housing);
 - Percentage discounts for rental housing (based on unit sizes)
- ***Ontario Heritage Act***
 - Notices of Intent to designation a property is only permitted if this property is already listed on the heritage register;
 - Additional criteria for registration under a future regulation;
 - Requirement to review heritage registers to determine if designation is required

NEXT STEPS

Within this report, planning staff have highlighted areas related to development planning within the Township that are impacted by Bill 23 and staff have further outlined potential impacts and next steps. Planning staff will continue to work with Township staff in assessing and responding to the various changes to ensure the Township remains current with the new development framework.

Respectfully submitted by:



Meagan Ferris, RPP MCIP
Manager of Planning and Environment

Reviewed by
Township of Guelph Eramosa

Ian Roger, P.Eng.
CAO

OPPI & WeirFoulds LLP Annual Seminar

Bill 23 – More Homes Built Faster Act, 2022

Amendments to the Development Charges Act, the Ontario Heritage Act, the Conservation Authorities Act, the Ontario Land Tribunal Act, 2021 and the Planning Act

Thursday, December 15, 2022 | 9:00 a.m. to 12:00 p.m.

The information and comments herein are for the general information and not intended as advice or opinion to be relied upon in relation to any particular circumstances. For application of the law to specific situations, the reader/viewer should seek professional advice. The information was updated on December 14, 2022.

Introduction

- The ***More Homes Built Faster Act, 2022, S.O. 2022*** (Bill 23) (the “***Act***”) received Royal Assent on **November 28, 2022**. Several of the amendments contained in the *Act* are now in effect. Most other amendments will come into effect on a date to be determined
- The *Act* implements fundamental changes in nine (9) pieces of legislation related to development in Ontario, being: the *City of Toronto Act*, the *Conservation Authorities Act*, the *Development Charges Act, 1997*, the *Municipal Act, 2001*, the *New Home Construction Licensing Act, 2017*, the *Ontario Heritage Act*, the *Ontario Land Tribunal Act, 2021*; the *Ontario Underground Infrastructure Notification System Act, 2012*; and the *Planning Act*.
- In addition, the *Act* also enacts the *Supporting Growth and Housing in York and Durham Regions Act, 2022* to expedite the planning, development and construction of certain sewage infrastructure.

Introduction

We will highlight the key changes to:

- *The Development Charges Act, 1997*
- *The Ontario Heritage Act*
- *The Ontario Land Tribunal Act, 2021*
- *The Conservation Authorities Act*
- *The Planning Act*

Introduction

- The Province describes the *Act* as part of a long-term strategy to increase housing supply and provide attaining housing options with a goal of building 1.5 million homes in the next 10 years.
- The Province has also posted on the Environmental Registry a description of proposed new regulations that implement the *Act*, including a description for proposed new regulations for the *Development Charges Act, 1997, Ontario Heritage Act, Conservation Authorities Act* and *Planning Act*. The commenting period for these proposed new regulations ended on December 9, 2022.



The Development Charges Act

Presenter: Bruce Engell | Partner | WeirFoulds LLP

The Development Charges Act

- Exemptions for:
- Added Units to Rental Apartments
- 3 units per detached, semi or rowhouse
- Affordable Residential Units – rental or purchase
- Attainable Housing Units
- Inclusionary Housing Units
- Non-Profit Housing Development

The Development Charges Act

- Housing Services no longer part of a DC
- Toronto 9.2% of its DC for affordable housing and shelters
- Level of Service now 15 years not 10
- Land costs for certain services can be excluded - regulation

The Development Charges Act

- Cost of studies and cost of background study – out of DCs
- Phasing in over 4 years – 80, 85, 90 and 95% - so 100% only in the last year
- Roughly 10% discount across the board

The Development Charges Act

- Must Spend or Allocate DC Reserves
- 60% of water or sewer or road related DC reserve fund per year
- “Spend” may be clear but what does Allocate mean?
- Consequences if not done?

The Development Charges Act

- Rental Housing Development
- 25% Discount for 3 bdrm and more
- 20% Discount for 2 bdrm units
- 15% Discount for all other rental units
- Interest Rate is Prime Plus 1%

The Development Charges Act

- Province says municipalities to be “kept whole”
- DC increases 2018 to 2022 – unreasonable?
- in Toronto a 3 bdrm rental unit could pay 54% of the DC
- How is “affordable” ownership kept affordable?
- Expensive old couches?



The Ontario Heritage Act

Presenter: Sylvain Rouleau | Partner | WeirFoulds LLP

The Ontario Heritage Act

There are 5 main highlights regarding the changes to the OHA:

- Restrictions on Notices of Intention to Designate;
- Prescribed Criteria for Designation;
- Removal of Properties from the Register;
- Prescribed Criteria to designate HCD; and,
- Retroactive Ministerial Review.

The Ontario Heritage Act

Restrictions on Notices of Intention to Designate

- Municipalities will not be permitted to issue a notice of intention to designate a property under Part IV of the *Ontario Heritage Act* unless the property is already on the heritage register when the current 90-day requirement for *Planning Act* applications is triggered.



The Ontario Heritage Act

Prescribed Criteria for Designation

- Once effective, the amendments brought by Bill 23 will require that a property meet additional criteria to be designated as a heritage property.
- The criteria will be prescribed in regulation.



The Ontario Heritage Act

Removal of Properties from the Register

- Heritage registers are to be reviewed and a decision made as to whether listed properties are to be designated, and if not, they are to be removed from the register.

The Ontario Heritage Act

Prescribed Criteria to designate HCD

- On a day to be proclaimed, Bill 23 will allow additional criteria that must be met to designate an area as a Heritage Conservation District (“**HCD**”).
- The Minister of Citizenship and Multiculturalism is permitted to prescribe a process for municipalities to amend or repeal HCD by-laws.

The Ontario Heritage Act

Retroactive Ministerial Review

- Upon proclamation, the Minister of Citizenship and Multiculturalism will be authorized to revise the heritage standards and guidelines for the identification, protection, maintenance, use and disposal of property that is owned by the Crown or occupied by a ministry or prescribed public body that has cultural heritage value or interest.



The Ontario Land Tribunal Act, 2021

Presenter: Chantal DeSereville | Associate | WeirFoulds LLP

The Ontario Land Tribunal Act, 2021

- Four key changes:
 - Ability to dismiss for undue delay
 - Ability to dismiss for non-compliance with Tribunal order
 - Enhanced ability to award costs
 - New regulation-making powers
- Not yet in force

The Ontario Land Tribunal Act, 2021

- Ability to dismiss for delay:
 - Another tool added to existing toolbox
 - Tribunal must give notice, provide reasons, and allow submissions
 - Considerable discretion

The Ontario Land Tribunal Act, 2021

- Ability to dismiss for non-compliance with Tribunal order:
 - Adds more teeth to procedural orders
 - Ability to revise deadlines on consent with the Tribunal's permission not affected

The Ontario Land Tribunal Act, 2021

- Enhanced ability to award costs
 - Potential pivot toward civil litigation model
 - Costs still discretionary
 - No guidelines as of yet

The Ontario Land Tribunal Act, 2021

- New regulation-making ability
 - Prioritizing resolution of certain proceedings
 - Imposing timelines on Tribunal for certain steps in proceedings

Conservation Authorities Act

Presenter: Chantal DeSereville | Associate | WeirFoulds LLP



Conservation Authorities Act

- Powers circumscribed
- Amendments to dormant changes from Bill 139

Conservation Authorities Act

- Minister of Natural Resources and Forestry has replaced the Minister of Environment, Conservation and Parks as the administering authority of the Act
- In force as of November 28, 2022

Conservation Authorities Act

- Only be permitted to review and comment on proposals and applications that are not made under certain prescribed acts, potentially:
 - The Aggregate Resources Act;
 - The Condominium Act;
 - The Drainage Act;
 - The Endangered Species Act;
 - The Environmental Assessment Act;
 - The Environmental Protection Act;
 - The Niagara Escarpment Planning and Development Act;
 - The Ontario Heritage Act;
 - The Ontario Water Resources Act; and
 - The Planning Act.



Conservation Authorities Act

- Ability of Minister to prevent increase of fees for programs and services
- Will come into force on January 1, 2023

Conservation Authorities Act

- Development authorized by the Planning Act exempt from Conservation Authority approval in prescribed municipalities
- To come into force on a day to be named



Conservation Authorities Act

- Permits required for Community Infrastructure and Housing Accelerator orders (like MZO's)
- In force as of November 28, 2022



Conservation Authorities Act

- Individual regulations to be revoked on July 1, 2023
- Paired with prohibitions and obligations to apply across the board (on a date to be named)

Conservation Authorities Act

- Removal of consideration of “Conservation of Land” and “Pollution”
- Replacement with consideration of the effects on the “control of unstable soil or bedrock”
- In force on a date to be named

Amendments to the Planning Act

Presenters:

Denise Baker | Partner | WeirFoulds LLP
Raj Kehar | Partner WeirFoulds LLP

Amendments to the Planning Act

Twelve (12) Themes:

- 1) New and revised sections related to **Community Benefit Charges**
- 2) New and revised sections related to **Site Plan Control**
- 3) New and revised sections related to **Parkland Dedication & Cash in Lieu**
- 4) Elimination of the **Two Year Restriction** on certain applications
- 5) New and revised sections related to **Minor Variances**
- 6) New and revised sections related to **Consents**

Amendments to the Planning Act

Twelve (12) Themes:

- 7) Minister may by **Minister Order** amend an in effect Official Plan
- 8) New and revised sections related to **Protected Major Transit Station Areas**
- 9) New and revised sections related to **Additional Residential Units**
- 10) Modified appeal rights and party status rights for **Conservation Authorities**
- 11) Elimination of planning responsibility for certain **Upper-Tier Municipalities**
- 12) New exception to **subdivision control & part lot control**

Community Benefit Charges

Community Benefit Charge Agreements are now authorized (in effect)

- If a municipality permits an in-kind contribution in partial or full satisfaction of a community benefit charge, the municipality may require the owner to enter into an agreement with the municipality that addresses the provision of the in-kind contribution.
- The Community Benefit Charge agreement may be registered on title against the lands to which it applies.

Community Benefit Charges

Maximum amount of Community Benefit Charge (in effect)

- The maximum amount of the community benefit charge payable cannot exceed an amount equal to the prescribed percentage of the value of the land, as of the valuation date, multiplied by the ratio of “A” to “B” where:
- “A” is the floor area of any part of the building or structure, which part is proposed to be erected or located as part of the development and redevelopment, and
- “B” is the floor area of all buildings and structures that will be on the land after the development or redevelopment.

Community Benefit Charges

Maximum amount of Community Benefit Charge (in effect)

- The current prescribed percentage is four percent (4%).
- The effect of the “A” to “B” ratio is to impose a community benefit charge only with respect to new development on the land, by determining what percentage of the total floor area on the lands represents new development and then determining a maximum community benefit charge based on that portion of the lands only.

Community Benefit Charges

Maximum amount of Community Benefit Charge (in effect)

Example:

- If the value of the lands is \$10,000,000.00, and the lands contain 1000 sq. m. of floor area, the development adds 3000 sq. m. of floor area, and therefore post development the lands will contain 4000 sq. m. of floor area, the maximum community benefit charge would be calculated as follows:

$$\$10,000,000 \times 4\% \times (0.75 \text{ (being } 3000 \text{ sq. m./} 4000 \text{ sq. m.)}) = \$300,000.$$

Community Benefit Charges

Discount on maximum amount of community benefit charge for certain types of housing (in effect date to be determined)

- The maximum community benefit charge is to be further discounted by a ratio of “A” to “B” where:
- “A” is the floor area of all buildings that are part of the development or redevelopment minus the floor area of all affordable residential units, attainable residential units and affordable housing units required under inclusionary zoning policies.
- “B” is the floor area of all buildings that are part of the development or redevelopment.

