



TOWNSHIP OF SOUTH FRONTENAC
Committee Of Adjustment Meeting
Agenda



TIME: 7:00 PM,
DATE: Thursday, September 11, 2025
PLACE: Storrington Centre/Virtual Via Zoom .

1. Call to Order

a) Resolution.

2. Adoption of Agenda

a) Resolution.

3. Electronic Meeting Information

a) The meeting will be live streamed at the following link:

<http://www.facebook.com/SouthFrontenacTwp/>

Please visit the Virtual Committee of Adjustment Meetings page on the Township website for the link to register to be a participant in this meeting:

<https://www.southfrontenac.net/en/open-for-business/virtual-committee-of-adjustment-meetings.aspx>

Instructions about participating via Computer, Laptop, Smartphone, Tablet and Telephone can be found at the above noted link as well.

b) PowerPoint Presentation Staff has prepared a PowerPoint Presentation that will be displayed on the screen of the meeting, you can also follow along with the PDF version that is in the attachment of this agenda item. 3 - 32

4. Declaration of pecuniary interest

a) There are none.

5. Approval of Minutes – August 14, 2025

a) Resolution. 33 - 38

6. Consent Applications from a Previous Meeting:

a) PL-BDJ-2025-0074 (Pittman) (Fotenn) - Portland District 39 - 156

Property Address: 3629 Quinn Road East

Purpose & Effect of the Application:

Application PL-BDJ-2025-0074 is for the creation of one vacant residential lot on Quinn Road East. The lot would be 0.8ha (2.0 acres) in size with 63m frontage. The retained lands (3629 Quinn Road East) would be 35.8ha (89.6 acres) with 64m frontage.

b) PL-BDJ-2025-0075 (Pittman) (Fotenn) - Portland District 157 - 274

Property Address: 3629 Quinn Road East

Purpose & Effect of the Application:

Application PL-BDJ-2025-0075 is for the creation of one vacant residential lot on Quinn Road East. The lot would be 0.8ha (2.0 acres) in size with 63m frontage. The retained lands (3629 Quinn Road East) would be 35.8ha (89.6 acres) with 64m frontage.

7. New Consent Applications:

8. Minor Variance / Permission Applications from a Previous Meeting:

- a) PL-ZNA-2025-0076 (Pittman) (Fotenn) - Portland District 275 -
306

Property Address: 3629 Quinn Road East

Purpose & Effect of the Application:

Minor variance application PL-ZNA-2025-0076 is requesting reduced frontages for the severed and retained lots of associated consent applications PL-BDJ-2025-0074 and PL-BDJ-2025-0075. Each of the two severed lots are to have 63m frontage and the retained lot will have 64m frontage, whereas the RU zone normally requires 76m frontage.

9. New Minor Variance / Permission Applications:

10. Other Business

- a) Delegated Authority Consent Report 307 -
311

11. Adjournment

- a) Resolution.



**SOUTH
FRONTENAC**

Committee of Adjustment Meeting

Thursday, September 11, 2025

7:00 p.m. Storrington Centre

3910 Battersea Road, Sunbury, ON

and Virtual on Zoom

Joining us on Zoom? Your camera won't be turned on. Your microphone will stay muted unless you ask to speak during a comment period.

Roll Call

Committee Members

Norm Roberts

Scott Trueman

Ray Leonard

Steve Pegrum

Patrick Diotte

Alan Revill

Brett Moreland

Mike Howe

Staff

Christine Woods, Manager of Planning

Kate Kaestner, Planning Clerk/ Secretary-Treasurer

Agenda

- Call to Order
- Adoption of Agenda
- Meeting Information
- Declaration of Pecuniary Interests
- Approval of Minutes of Previous Meeting
- Hearings for Applications
- Other Business
 - Delegated Consent Granting Authority Report
- Adjournment

Format for Each Hearing

1. Chair introduces application
2. Planner presents application
3. Applicant/agent permitted to address Committee
4. Members of the public permitted to address Committee (maximum 5 minutes per individual)
5. Staff and/or applicant to provide response to public comments / questions
6. Questions from Committee members (no comments or debate)
7. Secretary-Treasurer reads the resolution
8. Committee discussion and vote

After the Meeting

- Township staff will contact the applicant following the meeting. Where a decision is made, it will be forwarded to the applicant and anyone who requested to be notified within 15 days.
- The applicant, the Minister or a specified person or public body as defined by the *Planning Act* subsection 1(1) may appeal the decision to the Ontario Land Tribunal. The appeal must be filed with the Secretary-Treasurer of the Committee of Adjustment within 20 days of the notice of decision. The notice of appeal must set out the reasons for the appeal and be accompanied by the fee required by the Tribunal.
- If you have any questions after the meeting, please reach out to staff.

How to Speak to an Application

- The Chair of the meeting will open the floor to public comments
- In person
 - Raise your hand and wait for the Chair to acknowledge you
 - Move to the table and clearly state your name for the record
- On Zoom
 - Click “Raise Hand” button to request to speak or dial *9 (star nine) when participating by telephone
 - The Chair will acknowledge you, and the Meeting Host will unmute you
 - Once you are done speaking or the Committee has no further questions, the Meeting Host will mute your microphone

In Case of Technical Difficulties

- If a Committee member joining virtually disconnects from the meeting, the meeting will proceed if there is still quorum. The Committee member will attempt to reconnect.
- If quorum cannot be met within 15 minutes, the meeting will be postponed.
- Staff will be in touch with applicants.
- A notice will also be posted on the Township's social media if the meeting is postponed.

Notice of Collection

- Personal information is collected to gather feedback and communicate with interested parties about applications.
- This information is collected under the authority of the *Planning Act* and in accordance with the *Municipal Freedom of Information and Protection of Privacy Act*.
- With the exception of e-mail addresses and telephone numbers, all information and comments will become part of the public record and will appear on the Township's website.
- Meetings are broadcast live over the internet for the public to view. Your voice will be heard in the broadcast if you speak at the meeting. Broadcasts are archived and continue to be publicly available.
- Questions regarding the collection, use and disclosure of this personal information should be directed to the Township Clerk.

Declaration of Pecuniary Interests

Approval of Minutes of Previous Meeting

Consent and Minor Variance Applications from a Previous Meeting

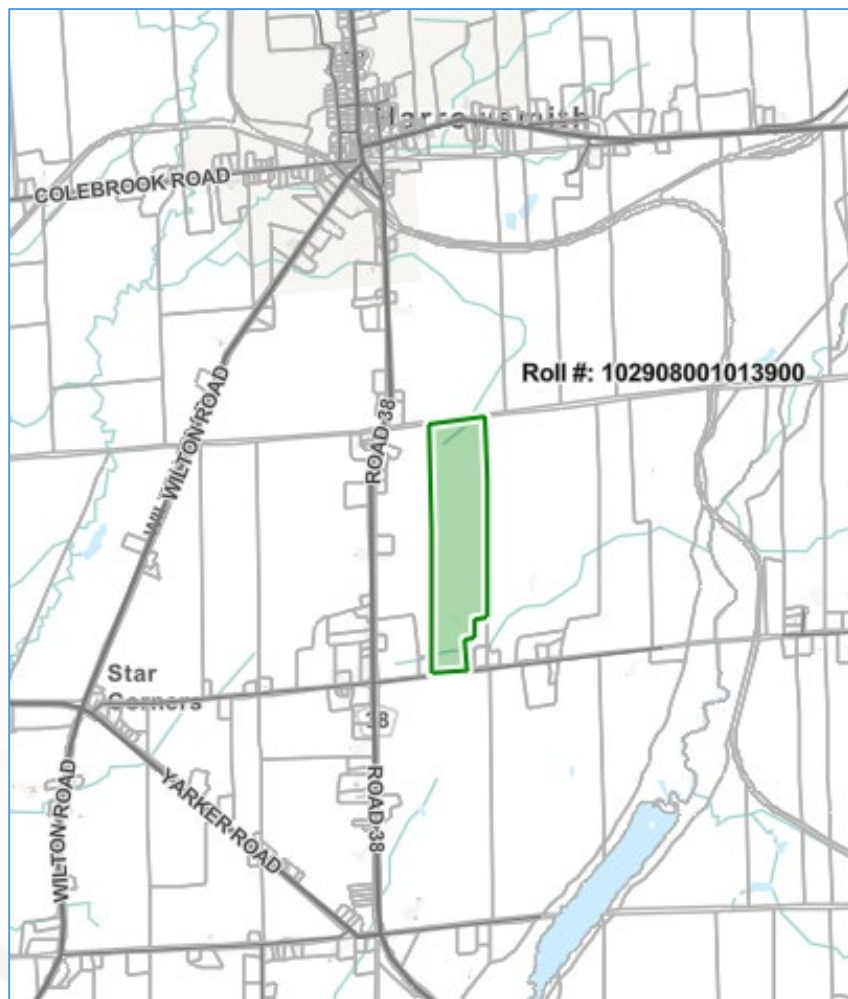
Revised Consent Applications PL-BDJ-2025-0074 and PL-BDJ-2025-0075 Minor Variance Application PL-ZNA-2025-0076

Owner: Robert Pittman

Agent: Elysia Ackroyd (Fotenn Planning + Design)

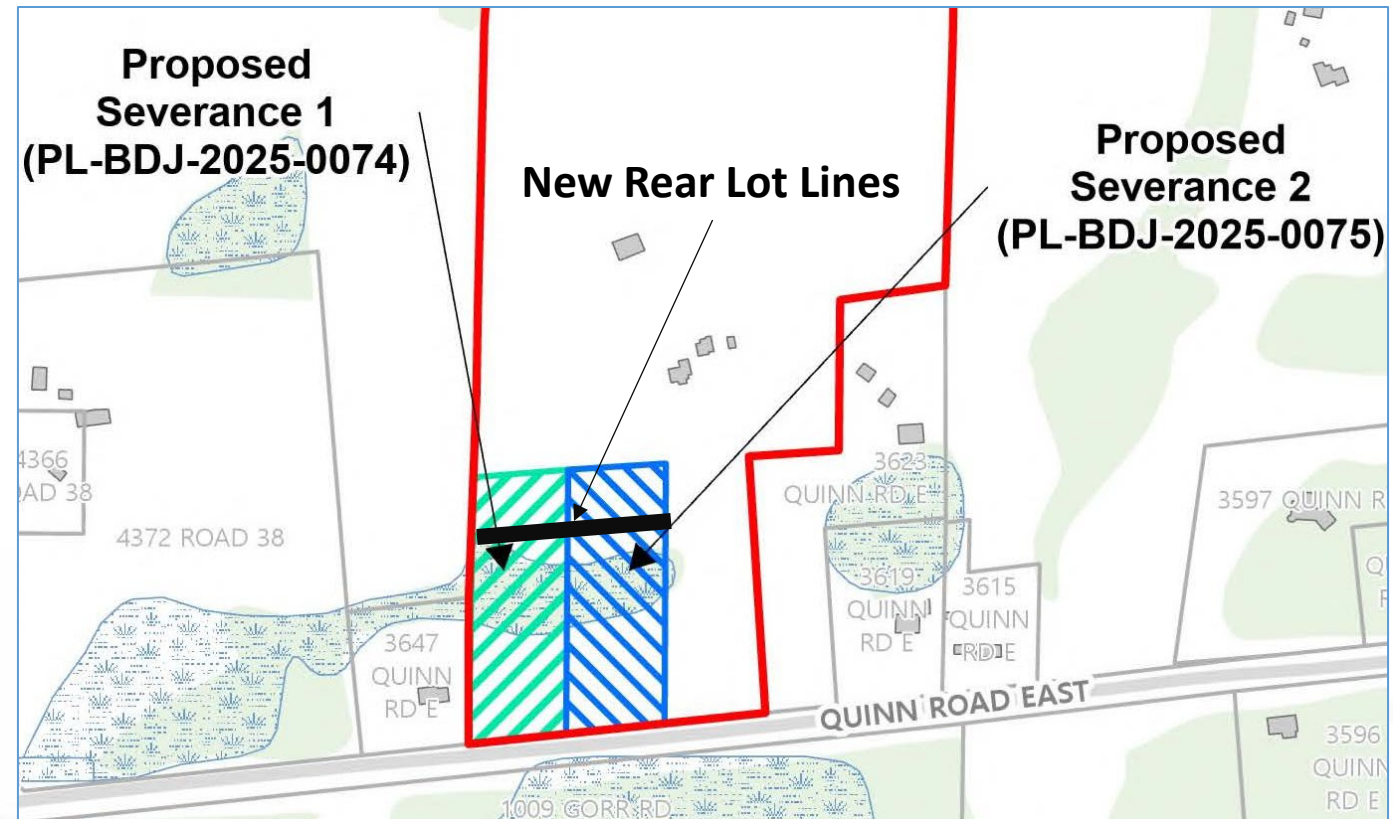
Property: 3629 Quinn Road East

Location



Proposal

- Two severed parcels
 - New residential lots
 - 0.8ha (2 acres)
 - 63m frontage
- Retained parcel
 - Agricultural/residential lot
 - 36.3ha (89.6 acres)
 - 64m frontage
- Minor variances required for frontages





Frontage on Quinn Road East



Land between the road and watercourse

Planning Justification Report

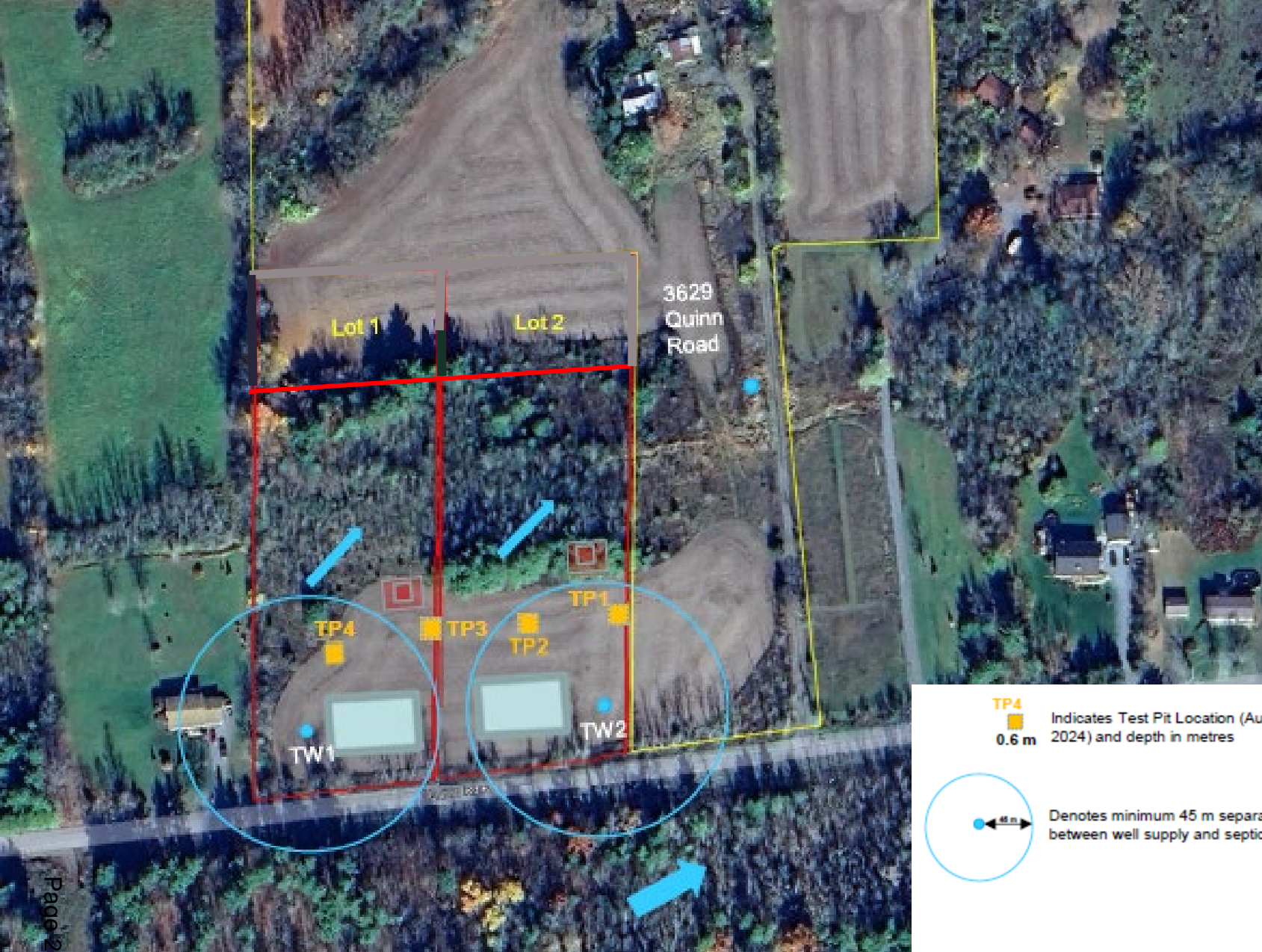
- Fotenn Planning + Design, July 3, 2025
- Assessed appropriateness in context of surrounding area
- Assessed conformity to policy framework
- Included minimum distance separation study for several existing livestock facilities

Natural Heritage Site Assessment

- Ecological Services, August 6, 2024
- Confirmed there is no wetland on the severed parcels
- Evaluated the watercourse, riparian area, woodland
- Reviewed for species at risk habitat and significant wildlife habitat
- Recommendations
 - 30m development setback from watercourse
 - Maintain natural vegetated buffer / no clearcutting trees within 30m
 - No tree removal between April 1 and September 30 to protect nesting birds and roosting bats

Hydrogeological Assessment

- BluMetric Environmental Inc., April 3, 2025
- Two new dug wells
- 6-hour pumping tests on the wells, water level monitoring, water quality analyses and interference assessment
- Conclusion
 - Adequate supply of potable water available for a typical single detached dwelling on each new lot
 - Soil conditions are suitable for the installation of sewage systems
- Recommendations
 - Water treatment (pre-filtration, UV sterilization, reverse osmosis, water softener)
 - Regular water testing
 - Minimum 45m between sewage systems and the dug wells



TP4
 0.6 m Indicates Test Pit Location (August 8, 2024) and depth in metres

45 m Denotes minimum 45 m separation setback between well supply and septic system

Indicates Proposed Lot Severances

Indicates Supply Well Location

Indicates Recommended Residence Location

Indicates Recommended Septic System Location

Inferred Shallow Groundwater and Drainage Flow Direction

Inferred Regional Groundwater Flow Direction

Well Location

Figure 4 - Conceptual Lot Development Plan

Department, Agency and Public Comments

- **Public Services**

- No objection
- Adequate sight lines for driveway entrances on Quinn Road East
- Road allowance widening may be required

- **Cataraqui Conservation**

- No objection
- Recommended different lot configurations be considered to avoid watercourse
- Potential for karst features on site

- **Public Comment**

- None Received

Discussion

- Residential lot creation is allowed in Rural designation
- Severed parcels would exceed MDS I setbacks from area barns
- Severed parcels would be the required 0.8ha minimum
- Severed and retained parcels would have 63-64m road frontage (76m minimum is required)
 - Consistent with existing lot fabric
 - Good site lines along the road for safe entrances
 - Supporting study demonstrated adequate water services and site conditions for sewage systems
 - Sufficient land to achieve 45m separation between wells and sewage systems AND 30m setback from watercourse

Recommendations

- Approval
- Minor variance for 60m lot frontage
- Consents subject to conditions
 - Reference plan (survey)
 - Confirmation of lot areas and frontages
 - Road allowance widening
 - Cash-in-lieu of parkland
 - Development agreement – implement study recommendations, lot grading and drainage plans
 - Minor variance for reduced frontage

Questions & Comments

1. Applicant/Agent
2. Members of the Public
3. Committee Member questions

Committee Deliberation and Vote

PL-BDJ-2025-0074

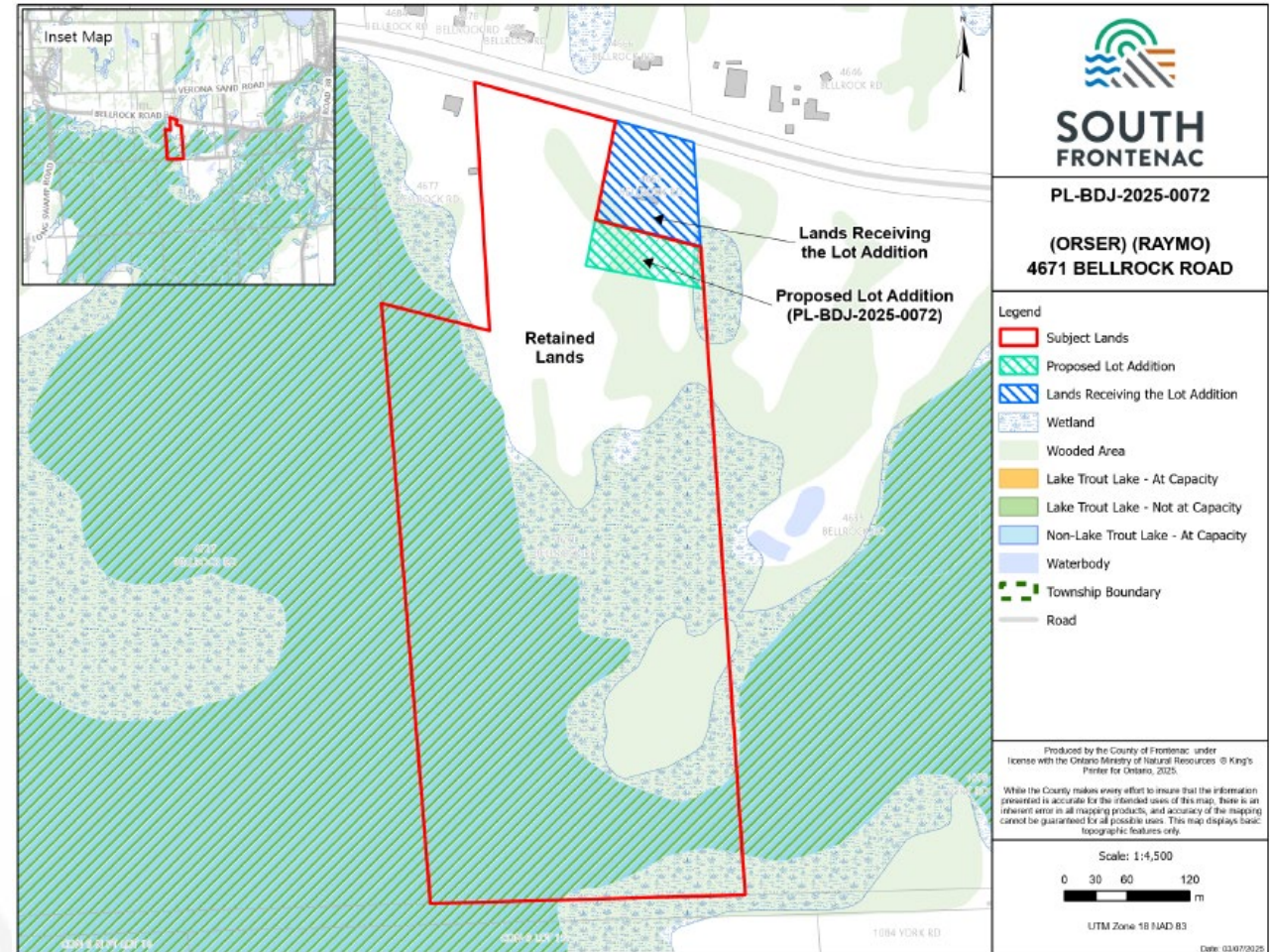
PL-BDJ-2025-0075

PL-ZNA-2025-0076

Delegated Consent Authority Report

PL-BDJ-2025-0072 - Portland District

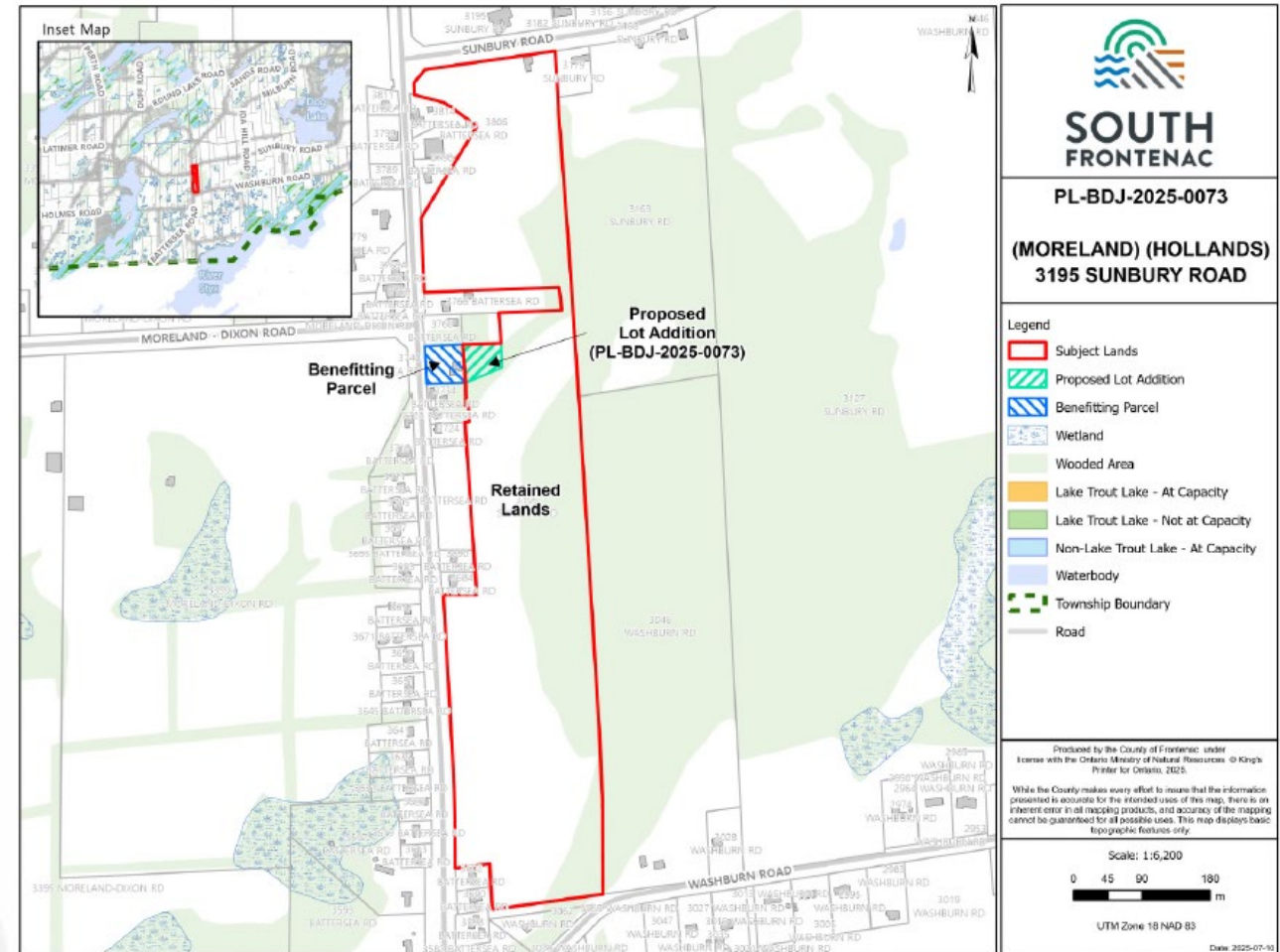
- Granted August 18, 2025
- 1.15 acre lot addition from 4671 Bellrock Road to 4657 Bellrock Road
- 4657 Bellrock Road
 - 3.28 acres
- 4671 Bellrock Road
 - 47.85 acres



Delegated Consent Authority Report

PL-BDJ-2025-0071 - Storrington District

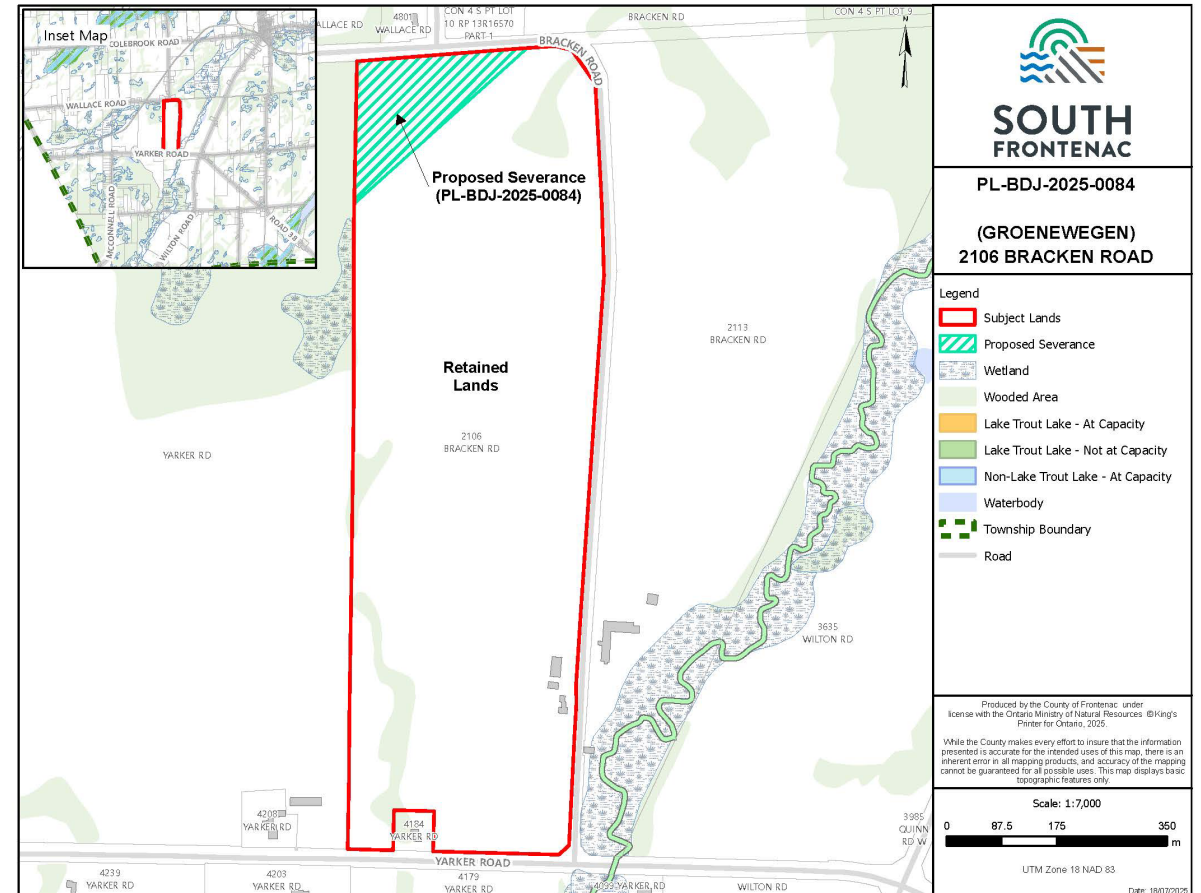
- Granted September 4, 2025
- 0.5 acre lot addition from 3195 Sunbury Road to 3740 Battersea Road
- 3740 Battersea Road
 - 1.15 acres
- 3195 Sunbury Road
 - 83.9 acres



Delegated Consent Authority Report

PL-BDJ-2025-0084 - Portland District

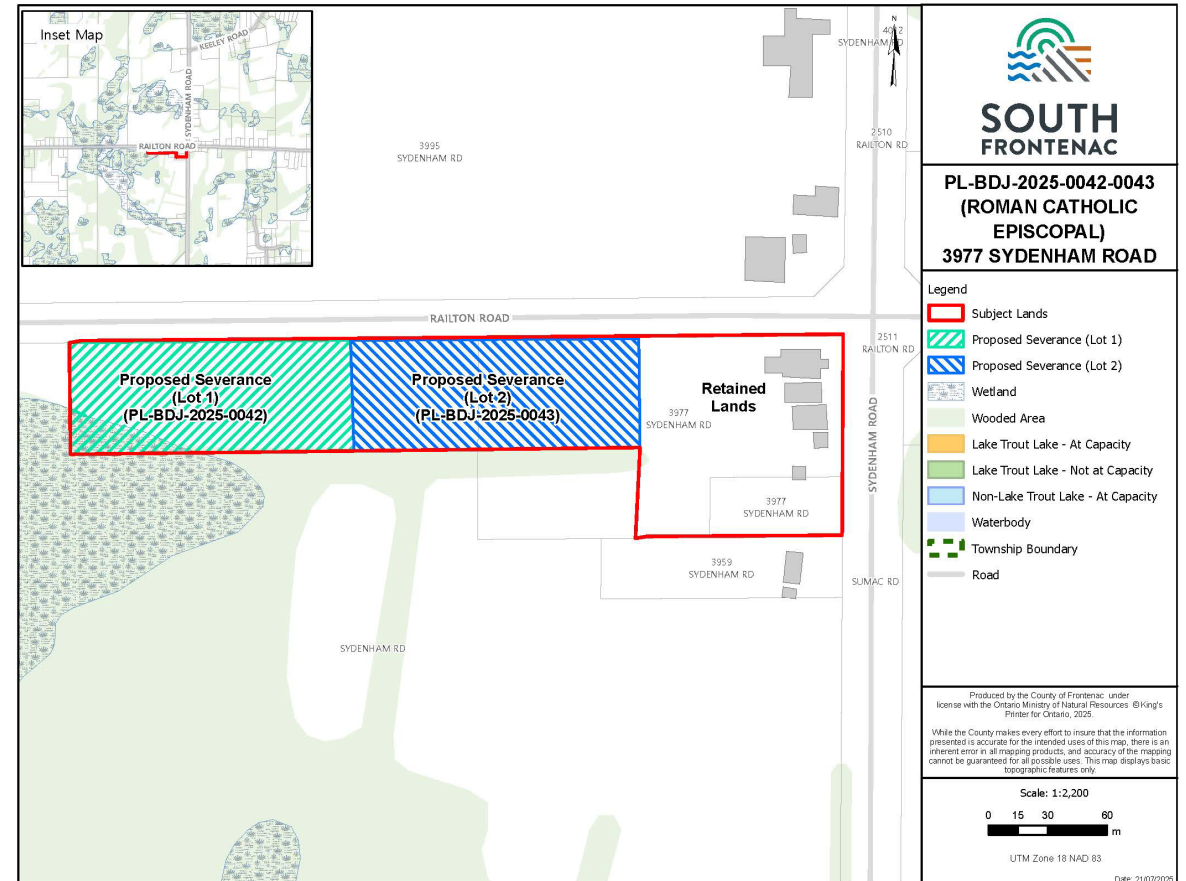
- Granted September 4, 2025
- Creation of one new residential lot from 2106 Bracken Road
- Severed Parcel
 - 8 acres
 - 266m frontage on Wallace Rd and Bracken Rd
- Retained Lands
 - 108 acres
 - 1340m frontage on Bracken Rd & 270m broken frontage on Yarker Rd



Delegated Consent Authority Report

PL-BDJ-2025-0042 & PL-BDJ-2025-0043 - Loughborough District

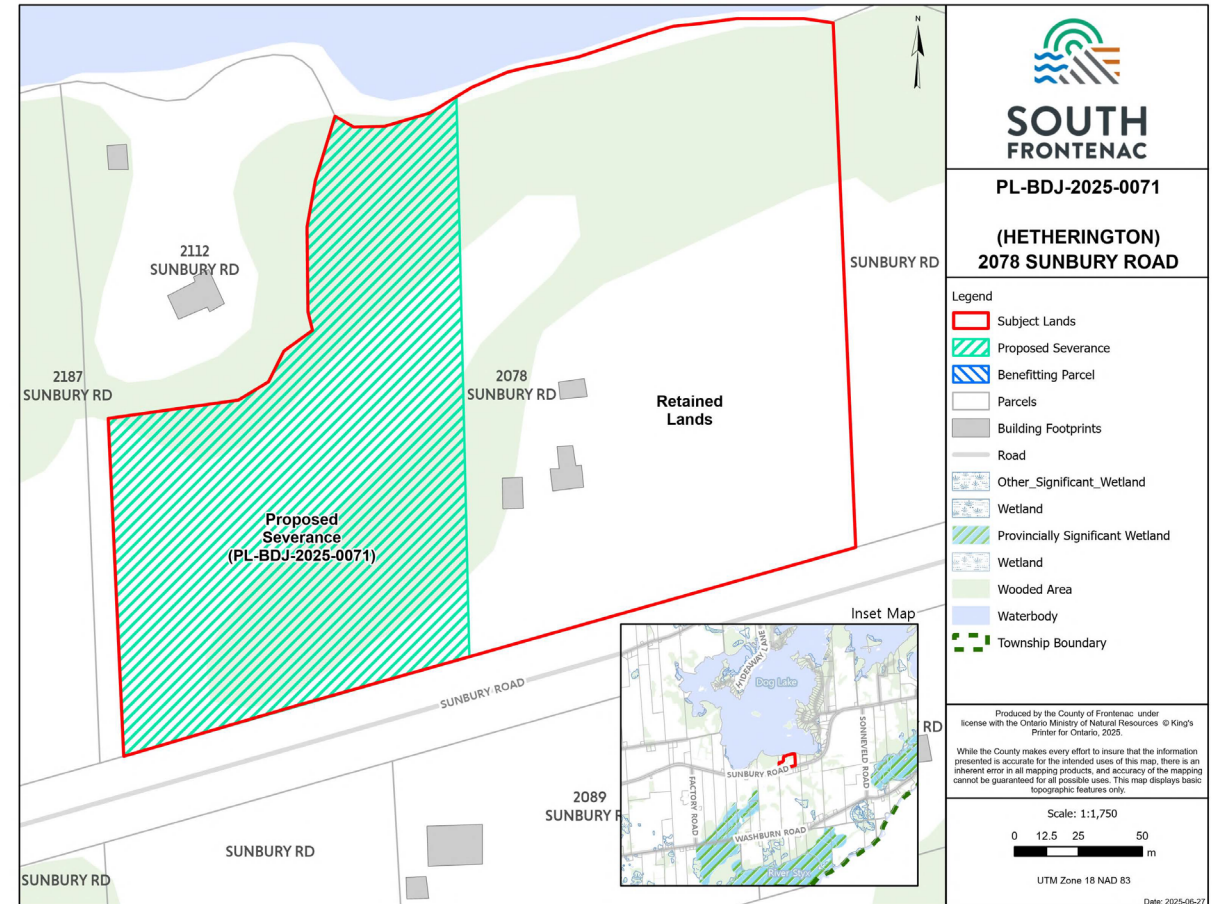
- Granted September 5, 2025
- Creation of two new residential lots from 3977 Sydenham Road
- Severed Parcels
 - Each 0.9 ha (2.2 acres) in area
 - 149m frontage on Railton Road
- Retained Lands
 - 1.1 ha in area
 - Frontage on Sydenham & Railton Road



Delegated Consent Authority Report

PL-BDJ-2025-0071 - Storrington District

- Granted September 8, 2025
- Creation of one rural residential lot from 2078 Sunbury Road
- Severed Parcel
 - 6 acres
 - 147m frontage Sunbury Road & 50m frontage on Dog Lake
- Retained Lands
 - 7.6 acres
 - 144m frontage on both Sunbury Road & Dog Lake



Adjournment



**Township of South Frontenac
Committee of Adjustment Meeting
Minutes**



Meeting # 2025-07

Time: 7:00 PM

Location: Storrington Centre/Virtual Via Zoom

Present: Alan Revill, Mike Howe, Steve Pegrum, Brett Moreland, Ray Leonard

Absent: Scott Trueman, Norm Roberts

Staff: Christine Woods, Manager of Planning; Noah Perron, Planner; Colin Herrewynen, Planner; Kate Kaestner, Planning Clerk & Secretary-Treasurer

1 Call to Order

a) Resolution.

Resolution No. 2025-07-01

Moved by: Alan Revill

Seconded by: Mike Howe

THAT the August 14, 2025 meeting of the Committee of Adjustment for the Township of South Frontenac is hereby called to order at 7:01PM.

2 Adoption of Agenda

a) Resolution.

Resolution No. 2025-07-02

Moved by: Mike Howe

Seconded by: Alan Revill

THAT the Committee adopts the Agenda for the August 14, 2025 Committee of Adjustment meeting.