Community Benefit Charges

Discount on maximum amount of community benefit charge for certain types of housing (in effect date to be determined)

- The effect of the “A” to “B” ratio is to not impose a community benefit charge on that portion of new development that contains affordable residential units, attainable residential units and affordable housing units required under inclusionary zoning policies.
- It does this by discounting the maximum community benefit charge payable by the percentage of the floor area of the new development that contains these types of housing.

Community Benefit Charges

Discount on maximum amount of community benefit charge for certain types of housing (in effect date to be determined)

Example:

- If the value of the lands is \$10,000,000.00, and the lands currently contain 1000 sq. m. of floor area, the development adds 3000 sq. m. of floor area, and therefore post development the lands will contain 4000 sq. m. of floor area, and of this new development 1000 sq. m. represents the floor area of housing that is eligible for the discount, the maximum community benefit charge would be calculated as follows:

$$\$10,000,000 \times 4\% \times (0.75 \text{ (being } 3000 \text{ sq. m.} / 4000 \text{ sq. m.)}) = \$300,000$$

$$\$300,000 \times (0.66666667 \text{ (being } 3000 \text{ sq. m.} - 1000 \text{ sq. m.} / 3,000 \text{ sq. m.)}) = \$200,000$$

Community Benefit Charges

Discount on maximum amount of community benefit charge for certain types of housing (**in effect date to be determined**)

- The *Planning Act* provides that the definition of **affordable residential unit** and **attainable residential unit** is as per section 4.1 (1) of the *Development Charges Act*. These definitions in the *Development Charges Act* will be in effect on a date to be determined.

Community Benefit Charges

Discount on maximum amount of community benefit charge for certain types of housing (in effect date to be determined)

- The definition of **affordable residential unit** in section 4.1(1) of the *Development Charges Act* means a residential unit that:
 - (a) is intended for use as a rented residential premises **where the rent is no greater than 80 per cent of the average market rent as determined for the year in which the residential unit is occupied by a tenant**, as identified in the bulletin entitled the “Affordable Residential Units for the Purposes of the *Development Charges Act, 1997 Bulletin*” as amended, and the tenant is dealing at arm’s length with the landlord, or
 - (b) **is not intended for use as a rented residential premises where the price of the residential unit is no greater than 80 per cent of the average purchase price as determined for the year in which the residential unit is sold**, as identified in the bulletin entitled the “Affordable Residential Units for the Purposes of the *Development Charges Act, 1997 Bulletin*” as amended, and the residential unit is sold to a person who is dealing at arm’s length with the seller.

Community Benefit Charges

Discount on maximum amount of community benefit charge for certain types of housing (in effect date to be determined)

- The definition of attainable residential unit in section 4.1(1) of the Development Charges Act means a residential unit that :
 - 1. is not an affordable residential unit;
 - 2. is not intended for use as a rented residential premises;
 - 3. the residential unit was development as part of a prescribed development or class of developments;
 - 4. the residential unit is sold to a person who is dealing at arm's length with the seller; and
 - 5. such other criteria as may be prescribed.

Site Plan Control

Revised definition of “development” for site plan control (in effect)

- The definition of development no longer includes the construction, erection or placing of a building or structure for residential purposes on a parcel of land if that parcel of land will contain no more than 10 residential units.
- The exception to this is the construction, erection or placing of a land lease community home on a parcel of land that will contain any number of residential units. A land lease community home is defined as any dwelling that is a permanent structure where the owner of the dwelling leases the land used or intended for use as the site for the dwelling but does not include a mobile home.
- **Accordingly, as site plan control applies to development as defined in section 41 of the *Planning Act*, with exception to a land lease community home, the construction, erection or placing of a building or structure of 10 or less residential units will not be subject to site plan control.**

Site Plan Control

Matters relating to exterior design are in limited instances a subject of site plan control (in effect)

- Matters related to exterior design, including without limitation the character, scale, appearance and design features of a building are no longer a subject of site plan control
- The components of exterior design that remain a subject of site plan control are as follows:
 - (a) matters related to exterior access to a building that will contain affordable housing units;
 - (b) matters related to building construction required under by-law pursuant to section 97.1 of the *Municipal Act* that pertain to the protection or conservation of the environment.

Site Plan Control

Matters relating to exterior design are in limited instances a subject of site plan control (in effect)

- The appearance of the elements, facilities and works on the land or any adjoining highway under a municipality's jurisdiction is not a subject of site plan control, except to the extent that the appearance impacts matters of health, safety, accessibility, sustainable design or the protecting of adjoining lands.
- Site plan applications submitted for approval before or after November 28, 2022 have to meet the revised definition of development to be subject to site plan control.
- Site plan applications submitted before November 28, 2022 continue to be subject to all matters related to exterior design that were a subject of site plan control pre-Bill 23.
- Similar changes have been made to the City of Toronto Act with respect to its site plan control powers.

Parkland Dedication and Cash in Lieu

Alternative rate reduced for physical parkland dedication (in effect)

- A municipality is required to have a park levy bylaw in effect to seek the alternative rate under both the park levy bylaw or as a condition of subdivision or consent approval.
- The alternative rate for a physical parkland dedication has been reduced from a rate of up to one hectare for each 300 dwellings units to a rate of **up to one hectare for each 600 net residential unit**.
- This amended alternative rate for physical parkland dedication does not apply where a building permit has been issued with respect to the development or redevelopment on or before November 28, 2022 or where a subdivision application was draft plan approved with a park levy conveyance condition on or before November 28, 2022

Parkland Dedication and Cash in Lieu

Alternative rate reduced for a cash-in-lieu payment (in effect)

- The alternative rate for a cash-in-lieu payment has been reduced from a rate of up to one hectare for each 500 dwellings units to a rate of **up to one hectare for each 1000 net residential units**.
- This amended alternative rate for a cash-in-lieu payment does not apply where a building permit has been issued with respect to the development or redevelopment on or before November 28, 2022 or where a subdivision application was draft plan approved with a park levy conveyance condition on or before November 28, 2022

Parkland Dedication and Cash in Lieu

Net residential unit excludes existing units (in effect)

- With respect to a park levy determined under a park levy bylaw, a net residential unit is determined by subtracting the number of residential units on the land immediately before the proposed development or redevelopment from the number of residential units that that will be on the land after the proposed development or redevelopment.
- With respect to a park levy determined under a subdivision condition, the net residential units proposed shall be determined by subtracting the number of residential units on the land immediately before the draft plan of subdivision is approved from the number of residential units that are proposed to be on the land proposed to be subdivided.
- The purpose of the net residential unit requirement is to not charge (or provide a credit) for pre-existing residential units.

Parkland Dedication and Cash in Lieu

Overall cap on Alternative Rate for all lands (in effect)

- Prior to Bill 23, the *Planning Act* imposed an overall cap on the alternative rate that applied to land that is designated a transit oriented community under section 2(1) of the *Transit Oriented Communities Act, 2020*.
- This overall cap provided that the alternative requirement shall not require a conveyance or cash-in-lieu payment that is greater than:
 - (a) in the case of land proposed for development or redevelopment or included in the plan of subdivision that is five hectares or less in area, 10 percent of the land or value of the land.
 - (b) in the case of land proposed for development or redevelopment or included in the plan of subdivision that is greater than five hectares in area, 15 per cent of the land or the value of the land.

Parkland Dedication and Cash in Lieu

Overall cap on Alternative Rate for all lands (in effect)

- Post Bill 23, this overall cap on the alternative rate has been extended to all lands.
- However, the extension of this cap to all lands does not apply to:
- (a) a development or redevelopment that was issued a building permit before November 28, 2020, unless the land for development or redevelopment was designated a transit oriented community under section 2(1) of the *Transit Oriented Communities Act, 2020*.
- (b) a draft plan of subdivision application approved before November 28, 2022, unless the land included in the plan of subdivision is designated as transit oriented community under section 2(1) of the *Transit Oriented Communities Act, 2020*.

Parkland Dedication and Cash in Lieu

When park levy requirement is determined under park levy by-law (in effect)

- The amount of land or payment in lieu required to be provided is the amount of land or payment in lieu that would be determined under the park levy by-law on:
 - (a) the day an application for site plan approval is made in respect of the development or redevelopment; or
 - (b) if no site plan application is required, the day an application for a zoning bylaw amendment is made with respect to the development or redevelopment; or
 - (c) if no site plan application or zoning by-law amendment application is required, the day a building permit was issued in respect of the development or redevelopment or, if more than one building permit is required for the development or redevelopment, the day the first permit was issued.

Parkland Dedication and Cash in Lieu

When park levy requirement is determined under park levy by-law (in effect)

- If more than two (2) years have lapsed since (a) the date the site plan application was made, or (b) if a site plan application is not required, the date the zoning by-law was made, and in either scenario no first building permit has issued, the park levy is determined on the day the first building permit for the development or redevelopment was issued.
- If the development or redevelopment was the subject of more than one site plan application or more than one zoning by-law amendment application, the latter one is deemed to be the applicable application for the purposes of determining when the park levy required is determined.
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- Applications made on or before November 28, 2022 are transitioned with respect to all of these new rules related to when a park levy requirement is determined.

Parkland Dedication and Cash in Lieu

Park levy does not apply to non-profit housing (in effect)

- A park levy does not apply to non-profit housing development irrespective of whether that park levy is being obtained under a park levy by-law or as a condition of subdivision approval pursuant to subsection 51.1 of the *Planning Act*.
- Non-profit housing development is defined in subsection 4.2(1) of the *Development Charges Act*, and it means the development of a building or structure intended for use as a residential premises and developed by,
 - (a) a corporation to which the *Not-for-Profit Corporations Act, 2010*, applies, that is in good standing under the Act and whose primary objective is to provide housing
 - (b) a corporation without share capital to which the *Canada Not-for profit Corporations Act* applies, that is in good standing under that Act and whose primary objective is to provide housing, or
 - (c) a non-profit housing cooperative that is in good standing under the *Co-operative Corporations Act*.

Parkland Dedication and Cash in Lieu

Park levy does not apply to additional residential units (in effect)

- A park levy does not apply to the erection or location of additional residential units that are specifically authorized by the *Planning Act*.
- What are additional residential units will be discussed later on in this presentation.

Parkland Dedication and Cash in Lieu

Discount for affordable residential units, attainable residential units and affordable housing units required under inclusionary zoning (in effect date to be determined)

- With respect to land proposed for development or redevelopment that will include affordable residential units, attainable residential units and/or affordable housing units required under inclusionary zoning policies, the amount of land required to be conveyed shall not exceed 5 per cent of the land multiplied by the ratio of “A” to “B” where:
- “A” is the number of residential units that are part of the development that are not affordable residential units, attainable residential units and/or affordable housing units required under inclusionary zoning policies, and
- “B” is the number of residential units that are part of the development or redevelopment.

Parkland Dedication and Cash in Lieu

Discount for affordable residential units, attainable residential units and affordable housing units required under inclusionary zoning (in effect date to be determined)

- The effect of the “A” to “B” ratio is to impose a park levy requirement only with respect to that portion of new development or redevelopment on the lands that does not contain affordable residential units, attainable residential units and affordable housing units required under inclusionary zoning policies.
- It does this by discounting the maximum park levy payable by the percentage of affordable residential units, attainable residential units and affordable housing units required under inclusionary zoning policies that are part of the residential portion of the development.