Carried

3 Electronic Meeting Information

a) The meeting was live streamed at the following link:

<http://www.facebook.com/SouthFrontenacTwp/>

b) Staff prepared a PowerPoint Presentation that was displayed on the screen of the meeting.

4 Declaration of pecuniary interest

a) None declared.

5 Approval of Minutes – July 10, 2025

a) Resolution.

Resolution No. 2025-07-03

Minutes of Committee Of Adjustment
August, 14, 2025

Moved by: Mike Howe
Seconded by: Alan Revill

THAT the Committee approves the minutes of the July 10, 2025 Committee of Adjustment meeting.

Carried

6 Consent Applications from a Previous Meetings: (not applicable)

7 New Consent Applications:

a) PL-BDJ-2025-0074 (Pittman) (Fotenn) - Portland District

Property Address: 3629 Quinn Road East

Purpose & Effect of the Application:

Application PL-BDJ-2025-0074 is for the creation of one vacant residential lot on Quinn Road East. The lot would be 1.0ha (2.5 acres) in size with 63m frontage. The retained lands (3629 Quinn Road East) would be 35.8ha (88.6 acres) with 64m frontage. Associated minor variance application PL-ZNA-2025-0076 is requesting reduced frontages for the severed and retained lots because the RU zone normally requires 76m frontage.

Christine Woods, Manager of Planning, gave an overview of applications PL-BDJ-2025-0074, PL-BDJ-2025-0075 and PL-ZNA-2025-0076.

Ms. Woods advised the Committee that the applicant and their agent have requested that the applications be deferred, as they wish to consider comments brought forth by the Cataraqui Region Conservation Authority with respect to altering the proposed property boundaries as they relate to the watercourse that runs through the property.

Steve Pegrum, Chair of the Committee asked if the applicant or their agent wished to address the Committee. Neither were present.

Mr. Pegrum inquired (3 times) as to whether there were any questions or comments from members of the public. None heard.

Kate Kaestner, Planning Clerk & Secretary-Treasurer of the Committee, read the resolutions for deferral of the applications.

Resolution No. 2025-07-04

Moved by: Brett Moreland
Seconded by: Ray Leonard

THAT the Committee of Adjustment hereby defers consent application PL-BDJ-2025-0074, for lands municipally addressed as 3629 Quinn Road East, to allow the applicant or their agent time to consider reconfiguring the proposed property boundaries as advised by the Cataraqui Region Conservation Authority.

Carried

b) PL-BDJ-2025-0075 (Pittman) (Fotenn) - Portland District

Property Address: 3629 Quinn Road East

Purpose & Effect of the Application:

Applications PL-BDJ-2025-0075 is for the creation of one vacant residential lot on Quinn Road East. The lot would be 1.0ha (2.5 acres) in size with 63m

frontage. The retained lands (3629 Quinn Road East) would be 35.8ha (88.6 acres) with 64m frontage. Associated minor variance application PL-ZNA-2025-0076 is requesting reduced frontages for the severed and retained lots because the RU zone normally requires 76m frontage.

** See Minutes Text for Agenda Item 7. a)

Resolution No. 2025-07-05
Moved by: Ray Leonard
Seconded by : Brett Moreland

THAT the Committee of Adjustment hereby THAT the Committee of Adjustment hereby defers consent application PL-BDJ-2025-0075, for lands municipally addressed as 3629 Quinn Road East, to allow the applicant or their agent time to consider reconfiguring the proposed property boundaries as advised by the Cataraqui Region Conservation Authority.

Carried

8 Minor Variance / Permission Applications from a Previous Meeting:

a) PL-ZNA-2025-0060 (Delage) - Bedford District

Property Address: 282 Island Drive Lane

Purpose & Effect of the Application:

The minor variance would permit the construction of a seasonal dwelling and detached garage. The proposed seasonal dwelling with a footprint of ~182.9sqm and ~90sqm of attached decking requires zoning relief to permit a 15.3m setback from the highwater mark of Bob's Lake and the front lot line, a 5m setback from the top of bank and to establish a lot coverage of 8.5%. The proposed detached garage with a building footprint of ~111sqm requires zoning relief to permit a maximum building height of 8.3m.

Noah Perron, Planner, delivered his report to the Committee with the staff recommendation that the application be approved, subject to conditions.

Mr. Pegrum inquired as to whether the applicant or their agent wished to address the Committee. The applicant did not wish to comment.

The Chair inquired (3 times) as to whether any members of the public wished to comment or ask questions regarding the application. None heard.

Mr. Pegrum asked Committee members if they had any questions for staff or the applicant regarding the proposal. None heard.

Ms. Kaestner read the resolution for approval of the application, subject to conditions.

Mr. Pegrum gave Committee members the opportunity to discuss the resolution. None heard.

Resolution No. 2025-07-07
Moved by: Ray Leonard
Seconded by: Brett Moreland

THAT the Committee of Adjustment hereby approves minor variance application PL-ZNA-2025-0060, for property municipally addressed as 282 Island Drive Lane, permitting the construction of an approximately 183 square metre seasonal dwelling with approximately 90 square metres of decking to establish a

15.3m setback from the highwater mark of Bob's Lake and the front lot line, a 5m setback from the top of bank and to establish a lot coverage of 8.5%; and to allow a detached garage with a building footprint of approximately 111sqm to have a maximum building height of 8.3m, subject to conditions.

Carried

9 New Minor Variance / Permission Applications:

- a) PL-ZNA-2025-0065 (Fischer) (Myers) - Loughborough District

Property Address: 1179 Old Mine Lane

Purpose & Effect of the Application:

The following minor variance application is to permit the construction of a dwelling and attached deck with a maximum footprint of 2000sqft (~185.8sqm). The structure requires zoning relief to be setback 10m from the top of bank, whereas a 15m setback would be required.

Noah Perron, Planner, delivered his report to the Committee with the staff recommendation that the application be approved, subject to conditions.

Mr. Pegrum inquired as to whether the applicant or their agent wished to address the Committee. Neither the applicant nor the agent were present at the meeting.

Mr. Pegrum inquired (3 times) as to whether any members of the public wished to comment or ask questions regarding the application. None heard.

The Chair asked Committee members if they had any questions for staff or the applicant regarding the proposal. None heard.

Ms. Kaestner read the resolution for approval of the application, subject to conditions.

Mr. Pegrum gave Committee members the opportunity to discuss the resolution. None heard.

Resolution No. 2025-07-08

Moved by: Ray Leonard

Seconded by: Brett Moreland

THAT the Committee of Adjustment hereby approves minor variance application PL-ZNA-2025-0065, for property municipally addressed as 1179 Old Mine Lane, permitting the construction of a dwelling and attached deck to establish a 10 metre setback form top of bank, subject to conditions.

Carried

- b) PL-ZNA-2025-0067 (Smith) - Storrington District

Property Address: 4569 Stair Step Lane

Purpose & Effect of the Application:

To request permission under section 45(2) of the planning act to enlarge the legal non-conforming dwelling within 30m of the highwater mark of Dog Lake. The applicant proposes to enlarge the existing 73.5sqm one-storey dwelling with a building height of 4.5m. The proposed enlargement would involve adding a second storey addition to half of the dwelling of approx. 33 sqm and expanding the eave of the dwelling toward the lake by 1.5m. The enlarged

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August, 14, 2025

dwelling would have an approximate gross floor area of 107sqm, a building height of approximately 7.4m, and eave projection 1.5m toward the lake. The main building would maintain the setback of 16m from the highwater mark of Dog Lake.

Colin Herrewynen, Planner, delivered his report to the Committee with the staff recommendation that the application be approved, subject to conditions.

Mr. Pegrum inquired as to whether the applicant or their agent wished to address the Committee.

Hunter Smith, applicant, indicated to the Chair that he was present at the meeting but did not have anything to say at that time.

Mr. Pegrum inquired (3 times) as to whether there were any members of the public who wished to comment or pose questions regarding the application. (None heard).

Mr. Smith (applicant) asked if, over the course of construction, it was determined that he had to rebuild some or all of the existing structure, whether this application would account for that or whether he would need to come back to the Committee to rebuild it.

Ms. Woods advised that as long as he was rebuilding the structure as it currently exists, and not enlarging it in any way other than what was being presented through this proposal, he would not need additional planning approvals.

Mr. Pegrum asked Committee members if they had any questions regarding the application.

Ray Leonard, Committee member, inquired as to whether a demolition permit would be required for the dwelling if it needed to be replaced during construction.

Christine Woods, Manager of Planning, responded that although the staff present were not experts on building code requirements, she believed that a demolition would be required in that situation.

Mr. Leonard thanked Ms. Woods for her reply and stated that he just wanted Mr. Smith to be aware of this requirement should he determine that the existing dwelling needed to be rebuilt.

Mr. Smith asked staff about the condition of a Development Agreement, and what that would entail.

Ms. Woods explained that the Development Agreement is an Agreement that the applicant would enter into with the Township and that it gets registered on title and would apply to all subsequent owners of the property.

There was discussion between Mr. Smith, Ms. Woods and Mr. Herrewynen with respect to the details of the Agreement and how it would relate to Mr. Smith's project.

Mr. Pegrum inquired as to whether there were any further questions from Mr. Smith or Committee members. None heard.

Ms. Kaestner read the resolution for approval of the application, subject to conditions.

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Mr. Pegrum asked Committee members if they had any comments with respect to the resolution. None heard.

Resolution No. 2025-07-09
Moved by: Brett Moreland
Seconded by: Ray Leonard

THAT the Committee of Adjustment hereby approves application PL-ZNA-2025-0067, for property municipally addressed as 4569 Stair Step Lane, granting permission to enlarge the existing legal non-conforming dwelling within 30 metres of the highwater mark of Dog Lake by way of a 2nd story addition being up to 35 square metres in area, and first floor eave projection of 1.5m towards Dog Lake, subject to conditions.

Carried

c) PL-ZNA-2025-0076 (Pittman) (Fotenn) - Portland District

Property Address: 3629 Quinn Road East

Purpose & Effect of the Application:

The minor variance application is requesting reduced frontages for each of the lots created by associated consent applications PL-BDJ-2025-0074 and PL-BDJ-2024-0075. Both lots would have 63m frontage, and the retained lands would have 64m frontage whereas the RU zone normally requires 76m.

** See Minutes Text for Agenda Item 7. a)

Resolution No. 2025-07-06
Moved by: Alan Revill
Seconded by: Mike Howe

THAT the Committee of Adjustment hereby defers minor variance application PL-ZNA-2025-0076, for lands municipally addressed as 3629 Quinn Road East, to allow the applicant or their agent time to consider reconfiguring the proposed property boundaries as advised by the Cataraqui Region Conservation Authority.

Carried

10 Other Business

a) Delegated Authority Consent Report

Kate Kaestner, Planning Clerk, delivered her report to the Committee. There were no questions arising from the report.

11 Adjournment

a) Resolution.

Resolution No. 2025-07-10
Moved by: Brett Moreland
Seconded by: Ray Leonard

THAT the August 14, 2025 meeting of the Committee of Adjustment for the Township of South Frontenac is hereby adjourned at 7:45PM, to reconvene on Thursday, September 11, 2025 at 7:00PM or at the call of the Chair.

Carried



Application Requirements

The following items must be submitted with your application. Any application which does not include the below required information may not be accepted or will not be considered complete.

- 1. A pre-consultation meeting is a requirement prior to submission of the application.

Pre-consultation meeting fee	\$152.00
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- 2. One hard copy of this completed application form signed and commissioned.
- 3. A Sketch of your proposal (see Question 26 for details on what to include). The sketch must be drawn with accurate dimensions and measurements. It is recommended that you take your time to carefully assemble the data and create the sketch. You may wish to secure the assistance of a person who specializes in the drafting of sketches.
- 4. The applicable **non-refundable** application fee, payable to the Township of South Frontenac:

Application Type:	FEE:
Consent Application	\$1,368.00
Change of conditions	\$325.00
Change of conditions requiring re-circulation	\$568.00

- 5. Agency Review Fees (as applicable). A separate **cheque or proof of payment**, payable to the applicable Conservation Authority, is to be submitted to the Township with the completed application. The on-site sewage disposal review fee may be included in the payment of the application fee to the Township.

Agency:	FEE:
Township of South Frontenac onsite sewage disposal review (per new lot)	\$515
Catarqui Conservation (per new lot or lot addition)	\$445
Quinte Conservation (per new lot or lot addition)	\$450
Rideau Valley Conservation Authority (per new lot or lot addition)	\$500

Please Note: These fees are for consultation on this application only; agencies may require additional fees if permit applications are required prior to any construction.

- 6. Required studies & Supporting Information identified at pre-consultation (if applicable)
- 7. Deed or transfer, or authorization for Township Staff to acquire title documents (if applicable)

TOWNSHIP OF SOUTH FRONTENAC CONSENT APPLICATION

Collection of Personal Information:

Personal information requested on the application form is required under the *Planning Act*. This information will be used by the Township for the purpose of reviewing the application. It may be made available to those boards, Commissions, Authorities, Agencies and Persons having an interest in this matter. Any questions regarding the collection of this information should be directed to the Secretary Treasurer of the Committee of Adjustment (P.O. Box 100, Sydenham, Ont., K0H 2T0, Phone 613-376-3027 ext. 2224).

What is considered when reviewing an application?

In considering an application, the decision-making approval authority, shall have regard, among other matters, to the health, safety, convenience and welfare of the present and future inhabitants of the municipality and to:

- The effect of development on matters of provincial interest as referred to in Section 2 of the *Planning Act*.
- Whether the proposed severed lot is premature or in the public interest.
- Whether the consent conforms to the intent of the Official Plan and adjacent plans of subdivision (if any)
- The suitability of the land for the purposes for which it is being severed
- If affordable housing units are being proposed, the suitability of the proposed units for affordable housing
- The number, width, location and proposed grades and elevations of roadways and their adequacy in relation to any proposed roadway linking the proposed severed area with the established roadway system.
- The dimensions and shape of the proposed lot.
- Any restrictions on the subject land (or on the buildings and structures to be erected on it) and any restrictions on abutting lands.
- Conservation of natural resources and flood control.
- The adequacy of utilities and municipal services.
- The adequacy of schools.
- The area of land, if any, exclusive of roadways, that is to be conveyed or dedicated for public purposes (such as for parks).
- The physical configuration of the new lot having regard to energy conservation.
- Site Plan Control
- County of Frontenac Official Plan
- Township of South Frontenac Official Plan
- Township of South Frontenac Zoning By-Law
- Provincial Policy Statement

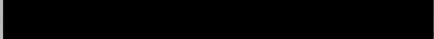
TOWNSHIP OF SOUTH FRONTENAC CONSENT APPLICATION

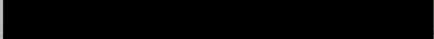
For Office Use Only

Date Received: _____ File Number: _____

1. Name of Owner(s): Robert Pittman

Full Mailing Address of Owner(s): 30 Arran Cresent, Woodbridge, ON L4L 1G5

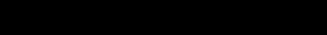
Phone number of Owner(s): 


Email Address of Owner(s): 

2. If the applicant is **NOT** the owner of the subject land, the written authorization of the owner that the applicant is authorized to make the application, be provided below.

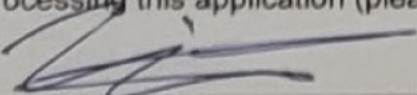
Name of Authorized Applicant/Agent: Fotenn Consultants Inc. c/o Elysia Ackroyd

Full Mailing Address of Authorized Applicant/Agent: 4 Cataraqui Street 315, Kingston, K7K 1Z7

Phone number of Authorized Applicant/Agent: 

Email Address of Authorized Applicant/Agent: 

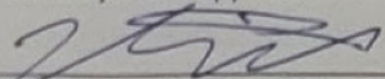
Agent as named above is hereby authorized to act on behalf of the owners for purposes of processing this application (please fill out the last page).



Signature(s) of Owner(s)

Communications are to be sent to: Owner(s) Agent

3. **Permission to Enter Subject Lands:** Permission is hereby granted to the relevant staff, committee members, and necessary commenting agencies to enter the premises (subject lands) subject to this development application for the purposes of making inspections associated with this application.



(Signature of the property owner)

(Signature of the property owner)

June 24, 2025
(Date)

TOWNSHIP OF SOUTH FRONTENAC CONSENT APPLICATION

4. Have you consulted with Township Planning Staff regarding this application?

Yes No

Date Fee Paid: _____

Name of Planner: Christine Woods

Date of Meeting: December 12th, 2022

5. The description of the subject land:

District: Bedford Portland Loughborough Storrington

Civic Address: 3629 Quinn Road East, South Frontenac

Concession Number: CON 3 Lot Number: Part of Lot 6

Reference Plan Number: 13R-7028 Part Number(s): _____

Roll Number: 102908001013900

Property Identification Number (PIN): 36140-0201

6. Indicate the frontage(s), depth and area of the subject land. The subject land is the whole property prior to any changes. Please indicate the name of the road/lane and waterbody (if applicable).

Frontage on water (m): N/A Frontage on road/lane (m): +/- 191 metres

Name of Waterbody: N/A Name of Road/Lane: Quinn Road East

Depth(m): +/- 1,337 metres Area(acres/ha): +/- 93 acres, +/- 37.8 hectares

7. Select the type of consent being applied for:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Creation of a New Lot | <input type="checkbox"/> Correction of Title |
| <input type="checkbox"/> Easement (right of way) | <input type="checkbox"/> Lease |
| <input type="checkbox"/> Lot Addition | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Charge/Discharge of Mortgage | |

8. Please provide a brief description of your application. Indicate the reason why you are applying for a consent.

The purpose of these applications is to create two new rural residential lots, to be developed with single detached dwellings. The consent will result in a total of three lots (two severed and one retained). A minor variance application is necessary to allow a reduced frontage for each of the retained and severed lots. Please refer to Planning Justification Letter in support of application.

TOWNSHIP OF SOUTH FRONTENAC CONSENT APPLICATION

9. Create a NEW LOT – Complete this section ONLY if you are applying to create a new lot.

The following information is regarding the land intended to be severed (created) and the land to be retained.

	Severed Lot (Proposed new lot):	Retained Lot:
Frontage on Road/Lane (m):	63.0 metres	64.6 metres
Name of Road/Lane:	Quinn Road East	Quinn Road East
Frontage on Water (m):	N/A	N/A
Name of Waterbody:	N/A	N/A
Depth (m):	+/- 170.8 metres	+/- 1,337.4 metres
Acres (acres or ha):	1.05 ha	35.8 ha

Please list the existing and proposed **USES and STRUCTURES**.

	Severed Lot (Proposed new lot):	Retained Lot:
Existing Use of Lot:	Rural	Rural
Existing Buildings/Structures:	None	Single detached dwelling, and several accessory structures
Proposed Use of Lot:	Rural residential	Rural (no change)
Proposed Buildings/Structures:	Anticipated single detached dwelling	None (no change)

TOWNSHIP OF SOUTH FRONTENAC CONSENT APPLICATION

10. LOT ADDITION – Complete this section ONLY if you are applying for a lot addition.

The following information is regarding the land intended to be severed (created) and the land to be retained.

	Proposed Lot Addition (Severed parcel):	Retained Lot:
Frontage on Road/Lane (m):	N/A	N/A
Name of Road/Lane:	N/A	N/A
Frontage on Water (m):	N/A	N/A
Name of Waterbody:	N/A	N/A
Depth (m):	N/A	N/A
Acres (acres or ha):	N/A	N/A

The following information is regarding the Benefitting Lands also known as the land being enlarged which are receiving the lot addition.

	Existing Benefitting Lot: (Before Lot Addition)	Enlarged Lot with added Land: (After Lot Addition)
Frontage on Road/Lane (m):	N/A	N/A
Name of Road/Lane:	N/A	N/A
Frontage on Water (m):	N/A	N/A
Name of Waterbody:	N/A	N/A
Depth (m):	N/A	N/A
Acres (acres or ha):	N/A	N/A

TOWNSHIP OF SOUTH FRONTENAC CONSENT APPLICATION

Please list the existing and proposed **USES and STRUCTURES**.

	Lot Addition:	Retained Lands:	Benefitting Lands:
Existing Use of Lot:	N/A	N/A	N/A
Existing Buildings/Structures:	N/A	N/A	N/A
Proposed Use of Lot:	N/A	N/A	N/A
Proposed Buildings/Structures:	N/A	N/A	N/A

11. EASEMENTS & RIGHT OF WAY – Complete this section if you ONLY are applying for an easement or a right-of-way

Length: N/A Depth: N/A Width: N/A Area: N/A

Civic address of Benefitting lands: N/A

Roll Number of Benefitting Lands: N/A

Describe the purpose and effect of the easement and the property that will benefit:

N/A

12. Type of Servicing Proposed – WATER (Indicate the method by which water will be provided):

(NEW LOT) Severed Parcel		Retained Parcel	
<input type="checkbox"/>	Municipal water system	<input type="checkbox"/>	Municipal water system
<input checked="" type="checkbox"/>	Privately owned and operated well	<input checked="" type="checkbox"/>	Privately owned and operated well
<input type="checkbox"/>	Lake water	<input type="checkbox"/>	Lake water
<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	Other: _____

TOWNSHIP OF SOUTH FRONTENAC CONSENT APPLICATION

13. Type of Sewage Disposal System Proposed (How will sewage disposal system be provided?):

(NEW LOT) Severed Parcel	Retained Parcel
<input type="checkbox"/> Publicly owned and operated communal septic system	<input type="checkbox"/> Publicly owned and operated communal septic system
<input checked="" type="checkbox"/> Privately owned and operated individual septic system:	<input type="checkbox"/> Privately owned and operated individual septic system:
<input checked="" type="checkbox"/> Leaching Bed (Class 4)	<input type="checkbox"/> Leaching bed (Class 4)
<input type="checkbox"/> Holding Tank (Class 5)	<input type="checkbox"/> Holding Tank (Class 5)
<input type="checkbox"/> Greywater Pit (Class 2)	<input type="checkbox"/> Greywater Pit (Class 2)
<input type="checkbox"/> Privy/Outhouse (Class 1)	<input type="checkbox"/> Privy/Outhouse (Class 1)

14. Please list the name of the person(s) to whom the land or an interest in the land is to be transferred, charged or leased (*if known*):

N/A _____

15. Are there any existing easements or restrictive covenants? Yes No Unknown
 If Yes, please provide a description of each easement or covenant and its effect:

16. Are you aware of any abandoned wells on the subject property? Yes No

17. Name of road or lane which accesses:

The new lot (lot addition or Right of Way): Quinn Road East

The retained lot: Quinn Road East

Please indicate whether access to the land will be by:

- | | |
|--|--|
| <input type="checkbox"/> Provincial highway | <input type="checkbox"/> Lane |
| <input checked="" type="checkbox"/> Municipal Road - maintained year round | <input type="checkbox"/> A right of way |
| <input type="checkbox"/> Municipal Road - seasonally maintained | <input type="checkbox"/> Water (see next page) |

TOWNSHIP OF SOUTH FRONTENAC CONSENT APPLICATION

If access is by water only, describe the parking and docking facilities to be used and the approximate distance of these facilities from the subject land and the nearest public road. Parking and Docking for water access only properties **MUST** be legally deeded access. Please provide confirmation.

The New Lot: N/A - not a water access lot

The Retained Lot: N/A - not a water access lot

18. What is the zoning of the subject lands? (Check www.frontenacmaps.ca)

Rural (RU) Zone

19. What is the current [Official Plan Designation](#) of the subject lands?

Rural

20. Please describe how the application conforms with the [Township Official Plan](#) & [County Official Plan](#) by **citing specific applicable** sections and sub sections. Please make sure to look at Sections 5 and 7 in the Township Official Plan and Section 3 in the County Official Plan. If you are unsure, please indicate that you do not know.

Please refer to supporting planning justification letter.

21. Is the application consistent with the 2020 [Provincial Policy Statement](#)?

Yes No Unknown

Please explain:

Please refer to supporting planning justification letter.

TOWNSHIP OF SOUTH FRONTENAC CONSENT APPLICATION

22. Has the subject land ever been, or is currently, the subject of an application for approval of a plan of subdivision under section 51 of the *Planning Act*, for a consent under section 53 of the *Planning Act*, for a minor variance, for approval of a site plan, or for an amendment to an official plan, an amendment to the zoning by-law or a Minister’s zoning order? Complete all applicable

<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown	
Application Type	Application Number	Date of Application	Decision
<input type="checkbox"/> Plan of Subdivision			
<input checked="" type="checkbox"/> Consent		1986	Approved
<input type="checkbox"/> Minor Variance			
<input type="checkbox"/> Site Plan Approval			
<input type="checkbox"/> Official Plan Amendment			
<input type="checkbox"/> Zoning By-law Amendment			
<input type="checkbox"/> Minister’s Zoning Order			

23. Has land been previously severed from the subject property, since September 5, 2000? If yes, please provide date of transfer; name of transferee and uses of the land.

Yes October 10, 1986, No

24. Did the current owner acquire the subject land as a result of a consent? Yes No

25. Is the applicant requesting a Certificate of Official for the retained land? Yes No

** If yes – the applicant must provide a lawyer’s statement that there is no land abutting the subject lands that are owned by the owner of the subject land, other than the land that could be conveyed without contravening section 50 of the *Planning Act*.

26. A SKETCH must be submitted. For more information on what the sketch needs to show, please see “A guide to completing your consent application form”. If your application is approved and then the required survey shows different frontages, area and location than was submitted, a new consent may be required including submission of a new application and fees.**

TOWNSHIP OF SOUTH FRONTENAC CONSENT APPLICATION

Please note that the sketch must include the same metric as on the application, switching between meters and feet will not be acceptable unless both are shown.

The sketch must include the following:

- A directional arrow with North at the top of the page.
- The boundaries and dimensions of the whole property. LABEL the part that is to be severed and the part that is to be retained, including the total area (acres or hectares), road frontages on all roads/lanes for each and waterbodies.
- Indicate if the owner of the subject property also owns other lands near the proposal.
- The distance between the subject land and the nearest road, bridge or railway crossing
- The location of all land previously severed from the parcel (if applicable) originally acquired by the current owner of the subject land.
- All natural and artificial features that are located on the subject property and on land beside the subject property. Please label and show the approximate location of:
 - a. Existing Buildings, wells and septic systems, bridges, railways, roads, hydro lines
 - b. Waterbodies, watercourses, drainage ditches, river or stream banks, wetlands, wooded areas
 - c. Landfills, propane facility, quarry's and pits
 - d. Barns

Note: The existence of a nearby barn will require you to complete a Minimum Distance Separation Calculation in order to consider compatibility issues. Please check with the Planning Department regarding the implications of any farm structure, on your application.

- Please include any information on natural and artificial features (as listed above) that in the applicant's opinion may affect the application
- Please indicate the current uses of land that is surrounding the property, such as residential, agricultural and commercial uses (if agricultural, please indicate the approximate distance of any barn structure from the proposed new lot).
- The location, width and name of any roads within or abutting the subject land, indicating whether it is an unopened road allowance, a public travelled road, a private road or a right of way.

TOWNSHIP OF SOUTH FRONTENAC CONSENT APPLICATION

- If access to the subject land is by water only, please show the location of the parking and boat docking facilities to be used, and the title documents to demonstrate legal deeded use of these facilities
- The location and nature of any easement affecting the subject land.
- The location of any abandoned wells on the property

PERMISSION, ACKNOWLEDGEMENT, AGREEMENT AND DECLARATION OF APPLICATION

I/ We, the undersigned, being the registered property owner(s) and/or agent acting on behalf of the owner agree that the information recorded in this Consent Application Form is accurate and agrees that representatives of the Township and relevant commenting agencies may enter onto the subject property for the purpose of determining the appropriateness of the site for the proposed development.

ACKNOWLEDGEMENT OF ADDITIONAL REQUIREMENTS

I/ We, the undersigned, being the registered property owner(s) and/or agent acting on behalf of the owner, acknowledge that additional studies and/or peer review and/or legal review may be required by the Township as a part of the review of my/our application. Should the need arise, I/we are responsible for completing the studies as requested in order for the application to be deemed complete.

Attached to this application is payment to the Township of South Frontenac in the correct amount representing payment of the application fee, and additional payment (or proof of payment) for any required commenting agency review fees.

AGREEMENT TO INDEMNIFY

The applicant hereby agrees to indemnify and save harmless The Corporation of the Township of South Frontenac (“the Municipality”) from all costs and expenses that the Municipality may incur in connection with the processing of the applicant’s application for approval under the *Planning Act*.

Without limiting the foregoing, such costs will include all legal, engineering, planning, and consulting fees and charges incurred or payable by the Municipality to process the application together with all costs and expenses arising from or incurred in connection with the Municipality being required, or requested by the applicant, to appear at the hearing of any appeal to the Ontario Land Tribunal from any decision of the Council, Delegated Decision of Council, or Committee of Adjustments, of their designated approval authority, as the case may be, hearing the applicant’s application.

The Owner/Applicant further agrees to provide the Municipality, upon request and in cases where an application has been appealed to the Ontario Land Tribunal, with a deposit (over and above the normal application fee), from which the Municipality may, from time to time charge any fees and expenses incurred by the Municipality to prepare for and participate in the hearing. If such appeal expenses exceed the deposit, the Owner/Applicant shall pay the difference forthwith upon being billed by the municipality, with interest at the rate of 1.25% per month (15% per annum) on accounts overdue more than 30 days.

TOWNSHIP OF SOUTH FRONTENAC CONSENT APPLICATION

The applicant/owner acknowledges and agrees that if any amount owing to the Municipality in respect of the application is not paid when due, the Municipality will not appear before the Ontario Land Tribunal in connection with the application until the invoice has been paid in full.

DECLARATION FOR THE PRESCRIBED INFORMATION

Note: Do not sign until in the presence of the Commissioner of Oaths. You will be required to provide photo identification (i.e. driver's license).

I/We, ROBERT PITTMAN,
(Name of Owner / Agent)

of the CITY OF VAUGHAN, ONTARIO
(Municipality, Town, City name)

do solemnly declare that the information contained in this application is true and that the information contained in the documents that accompany this application is true, and acknowledge that personal information and all other material collected on this form and provided to the municipality as part of this application, including all names, addresses, opinions and comments, is collected under the authority of the *Planning Act*, R.S.O. 1990, as amended, will be used to assist in making a decision on this matter and will be made available for public disclosure. I/We are aware the information collected in this Application will be provided in the applicable Agenda and posted on the Township's website.

Sworn (or declared) before me in the CITY OF TORONTO, ONTARIO
(Municipality name)

On this 24TH day of JUNE, 2025.



Affix Commissioner of Oaths stamp below signatures

3629 QUINN ROAD EAST, SOUTH FRONTENAC

CONSENT + MINOR VARIANCE

1

August 19, 2025

Kate Kaestner

Planning Clerk/Secretary-Treasurer, Committee of Adjustment
Planning Department
Township of South Frontenac

Via Email: kkaestner@southfrontenac.net

**RE: 3629 Quinn Road East, South Frontenac
Applications for Consent and Minor Variance
Planning Justification Report**

Dear Ms. Kaestner,

Fotenn Planning + Design was retained by Robert Pittman (“the applicant”) to prepare applications for consent and minor variance at 3629 Quinn Road East. Applications were submitted on July 14, 2025 and a response was provided on July 16, 2025. The applications were scheduled for the August 14, 2025 Committee of Adjustment meeting but were deferred at the request of the applicant to reevaluate the lot configuration in response to comments made by the Cataraqui Region Conservation Authority (CRCA), and other site considerations. This letter is submitted in support of the revised applications. The applications are now proposed to be heard on the September 11, 2025 Committee of Adjustment agenda. The technical studies submitted in support of the application remain relevant and applicable.

Revised Proposal

The revised application continues to propose consent to create two new rural residential lots fronting Quinn Road East, though now with reduced lot sizes. In this new proposal, each severed lot has been reduced from approximately 1.5 ha to 0.82 ha. The retained lands have been increased from approximately 35.89 ha to 36.37 ha. The application for minor variance to permit the reduced frontages for single detached residential uses in the Rural (RU) zone remains the same. The proposed frontage of the retained lot is 64.6 metres, while the proposed frontage for each of the severed lots is 63 metres, whereas a minimum frontage of 76 metres is required. The intention of this reduction is to preserve the tillable agricultural field located north of the proposed severances, and to eliminate the need for potential watercourse crossings, as recommended by CRCA through their July 31st comments. In these comments, staff recommended that an alternative lot configuration be considered where the rear lot line follows the watercourse to avoid the need for future watercourse crossings. The revised plan now proposes that the rear lot lines of the severed lots align with the northern extent of the 30 metre setback of the watercourse, thereby minimizing opportunity for crossing, as no development is permitted in this 30 metre setback.

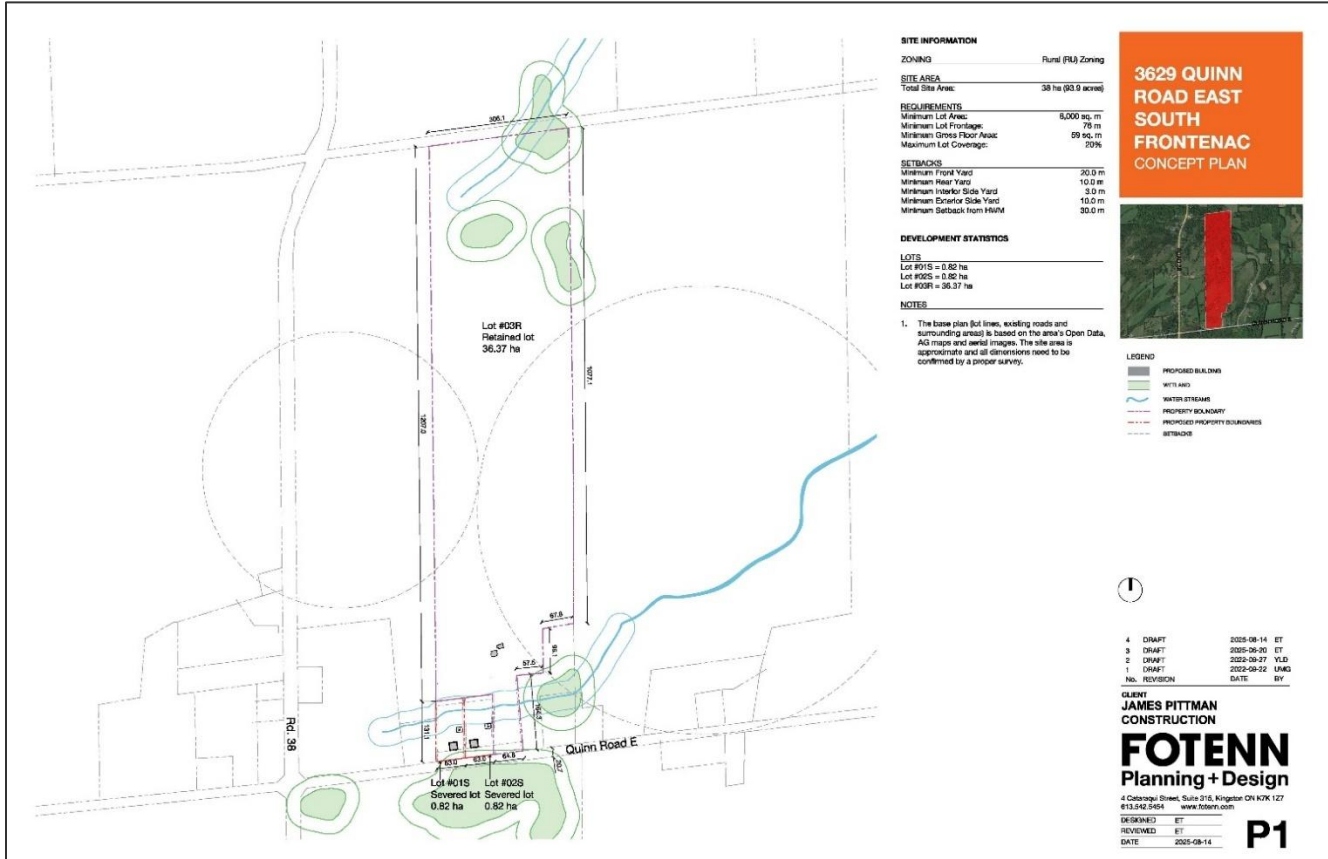


Figure 1: Revised Concept Plan (Source: Fotenn Planning + Design)

The technical studies submitted in support of the July 14, 2025 applications remain valid. The Minimum Distance Separation (MDS) Study continues to apply as the relative location of proposed building envelopes and nearby livestock facilities has not changed, and the proximity of the severed lots to the MDS influence areas are now reduced as a result of the lot reconfiguration. The Scoped Natural Heritage Site Assessment (NHA) remains applicable, as the revised lot configuration strengthens the original recommendations by aligning lot lines with the tributary and avoiding potential crossings, while maintaining a 30 metre buffer from development. Similarly, the Hydrogeological Assessment and Terrain Analysis continues to demonstrate that the proposed lots can be safely and sustainably serviced by private well and septic systems; the modest reduction in lot size from 1.5 ha to 0.82 ha should not affect groundwater supply, quality, or the feasibility of recommended setbacks. Collectively, these studies confirm that the revised proposal remains technically supportable and consistent with good planning.

The revised application continues to satisfy the four tests of minor variance under Section 45(1) of the *Planning Act*. The general intent and purpose of the Official Plan is maintained as the proposal still represents limited rural residential lot creation that is compatible with surrounding uses, appropriately serviced, and protects against potential impacts on the watercourse. The general intent and purpose of the zoning by-law is upheld, as the Rural (RU) Zone supports large rural lots with private servicing. While frontage relief remains necessary, all lots exceed the minimum lot area and continue to provide sufficient space for dwellings, septic systems, wells, and setbacks. The variance remains minor in nature, as the reduction in frontage does not affect lot functionality, servicing, or compatibility with the established lot fabric. The variance is still desirable for the appropriate development of the land, as it enables the efficient creation of rural residential lots on existing road frontage while preserving rural and natural features, ensuring that the lots are both functional and sustainable.

Conclusion

The revised consent and minor variance applications at 3629 Quinn Road East addresses technical comments and enhances the protection of rural and natural features. The application will allow a form of appropriate rural residential development on the site which will complement the existing character of the area.

The minor variance application continues to maintain the intent and purpose of the OP and zoning by-law, is minor in nature, and desirable for the appropriate development of the site in question. It is our opinion that the proposed applications for consent and minor variance remain appropriate for the site and represent good land use planning. Should you have any questions or comments, please do not hesitate to contact us at 613.542.5454.