Parkland Dedication and Cash in Lieu

Discount for affordable residential units, attainable residential units and affordable housing units required under inclusionary zoning (in effect date to be determined)

- **Example:** If the land subject to development is 10 hectares (100,000 sq. m) in size, and all of the development proposed is residential, then the municipality is entitled to up to 5% of the land for park or other recreational purposes, which would amount to 500 sq. m. If the proposed development consists of 200 residential units and 10 of these residential units are eligible for the discount,, then in that instance the total park levy conveyance would be calculated as follows:

$$10,000 \text{ sq. m.} \times 0.05 = 500 \text{ sq m.}$$

Discount:

$$500 \text{ sq m.} \times (0.95 \text{ (being } (200-10)/200)) = 475 \text{ sq. m.}$$

Parkland Dedication and Cash in Lieu

Discount for affordable residential units, attainable residential units and affordable housing units required under inclusionary zoning (in effect date to be determined)

- With respect to this discount as applied to the Alternative Rate, the eligible units are excluded from the number of net residential units for the development or redevelopment, such that they are not counted as part of the up to 600 or 1000 units that would trigger a contribution of up to 1 hectare of land.
- The effect of this is to not require a park levy at the alternative rate in connection with residential units that are affordable residential units, attainable residential units and/or affordable housing units required under inclusionary zoning policies.

Parkland Dedication and Cash in Lieu

Parks Plan required before passing a park levy by-law (in effect)

- Prior to Bill 23, a local municipality was required to prepare and make available a park plans before adopting official plan policies authorizing the alternative requirement.
- Post Bill 23, a local municipality is required to prepare and make available a parks plan before passing a park levy by-law.

Parkland Dedication and Cash in Lieu

Owner may identify lands for parkland conveyance (**in effect date to be determined**)

- An owner of land may, at any time before a building permit is issued in respect of the development or redevelopment, identify, in accordance with such requirements as may be prescribed, a part of the land that the owner proposes to be conveyed to the municipality to satisfy, in whole, or in part, a requirement of the park levy by-law.
- Lands identified may include:
 - (a) lands that is: (i) part of a parcel of land that abuts one or more parcel of land on a horizontal plane; (ii) subject to an easement or other restriction; or (iii) encumbered by below grade infrastructure.
 - (b) an interest in land other than the fee, which interest is sufficient to allow the land to be used for park or other public recreational purposes.

Parkland Dedication and Cash in Lieu

Agreement for conveyance of non-fee interest for park or other public recreational purposes (in effect date to be determined)

- If the municipality intends to accept the conveyance of an interest in land other than the fee, the municipality may require the owner of land to enter into an agreement with the municipality that provides for the land to be used for park or other public recreational purposes
- This agreement may be registered on title to the lands to which it applies.

Parkland Dedication and Cash in Lieu

Appeal process for disagreement over land identified by Owner for parkland conveyance (in effect date to be determined)

- If the municipality refuses to accept conveyance of land identified by the owner to satisfy a requirement of the park levy by-law, the municipality shall provide notice to the owner in accordance with such requirements as may be prescribed.
- An owner of land who receives such a notice may, within 20 days of the notice being given, appeal the municipality's refusal to accept conveyance to the Ontario Land Tribunal ("**OLT**" or "**Tribunal**") by filing with the clerk a notice of appeal together with the fee charged by the Tribunal.

Parkland Dedication and Cash in Lieu

Appeal process for disagreement over land identified by Owner for parkland conveyance (in effect date to be determined)

- The OLT shall hold a hearing. The OLT shall consider whether the land the owner has identified for conveyance meets the prescribed criteria, and, if it does, the Tribunal shall order that the land,
 - (a) be conveyed to the municipality for park or other recreational purposes; and
 - (b) despite any provision in a park levy by-law, shall be deemed to count towards any requirement set out in the park levy by-law that is applicable to development or redevelopment.
- If the OLT orders an interest in land other than a fee be conveyed to the local municipality, the OLT may require the owner of the land to enter into an agreement with the municipality that provides for the land to be used for park or other recreational purposes, and said agreement may be registered on title to the lands to which it applies.

Parkland Dedication and Cash in Lieu

Requirement to spend or allocate monies in special account (in effect)

- Beginning in 2023 and in each calendar year thereafter, a municipality shall spend or allocate at least 60 per cent of the monies that are in the special account at the beginning of the year.
- The *Planning Act* already provides that the special account monies can be used only for the acquisition of land to be use for park or other recreational purposes, including the erection, improvement or repair of buildings and the acquisition of machinery for park or other public recreational purpose.

Two Year Restriction Eliminated

No two (2) year restriction on applications to amend a new official plan or secondary plan (in effect)

- The prohibition against requesting an amendment to a new official plan or secondary plan within two (2) years of the date any part of the plan or secondary plan came into effect is eliminated. Applications to amend a new official plan or secondary plan can be filed immediately.

Two Year Restriction Eliminated

No two (2) year restriction on applications to amend a new comprehensive zoning by-law (in effect)

- The prohibition on requesting an amendment within two (2) years of the date council repeals and replaces all zoning by-laws pursuant to a section 26 review has been eliminated. Applications to amend a new comprehensive zoning by-law can be filed immediately.

Minor Variances

Third party appeals eliminated (in effect)

- Only the applicant, the Minister or a specified person or public body that has an interest in the matter may appeal a minor variance approval. Appeals from third party persons have been eliminated.

Minor Variances

Specified Person means (in effect)

- Specified person is a defined term in the *Planning Act*, and it means:
 - (a) a corporation operating an electric utility in the local municipality or planning area to which the relevant matter would apply;
 - (b) Ontario Power Generation Inc.;
 - (c) Hydro One Inc.;
 - (d) a company operating a natural gas utility in the local municipality or planning area to which the relevant matter would apply;
 - (e) a company operating an oil or natural gas pipeline in the local municipality or planning area to which the relevant planning matter would apply;
 - (f) a person required to prepare a risk and safety management plan in respect of the operation under Ontario Regulation 211/01 (Propane Storage and Handling) made under the *Technical standards and Safety Act*, 2000, if any part of the distance established as the hazard distance applicable to the operation and referenced in the risk and safety management plan is within the area to which the relevant planning matter would apply;
 - (g) a company operating a railway line any part of which is located within 300 metres of any part of the area to which the relevant planning matter would apply; or
 - (h) A company operating as a telecommunication infrastructure provider in the area to which the relevant planning matter would apply.

Minor Variances

Retroactive elimination of third party appeals (in effect)

- An appeal made by a person or public body not referenced in revised subsection 45(12) of the *Planning Act*, (i.e. a third party) before November 28, 2022 is deemed to be dismissed on November 28, 2022 unless:
 - (a) a hearing on the merits of the appeal has been scheduled before October 25, 2022; or
 - (b) a notice of appeal was filed by a person or public body referred to in subsection 45(12) of the *Planning Act* in respect of the same decision to which the appeal relates.
- With respect to (a) above, a hearing on the merits of the appeal is considered to be scheduled on the date on which the Tribunal first orders the hearing to be scheduled and is not affected by an adjournment or rescheduling of the hearing.
- A hearing on the merits does not include mediation or any other dispute resolution process, settlement negotiations, a casement management conference or any other step in the appeal that precedes such a hearing.

Minor Variances

No two (2) year restriction on minor variance applications (in effect)

- The prohibition on requesting a minor variance within two (2) years of the date a zoning by-law amendment is passed with respect to the land, building or structure is eliminated. Applications for minor variance can be filed immediately following the approval of a zoning bylaw amendment for the same land, building or structure.

Consents

Third party appeals eliminated (in effect)

- Only the applicant, the Minister or a specified person or public body that has an interest in the matter may appeal a Consent application. Appeals from third party persons have been eliminated.

Consents

Retroactive elimination of third party appeals (in effect)

- An appeal made by a person or public body not referenced in revised subsection 53(19) or 53(27) of the *Planning Act*, (i.e. a third party), before November 28, 2022 is deemed to be dismissed on November 28, 2022 unless:
 - (a) a hearing on the merits of the appeal has been scheduled before October 25, 2022; or
 - (b) a notice of appeal was filed by a person or public body referred to in subsection 45(12) of the *Planning Act* in respect of the same decision to which the appeal relates.
- With respect to (a) above, a hearing on the merits of the appeal is considered to be scheduled on the date on which the Tribunal first orders the hearing to be scheduled and is not affected by an adjournment or rescheduling of the hearing.
- A hearing on the merits does not include mediation or any other dispute resolution process, settlement negotiations, a casement management conference or any other step in the appeal that precedes such a hearing.

Minister's Order re Matter of Provincial Interest

Revised process for Minister's Order re Matter of Provincial Interest (in effect date to be determined)

- Currently where the Minister identifies a matter of provincial interest affected by an official plan, the Minister may amend that plan by order in accordance with a process that requires consultation with the municipality that adopted the plan.
- The process also permits at the Minister's discretion, or requires if a person or municipality requests, a hearing before the OLT on the Minister's proposed amendment.
- The Minister's order has the same effect as an amendment to the plan adopted by council and approved by the appropriate approval authority. The Lieutenant Governor in Council retains the power to confirm, vary or rescind the decision of the OLT.

Minister's Order re Matter of Provincial Interest

Revised process for Minister's Order re Matter of Provincial Interest (in effect date to be determined)

- Once the proposed amendment to the *Planning Act* comes into effect, the Minister may, by order, amend an official plan if the Minister is of the opinion that the plan is likely to adversely affect a matter of provincial interest.
- The Minister's order has the same effect as an amendment to the plan adopted by council and approved by the appropriate approval authority.
- There is no requirement for consultation with the municipality that adopted the plan or a right to request a hearing before the OLT on the Minister's Order

Protected Major Transit Station Areas

Zoning By-laws implementing certain PMTSA policies to be passed within one (1) year (in effect)

- No later than one (1) year after the official plan policies described in (a) or (b) below are in effect, the local municipality shall amend all zoning by-laws that are in effect to conform with these policies.
- **(a) policies that:**
 - (i) identify a protected major transit station area, its boundaries, the minimum number of residents and jobs per hectare, the authorized use of lands, building and structures in the major transit station area, and the minimum densities authorized with respect to the building and structures on lands in the area; and, if applicable,
 - (ii) policies that identify the maximum densities, and/or minimum or maximum heights that are authorized on lands in a protected major transit station area.

Protected Major Transit Station Areas

Zoning By-laws implementing certain PMTSA polices to be passed within one (1) year (in effect)

- **(b) policies set out in the official plan of the local municipality that:**
 - (i) delineate an area surrounding and including an existing or planned higher order transit station or stop and identify the minimum number of residents and jobs, collectively, per hectare that are planned to be accommodated within the area, and
 - (ii) are required to be included in an official plan to conform with a provincial plan or be consistent with the policy statement issued under subsection 3(1) of the *Planning Act* (currently, Provincial Policy Statement, 2020)

Protected Major Transit Station Areas

If Zoning By-law implementing certain PMTSA policies is not passed within one (1) year, the prohibition against appeal of that zoning by-law is eliminated (in effect, except for reference to modified role for certain upper-tier municipalities)

- The *Planning Act* prohibits appeals of those parts of a zoning bylaw that establish permitted uses, minimum or maximum densities and/or minimum or maximum heights with respect to buildings or structures within a PMTSA.
- **Post Bill 23, the prohibition against appeal of these parts of a zoning by-law is eliminated if:**
- (a) the municipality is (i) a single tier municipality or (ii) a lower tier municipality within an upper-tier municipality without planning responsibilities and fails to pass the relevant zoning bylaw within **one (1) year** of the date certain PMTSA policies, or any amendment thereto, comes into effect in its official plan; or
- (b) the municipality is a lower tier municipality within an upper-tier municipality with planning responsibilities and it fails to pass the relevant zoning by-law within **one (1) year** of the date certain PMTSA policies, or any amendment thereto, comes into effect in the upper-tier municipality's official plan.