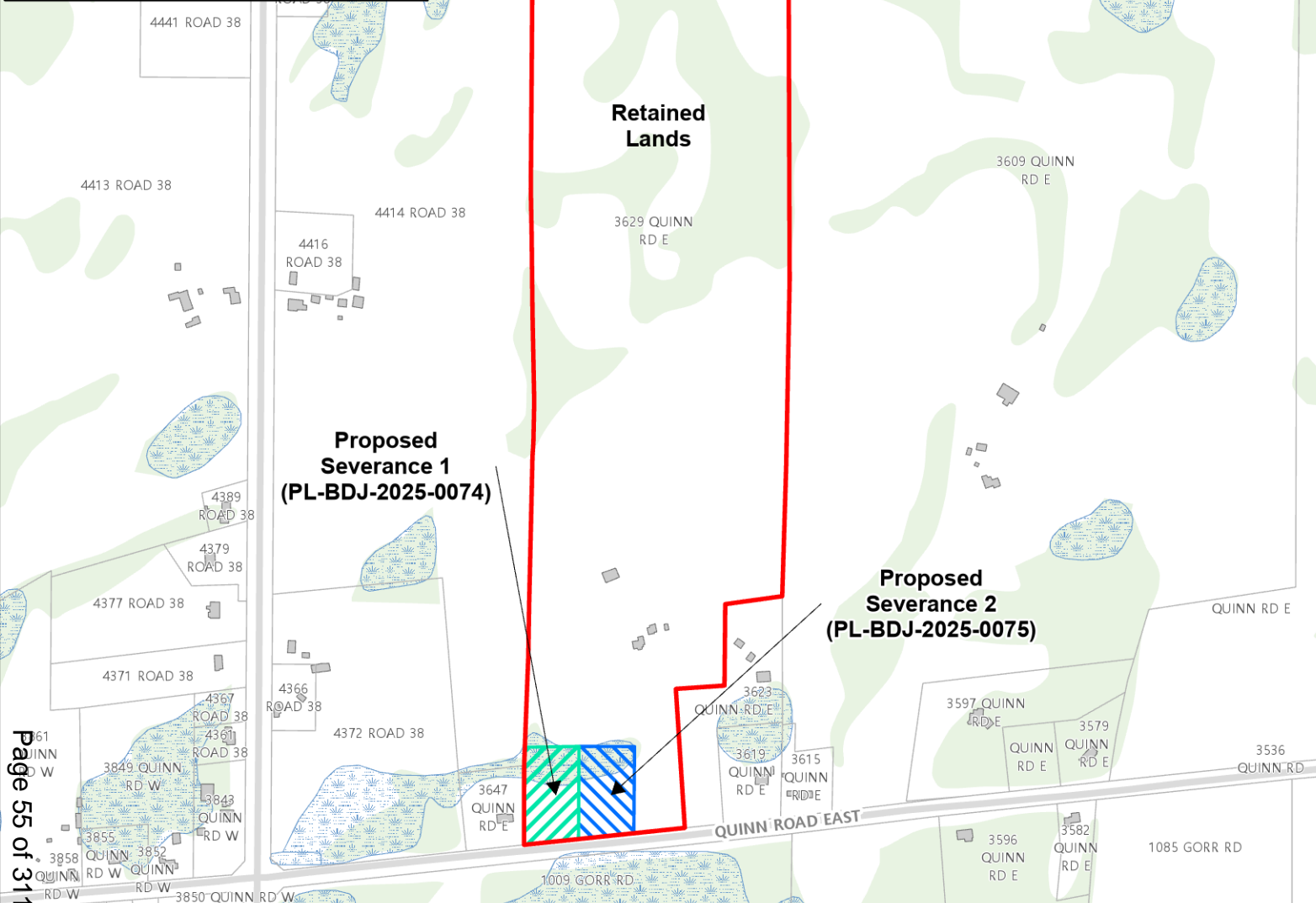
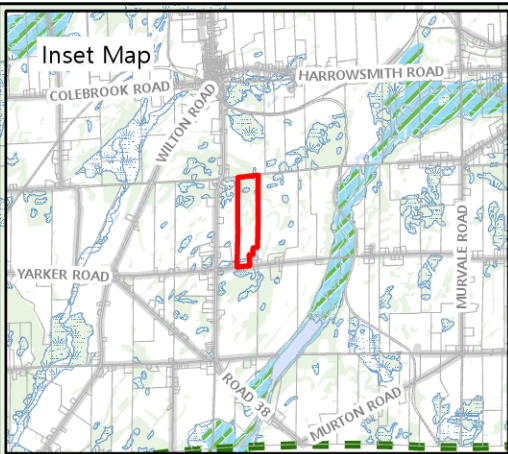
Respectfully submitted,



Elysia Ackroyd, MCIP RPP
Senior Planner
Fotenn Planning + Design



Tara McInnes
Planner
Fotenn Planning + Design



SOUTH FRONTENAC

PL-BDJ-2025-0074
 PL-BDJ-2025-0075
 PL-ZNA-2025-0076

(PITTMAN)
 3629 QUINN ROAD EAST

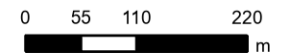
Legend

- Subject Lands
- Proposed Severance (Lot 1)
- Proposed Severance (Lot 2)
- Wetland
- Wooded Area
- Lake Trout Lake - At Capacity
- Lake Trout Lake - Not at Capacity
- Non-Lake Trout Lake - At Capacity
- Waterbody
- Township Boundary
- Road

Produced by the County of Frontenac under license with the Ontario Ministry of Natural Resources © King's Printer for Ontario, 2025.

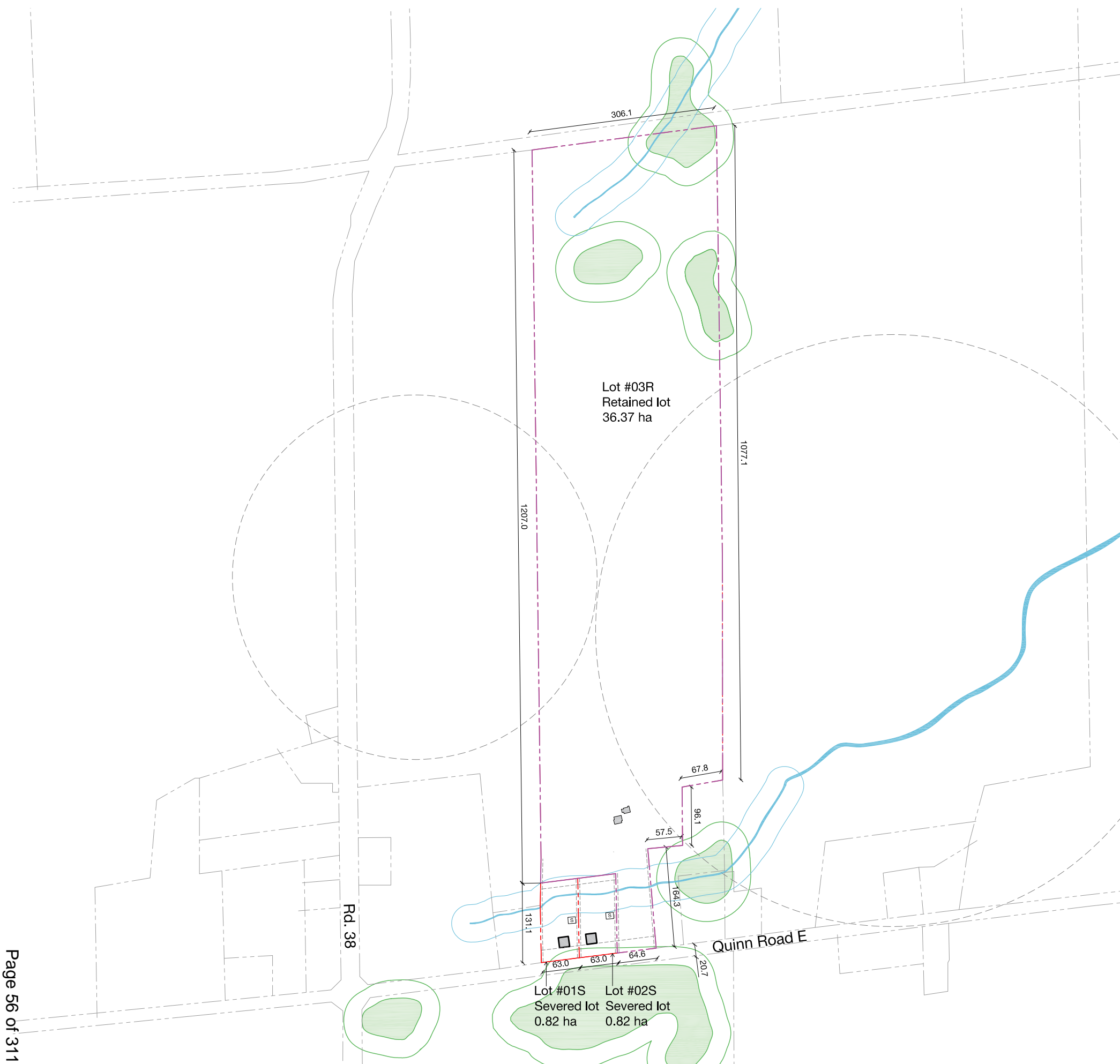
While the County makes every effort to insure that the information presented is accurate for the intended uses of this map, there is an inherent error in all mapping products, and accuracy of the mapping cannot be guaranteed for all possible uses. This map displays basic topographic features only.

Scale: 1:7,500



UTM Zone 18 NAD 83

Date: 26/08/2025



SITE INFORMATION

ZONING Rural (RU) Zoning

SITE AREA
Total Site Area: 38 ha (93.9 acres)

REQUIREMENTS
 Minimum Lot Area: 8,000 sq. m
 Minimum Lot Frontage: 76 m
 Minimum Gross Floor Area: 59 sq. m
 Maximum Lot Coverage: 20%

SETBACKS
 Minimum Front Yard 20.0 m
 Minimum Rear Yard 10.0 m
 Minimum Interior Side Yard 3.0 m
 Minimum Exterior Side Yard 10.0 m
 Minimum Setback from HWM 30.0 m

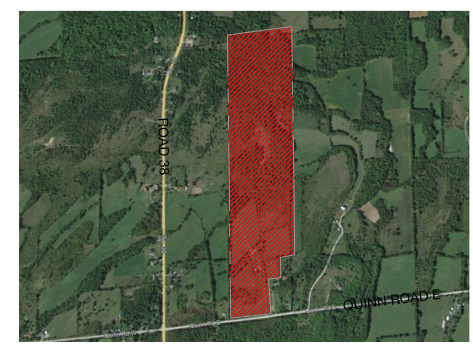
DEVELOPMENT STATISTICS

LOTS
 Lot #01S = 0.82 ha
 Lot #02S = 0.82 ha
 Lot #03R = 36.37 ha

NOTES

1. The base plan (lot lines, existing roads and surrounding areas) is based on the area's Open Data, AG maps and aerial images. The site area is approximate and all dimensions need to be confirmed by a proper survey.

3629 QUINN ROAD EAST SOUTH FRONTENAC CONCEPT PLAN



LEGEND

	PROPOSED BUILDING
	WETLAND
	WATER STREAMS
	PROPERTY BOUNDARY
	PROPOSED PROPERTY BOUNDARIES
	SETBACKS



4	DRAFT	2025-08-14	ET
3	DRAFT	2025-06-20	ET
2	DRAFT	2022-09-27	YLD
1	DRAFT	2022-09-22	UMG
No.	REVISION	DATE	BY

CLIENT
JAMES PITTMAN CONSTRUCTION
FOTENN Planning + Design
 4 Cataraqui Street, Suite 315, Kingston ON K7K 1Z7
 613.542.5454 www.fotenn.com

DESIGNED	ET
REVIEWED	ET
DATE	2025-08-14

P1

Calculations

3609 Quinn Road E

Farm contact information

Kathy Huff
3609 Quinn Road E
Harrowsmith, ON
k0h1v0
613-372-1514

Location of existing livestock facility or anaerobic digester

County of Frontenac
Township of South Frontenac
PORTLAND
Concession 3 , Lot 5
Roll number: 102908001013300

Total lot size

180.39 ac

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Medium-framed, mature; 227 - 680 kg (including unweaned offspring)	10	10 NU	2500 ft ²
Solid	Goats, Does & bucks (for meat; includes unweaned offspring)	100	12.5 NU	1500 ft ²
Solid	Chickens, Layer hens (for eating eggs; after transfer from pullet barn), Floor Run	334	2.2 NU	334 ft ²
Solid	Ducks, Muscovy	333 ft ²	1.2 NU	333 ft ²
Solid	Pheasants	333 ft ²	1.2 NU	333 ft ²

Setback summary

Existing manure storage	V3. Solid, outside, no cover, >= 30% DM		
Design capacity	27.2 NU		
Potential design capacity	81.7 NU		
Factor A (odour potential)	0.73	Factor B (design capacity)	299.36
Factor D (manure type)	0.7	Factor E (encroaching land use)	1.1

Building base distance 'F' (A x B x D x E)
(minimum distance from livestock barn) 169 m (554 ft)

Actual distance from livestock barn 506 m (1660 ft)

Storage base distance 'S'
(minimum distance from manure storage) No existing manure storage

Actual distance from manure storage NA



Ecological Services
R.R. #1, 3803 Sydenham Road
Elginburg, Ontario K0H 1M0
Phone: (613) 376-6916
E-mail: mail@ecologicalservices.ca

NATURAL HERITAGE SITE ASSESSMENT

3629 Quinn Road; LOT 6, CON 3
South Frontenac Township, Frontenac County

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1.0 INTRODUCTION

1.1 Property Location

The subject property is on Quinn Road in South Frontenac, on Lot 6 / Concession 3 of the geographic township of Portland. The property is in EcoDistrict 6E-9: Havelock.

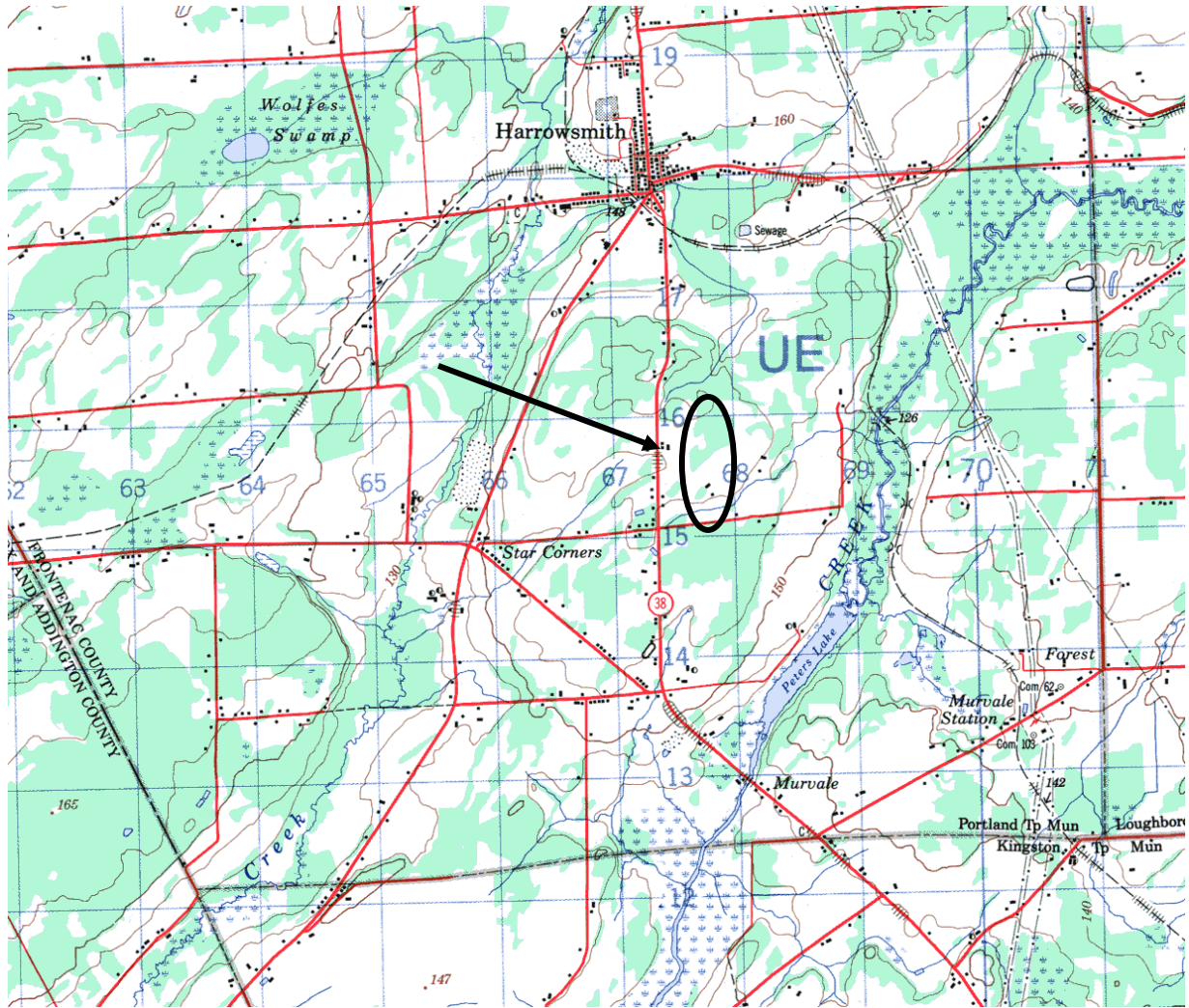


Figure 1. Topographic map, showing the relative location of the subject property, which is indicated by the black circle. Base map is an annotated detail from topographic map 31 C/07, Sydenham.

1.2 Description of Application

Two severances are proposed from the subject property (Figure 2). Both proposed lots and the retained land have frontage on Quinn Road. The retained land has a driveway along the east side of the property to an existing single-family home and outbuildings north of the proposed severances; it is in poor condition and the retained land may be redeveloped. The proposed severances are not developed, and are proposed as residential lots.

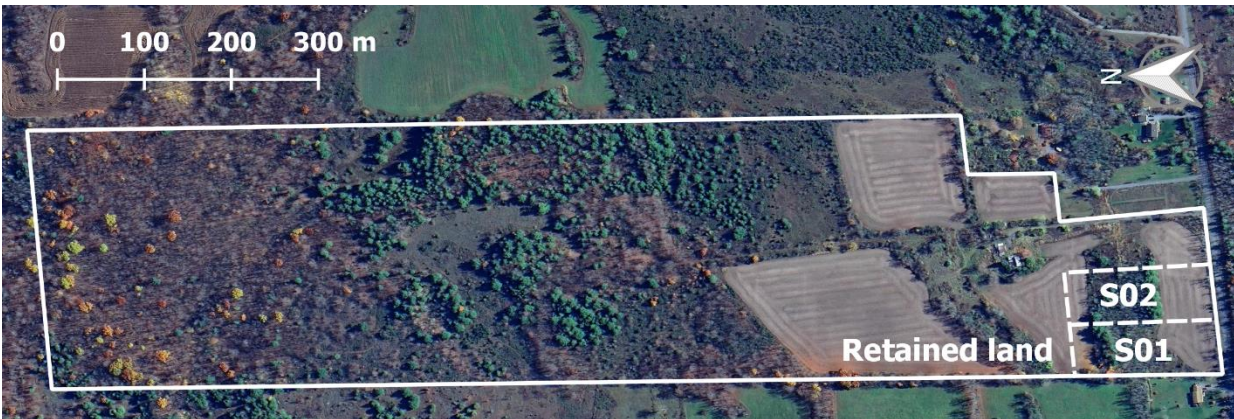


Figure 2. Approximate boundaries of the subject property (solid white line) and the two proposed severances (broken lines). Base map from Google Earth, created using QGIS.

1.3 Methodology

Ecological Services carried out field work and desktop research to determine if the proposed development will have a negative impact to the area's natural heritage features and their associated functions. Our assessment of the property's natural heritage features is based on the requirements laid out in section 2.1 of the Provincial Policy Statement, as well as the South Frontenac Official Plan.

We surveyed the property May 24, 2024 (personnel Megan Snetsinger and Mary Alice Snetsinger). The weather was sunny and clear, and the temperature was 24°C at 3:00 when we began our assessment. We identified habitat communities on and around the proposed development following the methodology outlined in the Ecological Land Classification (ELC) for Southern Ontario (Lee et al. 1998) and when applicable, the Ontario Wetland Evaluation System (OWES) Southern Manual (OMNR 2022). We considered significant natural features, fish habitat, significant wildlife habitat (SWH, as described in OMNRF 2015), and Species at Risk when performing our site investigation.

Desktop research provided information on the presence of rare species and potential habitat on and adjacent to the subject property, from the following sources:

- Natural Heritage Information Centre (NHIC) data accessed via the Ontario Make a Map tool for natural heritage areas; grid square: 18UQ6715
- Ontario GeoHub for wetlands and Areas of Natural and Scientific Interest
- Fish ON-Line
- Fisheries and Oceans Canada map of aquatic Species at Risk
- Ontario Nature Reptiles and Amphibians of Ontario Atlas
- eBird
- iNaturalist

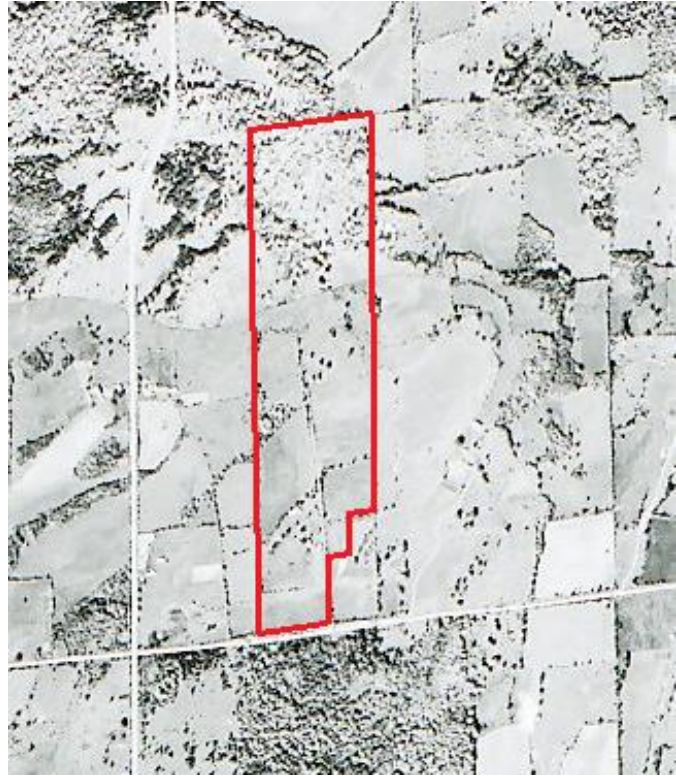
2.0 SITE DESCRIPTION

2.1 Present and Historical Land Use

The south end of the subject property is mostly in active/recent agricultural use, with a channel (likely a farm ditch) crossing the property. The southernmost field was ploughed at the time of our field visit, and the soil was bare. There is a new well dug on each of the proposed lots. We did not survey the north end of the retained land, as it is not adjacent to the proposed development, but we noted from satellite imagery that most of it appears to have tree cover, which is a combination of deciduous and mixed forest.

In 1954, more of the property had open fields (Figure 3), although there is some tree cover at the north end.

Figure 3. 1954 imagery of the subject property (outlined in red). Imagery from the University of Toronto Map & Data Library.



2.2 Ecological Land Classification

The south end of the property, closest to Quinn Road, is characterized by **Cultural (CU)** communities, i.e., those maintained by anthropogenic-based disturbances. There is evidence of past agricultural use in the southernmost field (e.g., old stalks, corn cobs), but it is presently ploughed and largely bare of vegetation. The other fields on the property are in active agricultural use. Around the edges of the fields, as well as along the driveway and around the residential buildings, there are a variety of disturbance-tolerant species: e.g., Dog-Strangling Vine, Orchard Grass, Common Dandelion, Red Clover, White Clover, Virginia Creeper, Blue-eyed Grass, Queen Anne's Lace, Chickweed, Pigweed, King Devil, Field Cinquefoil.

Along the driveway there are a variety of shrubs in a **Cultural Thicket (CUT)** community, including Common Lilac, European Buckthorn, Grey Dogwood, Prickly Ash, Red Cedar, Staghorn Sumac, and Apple. North of the ploughed field is another thicket with a similar assemblage of shrubs. This community also has some White Pine and Green Ash. It would likely have formerly been a forest ecosite, but the tree cover does not presently meet the definition of a forest community due to dieback of the ash trees. North of the channel, there is one patch of with sufficient tree cover to define as a **Dry – Fresh White Pine – Maple – Oak – Mixed Forest Ecosite (FOM2)** community, likely because fewer ash trees are present. White Pine is the dominant coniferous component to the forest, and with a mix of deciduous trees (e.g., Sugar Maple, White Oak, Shagbark Hickory).

The channel is not large enough to map as a distinct ELC community, but there are different species along its extent. Reed-canary Grass is nearly monotypic in the channel, with some other species of wet environments along the edges: American Water Horehound, Meadowsweet, Awl-fruited Sedge, Bladder Sedge, Yellow Sedge, Retrorse Sedge.

There is a muddy track used by vehicles to connect the ploughed field and the cropland to the north. The channel path has been torn up at this location, and we observed water pooling in the tire tracks, supporting some Water Plantain and Water Purslane.

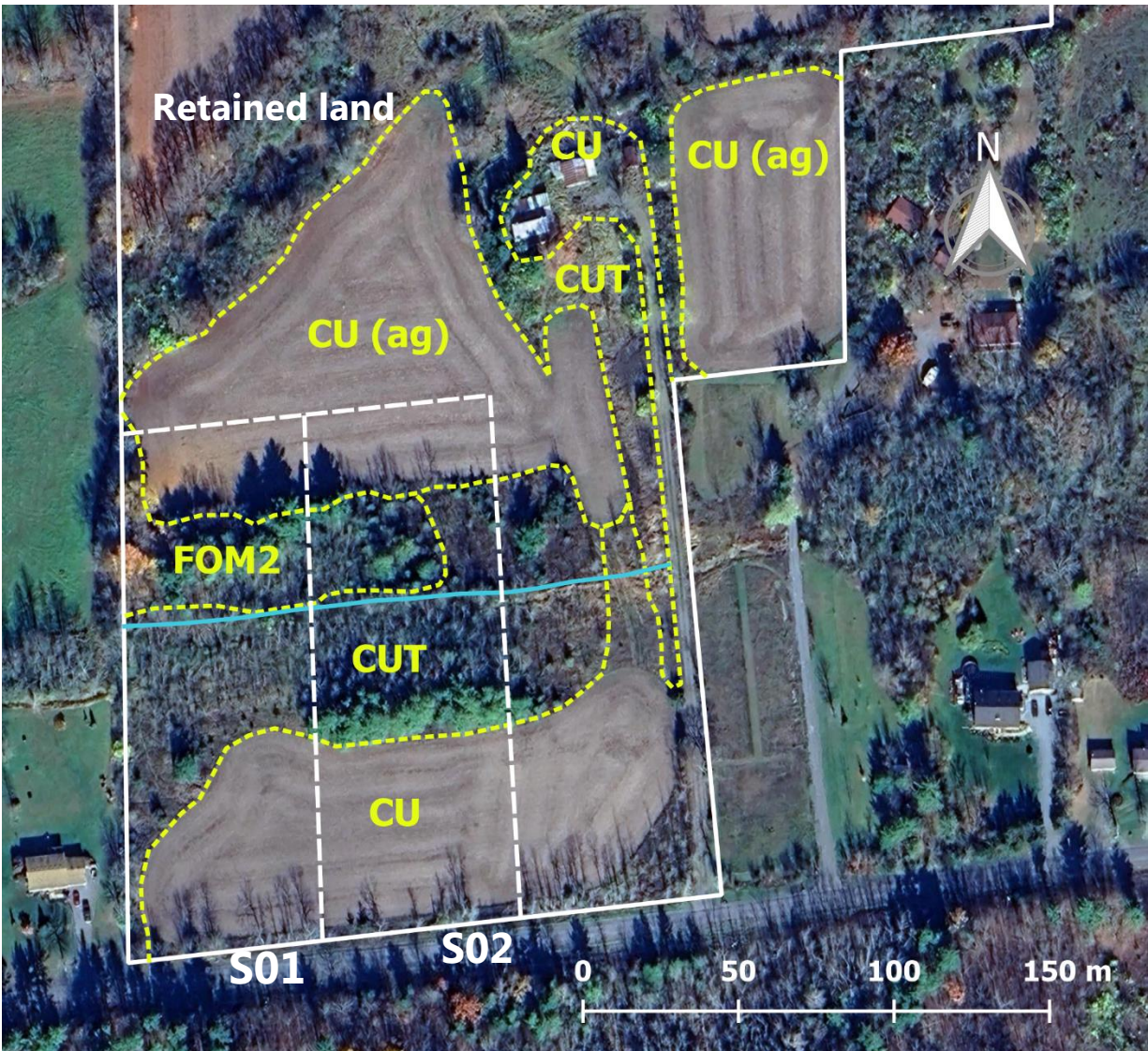



Figure 4. Ecological Land Classification (ELC) mapping, in yellow, of vegetation communities on the subject property near the proposed severances. The white lines denote the approximate property outline (solid line) and the proposed severances (broken line). The channel across the property is indicated with a blue line. Base map from Google Earth, created using QGIS.

3.0 ASSESSMENT OF NATURAL HERITAGE FEATURES

On or adjacent to
proposed development?

3.1. Wetlands	
<p>3.1.1 Provincially Significant Wetland or Coastal Wetland</p> <p>The <i>Millhaven Creek</i> PSW is the closest to the subject property, over 1 km to the east. It is not adjacent.</p>	Yes <input type="checkbox"/> <input checked="" type="checkbox"/> No
<p>3.1.2 Locally Significant Wetland</p> <p>There are no locally significant wetland identified by the Township or any evaluated non-significant wetlands adjacent to the subject property.</p>	Yes <input type="checkbox"/> <input checked="" type="checkbox"/> No
<p>3.1.3 Unevaluated Wetland</p> <p>Ontario mapping data includes a layer of unevaluated wetland, which is procedurally-generated mapping of potential areas of wetland. On the proposed severances, there is an area mapped as unevaluated wetland within the CUT/FOM2 area around the channel.</p> <p>There are several factors that define wetland under the Ontario Wetland Evaluation System, including that in wetlands must have over 50% relative coverage of wetland plants. We assessed the area, and found that the assemblage of vegetation is dominated by upland species and facultative species (i.e., those that tolerate a variety of conditions). This is not wetland. The channel has more wetland or facultative species, but this is a riparian community rather than wetland.</p> <p>There are also patches of unevaluated wetland mapped adjacent to the property, including along the channel to the east and west and on the property across Quinn Road. We cannot access other properties to assess them for wetland presence, but we can review satellite imagery. In our opinion, some of these adjacent areas of unevaluated wetland do appear to be wetland (e.g., across Quinn Road and almost 120 m west). The proposed severances are unlikely to impact these adjacent areas of wetland, given intervening distance and topography.</p>	Yes <input checked="" type="checkbox"/> <input type="checkbox"/> No
<p>3.2 Areas of Natural and Scientific Interest</p> <p>The <i>Harrowsmith Bog</i> Life Science ANSI is the closest to the subject property, over 3 km to the northwest. It is not adjacent.</p>	Yes <input type="checkbox"/> <input checked="" type="checkbox"/> No
<p>3.3 Significant Woodland</p> <p>The FOM2 patch north of the channel is about 0.3 ha, which is too small to meet any criteria for significance.</p>	Yes <input checked="" type="checkbox"/> <input type="checkbox"/> No

On or adjacent to proposed development?

<p>The woodland south of Quinn Road is on adjacent lands that we did not assess, but a measurement of the area based on satellite imagery puts it close to 60 ha. It likely is significant for size and interior habitat, and could have other ecological functions or uncommon characteristics depending on what is in the woodland. The proposed severances and development of residential lots north of Quinn Road is unlikely to impact this woodland.</p>	
<p>3.4 Significant Valleyland</p> <p>The land where the severances are proposed does not meet the morphological characteristics of a valleyland. There are no Environmental Protection or Environmentally Sensitive Areas (which would include significant valleyland) mapped by South Frontenac Township adjacent to the subject property.</p>	<p>Yes <input type="checkbox"/> <input checked="" type="checkbox"/> No</p>
<p>3.5 Surface Water and Fish Habitat</p> <p>The watercourse that crosses the property is a straight line that appears to have been channelized (Figure 5). It is likely an old farm ditch. The channel width is variable, between 2-4 m across. During our site visit there was some water in the channel with no sign of flow. Most of the channel length has dense growth of monotypic Reed-canary Grass, with some bare patches on the west side of the property. We observed no sign of fish. Given the dense vegetation the potential for fish presence appears low, although if there is direct connection to fish habitat there could be some marginal habitat. Regardless, we do recommend that development on the proposed lots meet a 30 m setback from the channel, as recommended in the South Frontenac Official Plan. The concept plan for this development includes a 30 m setback from the channel.</p>  <p>Figure 5. Ontario Make-a-map satellite imagery of the subject property (red outline). Note the straight line of the channel across the property through the thicket.</p>	<p>Yes <input checked="" type="checkbox"/> <input type="checkbox"/> No</p>

On or adjacent to
proposed development?

<p>We also observed what may be a hand-dug well about 15 m south of the channel near the west side of the property (see Attachment 1). This is not a natural heritage feature, and is located within the recommended setback.</p>	
<p>3.6 Species at Risk Habitat</p> <p>There are no Species at Risk (Endangered or Threatened) records from Natural Heritage Information Centre (NHIC) data. Our other database searches did not indicate any nearby SAR. We did not observe any SAR during our field visit.</p>	<p>Yes <input type="checkbox"/> <input checked="" type="checkbox"/> No</p>
<p>3.7 Significant Wildlife Habitat</p> <p>Significant wildlife habitat (SWH) constitutes locations where species concentrate at a vulnerable point in their life cycle, where rare vegetation communities or specialized habitat is present, and areas important to migratory or non-migratory species (animal movement corridors), as well as to the habitat of rare species (including any species of conservation concern not covered above). The criteria (OMNRF 2015) for most SWH categories were not met on or adjacent to the proposed development. Our discussion is limited to potentially relevant SWH.</p> <p><i>Bat Maternity Colonies.</i> Maternity colonies require large-diameter cavity trees in deciduous or mixed forest habitat; snags are preferred. This SWH is found in forest ELC ecosites, which includes FOM. The small patch of forest north of the channel on the proposed severances is about 0.3 ha, which is technically too small to identify as a distinct ELC community (we mapped it to distinguish features on a smaller site), so it may not be large enough to categorize as SWH. However, as the forest patch is almost entirely within the recommended setback from the channel, any bat roosting trees present are unlikely to be impacted by the proposed severance. We recommend that the forest patch should remain standing (i.e., not be clearcut). We also recommend that any tree cutting outside of the forest should take place outside of the bat roosting season (April 15 to September 30) to mitigate any potential harm to bats that may be roosting on the property.</p> <p><i>Raptor Wintering Areas.</i> The criteria for this SWH require confirmed, regular use by specific raptor birds of combined forest and open habitat of over 20 ha. The criteria schedule suggests that raptors prefer least disturbed sites for winter hunting grounds, in extensive fallow fields (>15 ha) that are windswept with little snow accumulation. The woodland south of Quinn Road is large and has several open fields around its south and east sides, although there are not many eBird records around the woodland for the associated species. The proposed severances are unlikely to impact any raptor wintering activity in the adjacent woodland.</p>	<p>Yes <input checked="" type="checkbox"/> <input type="checkbox"/> No</p>

On or adjacent to
proposed development?

<p><i>Colonially-Nesting Bird Breeding Habitat (Tree/Shrubs)</i>. This SWH requires treed wetland. There is no suitable habitat on the subject property, and we observed no stick nests on any of the dead-standing trees. There is a NHIC record of a Mixed Wader Nesting Colony in the relevant UTM block, which is associated with this type of SWH. However, NHIC grid squares are large; this habitat is likely associated with an area of wetland from another part of the square.</p> <p><i>Special Concern and Rare Wildlife Species</i>. There is one rare species from NHIC data: Wood Thrush. In our other database searches, there are nearby eBird records for Wood Thrush and Eastern Wood-pewee. We did not observe any rare species during our site visit.</p> <p>Woodland birds:</p> <p>Wood Thrush (<i>Hylocichla mustelina</i>) – designated as Threatened¹ under the SARA and as Special Concern under the ESA; and</p> <p>Eastern Wood-pewee (<i>Contopus virens</i>) – designated as Special Concern under the SARA and under the ESA.</p> <p>These bird species are typically found in deciduous or mixed woodland habitat. On the subject property, the woodland is small and fragmented from the adjacent woodland. It is also less extensive than it would have previously been, due to the die-back of the ash trees in the CUT. There is a much larger area of woodland (with a deciduous component) south of Quinn Road, which is likely to be more attractive to woodland birds. The proposed development is unlikely to impact habitat in the adjacent woodland. The woodland on the proposed severances falls within 30 m of the channel, which is the setback we have recommended. Outside of that setback, development on the severances would not be in woodland habitat. Regardless, we do recommend that any tree cutting should be done outside of the breeding season (April 1 to August 31), to comply with the intention of the Migratory Birds Convention Act, to mitigate any direct harm to these or other nesting songbirds.</p>	
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4.0 CONCLUSIONS AND RECOMMENDATIONS

In our opinion, is a more detailed Environmental Impact Statement (EIS) required to demonstrate the appropriateness of the proposed development?

Yes No

If yes, which natural feature(s) should the assessment focus on?

¹ Although this species has a Threatened designations, the Provincial Policy Statement refers to Ontario designations when discussing SAR. So we have grouped it with other rare/Special Concern species.

Recommendations for Mitigation

1. Development on the proposed lots and any redevelopment on the retained land should meet a minimum setback of 30 m from the channel.
2. The land within 30 m of the channel should not be clearcut and should remain vegetated, to provide a buffer for the channel.
3. No tree removal should be undertaken between April 1 and September 30, to protect nesting birds and prevent harm to roosting bats.

Environmental Impact Statement: It is our opinion that the proposed undertaking will have no negative impact on the natural heritage features or on their ecological functions, and that the proposal is consistent with the intent of the Provincial Policy Statement.

Yes No

Is monitoring recommended?

Yes No

Signature:



5.0 Literature Cited, References, and Personal Contacts

Fisheries and Oceans Canada: Aquatic species at risk map. Web site maintained by Fisheries and Oceans Canada, compiling critical habitat and distribution data for aquatic species. <<http://www.dfo-mpo.gc.ca/species-especes/sara-lep/map-carte/index-eng.html>>

Fish ON-Line. Web site maintained by the Ontario Ministry of Natural Resources and Forestry, with information on element occurrences. <<https://www.gisapplication.lrc.gov.on.ca/FishONLine/Index.html?site=FishONLine&viewer=FishONLine&locale=en-US>>

Henson, B.L. and K.E. Brodribb 2005. Great Lakes Conservation Blueprint for Terrestrial Biodiversity, Volume 2: Ecodistrict Summaries. Nature Conservancy of Canada.

Lee, H.T., W.D. Bakowsky, J. Riley, J. Bowles, M. Puddister, P. Uhlig and S. McMurray. 1998. Ecological Land Classification for Southern Ontario. First Approximation and Its Application. Ontario Ministry of Natural Resources, Southcentral Science Section, Science Development and Technology Transfer Branch. SCSS Field Guide FG-02. 225 pp.

Natural Heritage Information Center. Make a Map: Natural Heritage Areas. Web site maintained by the Ontario Ministry of Natural Resources and Forestry, with species rarity rankings and information on element occurrences. <https://www.lioapplications.lrc.gov.on.ca/Natural_Heritage/index.html?viewer=Natural_Heritage.Natural_Heritage&locale=en-CA> .

MNR, Ministry of Natural Resources. 2000. Significant Wildlife Habitat Technical Guide. 151 pp. Fish and Wildlife Branch, Technical Section.

- OMNR, Ontario Ministry of Natural Resources. 2010. Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement, 2005. 2nd edition. Toronto: Queen's Printer for Ontario. 248 pp.
- OMNR, Ontario Ministry of Natural Resources. 2022. Ontario Wetland Evaluation System, Southern Manual, 4th Edition. 239 pp.
- OMNRF, Ontario Ministry of Natural Resources and Forestry. 2015. Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E. OMNRF Regional Operations, Peterborough, Ontario. 38 pp.
- Provincial Policy Statement. 2020. Issued under Section 3 of the Planning Act. Province of Ontario. 53 pp.
- Township of South Frontenac: Official Plan. March 2003. Consolidated January 2024.
- University of Toronto Libraries. Map and Data Library. <https://mdl.library.utoronto.ca/collections/air-photos/1954-air-photos-southern-ontario/index>

Attachment 1. Site Photos



Photo 1. The channel across the subject property, dense with Reed-canary Grass. The channel is bounded on both sides by thicket (CUT).



Photo 2. The channel across the subject property, at the west end where there are patches without Reed-canary Grass. The channel is bounded on both by thicket (CUT) on the south/left and by forest (FOM2) on the north/right.



Photo 3. The channel across the subject property, facing west from the driveway, with the thicket (CUT) around it.



Photo 4. The dead ash trees in the thicket (CUT) community, which was likely formerly a treed community.



Photo 5. The forest (FOM2) north of the channel.



Photo 6. The hand dug well observed 15 m south of the channel.



Photo 7. The driveway on the retained land, to the existing house. The active agricultural fields are visible in the background.



Photo 8. The ploughed field on the proposed severances. Development on the lots is proposed on this site.