Protected Major Transit Station Areas

If Zoning By-law implementing certain PMTSA policies is not passed within one (1) year, the prohibition against appeal of that zoning by-law is eliminated (in effect, except for reference to modified role for certain upper-tier municipalities)

- A lower tier municipality within an upper-tier municipality with planning responsibilities is also required to update its official plan to implement certain PMTSA policies within one (1) year of the date these policies come into effect in the upper-tier municipality's official plan
- **Post Bill 23 the prohibition against appeal of these parts of a zoning by-law is also eliminated** until the lower tier municipality within an upper-tier municipality without planning responsibilities has certain PMTSA policies in its official plan

Protected Major Transit Station Areas

If Zoning By-law implementing certain PMTSA policies is not passed within one (1) year, the prohibition against appeal of that zoning by-law is eliminated (in effect, except for reference to modified role for certain upper-tier municipalities)

- The PMTSA policies that trigger the requirement to pass a zoning bylaw are those that identify the PMTSA, its boundaries, the minimum number of residents and jobs per hectare, the authorized use of lands, building and structures in the PMTSA, and the minimum densities authorized with respect to the building and structures on lands in the area

Additional Residential Units

Certain official plan policies or zoning by-law regulations prohibiting additional residential units are of no force and effect (in effect)

- Prior to Bill 23, the *Planning Act* required an official plan and zoning bylaw to contain policies that authorize the use of additional residential units by authorizing (a) the use of two residential units in a detached house, semi-detached house or rowhouse and (b) the use of a residential unit in a building or structure ancillary to a detached house, semi-detached house or row house.
- These sections of the *Planning Act* have been deleted and replaced with new subsections of the *Planning Act* that prohibit policies in an official plan and regulations in a zoning by-law that have the effect of restricting additional residential units on a parcel of urban residential land:

Additional Residential Units

Certain official plan policies or zoning by-law regulations prohibiting additional residential units are of no force and effect (in effect)

- A parcel of urban residential land is a defined term in the *Planning Act*, and it generally means: a parcel of land that is within an area of settlement on which residential uses, other than ancillary residential use, is permitted by by-law and that is served by municipal sewage works and municipal drinking water.

Additional Residential Units

Certain official plan policies or zoning by-law regulations prohibiting additional residential units are of no force and effect (in effect)

- Additional residential units are:
 - (a) two residential units in a detached house, semi-detached house or rowhouse with one additional unit in an ancillary building or structure;
 - (b) three residential units in a detached house, semi-detached house or rowhouse provided there are no additional units in an ancillary building or structure; and
 - (c) one residential unit in a building or structure ancillary to a detached house, semi-detached house or rowhouse, if the detached house, semi-detached house or rowhouse contains no more than two residential units (collectively, **“Additional Residential Units”**)

Additional Residential Units

Certain official plan policies or zoning by-law regulations prohibiting additional residential units are of no force and effect (in effect)

- In addition, and in connection with these residential units, no official plan policy or zoning by-law regulation may require:
- (a) more than one parking space to be provided and maintained in connection with the residential unit; and
- (b) a minimum floor area to be provided for the residential unit.
- **An official plan policy or zoning regulation that contravenes any of these new subsections of the Planning Act is to the extent of the contravention of no effect.**

Additional Residential Units

Minister may make regulations regarding standards for additional residential units (in effect)

- The Minister may make regulations and standards with respect to the Additional Residential Units
- Notably, the regulatory power is not limited to passing regulations for Additional Residential Units on parcels of urban residential lands. The regulations regarding Additional Residential Units can apply throughout the Province.

Additional Residential Units

No appeal of certain official plans or zoning by-laws authorizing additional residential uses (in effect)

- Similar to the *Planning Act* pre Bill 23, and except as noted below, there is no appeal with respect to an official plan policies or zoning by-law regulations authorizing Additional Residential Units on any lands on which residential use, other than ancillary residential use, is permitted .
- There is an appeal of an official plan policy or zoning bylaw regulation that authorizes on lands that are **not a parcel of urban residential land**, an Additional Residential Unit in the form of:
- one residential unit in a building or structure ancillary to a detached house, semi-detached house or rowhouse, if the detached house, semi-detached house or rowhouse contains no more than two residential units and no other ancillary building or structure contains any residential units.

Additional Residential Units

No appeal of official plan amendment application that seeks to amend or revoke policies adopted to authorize certain Additional Residential Units (in effect)

- Similar to the *Planning Act* pre Bill 23, and except as noted below, there is no appeal with respect to an official plan amendment application that seeks to amend or revoke policies adopted to authorize Additional Residential Units on any lands on which residential use, other than ancillary residential use, is permitted.
- There is an appeal of an official plan amendment application that seeks to amend or revoke policies adopted to authorize on lands that are **not a parcel of urban residential land**, an Additional Residential Unit in the form of:
 - one residential unit in a building or structure ancillary to a detached house, semi-detached house or rowhouse, if the detached house, semi-detached house or rowhouse contains no more than two residential units and no other ancillary building or structure contains any residential units.
- There is also an appeal of a zoning by-law amendment application that seeks to amend or revoke regulations passed to authorize Additional Residential Units on any lands on which residential use, other than ancillary residential use, is permitted.

Conservation Authorities

Modified appeal rights and party status rights for Conservation Authorities (**January 1, 2023**)

- A conservation authority **may continue to appeal or seek party status** with respect to **issues related to natural hazard policies** contained currently in section 3 of the *Provincial Policy Statement, 2020*, except for those policies in that section that relate to hazardous forest types for wildfire.
- Accordingly, and in general terms, **conservation authorities can continue to appeal or seek party status to *Planning Act* matters related to the erosion hazard, flooding hazard, or dynamic beach hazard.**

Conservation Authorities

Modified appeal rights and party status rights for Conservation Authorities (**January 1, 2023**)

In all other respects, a conservation authority **may no longer appeal:**

- (i) an official plan;
- (ii) an official plan amendment unless it is the applicant for the official plan amendment (and (iii) below does not apply)
- (iii) a refusal or non-decision of an application for official plan amendment that pertains to alteration of a settlement area boundary or establishment of a new settlement area in the local official plan;

Conservation Authorities

Modified appeal rights and party status rights for Conservation Authorities (January 1, 2023)

In all other respects, a conservation authority **may no longer appeal:**

- (iv) A zoning by-law or zoning by-law amendment unless it is the applicant for the zoning by-law amendment;
- (v) the passing of an extension to the time period an interim control by-law is in effect;
- (vi) a minor variance application unless it is the applicant for the minor variance;
- (vii) a draft plan of subdivision application, the lapsing provision, the draft plan conditions, and/or a change in the draft plan conditions, unless it is the applicant for the draft plan of subdivision application; and
- (viii) a consent application or a change in conditions applicable to a consent application unless it is the applicant for the consent application.

Conservation Authorities

Modified appeal rights and party status rights for Conservation Authorities (January 1, 2023)

In all other respects, a conservation authority **may no longer be a party to an appeal of:**

- (i) an official plan or official plan amendment;
- (ii) a zoning by-law or zoning by-law amendment;
- (iii) a refusal of a zoning by-law amendment application; and
- (iv) a draft plan of subdivision application, the lapsing provision, the draft plan conditions, and/or a change in the draft plan conditions.

Conservation Authorities

Modified appeal rights and party status rights for Conservation Authorities (**January 1, 2023**)

- A conservation authority may continue to be a party to an appeal where its party status was granted before January 1, 2023.
- Note: there appear to be typographical errors in the legislation that may impact whether a conservation authority is in fact prohibited from appealing an official plan or official plan amendment, or a zoning bylaw or zoning by-law amendment.

Conservation Authorities

Modified appeal rights and party status rights for Conservation Authorities (**January 1, 2023**)

- A conservation authority may continue to be a party to an appeal where its party status was granted before January 1, 2023.
- Note: there appear to be typographical errors in the legislation that may impact whether a conservation authority is in fact prohibited from appealing an official plan or official plan amendment, or a zoning bylaw or zoning by-law amendment.

Upper-Tier Municipalities

Modified appeal rights and party status rights for Upper-Tier Municipalities (in effect date to be determined)

- The County of Simcoe and the Regional municipalities of Durham, Halton, Niagara, Peel, Waterloo, York and certain other upper-tier municipalities to be identified in regulation are defined in the *Planning Act* as an upper-tier municipality without planning responsibilities.
- All other upper-tier municipalities are defined as an upper-tier municipality with planning responsibilities.

Upper-Tier Municipalities

Modified appeal rights and party status rights for Upper-Tier Municipalities (in effect date to be determined)

- On or after the date the amendment identifying a municipality as an upper-tier municipality without planning responsibilities comes into force, that municipality:

(a) may no longer appeal:

- (i) an official plan;
- (ii) an official plan amendment unless it is the applicant for the official plan amendment (and (iii) below does not apply)
- (iii) a refusal or non-decision of an application for official plan amendment that pertains to alteration of a settlement area boundary or establishment of a new settlement area in the local official plan

Upper-Tier Municipalities

Modified appeal rights and party status rights for Upper-Tier Municipalities (in effect date to be determined)

(a) may no longer appeal:

- (iv) A zoning by-law or zoning by-law amendment unless it is the applicant for the zoning by-law amendment.
- (v) the passing of an extension to the time period an interim control by-law is in effect;
- (vi) a minor variance application unless it is the applicant for the minor variance;
- (vii) a draft plan of subdivision application, the lapsing provision, the draft plan conditions, and/or a change in the draft plan conditions, unless it is the applicant for the draft plan of subdivision application; and
- (viii) a consent application or a change in conditions applicable to a consent application unless it is the applicant for the consent application

Upper-Tier Municipalities

Modified appeal rights and party status rights for Upper-Tier Municipalities (in effect date to be determined)

(a) may no longer be a party to an appeal of:

- (i) an official plan or official plan amendment;
- (ii) a zoning by-law or zoning by-law amendment;
- (iii) a refusal of a zoning by-law amendment application; and
- (iv) a draft plan of subdivision application, the lapsing provision, the draft plan conditions, and/or a change in the draft plan conditions.

Upper-Tier Municipalities

Modified appeal rights and party status rights for Upper-Tier Municipalities (in effect date to be determined)

- An upper-tier municipality without planning responsibilities may continue to be a party to an appeal where its party status was granted before the date the subsection or regulation defining it as an upper-tier municipality without planning responsibilities comes into effect.
- Note: there appears to be typographical errors in the legislation that may impact whether an upper-tier municipality without planning responsibilities is in fact prohibited from appealing an official plan or official plan amendment, or a zoning bylaw or zoning by-law amendment

Upper-Tier Municipalities

Upper-tier municipality without planning responsibilities will not have an official plan (in effect date to be determined)

- An upper-tier municipality without planning responsibility is not mandated to adopt an official plan and is not authorized to have the discretion to adopt an official plan

Upper-Tier Municipalities

Upper-tier municipality without planning responsibilities no longer the approval authority on subdivision and consent applications (in effect date to be determined)

- An upper-tier municipality without planning responsibilities is no longer the approval authority on subdivision applications (including park levy as a condition of subdivision) and consent applications. In such instance, the approval authority is the lower-tier municipality.
- An upper-tier municipality with planning responsibilities is the approval authority on subdivision applications (including park levy as a condition of subdivision) and consent applications. The upper-tier municipality with planning responsibility may continue to delegate this authority to the lower-tier municipality.

Upper-Tier Municipalities

Upper-tier municipality without planning responsibilities no longer the approval authority on subdivision and consent applications (in effect date to be determined)

- If an application for approval of a plan of subdivision or consent has been made to an upper-tier municipality without planning responsibilities before the date that upper-tier municipality is identified as an upper-tier municipality without planning responsibilities, and that application has not been finally disposed of by that date, the upper-tier municipality shall forward the application to the applicable lower tier municipality along with all papers, plan, documents and other materials related to the application.

Upper-Tier Municipalities

Upper-tier municipality without planning responsibilities may continue to have a role(in effect date to be determined)

- An upper-tier municipality without planning responsibilities is no longer mandated to have a planning advisory committee.
- Only an upper-tier municipality with planning responsibilities may, on such conditions as may be agreed upon with the lower tier municipality, assume the planning authority, responsibility, duty or function of a lower-tier municipality.
- All upper tier municipalities may, on such conditions as may be agreed upon with the lower-tier municipality, provide advice and assistance to the lower-tier municipality in respect of planning matters generally.

Upper-Tier Municipalities

The Minister will be the approval authority for certain lower-tier official plans and official plan amendments (in effect date to be determined)

- Only an upper-tier municipality with planning responsibilities is, if it has its own approved plan, the approval authority for the lower-tier official plan. In all other instances and provided the official plan or official plan amendment is not exempt from approval, the approval authority is the Minister.
- Where the Minister is the approval authority it continues to be the case that the Minister's decisions cannot be appealed.

Upper-Tier Municipalities

Official plans for upper-tier municipalities without planning responsibilities will become part of the lower-tier municipalities official plan (in effect date to be determined**)**

- On or after the date the amendment or regulation identifying an upper-tier municipality as an upper-tier municipality without planning responsibilities comes into force (the “**Effective Date**”), the official plan for these upper-tier-municipalities has the following status:
- (a) the portion of the official plan that is in effect immediately before the Effective Date and that applies in respect of any area in a lower-tier municipality is **deemed to be an official plan of the lower-tier municipality**, and this official plan remains in effect until the lower-tier municipality revokes it or amends it to provide otherwise.

Upper-Tier Municipalities

Official plans for upper-tier municipalities without planning responsibilities will become part of the lower-tier municipalities official plan (**in effect date to be determined**)

- (b) if there is an adopted official plan or official plan amendment that is not yet in force, the following rules apply:
- (i) the official plan or official plan amendment shall be dealt with under the *Planning Act* as it read on or after the Effective Date;
- (ii) if any portion of the official plan or official plan amendment applies in respect of an area in a lower-tier municipality, the lower-tier municipality is deemed to have adopted that portion of the plan or amendment
- (iii) the upper-tier municipality shall remain responsible for giving notice of adoption of the official plan or official plan amendment, and if an appeal is filed before the Effective Date and the official plan or official plan amendment is exempt from approval, the upper-tier municipality shall remain responsible for compiling and forwarding the record to the OLT.

Upper-Tier Municipalities

In process official plan or official plan amendment of upper-tier municipality without planning responsibilities (in effect date to be determined)

- If an upper-tier municipality without planning responsibilities has commenced procedure to adopt an official plan or amendment to its official plan, but has not adopted it before the Effective Date, any lower-tier municipality to which the plan or amendment would apply may continue with the procedure necessary to adopt the official plan or amendment to the extent that it applies to the lower-tier municipality
- To facilitate this, the upper-tier municipality without planning responsibility shall forward to the applicable lower-tier municipality all papers, plans, documents, and other materials related to the above.

Upper-Tier Municipalities

Disposal of request for official plan amendment to official plan of upper-tier municipality without planning responsibilities (in effect date to be determined)

- If a request to amend the official plan of an upper-tier municipality without planning responsibility has been made before the Effective Date and has not been finally disposed of by that date, every lower-tier municipality to which the amendment would apply may continue with the procedures necessary to dispose of the request for amendment to the extent that the amendment applies to the lower-tier municipality
- To facilitate this, the upper-tier municipality without planning responsibility shall forward to the applicable lower-tier municipality all papers, plans, documents, and other materials related to the above.

Upper-Tier Municipalities

Conflicts (in effect date to be determined)

In the event of a conflict between:

- (i) the lower-tier municipality's official plan policies that exists before the Effective Date; and
- (ii) the adopted or approved policies the lower-tier municipality assumes from the official plan of the upper-tier municipality without planning responsibilities,

the assumed policies in (ii) prevail.

Upper-Tier Municipalities

Minister may make Regulations (in effect date to be determined)

- The minister may make regulations providing for transitional matters in respect of matters and proceedings that were commenced before the effective date.

New Exception to Subdivision Control & Part Lot Control

New exception to subdivision control & part lot control (in effect)

- Subdivision control and part-lot control do not apply to lands that have received site plan approval and are being leased for the purposes of a land lease community for a period of not less than 21 years and not more than 49 years.



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February 21, 2023

Township of Puslinch

7404 Wellington Rd. 34
Puslinch, ON N0B 2J0

Attn: Justine Brotherston

Re: Request for Review of McMillan Pit Water Quality Analysis Report, Township of Puslinch

File Number: E10/5737

GEMS Project: 21-1227

1.0 Introduction & Background

Groundwater Environmental Management Services Inc. (GEMS) was retained by the Township of Puslinch to conduct a review of the McMillan Pit Water Quality Analysis Report.

To better understand the current site background and request, the following document was reviewed:

- McMillan Pit Water Quality Analysis Report 2022 -8Trees

2.0 Review Results

As noted in the Pit Water Quality Analysis Report, annual monitoring of benthic macroinvertebrates has been conducted at Tributary T3 since 1997 to calculate its water quality from previous extraction activities. Notably, the water quality index of T3 was on average above 14, indicating no sign of impairment to the tributary. It is GEMS' opinion that the McMillan Pit Water Quality Analysis Report is suitable and contains no significant variance from previous reports. GEMS is in agreement with the conclusion determined by the author.

3.0 Limitations

Groundwater Environmental Management Services Inc. (GEMS) has prepared this report for our client and its agents exclusively. GEMS accepts no responsibility for any damages that may be suffered by third parties as a result of decisions or actions based on this report.

The findings and conclusions are site-specific and were developed in a manner consistent with the level of care and skill normally exercised by environmental professionals currently practicing under similar conditions in the area. Changing assessment techniques, regulations, and site conditions mean that environmental investigations and their conclusions can quickly become dated, so this report is for use at this time and should not be used without GEMS review/approval. No warranty, expressed or implied, is made.


4.0 Closing

We trust this information meets your current requirements. Please do not hesitate to contact the undersigned should you have any questions or require additional information.

Yours truly,

Groundwater Environmental Management Services Inc.

Prepared by:



Danny McIsaac, B.Sc, MSc.

Ecologist

Reviewed by:



Jose Haig, B.ES., M.Sc.

Ecology Team Lead



Website: www.8trees.ca

Jan 25, 2023

Natural Resources & Forestry
1 Stone Rd. West, Guelph,
Ontario, Canada
N1G 4Y2
Phone: 519-826-4927
Fax: 519-826-4929.

ATTN: Matthew Cummings, Resource Technical Specialist
C.c: Michael Duvnjak, Resource Technical Specialist

RE: Monitoring Report for McMillan Pit License # 5737
(formerly submitted under on behalf of CBM – McMillan Pit License # 5737)

Dear Matthew,

We are pleased to submit the 2022 report as complementary work within the reporting requirements for the McMillan Gravel Pit. The “Monitoring Program – McMillan Property” follows the original protocol (Limnoterra Ltd. January 15, 1998), modified with agreement from James Williams of your office January 27, 2010.

Extraction ceased on the site in 2004 and in 2010 CBM requested and obtained a reduction of monitoring requirements from your office. Monitoring now conducted for the site is benthic macroinvertebrate sampling in tributary T3 and calculation of a water quality index based on BioMAP methods as a long-term volunteer monitoring program.

The analysis for 2022 includes data for the site from 1997 to 2022. Extraction activities ceased on the site in 2004, thus 2005 to 2022 monitoring data represents 18 years of monitoring conditions beyond the extraction period.

Please do not hesitate to contact us if you have questions or require clarification.

Regards,

Anne Yagi MSc., EP, CERP
President
8Trees Inc.

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Introduction:

Tributary 3 of Mill Creek is the nearest discharge point of groundwater crossing the pit site and reflects the quality of groundwater discharging from the McMillan Pit (Figure 1 and 2). Water quality monitoring is based on an assessment of the benthic biota that Tributary 3 supports. The community of benthic biota is subject to the full rigor of the environment through the annual or biannual life cycles of the species. The community therefore represents the integrated temporal effects of all pollutants and environmental conditions through the year and not only those conditions at the time of sampling.

The composition of benthic macroinvertebrate communities reflects water and habitat quality in streams. BioMAP (Biological Monitoring and Assessment Program) is a water quality assessment tool designed for southern Ontario watercourses. It provides a quantitative measure of water quality that can be used to diagnose water quality at a site, monitor water quality over time, and evaluate the impact of point source and diffuse source pollution on water quality. The index calculated for a watercourse is based on sensitivity values assigned to each macroinvertebrate species. The sensitivity values are based on the species tolerance to factors of pollution. (organics, reduced dissolved oxygen, suspended solids, temperature, metals, acidity, nutrients etc). Because this site has monitoring results over decades, a simple index is now used that reflects a full methodology employed through pre-extraction, during extraction and early post extraction periods of the licence.

Methods:

Benthic macroinvertebrates were collected from Tributary T3 October 12, 2022 (Figure 2 and Appendix A). Two quantitative samples (Q1 and Q2) were collected from the site, downstream of Regional Side Road 20. A qualitative sample was taken from various types of habitats extending along the tributary length downstream of and including the same areas as samples Q1 and Q2 and sampling from the small backwater area/wetland just upstream of Side Road 20. Sampling procedures followed the BioMAP protocols described in the BioMAP Report SWR-1¹ and have been outlined previously (refer to TCG McMillan Report 1996/1997). Aquatic Ecostudies Limited provides benthic identification services for the samples collected by 8Trees Inc. Field notes, sampling maps and photos are provided in Appendix A.

Water Quality Analysis:

The BioMAP analysis methodology was used to analyze the results and obtain a Water Quality Index for the Tributary (WQI). Sensitivity values from *Version 110430 Sensitivity Values for Aquatic Macroinvertebrates* of Ontario were used for the 2022 analysis. Sensitivity Values can range from 4 to 0 which correspond to the longitudinal distribution of macroinvertebrates along the river continuum. A value of 4 designates species that typically inhabit small, groundwater fed, headwater creeks with a predominance of leaf and wood litter as the main energy source. A value of 3 corresponds to larger more open streams with solar radiation driving greater periphyton growth supporting species that feed on attached algae, and so on down to species ranked 0 that feed on fine particulate organic matter most abundant in turbid slow moving warm aquatic systems.

In the Mill Creek tributary T3 we expect to see a population dominated by species with ranks of 4 and 3 and a BioMAP analysis calculation of greater than 14 Water Quality Index (WQI).

Mean Sensitivity refers to the average sensitivity of the top 25% of the species collected. For Mill Creek we expect to see a Mean Sensitivity above 3.

¹Griffiths, R.W. 1993. BioMAP: Concepts, Protocols and Sampling Procedures for the Southwestern Region of Ontario. BioMAP Report SWR-1. Ministry of Environment and Energy, Southwestern Region, London, Ontario. The sensitivity values for the 2011 analysis were the updated version 110430.