Hydrogeological Assessment

Quinn Road, Frontenac County, Lot 6, Concession 3

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July 30, 2025

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- Appendix C: Aquifer Analysis
- Appendix D: Nitrate Impact Assessment Calculations

1 Introduction

BluMetric Environmental Inc. (BluMetric®) was retained to conduct a hydrogeological assessment to support an application for a two-lot severance at 3629 Quinn Road East, Harrowsmith, Ontario (Roll #: 102908001013900). The site location is indicated in Figure 1. The proposed severances cover approximately 1.05 hectares each. The site is in a rural area (a municipal water supply and municipal wastewater treatment system is not available) and the proposed severances will be serviced by private residential water supply wells and individual onsite septic sewage systems. Test wells TW1 and TW2 were used as the test well on the western and eastern lots to be severed, respectively.

This study was conducted with regards to the following regulations and guidelines:

- Ontario Ministry of the Environment, Conservation and Parks (MECP) Procedure D-5-4, Technical Guideline for Individual On-Site Sewage Systems, Water Quality Impact Risk Assessment (MOEE, 1996).
- Procedure D-5-5, Technical Guidance for Private Wells, Water Supply Assessment (MOEE, 1996b).
- Ontario Water Resources Act, 1990. Ontario Regulation 903 (O. Reg. 903), 1990, Wells.



Figure 1: Site Location

1.1 Scope of Work

The scope of work of this assessment included the following components:

- Desktop review of background information (water well records, geological databases, hydrology information, topography, known water uses).
- Inspect the lot for shallow groundwater/surface water conditions.
- Conduct a 6-hour pumping test at two new dug wells (TW1 and TW2) and monitor water levels at the pumping wells during pumping and recovery. The 6-hour pumping test occurred during low recharge conditions between late June to early September. Test well recoveries could be measured over multiple days. Water levels from the well on the retained lot was monitored during the pumping test.

- Collect and submit groundwater samples at the end of the 6-hour pumping test from TW1 and TW2 for laboratory analysis of parameters outlined in the D-5-5 technical guidance in addition to organic nitrogen, phosphorus and metals. Water quality results were compared to Ontario Drinking Water Standards, Objectives and Guidelines.
- Analyse pumping test data to determine aquifer parameters.

1.2 Site Description

The site is located approximately 20 kilometres northwest of Kingston, Ontario along the northern side of Quinn Road east of County Road 38 (Figure 1). The site is comprised of gradually sloping open fields, forested areas wetland areas. The proposed lands to be severed include two 1.05 ha plots located in the south corner of the site. Residential development is proposed to take place on both lots and dug wells have been constructed for each.

1.3 Surrounding Land Use

Surrounding land uses within 500 m of the subject site are described below:

- **North**
 - Rural residential
 - Agriculture
 - Woodlot
- **East**
 - Rural Commercial (Sugar Shack)
 - Agriculture
 - Woodlot
 - Rural Residential
- **South**
 - Wetland
 - Woodlot
 - Quinn Road
- **West**
 - Rural Residential
 - Agriculture
 - County Road 38
 - Wetland
 - Woodlot

All existing development in the area are supported by the use of private individual water supply wells and onsite septic sewage systems. All neighbouring water supplies are derived from drilled wells while the onsite water supplies will be derived from dug wells (well records provided in Appendix A). The construction of dug wells was to obtain the best water quality and quantity as recommended to Robert Pittman by BluMetric.

1.4 Proposed Severances

The proposed severances involve the creation of 3 residential lots on 37.9 ha (Figure 1). The proposed severances are described as follows:

- Lot 1 (Severed A) – 1.05 ha, 63 metres of frontage, open field, existing dug well;
- Lot 2 (Severed B) – 1.05 ha, 63 metres of frontage, open field, existing dug well;
- Retained Lot – 35.89 ha, 64.6 metres of frontage open field and forested area, existing dug well.

2 Methodology

2.1 Background Information

A review of available background information was conducted including:

- MECP water well records;
- Topographic Databases;
- Ontario Geological Survey (OGS) online geology mapping databases;
- Ontario Natural Heritage Information Centre mapping database;
- County of Frontenac Interactive Mapping Online GIS Portal;
- Ontario Watershed Information Tool (OWIT).

2.2 Test Pitting

Four (4) test pits were advanced at the site as part of the investigation. The test pits (TP1 to TP4) were advanced by BluMetric to describe soil stratigraphy using a hand shovel on October 18, 2024, on each of the lots to be severed.

The soil profile at each test pit was logged by direct examination of the sides and bottoms of the test pits. Representative samples were collected in clean plastic bags. The test pit locations are shown on Figure 4.

2.3 Aquifer Testing

2.3.1 Test Wells

Two residential supply wells, A350546 and A350547, were constructed in 2023. Supply well A350546 was constructed and completed as a concrete cased dug well to a depth of 6.53 metres below ground surface (mbgs) by Frank’s Drilling and Blasting LTD. Supply well A350547 was constructed and completed as a concrete cased dug well to a depth of 6.53 mbgs by Franks Drilling and Blasting LTD. Both test wells are situated along a topographic high and are advanced into bedrock as summarized in Table 1.

Table 1: Test Wells Summary

Well ID	Year of Installation	Depth to Bedrock (m)	Casing Depth (m)	Depth to Water Bearing Fractures (m)	Total Depth (m)
TW1 (A350546)	2023	1.4	6.53	3.0	6.53
TW2 (A350547)	2023	1.5	6.53	3.0	6.53

2.3.2 Observation Wells

One water well was selected for use as an observation well during a second aquifer test. Aquifer tests were conducted on August 7, 2024, and August 8, 2024, and are detailed in section 2.2.3. One observation well (dug well) is located on the retained lot however a well record is not available to verify the details of its construction. Data recording of water levels at pumping wells and observation wells commenced one day prior to pumping and terminated three days post pumping. The residents were asked to not use their wells during the time of the pumping test.

Table 2: Observation Wells

Well ID	Year of Installation	Depth to Bedrock (m)	Casing Depth (m)	Depth to Water Bearing Fractures (m)	Total Depth (m)
3629 Quinn Road (Dug well)	Unknown				

2.3.3 Aquifer Tests

BluMetric staff conducted the first six-hour, constant discharge aquifer tests at supply well A350546 on August 7, 2024, and at supply well A350547 on August 8, 2024. Each well was pumped at a rate of 25 L/min for 360 min with a combined total of 18,000 litres of groundwater pumped from the aquifer. The testing program included observation of three wells (the pumping well and two observation wells) for each pumping test as required by Ontario Guideline D-5-5 for land parcels of 15 ha or less.

A second 3.5-hour constant discharge aquifer test was completed on October 3, 2024, by BluMetric staff. The second test included the pumping of one test well (A350547) at a rate of approximately 41 L/min. A combined total of 8,610 litres was pumped during the second pumping test.

Water levels were recorded during aquifer testing by manual methods (water level sounding meters) and with pressure transducer/datalogger units (Solinst Level Logger™). Post pumping observation was acquired with pressure transducers for a minimum of 24 hours to assess groundwater recharge. Results of the aquifer tests are provided in Section 3.4.6.

2.4 Water Sampling

All wells were disinfected prior to the six-hour constant rate discharge pumping and any subsequent resampling event by shock chlorination. A water sample was collected in laboratory provided containers at the end of each aquifer test and placed immediately into a cooler with ice and transported to Caduceon laboratory in Kingston, a CALA accredited laboratory. Samples were analyzed for the list of chemical and microbiological parameters specified in Procedure D-5-5 (MOEE, 1996b). Further sampling of well A350547 was carried out on October 3, 2024, December 2, 2024, and December 9, 2024, to confirm microbiological parameters following initial exceedances in TW2. Laboratory certificates are appended in Appendix B.

Field measurements for temperature, pH, conductivity, and oxidation reduction potential (ORP) were carried out using a YSI™ Professional series multimeter. Free chlorine residual and turbidity measurements were collected using a Hanna HI93414 calibrated to 1.0 mg/L chlorine solution and turbidity standards of <0.1 and 15 NTU. Colour measurements were collected using a Hanna 96727 calibrated with 0 and 250 PCU standards.

Microbiological quality sampling was conducted after the free chlorine residual concentration reduced to non-detectable or below the instrument's limit of detection of 0.01 mg/L.

2.5 Well Owner Interviews

A standard well owner interview form was sent to the neighboring property owners along Quinn Road prior to conducting the pumping tests. The well-owner interview form requests details from neighboring water well users regarding well water quality and quantity and onsite wastewater treatment systems. All of the solicited neighboring water well users declined to fill out the interview form.

3 Geology and Hydrogeology

3.1 Site Physiography and Drainage

The Site is geographically situated within two catchments. The western and northern parts of the Site are situated within the Wilton Creek-Little Creek Napanee River Catchment, while the southern and eastern parts of the site are situated within the Millhaven Creek Catchment (OWIT, 2024). Surface water drainage at the Site is diverted to a ditch located on the south end of the site. The northern part of the site drains south towards the ditch, while the southern end of the site (including the lots to be severed) drains north towards the ditch. This ditch then flows east-northeast towards Millhaven Creek.

3.2 Surficial Geology

Four (4) shallow test pits (TP1 to TP4) were advanced using a hand shovel by BluMetric on October 18, 2024. Test pit locations are indicated on Figure 4. The following is a summary of stratigraphy encountered at the test pit locations.

TP1	(hand excavated using a shovel)
0-0.23 m	brown, SILTY TOPSOIL with some organics
0.23 to 0.53 m:	dry, brown SILTY CLAY with some gravel
	Sample taken from 0.23 to 0.53 m
	Test pit was terminated at 0.53 m (bedrock refusal)
	No groundwater was observed in test pit

TP2 (hand dug using a shovel)
0-0.23 m brown, SILTY TOPSOIL with some organics
0.23 to 0.63 m: dry, brown/grey SILTY CLAY with some gravel
0.63 to 0.66 m: damp, grey CLAY with some black sand
Sample taken from 0.23 to 0.63 m
Test pit was terminated at 0.66 m (bedrock refusal)
No groundwater was observed in test pit

TP3 (hand excavated using a shovel)
0-0.2 m TOPSOIL with some organics
0.2 to 0.41 m: dry, brown CLAYEY SILT/SAND with trace gravel
Sample taken from 0.20 to 0.41 m
Test pit was terminated at 0.41 m (bedrock refusal)
No groundwater was observed in test pit

TP4 (hand excavated using a shovel)
0-0.2 m TOPSOIL with some organics
0.2 to 0.35 m: dry, brown SILTY SAND with trace gravel
Sample taken from 0.20 to 0.35 m
Test pit was terminated at 0.35 m (bedrock refusal)
No groundwater was observed in test pit

The Ontario Geological Survey (2024) classifies the site as exposed bedrock with areas of less than 1.0 m of drift consisting of clay, silt, sand, gravel, and diamicton.

Well records for test wells TW1 and TW2 indicate that bedrock was encountered between 1.4 m and 1.5 m bgs at both locations. Soils stratigraphy on both well records show topsoil from ground surface to 0.3 m bgs followed by loam from 0.3 m bgs to bedrock at approximately 1.5 m bgs. Descriptions of soil stratigraphy at test pits TP1 to TP4 are generally consistent with the findings of the water well records search where overburden thickness varies between 0 m to 2.4 m.

3.3 Bedrock Geology

Geological mapping information from the OGS Earth website (OGS, 2024) shows that the site is located within a sequence of horizontally bedded Ordovician carbonate sedimentary rocks. The uppermost bedrock unit is the Shadow Lake Formation which is of Ordovician age. The bedrock is

described as limestone and dolostone (towards base). The site is in an area of inferred karst as determined by the OGS Karst mapping layer (OGS, 2024).

3.4 Hydrogeology

An unconfined water table does not appear to exist in the overburden unit as evidenced by the test pits which remained dry over two days after their excavation. Drainage / infiltration within the overburden unit is expected to be influenced by topography and is inferred to have an easterly component towards Millhaven Creek.

The primary water supply aquifer in the vicinity of the site occurs within the horizontally bedded Ordovician carbonate sedimentary bedrock. The bedrock aquifer has water bearing fracture zones (i.e., horizontal bedding plane fractures) that occur between sedimentary layers of bedrock. Permeability within these strata is controlled by fractures. The primary porosity (i.e. the 'primary fracture network') is associated with horizontal bedding plane fractures. A secondary porosity is associated with subvertical fracturing. The direction of regional groundwater flow in bedrock at the site is inferred to be to the to the east-northeast towards Millhaven Creek.

Information from the Ontario Source Protection Atlas, (MECP, 2023) website indicates that the site is:

- Not within a wellhead protection area;
- Is not within an intake protection zone;
- Is not within an issue contributing area;
- Is not within a significant groundwater recharge area;
- A highly vulnerable aquifer does not occur beneath the site.

3.4.1 Water Well Records

A total of 8 MECP water well records from the MECP Water Well Information System (WWIS; MECP, 2024) were reviewed (individual well records are provided in Appendix A). Wells selected within 500 m of the proposed severance are depicted on Figure 3 and summarized in Table 3. It should be noted that that well record locations are based on the database coordinates and may be subject to varying degrees of error. Well depths, overburden thickness, depth of casing, aquifer interception points and well yield related information were reviewed in detail and included Table 3. The review of water well records within 500 m of the subdivision provided the following relevant information:

- Depth to bedrock varies from 0 m bgs to 2.4 m bgs;
- Bedrock is reported as shale and/or limestone in all of the well records;
- Static water levels in the identified water wells range from 0.3 mbgs to 21.0 mbgs;
- The only dug wells in the MECP WWIS 500 m map area are those constructed at the Site;
- One of the 8 wells identified in the MECP WWIS were dry at the time of construction;
- Reported well pumping rates for drilled wells range from 0 L/min to 23 L/min;
- Six of the records produced water described as “clear”;
- The well record for supply well A350546 indicates: a depth of 6.53 mbgs; a test pumping rate of 178 GPM (675 L/min); and an approximate reserve of 34,000 L;
- The well record for supply well A350547 indicates: a depth of 6.53 mbgs; a test pumping rate of 178 GPM (675 L/min); and an approximate reserve of 34,000 L.

Table 3: Summary of MECP Water Well Records

MECP Water Well Record Summary											
Well Record ID	Depth to Bedrock (m)	Overburden Material	Total Depth (m)	Bedrock Material	Casing Depth (m)	Depth to Water Bearing Zone(s) (m)	Static Water Level (m)	Drawdown after Drillers Pumping Test (m)	Recommended Pumping Rate (L/min)	Dug/Drilled	Comments
2203354	0.0		41.1	Limestone	3.0	30.5	18.3	41.1		Drilled	Clear
2204349	0.6	Loam	10.4	Limestone	2.1	2.4	3.0	9.4	14	Drilled	Cloudy
2205784	2.4	Brown Loam	36.6	Limestone	6.7	14.0	5.2	36.6	0	Drilled	Clear
2205787	0.9	Brown Loam	20.4	Limestone	2.1	2.1	0.3	20.4	23	Drilled	Clear
2210419	0.3	Brown Loam	33.5	Limestone	2.4	2.7	0.9	33.5	23	Drilled	Clear
2211332	2.0	Clay	25.6	Limestone	6.7	25.0	15.2			Drilled	Untested
2212789	0.3	Loam / Gravel	9.1	Shale / Limestone	7.3	7.3	5.5	9.1	18	Drilled	Clear
2214857	0.0		24.7	Shale / Limestone	7.6	22.6	21.0	22.9	0	Drilled	Clear



Taken collectively this information shows that the wells in the area can provide a suitable water supply. A review of the MECP Permit to Take Water (PTTW) database was carried out within a 5 km radius of the site. PTTW information was obtained directly from the MECP interactive GIS system (MECP, 2024b). No permits were identified within the search area.

3.4.2 Potential Sources of Contamination

The following potential onsite sources of contamination at the site were identified (Drage, 2022):

- The proposed parcels to be severed have historically been used for agricultural purposes based on aerial imagery, namely the growing and harvesting of hay, which may have necessitated the use of nutrients (nitrogen and phosphorus) as an agricultural practice.
- Dug wells are vulnerable to shallow groundwater contaminants originating from agricultural practices (fertilizers, livestock), the application of road salt, and septic system effluent.
- Groundwater in dug wells often contains microbial contaminants because the short groundwater flow paths do not allow microbes to be removed by natural filtration within the aquifer.
- Dug wells are also prone to elevated concentrations of decomposed plant matter within soil and organic carbon.

The following potential offsite sources of contamination were identified:

- Agricultural activities at neighbouring may be a source of nutrients (nitrogen and phosphorus).
- Application of road salt along Quinn Road East is expected to have caused some limited impacts to the area immediately bordering the road and ditches. No onsite impact is expected as a result of road salt application activities.

3.4.3 Hydrogeological Sensitivity

The subject lands are within an area mapped as ‘inferred karst’ as determined by the OGS Karst mapping layer (OGS, 2023). No obvious karst traits were found based on review of local Lidar data for the site; therefore a site-specific karst assessment was not deemed necessary.

The water well records show that the overburden thickness within 800 m of the subject property varies from 0 to 2.4 m and has an average thickness of 0.8 m. The overburden material is primarily described in well records as loam. The well record for test well TW1 shows that the depth to bedrock is 1.4 m and the well record for test well TW2 shows that depth to bedrock is 1.5 m. The onsite test

pits varied in depth from 0.35 to 0.66 mbgs and the material encountered was silty clay and silty sand.

The most suitable source of potable groundwater for the proposed lot is the bedrock aquifer. The thin overburden layer will not provide any degree of isolation between bedrock and effluent from the septic systems which are proposed for the lots to be severed. Based on the terrain analysis findings, the site is considered to be hydrogeologically sensitive due to thin soils, so protective measures (extra depth of well casing and extra setback between wells and septic beds) are discussed and recommended in Sections 5 and 6. Mitigative measures for protection of water quality include imposing a minimum 45 m separation distance between well and septic system and mandating well water quality treatment with ultraviolet (UV) light disinfection.

3.4.4 Groundwater Quality

The severed lots are proposed to be serviced by dug wells. Water quality was assessed at both the western lot (via test well TW1) and eastern lot (via test well TW2) to be severed. Laboratory analytical results from the groundwater samples collected at the end of the 6-hour pumping test at test wells TW1 and TW2 along with field measurement data are summarized in Table 4. Laboratory certificates of analysis are included in Appendix B.

A review of the analytical data summarized in Table 4 indicates that all tested water quality parameters were below the health and aesthetic related ODWSOG with the exception of the following:

Well A350546 (TW1)

- Sodium
- Hardness
- Total Dissolved Solids

Well A350547 (TW2)

- Escherichia Coli
- Total Coliforms
- Fecal Coliforms
- Hardness
- Total Dissolved Solids

Hardness - Hardness was reported at 237 mg/L in well A3350546 (TW1), and 286 mg/L in well A350547 (TW2), both exceeding the ODWSOG OG of 80-100 mg/L. Hardness is caused by dissolved calcium and magnesium and is expressed as the equivalent quantity of calcium carbonate. Hardness levels below 500 mg/L in drinking water are considered generally acceptable for most domestic purposes and can be treated using a conventional water softener system. Softening using a domestic water softener increases the sodium level in drinking water.

Total Dissolved Solids - The average TDS concentration measured of the two groundwater samples collected as part of this study is 627 mg/L. The analytical results for TDS at test wells TW1 and TW2 were measured to be 731 mg/L and 522 mg/L, respectively, both of which exceed the aesthetic objective (AO) limit. TDS is a measure of the inorganic substances dissolved in water. The principal constituents of TDS are chloride, sulphates, calcium, magnesium, and bicarbonates. The effects of TDS on drinking water quality depend on the levels of the individual components. Excessive hardness, taste, mineral deposition, or corrosion are common properties of water with elevated TDS. Water with a TDS concentration above 500 mg/L may not be palatable. Procedure D-5-5 does not provide a treatability limit for TDS, but it does require a written rationale that corrosion, encrustation, or taste problems will not occur.

A Langelier Saturation Index (LSI) and Ryznar Stability Index (RSI) of 0.83 and 6.4, respectively, was calculated from the water quality results indicating the water is supersaturated with respect to calcium carbonate (CaCO₃) and scale forming may occur. Water softening, already recommended for hardness, will remove calcium in the water supply and reduce the potential for mineral deposition and corrosion to plumbing fixtures.

Sodium - Sodium concentrations are reported at 217 mg/L in test well TW1 and 108 mg/L in in test well TW2. A concentration exceeding 20 mg/L is to be reported to the local Medical Officer of health so that this information can be communicated to local physicians for their use with patients on sodium restricted diets. Potassium chloride can be used in place of sodium chloride to reduce the sodium content in water softening applications. Measured sodium levels exceed the ODWSOG aesthetic objective guideline of 200 mg/L. It is recommended that an under-the-counter reverse osmosis system be installed inside the future dwellings for individuals with sodium restricted diets.