Photo from google earth

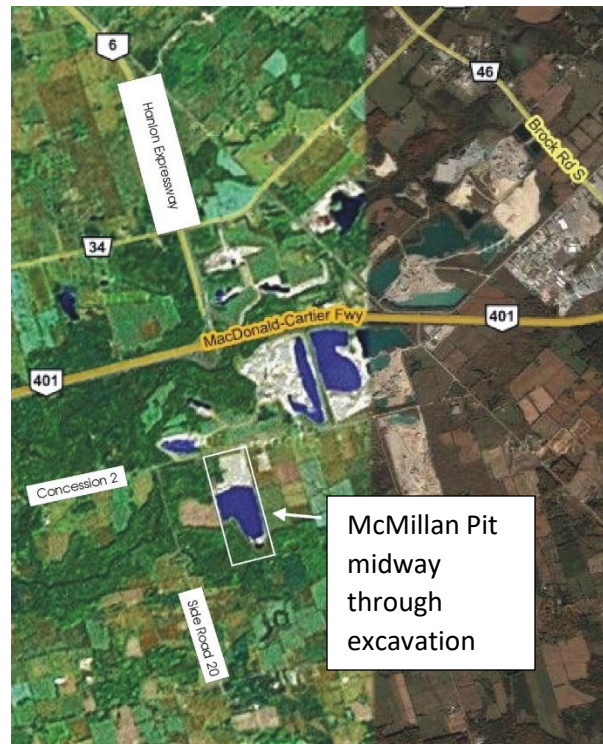


Photo from Limnoterra Ltd Report, early 2000's

Figure 1: McMillan Pit Setting in 2017 (left) and in the early 2000's (right)

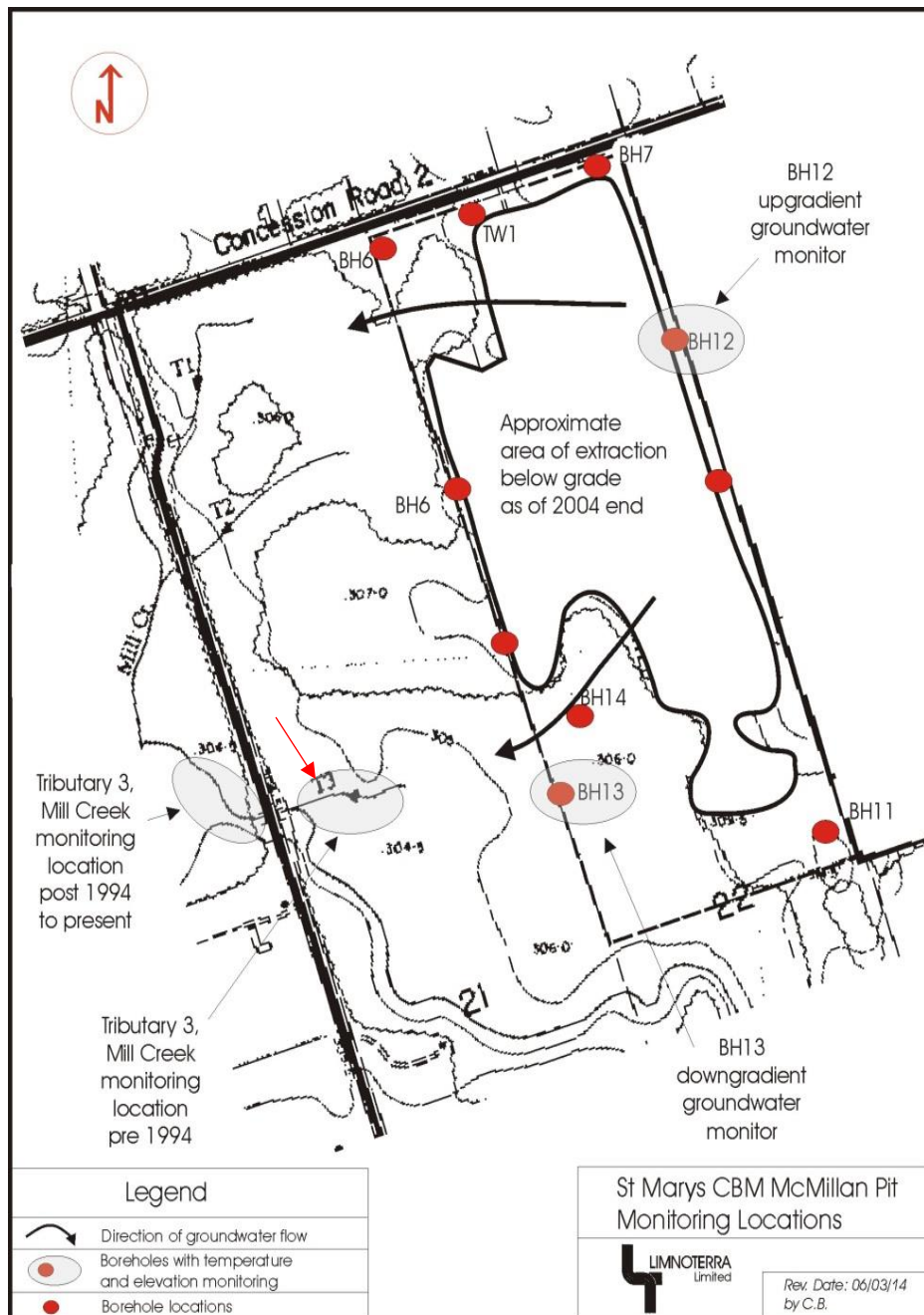


Figure 2: Location of Tributary T3 benthic monitoring as originally set up by Limnterra Ltd, showing groundwater monitoring wells and direction of groundwater movement across the landscape toward Mill Creek. Monitoring at Tributary T3 is the closest permanent stream to the pit.

Water Quality Proposed Trigger:

WQI > 14 (i.e. unimpaired condition).

No indication of change to water quality & habitat when WQI > 14 for Tributary T3.

If WQI < 14, follow up investigation (such as review of species change through time to confirm & assess nature of any change).

Results of the BioMAP analysis from 1997 – 2022 are shown graphically in Figure 3 and listed in Table 1. The WQI for 2022 is 15.2 (average of 12.2 at Q1 and 18.1 at Q2). Flow in the tributary at the time of sampling in October was adequate to take a full sample, similar to previous years.

The species composition collected in 2022 is similar to previous years and the organism represents a creek system typical of a closed canopy, cool-to-cold water creek. The habitat quality remains high as indicated by the presence of sensitive species. Figure 3 shows the results oscillate through time.

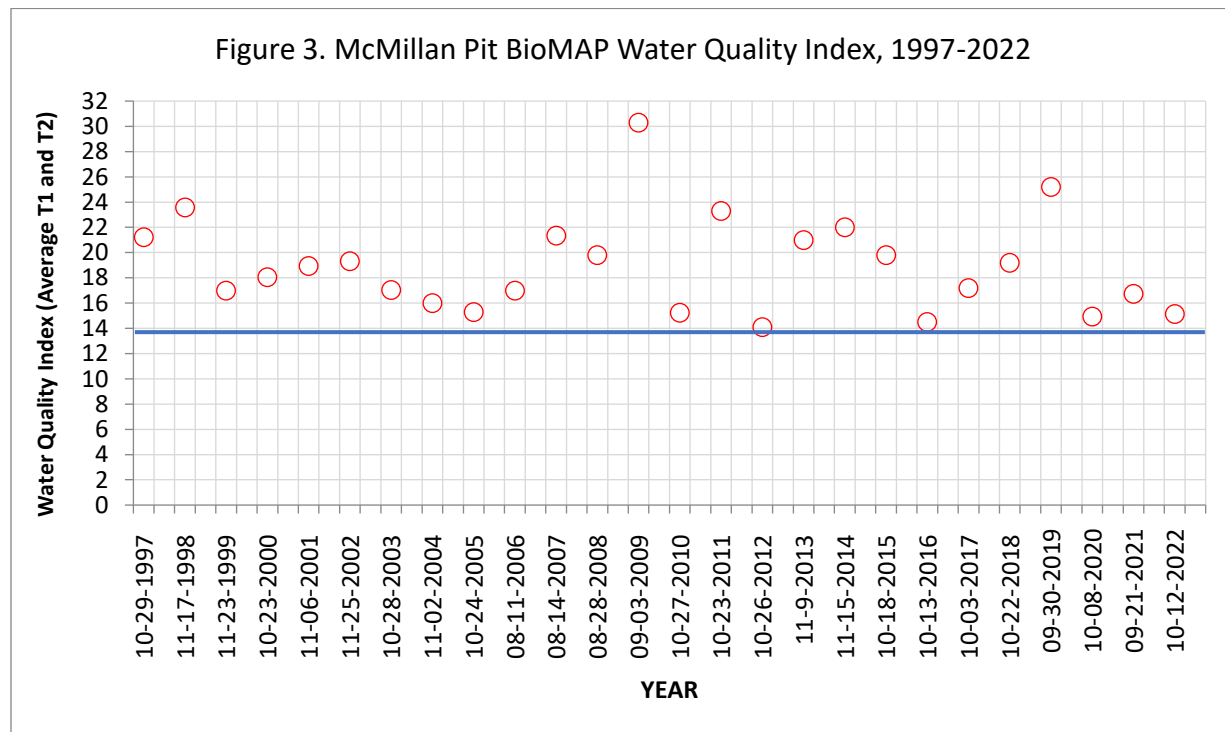


Figure 3. Benthic Invertebrate BIOMAP water quality monitoring downstream of the McMillan Pit, 1997-2022 (26yrs).

Table 1: Benthic Analysis Results 1997 – 2022

| Date | Water Quality Index (Q1) | Water Quality Index (Q2) | Ave QI | Qualitative Mean Sensitivity Value |
|----------------|--------------------------|--------------------------|-------------|------------------------------------|
| 10-29-1997 | 23.3 | 19.1 | 21.2 | 3.67 |
| 11-17-1998 | 22.6 | 24.6 | 23.6 | 3.20 |
| 11-23-1999 | 18.5 | 15.5 | 17.0 | 3.50 |
| 10-23-2000 | 15.6 | 20.5 | 18.1 | 3.17 |
| 11-06-2001 | 20.6 | 17.3 | 19.0 | 3.20 |
| 11-25-2002 | 20.5 | 18.2 | 19.3 | 3.25 |
| 10-28-2003 | 15.6 | 18.5 | 17.1 | 3.33 |
| 11-02-2004 | 13.1 | 18.9 | 16.0 | 3.25 |
| 10-24-2005 | 14.9 | 15.7 | 15.3 | 3.20 |
| 08-11-2006 | 15.9 | 18.1 | 17.0 | 3.43 |
| 08-14-2007 | 24.6 | 18.1 | 21.4 | 3.16 |
| 08-28-2008 | 21.6 | 18.0 | 19.8 | 4.00 |
| 09-03-2009 | 32.1 | 28.5 | 30.3 | 3.71 |
| 10-27-2010 | 13.6 | 16.9 | 15.3 | 3.29 |
| 10-23-2011 | 21.8 | 24.8 | 23.3 | 4.00 |
| 10-26-2012 | 11.7 | 16.5 | 14.1 | 3.25 |
| 11-9-2013 | 20.4 | 21.6 | 21.0 | 3.33 |
| 11-15-2014 | 19.2 | 24.8 | 22.0 | 3.17 |
| 10-18-2015 | 21.2 | 18.4 | 19.8 | 3.50 |
| 10-13-2016 | 13.8 | 15.2 | 14.5 | 3.17 |
| 10-03-2017 | 14.3 | 20.1 | 17.2 | 3.33 |
| 10-22-2018 | 22.6 | 15.9 | 19.2 | 3.33 |
| 09-30-2019 | 25.1 | 25.3 | 25.2 | 3.17 |
| 10-08-2020 | 13.9 | 16.0 | 15.0 | 3.20 |
| 09-21-2021 | 19.1 | 14.4 | 16.8 | 3.27 |
| 10-12-2022 | 12.2 | 18.1 | 15.2 | 3.29 |
| Overall | | | 19.0 | 3.36 |

Table 2: Qualitative Benthic Sampling Results 2022

| Qualitative Analysis | |
|--------------------------|------|
| Taxa | SV |
| Hydatophylax | 4 |
| Psychoglypha subborealis | 4 |
| Goera | 3 |
| Pycnopsyche | 3 |
| Rhyacophila minora | 3 |
| Cordulegaster | 3 |
| Paraleptophlebia | 3 |
| BioMAP(q) score: | 3.29 |

Top 25%

Table 3: Quantitative Benthic Sampling Results 2022

Density of macroinvertebrates (No. per 0.05 sq. m.) collected from Tributary 3 (T3), a tributary of Mill Creek, downstream of the CBM McMillan Pit near Side Rd. 20, Puslinch Township.

Samples collected on Oct 12, 2022, by J. DeVuyt & M. Babin, 8Trees Inc.

Quantitative Sample locations: Q1 ~40 downstream of Side Rd 20, Q2 within 15m downstream of Side Rd 20

Qualitative Sample location: from ~100m below Side Rd 20 up to water cress marsh on east side of Side Rd 20

| | SV | Qual | T1 | T2 |
|--------------------------|----|------|----|----|
| Insects: | | | | |
| ALDERFLIES: | | | | |
| Sialidae: | | | | |
| Sialis | 2 | P | | |
| BEETLES: | | | | |
| Elmidae: | | | | |
| Optioservus fastiditus | 2 | | | 3 |
| CADDISFLIES: | | | | |
| Goeridae: | | | | |
| Goera | 3 | P | | 2 |
| Hydropsychidae: | | | | |
| Parapsyche apicalis | 4 | | | 2 |
| Limnephilidae: | | | | |
| Hydatophylax | 4 | P | | 1 |
| Limnophilus | 1 | P | | |
| Psychoglypha subborealis | 4 | P | 1 | 6 |
| Pycnopsyche | 3 | P | | |
| Molannidae: | | | | |
| Molanna | 2 | P | 5 | |
| Rhyacophilidae: | | | | |
| Rhyacophila minora | 3 | P | | 7 |
| DRAGONFLIES: | | | | |
| Cordulegastridae: | | | | |
| Cordulegaster | 3 | P | | |
| MAYFLIES: | | | | |
| Leptophlebiidae: | | | | |
| Paraleptophlebia | 3 | P | | 18 |
| STONEFLIES: | | | | |
| Nemouridae: | | | | |
| Nemoura trispinosa | 3 | P | | 57 |
| TRUE FLIES: | | | | |
| Chironomidae: | | | | |
| Brillia | 2 | | 1 | |
| Conchapelopia | 2 | P | | 2 |
| Heterotrissocladius | 1 | P | | |
| Macropelopia | 3 | P | | 1 |
| Parametrioctenus | 3 | P | | 2 |
| Polypedilum scalaenum | 1 | P | | 4 |
| Prodiamesa | 3 | P | 1 | |
| Thienemanniella | 2 | | | 2 |
| Tvetenia | 2 | P | | |

| | SV | Qual | T1 | T2 |
|-------------------------------|----|------|------|------|
| Tabanidae: | | | | |
| Chrysops | 2 | P | 2 | |
| Tipulidae: | | | | |
| Antocha | 3 | | | 1 |
| Dicranota | 3 | P | 2 | 1 |
| Limnophila | 2 | | | 1 |
| Pilaria | 1 | P | | |
| Arachnids: | | | | |
| WATERMITES: | | | | |
| Hygrobatidae: | | | | |
| Hygrobaetes | 3 | P | | |
| Lebertiidae: | | | | |
| Lebertia | 2 | | | 1 |
| Sperchonidae: | | | | |
| Sperchon | 2 | P | | 13 |
| Crustaceans: | | | | |
| AMPHIPODS: | | | | |
| Gammaridae: | | | | |
| Crangonyx | 2 | P | | |
| Hyalellidae: | | | | |
| Hyalella | 2 | P | | |
| Annelids: | | | | |
| WORMS: | | | | |
| Tubificidae: | | | | |
| Aulodrilus pluriseta | 2 | P | | |
| Limnodrilus hoffmeisteri | 0 | P | | |
| Limnodrilus udekemianus | 1 | | 1 | |
| immature, with hair chaete | 0 | P | 1 | 50 |
| immature, without hair chaete | 0 | | 2 | |
| Number of taxa | | 28 | 9 | 19 |
| Number of organisms | | | 16 | 174 |
| BioMAP(q) score | | 3.29 | | |
| BioMAP(d) Score | | | 12.2 | 18.1 |

Conclusion:

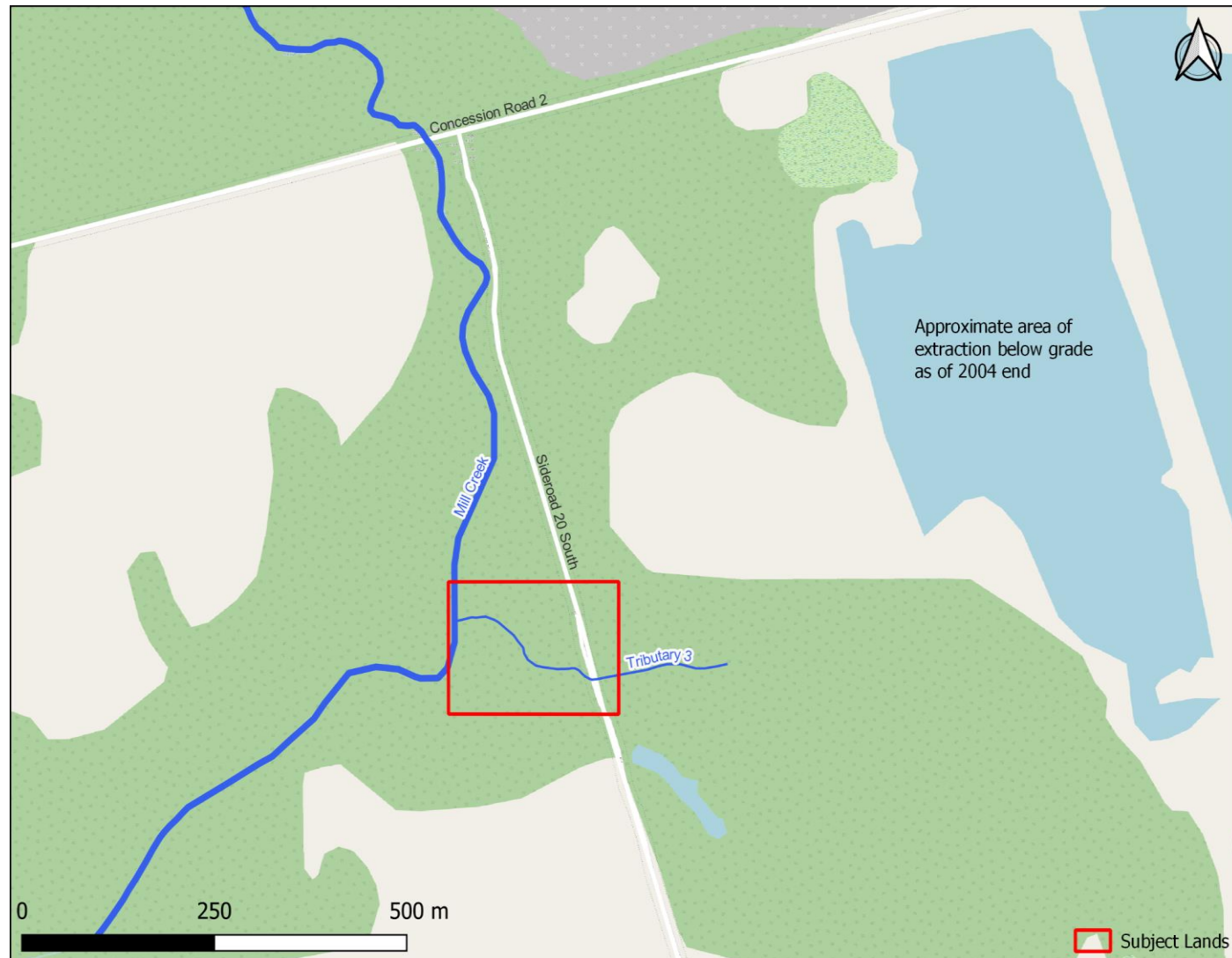
The water quality index remains above the trigger level. The overall species composition continues to reflect the community collections of previous years and the benthic community in Tributary 3 remains representative of a southern Ontario unimpaired creek showing a Qualitative Mean Sensitivity Value over 3. No negative impacts to water quality due to extraction activities have been detected in the 2022 benthic macroinvertebrate sampling.

References

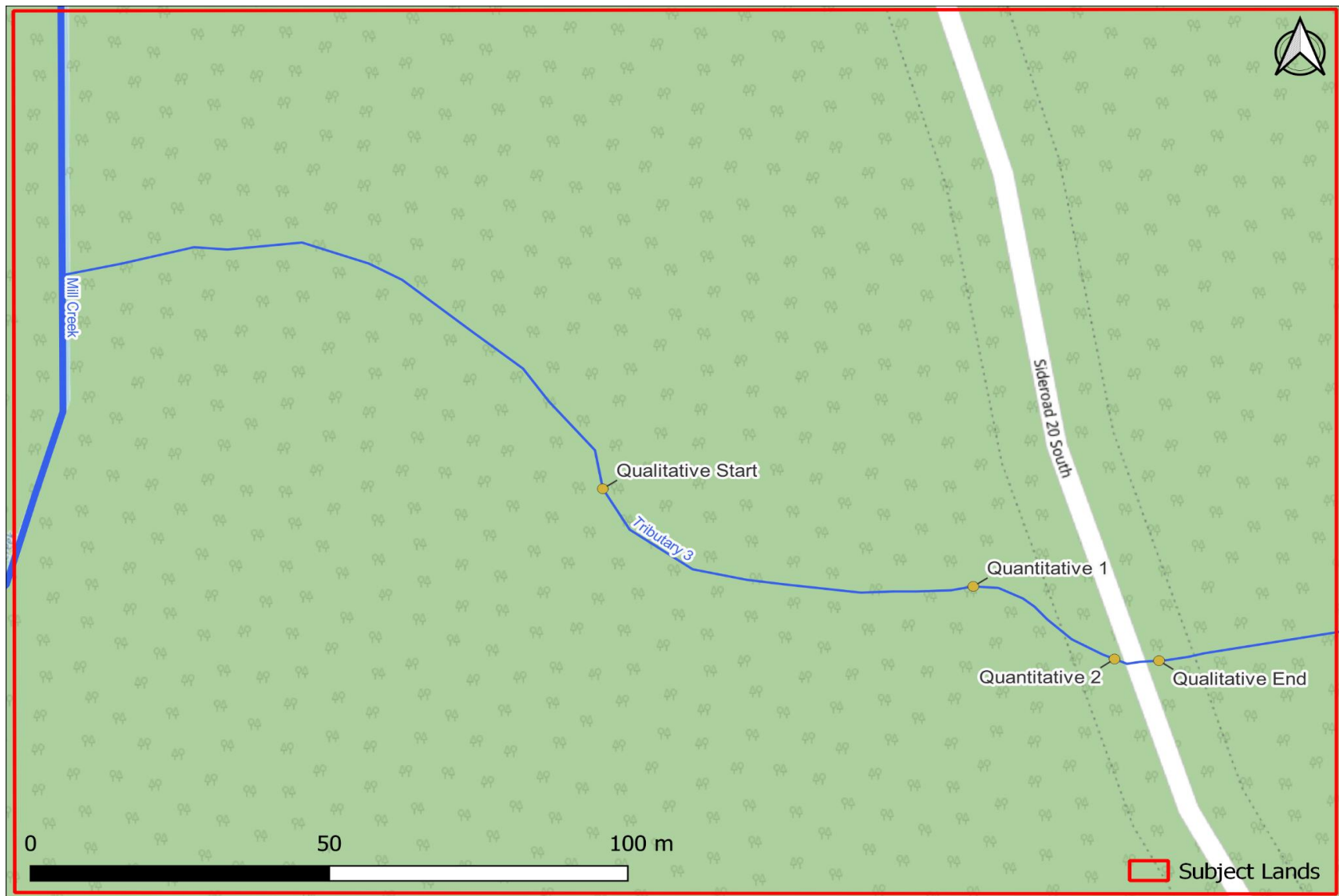
- Griffiths, R.W. 1993. BioMAP: Concepts, protocols and sampling procedures for the southwestern region of Ontario. BioMAP Report SWR-1. Ministry of the Environment and Energy, Southwestern Region, London, Ontario 30 pp.
- Griffiths, R.W. 1996. BioMAP: A Biological Measure of Water Quality for Creeks, Streams and Rivers SWR-4. Ministry of the Environment and Energy, Southwestern Region, London, Ontario. 16 pp. + Appendix 15 pp
- Griffiths, R.W. 1999. BioMAP: Bioassessment of Water Quality. Published by Niagara College, Niagara-on-the-Lake, Ontario. 110pp.
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APPENDIX A: Field Note 2022 Summary

prepared by J. DeVuyst



Basemap: OpenStreetMap



Basemap: OpenStreetMap

Ronald W. Griffiths, PhD
DUTTON, Ontario

BENTHIC SURVEY FIELD NOTES

SURVEY: Benthic Macroinvertebrate survey

DATE: October 12, 2022

BODY OF WATER: Mill Creek - Tributary 3

STATION:

LOCATION: Sidemore 20 S, Barrie, ON

SAMPLING EQUIPMENT: Mohr Field T-sampler, Dip Net

OTHER SAMPLES COLLECTED:

COMMENTS:

Site Characteristics:

Stream width 1-5m Depth 10-20cm Substrate Sand & gravel dominated

Water Clarity Clear Odour: None

Macrophytes Abundant E. of creek, sparse V. of Mill Creek None

Bank Vegetation Mixed Forest (Hemlock Decid.) Land Use Upstream: Gravel Pit, downstream: Mixed Forest

General Air temp = 14.5°C

W₂₀ temp = 10.8°C

Map:

(Show North)



| Sampling Site | Water Temp. | Diss. Oxygen | pH | Conductivity | Water color | Current |
|---------------|-------------|--------------|----|--------------|-------------|---------|
| | | | | | | |
| | | | | | | |
| | | | | | | |

(over)

1) Location: 566240/4809074 (25m W of rd.)
Depth: 15cm Sampler Fullness: Full Sample Bottles: Quantitative 1
Sediment Type: Odour: None
Sediment Characteristics: 40% sand, 30% small gravel, 20% large gravel, 10% mud, 10% large rocks
Macrophytes: none sparse common abundant
Algae: none sparse common abundant
Invertebrates:
Notes: sample taken on ripple at 11:40

2) Location: 566274/4809061 (3m W of rd. at creek outflow)
Depth: 15cm Sampler Fullness: Full Sample Bottles: Quantitative 2
Sediment Type: Odour: None
Sediment Characteristics: 50% large gravel, 20% small gravel, 20% sand, 10% mud
Macrophytes: none sparse common abundant
Algae: none sparse common abundant
Invertebrates:
Notes: started at 12:21

3) Location: 566198/4809002 (100m W of rd. at creek entrance (E))
Depth: Sampler Fullness: Full Sample Bottles: Qualitative
Sediment Type: Odour: None
Sediment Characteristics:
Macrophytes: none sparse common abundant W of rd. = sparse; E of rd. = Phragmites patch
Algae: none sparse common abundant
Invertebrates:
Notes: started at 12:14

Addition Information: Samples were 20min each. Qualitative sample involved walking up tributary with dip net for a total of 20min travel time

Collector: J. de Vries, M. Babin

Notes By: J. de Vries

Field Notes October 12, 2022



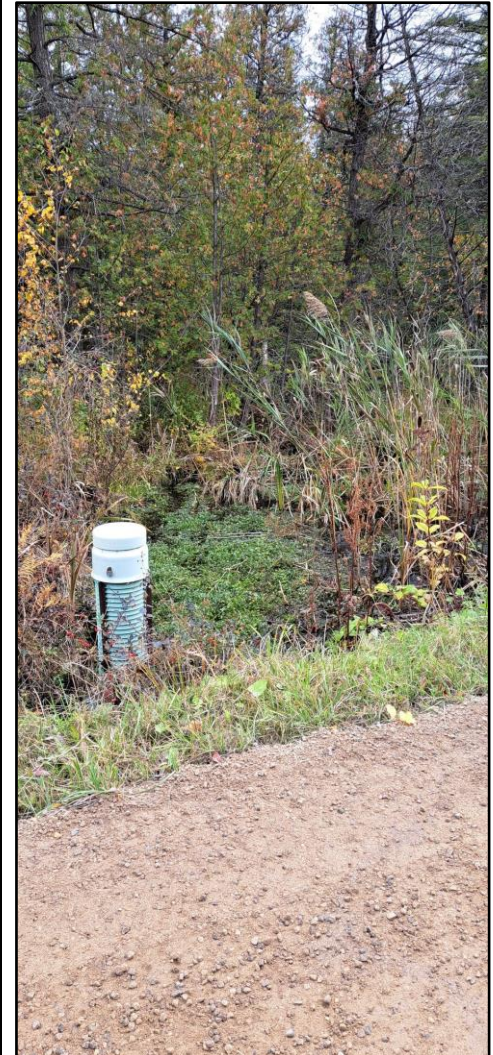
Qualitative sample being collected with 60µm dip net.



Quantitative sample #1 being collected using a modified T-sampler.



Culvert outflow on West side of Sideroad 20.



Emergent vegetation on East side of Sideroad 20, at culvert inflow.



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F. 905-761-7200

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Integrated Aggregate Operations Section
Regional Operations Division
Ministry of Natural Resources & Forestry
300 Water Street
Peterborough, ON
K9J 8M5

February 13, 2023

Re: Application to Increase the Annual Tonnage Limit, Licence ID No. 5609

Dear Sir/Madam :

We are writing to request an increase in the annual tonnage limit for the Dufferin Aggregates Aberfoyle Pit #2, Licence ID No. 5609 located at 4445 Victoria Road, Aberfoyle, Ontario.

The licence for Aberfoyle Pit #2 includes the following condition:

It is a condition of this licence that no more than 1,000,000 tonnes of material shall be removed from this site in any one calendar year.

We are requesting the maximum annual tonnage limit be increased to 2,000,000 tonnes per year.

Please do not hesitate to contact the undersigned should you have any questions.

Yours truly,

Kevin Mitchell
Director Property, Planning & Approvals

Cc: Ms. Courtenay Hoytfox, Clerk (Township of Puslinch)
Ms. Jennifer Adams, Clerk (County of Wellington)

THE CORPORATION OF THE TOWNSHIP OF PUSLINCH

BY-LAW NUMBER 013-2023

Being a by-law to Authorize the Mayor and Clerk to enter into an agreement for Integrity Commissioner Services with Aird & Berlis LLP.

WHEREAS Section 223.3 of the *Municipal Act, 2001*, S.O. 2001, c.25, as amended, authorizes a municipality to appoint an Integrity Commissioner; and

WHEREAS the Township of Puslinch has elected to appoint Aird & Berlis LLP as the Integrity Commissioner for the municipality; and

WHEREAS the Township of Puslinch and Aird & Berlis have mutually agreed to enter into an agreement related to Integrity Commissioner Services;

NOW THEREFORE the Council of the Corporation of the Township of Puslinch hereby enacts as follows:

- 1) That Council hereby appoints Aird & Berlis LLP as Integrity Commissioner for the Township of Puslinch and is assigned all of the functions of Integrity Commissioner as set out in subsection 223.3(1) of the *Municipal Act, 2001* and such other duties or functions as may be assigned from time to time by the Township;
- 2) That the Mayor and Clerk are hereby authorized to execute an agreement for Integrity Commissioner Services between the Corporation of the Township of Puslinch and Aird & Berlis LLP;
- 2) That the appointment shall be for a four-year term commencing the 10th day of March 2023;
- 3) That By-law No. 2018-009 and By-law No. 2022-015 are hereby repealed.

READ A FIRST, SECOND AND THIRD TIME AND FINALLY PASSED THIS 1st DAY OF MARCH 2023.

James Seeley, Mayor

Courtenay Hoytfox, Clerk

THE CORPORATION OF THE TOWNSHIP OF PUSLINCH

BY-LAW NO. 014-2023

Being a by-law to appoint a Heritage Advisory Committee which repeals by-law 2023-007.

WHEREAS Section 11 (2) of the *Municipal Act, S.O. 2001, c. 25*, authorizes a municipality to pass by-laws respecting the governance structure of the municipality and its local boards;

AND WHEREAS Section 28 of the *Ontario Heritage Act, R.S.O. 1990* provides that the council of a municipality may by by-law establish a heritage committee to advise and assist the Council on all matters relating to Parts IV and V of the *Ontario Heritage Act, R.S.O. 1990*;

AND WHEREAS the Council of the Corporation of the Township of Puslinch deems it advisable to establish such a committee and provide for the appointment of members thereto;

NOW THEREFORE the Council of The Corporation of the Township of Puslinch HEREBY ENACTS AS FOLLOWS:

1. That the following persons are hereby appointed to the Heritage Advisory Committee for the term being March 1, 2023 to January 18, 2027 or until such time as a successor has been appointed:
 - i. Andy Day;
 - ii. Chris Saunders;
 - iii. Lily Klammer-Tsuji;
 - iv. Kristine O'Brien;
 - v. Josh Heller; and
 - vi. Councillor Hurst.
2. That By-law 2023-007 is hereby repealed and replaced by this By-law as of the date and time of this By-law coming into effect.

READ THREE TIMES AND FINALLY PASSED IN OPEN COUNCIL THIS 1st DAY OF March 2023.

James Seeley, Mayor

Courtenay Hoytfox, Clerk

THE CORPORATION OF THE TOWNSHIP OF PUSLINCH

BY-LAW NUMBER 015-2023

Being a by-law to confirm the proceedings of the Council of the Corporation of the Township of Puslinch at its Council meeting held on March 1, 2023.

WHEREAS by Section 5 of the *Municipal Act, 2001, S.O. 2001, c.25* the powers of a municipal corporation are to be exercised by its Council;

AND WHEREAS by Section 5, Subsection (3) of the *Municipal Act*, a municipal power including a municipality's capacity, rights, powers and privileges under section 8, shall be exercised by by-law unless the municipality is specifically authorized to do otherwise;

AND WHEREAS it is deemed expedient that the proceedings of the Council of the Corporation of the Township of Puslinch at its Council meeting held on March 1, 2023 be confirmed and adopted by By-law;

NOW THEREFORE the Council of the Corporation of the Township of Puslinch hereby enacts as follows:

- 1) The action of the Council of the Corporation of the Township of Puslinch, in respect of each recommendation contained in the reports of the Committees and each motion and resolution passed and other action taken by the Council at said meeting are hereby adopted and confirmed.
- 2) The Head of Council and proper official of the Corporation are hereby authorized and directed to do all things necessary to give effect to the said action of the Council.
- 3) The Head of Council and the Clerk are hereby authorized and directed to execute all documents required by statute to be executed by them, as may be necessary in that behalf and the Clerk authorized and directed to affix the seal of the said Corporation to all such documents.

READ A FIRST, SECOND AND THIRD TIME AND FINALLY PASSED THIS 1 DAY OF MARCH, 2023.

James Seeley, Mayor

Courtenay Hoytfox, Clerk