Total and Fecal Coliforms, Escherichia Coli – The analytical results for total coliforms, fecal coliforms and Escherichia coli measured in the groundwater sample collected from test well TW2 on August 7th, 2024, were above the ODWSOG limit (between 15 and 22 counts / 100 mL). Procedure D-5-5 indicates that the ODWSOG limit for total coliforms, fecal coliforms and Escherichia coli is used as an indicator of inadequate disinfection within distribution systems. For private water wells the MECF

and Health Units have historically used the limit of <5 counts /100 mL in the absence of a chlorine residual as indicating acceptable water quality concerning total coliforms, and D-5-5 indicates total coliform counts of less than 6 per 100 ml are acceptable.

A second groundwater sample was collected by BluMetric from test well TW2 on October 3rd, 2024, at the end of a 4-hour pumping test and was analyzed for microbiological parameters. Laboratory analytical results of the collected groundwater sample show the absence of total coliforms and other measured microbiological parameters, as summarized in Table 4, satisfying the ODWSOG. Two (2) additional groundwater samples were collected on December 2nd and December 9th, 2025, by the property owner at 3629 Quinn Road East via grab sampling methods to confirm the previous sampling results. Laboratory analytical results of the collected groundwater sample continued to show the absence of total coliforms and other measured microbiological parameters, as summarized in Table 4.

Table 4: Summary of Groundwater Analytical Results

Parameter	Units	RDL	ODWSOG	TW1	TW2	TW2	TW2	TW2
				6 hours	6 hours	03-Oct-24	02-Dec-24	09-Dec-24
Microbiological Parameters (Health)								
Escherichia Coli	ct/100 mL	0	0 ^{MAC}	0	15	0	0	0
Total Coliforms	ct/100 mL	0	0 ^{MAC}	0	22	0	0	0
Fecal Coliforms	ct/100 mL	0	not specified	0	15	0	-	-
Chemical Parameters (Health)								
Fluoride	mg/L	0.1	1.5 ^{MAC}	0.7	0.2	-	-	-
Turbidity (Lab)	NTU	0.1	5 ^{AO}	1.2	0.1	-	-	-
N-NO ₂ (Nitrite)	mg/L	0.1	1 ^{MAC}	<0.05	0.06	-	-	-
N-NO ₃ (Nitrate)	mg/L	0.1	10 ^{MAC}	0.29	0.71	-	-	-
Sodium	mg/L	1	20 ^{MA} / 200 ^{AO}	217	108	-	-	-
Manganese	mg/L	1	0.05 ^{AO}	0.014	0.003	-	-	-
Arsenic	mg/L	1	0.01 ^{new MAC}	0.0005	0.0003	-	-	-
Boron	mg/L	1	5 ^{IMAC}	2.28	1.17	-	-	-
Uranium	mg/L	1	0.02 ^{MAC}	0.00063	0.0006	-	-	-
Chemical Parameters with Aesthetic Objectives/ Operational Guidelines								
N-NH ₃ (Ammonia)	mg/L	0.02	not specified	1.47	2.21	-	-	-
pH	no units	1	6.5-8.5 ^{AO}	8.10	7.95	-	-	-
Hardness as CaCO ₃	mg/L	1	100 ^{OG}	237	286	-	-	-
Alkalinity (as CaCO ₃)	mg/L	5	500 ^{OG}	349	302	-	-	-
TDS (COND - CALC)	mg/L	1	500 ^{AO}	731	522	-	-	-
Calcium	mg/L	1	-	55.8	74.6	-	-	-
Chloride	mg/L	1	250 ^{AO}	82.8	55.3	-	-	-
Colour	TCU	2	5 ^{AO}	<2	<2	-	-	-
Conductivity	uS/cm	5	-	1350	979	-	-	-
DOC	mg/L	0.5	5 ^{AO}	3.9	3.1	-	-	-
Hydrogen Sulphide	mg/L	0.01	0.05 ^{AO}	<0.01	<0.01	-	-	-
Sulphate	mg/L	1	500 ^{AO}	247	143	-	-	-
Tannin & Lignin	mg/L	0.1	-	<0.5	<0.5	-	-	-
Magnesium	mg/L	1	-	23.7	24.2	-	-	-
Potassium	mg/L	1	-	20.8	15.6	-	-	-
Iron	mg/L	0.03	0.3 ^{AO}	0.015	0.008	-	-	-
Manganese	mg/L	0.01	0.05 ^{AO}	0.014	0.003	-	-	-
Field Parameters								
pH	no units	0.01	6.5-8.5 ^{AO}	7.63	7.43	-	-	-
Chlorine Residual	mg/L	0.01	non detectable	0	0	-	-	-
Conductivity	uS/cm	0.1	-	1297	942	-	-	-
Turbidity	NTU	0.01	5 ^{AO}	0.26	0.15	-	-	-
Colour	TCU	10	5 ^{AO}	0	0	-	-	-
Temperature (°C)	°C	0.1	-	-	-	-	-	-

Notes:
Bold and shaded indicates results exceed criteria
RDL - Reported Detection Limit

'-' - Not Tested/Reported

Hydrogen Sulphide is reported as a calculated value based on the Sulphide concentration determined by colorimetric method.

MA = Medical officer of health advisory if sodium exceeds 20 mg/L. Sodium AO is 200 mg/L

Ontario Ministry of Environment (MOE), 2003/2022. Ontario Drinking Water Standards, Objectives and Guidelines (ODWSOG) (June 2003). As amended.

3.4.5 Groundwater Quantity

As part of the 6-hour pumping tests, test wells TW1 and TW2 were pumped by BluMetric on August 7 and August 8, 2024, at a constant rate of 20.5 L/min continuously over a period of six hours. Pressure transducer/datalogger were installed inside the dug wells at the retained lot on 3629 Quinn Road to measure groundwater interference during pumping of test well TW1 and TW2. A summary of the water levels measured over the course of the 6-hour pumping tests is included in Table 5 and Table 6.

Table 5: Summary of Measured Groundwater Levels During Pumping Test (TW1)

Test Well ID	Depth to Bedrock (mbgs)	Borehole Depth (mbgs)	07-Aug-24		08-Aug-24	12-Aug-24
			Static Water Level (mbtoc)	Water level at end of 6-hr pumping test (mbtoc)	Water Level After 24-hr Recovery (mbtoc)	Water Level After 96-hr Recovery (mbtoc)
TW1	1.40	6.53	1.46	1.68	1.53	1.17

Table 6: Summary of Measured Groundwater Levels During Pumping Test (TW2)

Test Well ID	Depth to Bedrock (mbgs)	Borehole Depth (mbgs)	08-Aug-24		09-Aug-24	12-Aug-24
			Static Water Level (mbtoc)	Water level at end of 6-hr pumping test (mbtoc)	Water Level After 24-hr Recovery (mbtoc)	Water Level After 96-hr Recovery (mbtoc)
TW2	1.50	6.53	1.57	1.76	1.49	1.22

As shown in Table 5 and Table 6, the static water levels prior to the start of the 6-hour pumping test at test wells TW1 and TW2 was 1.46 m btoc and 1.57 m btoc, respectively. Water levels at test well TW1 and TW2 prior to pump shutoff after 6 hours of pumping were 1.68 m btoc and 1.76 m btoc, respectively. Based on these water level measurements, total drawdowns of 0.22 m and 0.19 m were observed at the end of the 6-hour pump tests. Based on static water level measurements and well depths shown on the well records (recommended pump depths were at the bottom of the well), test wells TW1 and TW2 have available drawdowns of 5.07 m and 4.96 m, respectively. At the end of the 6-hour pumping test, test wells TW1 and TW2 had approximately 96% of the initial water column remaining above the pump.

As shown in Table 5 and Table 6, water levels at test wells TW1 and TW2 had recovered to 1.53 m btoc and 1.49 m btoc approximately 24 hours following pump shutoff, indicating that both test wells recovered to approximately 68% and 142%, respectively, of the initial static water levels measured immediately before the start of the 6-hour pumping test. Recovery water levels above 100% four (4) days after pump shutoff are likely due to a combination of precipitation (13.2 mm and 20.8 mm of precipitation was measured at the Environment Canada weather station in Hartington, Ontario, on August 8th and 9th, respectively, located approximately 5 km from the site) and/or natural variations in water levels.

A summary of measured water levels at observation wells that were monitored during the two six-hour pumping tests is included in Table 7.

Table 7: Observation Well Responses

Pumping Well	Observation Well	Radial Distance (m)	Drawdown After 1 hour (m)	Drawdown After 2 hours (m)	Drawdown After 6 hours (m)
TW1 (6-hr test)	TW2	100	0.02	0.04	0.11
	3629 Quinn Road	190	0.01	0.02	0.08
TW2 (6-hr test)	TW1	100	0.02	0.03	0.09
	3629 Quinn Road	120	0.03	0.04	0.1

As shown in Table 7, the worst-case drawdown observed after 6 hours of continuous, constant rate pumping at a rate of 20.5 L/min was 0.11 m. As per procedure D-5-5, discussed in more detail below, the daily water demand for a 4-bedroom dwelling is 2,250 L/day, which represents drawdown exhibited after approximately 2 hours of continuous pumping at a rate of 20.5 L/min (0.04 m based on Table 7). The Canadian Mortgage and Housing Corporation’s Household Guide to Water Efficiency (CMHC, 2000, revised 2014), also discussed in more detail below, indicates that the average daily residential water use in Ontario is 1,125 L/day for a four-bedroom house, which represents drawdown exhibited after approximately 1 hours of continuous pumping at a rate of 20.5 L/min (0.03 m based on Table 7). Based on the worst-case drawdowns observed in neighboring water wells after 1 hour (0.03 m) and 2 hours (0.04 m) of the constant rate pumping test, which are representative of daily water use scenarios of the future dwellings on the proposed lots to be severed, negative impacts associated to well interference are not anticipated.

As summarized in Table 8, the amount of groundwater pumped out of test wells TW1 and TW2 over the course of the 6-hour pumping test was approximately 7,358 L per well. Based measured drawdowns of 0.22 meters and 0.19 meters at the end of the 6-hr pumping test, the calculated volume of water pumped from test wells TW1 and TW2 were approximately 7,362 L and 7,351 L,

respectively, assuming that both test wells are cylindrical and have casing radiuses of 0.46 meters. It is also assumed that both test wells have additional groundwater storage outside the immediate vicinity of the casing (representing the dug well excavation that was backfilled with porous sand/gravel) that extends to a radius of approximately 3.2 meters. Based on a 24-hr recovery of 0.15 meters and 0.27 meters, the calculated volume of water produced by test wells TW1 and TW2 over a 24-hr period was calculated to be approximately 4,967 L and 10,331 L, respectively.

Table 8: Water Volumes Produced in Test Wells TW1 and TW2 During Recovery (6-hr Pumping Test)

Test Well ID	Volume of Water Pumped During 6-hr Pumping Test (L; Flowmeter)	Calculated Volume of Water Pumped During 6-Hour Pumping Test (L)	Height of Water Column Recovery After 24 hrs (m)	Volume of Water Produced After 24-hrs of Recovery (L)
TW1	7358	7362	0.15	4967
TW2	7358	7351	0.27	10331

* Calculated volumes assume both test wells are cylindrical, have casing radiuses of 0.46 m and additional water storage extending to a radius of 3.2 m.

Analyses of the 6-hour pumping test conducted on test well TW1 were conducted using AquiferTest 10.0 software in order to estimate aquifer parameters. Aquifer parameters were calculated using the Theis (1935) method for an unconfined aquifer as summarized in the table below. Appendix C includes pumping test analysis reports for drawdown and recovery phases of the pumping test for the pumping well and selected observation wells.

Table 9: Summary of Transmissivity, Hydraulic Conductivity, and Storativity

Well	Type	T (m ² /d)			K (m/s)	S
		Drawdown	Recovery	Mean	Mean	
TW1	Pumping Well	-	4x10 ¹	4x10 ¹	8x10 ⁻⁵	-
TW2	Observation Well	2x10 ¹	5x10 ¹	3x10 ¹	1x10 ⁻⁴	6x10 ⁻⁴
3629 Quinn Road	Observation Well	3x10 ¹	4x10 ¹	3x10 ¹	1x10 ⁻⁴	2x10 ⁻⁴
Mean				3x10 ¹	9x10 ⁻⁵	4x10 ⁻⁴

The calculated aquifer parameters for pumping well TW1 and observation wells TW2 and 3629 Quinn Road are similar to published literature values for coarse/medium sand (Domenico and Schwartz, 1990), however values are likely representing a composite of fractured limestone and gravel, consistent with the construction materials of dug wells.

In order to calculate the productive capacity of test wells TW1 and TW2, the Farvolden (1959) method was used to estimate a sustainable pumping rate for 20 years without exceeding the available drawdown in the test wells. The Farvolden (1959) method is defined by the following equation:

$$Q_{20} = 0.68 * T * H_A * 0.7$$

Where:

T = Transmissivity (m²/day)

H_A = Available drawdown (m)

Q₂₀ = 20-year safe yield

Using a mean transmissivity value of 3x10¹ m²/d and an available drawdown of 5 m, the Farvolden (1959) method suggests that the test wells can sustain a 20-year safe yield pumping rate of 71.4 m³/day, or 50 L/min.

The suitability of test wells TW1 and TW2 to supply an adequate amount of water for the proposed severances was assessed using the methodology provided in MECP Procedure D-5-5 (MOEE, 1996), which indicates the number of people per dwelling is the number of bedrooms plus one. For the purpose of this study, it is assumed that future residences on the proposed severances will be a four-bedroom single family homes, therefore the number of persons residing in each residence is assumed to be five. Procedure D-5-5 indicates the minimum 'per-person water requirement' is 450 L/day, which is 2,250 L/day per dwelling.

Procedure D-5-5 also indicates that 'peak demand' is assumed to occur over a 120-minute period and is to be based on a per person usage rate of 3.75 L/min during that period. Using this information, the 'peak demand rate' per four-bedroom house is 3.75 x 5 = 18.75 L/min for a total of 2,250 L over a 120-min period. The pumping rate used for the pumping tests at TW1 and TW2 was 20.5 L/min therefore a total of 7,358 L was pumped from each test well in 360 mins and still had approximately 96% of the initial water column remaining above the pump. The Farvolden (1959) method, calculated using measured aquifer parameters of the test wells, also suggests that the test wells can sustain a 20-year safe yield pumping rate of 50 L/min. Based on the recovery data measured during the two 6-hr pumping tests, test wells TW1 and TW2 can supply between 4,967 L and 10,331 L of groundwater over a 24-hr period for domestic use.

Based on this information, both test wells can satisfy the requirements to accommodate both daily and peak water demand requirement for a four-bedroom house based on the D-5-5 procedure (2,250 L/day per dwelling).

The Canadian Mortgage and Housing Corporation's Household Guide to Water Efficiency (CMHC, 2000, revised 2014) indicates that the average daily residential water use in Ontario is 225 L per person per day (1,125 L/day for a four-bedroom house). Current Ontario Building Code requirements (OBC, 2012) for water conservation specify that toilet and shower consumption must now comply with lower use requirements (OBC Table 7.6.4.2.A & B and Table 7.6.4.1). Based on the new requirements, toilet water demand is assumed to be 4.8 L/flush. Shower consumption is assumed to be 7.6 L/min. Toilet use accounts for approximately 25% of total domestic water use, and shower use accounts for approximately 20% (CMHC, 2014). The OBC efficiencies will result in an average per person domestic water usage of 163 L/day. This suggests that the daily household water demand could often be less than 815 L/day.

4 Development Considerations

4.1 Water Treatment

The new severed lots will be serviced by dug wells therefore the following water treatment items are recommended:

- Pre-filtration (25 and/or 10 micron and 5 micron) followed by absolute filtration to less than 1 micron prior to ultraviolet (UV) sterilization.
- UV sterilization with a National Sanitation Foundation (NSF) Class-A (NSF, 2019) device.
- Under-the-counter reverse osmosis system be installed inside the future dwellings for individuals with sodium restricted diets.

Since filtration and disinfection both contribute to the removal or inactivation of waterborne pathogens, both treatment processes are recommended, along with a service contract with a qualified contractor to ensure the on-going maintenance and performance of the water treatment system.

The water within the overburden aquifer has elevated hardness. Installation of a residential grade water softener would reduce the concentrations of hardness and extend the lifespan of the UV sterilization system. Conventional water softeners introduce sodium into the water supply.

The concentration of sodium in the water supply already exceeds the 'medical notification limit' of 20 mg/L for people on a sodium reduced diet, so a conventional water softener is not recommended. Softening using potassium chloride salt rather than sodium chloride salt can be used to eliminate additional sodium intake from softened drinking water. Sodium can also be removed from drinking water by using reverse osmosis or by distillation.

4.2 Testing of Treated Water

Treated water from the proposed dug wells for the proposed two-lot severance should be tested on a regular basis for bacteriological parameters. Free microbiological testing for water wells is available through Public Health Ontario. Details regarding sample bottle pickup and sampling procedures can be accessed at the Eastern Ontario Health Unit website (<https://eohu.ca/en/my-environment/well-water-testing>). Sampling should be conducted at a minimum of two times per year, at times when the risk of contamination of the drinking water source is the greatest, (e.g. early spring after the thaw, after an extended dry spell, and/or following heavy rain/flooding).

4.3 Wastewater Treatment and Disposal

MECP's Procedure D-5-4 (MOEE, 1996) provides a methodology for assessing the risks associated with individual onsite sewage systems. Developments consisting of lots which average 1 hectare (with no lot being smaller than 0.8 hectares) may not require a detailed hydrogeological assessment if it can be demonstrated that the area is not hydrogeologically sensitive. The lot sizes of the proposed lots to be severed are approximately 1.05 hectares each. The site is also considered hydrogeologically sensitive due to thin overburden and is located within an area mapped as 'inferred karst', therefore an assessment of the potential impact of effluent from a wastewater treatment system (i.e., a nitrate dilution calculation) was conducted.

The assessment is based on a reasonable estimate of groundwater recharge by infiltration from precipitation. The method relies on estimates of evaporation, evapotranspiration, infiltration and runoff and inputs regarding surficial soil type, vegetative ground cover and topography. A nitrate effluent concentration of 40 mg/L and a wastewater flow of 1,000 Litre/day per lot is used (based on OBC Table 8.2.1.3.A, which indicates a daily rate of 2,000 L/day for 2 x 4-bedroom dwelling).

A mean annual precipitation value (net of evaporation and evapotranspiration processes) of 965.6 mm/year was used (Environment Canada, Climate Normals 2022 – Centreville).

An estimation of infiltration was calculated based on site specific information and the infiltration factors provided in the document MOEE Hydrogeological Technical Information Requirements for Land Development Applications (MOEE, 1995). The calculations are provided in Appendix D. The assessment shows that the nitrate impact for the proposed severances will be approximately 5.8 mg/L. This assessment shows that nitrate in effluent from proposed development will have an acceptable impact on receiving water quality.

4.3.1 Sewage System Design

Based on the assessed terrain conditions (thin overburden), a fully raised tile bed is anticipated for the proposed severed lot. Any proposed septic system design should be supported by a lot-specific assessment meeting local septic approval requirements.

Sewage systems are designed according to Part 8 of the Ontario Building Code (OBC, 2012). The OBC sets out minimum design and construction standards for all approved classes of sewage systems. It is proposed that this site be serviced with traditional Class 4 sewage systems consisting of a septic tank and separate leaching bed.

Wherever possible, leaching beds should be located down gradient from any nearby wells or surface water bodies. The Ontario Building Code stipulates minimum clearance distances for in-ground and raised tile beds. Table 6 gives clearances for the various types of beds. In order to provide a safety margin, it is BluMetric’s recommendation that an offset of at least 45 m (1.5x minimum clearance) be observed between an onsite wastewater treatment system and TW1 and TW2. The septic system and bed should be placed in a downgradient or side gradient location relative to the planned dug well. Clearance distances in Table 6 also apply to wells and sewage systems located on neighbouring lots. A conceptual lot development plan showing setbacks is included as Figure 4.

Table 10: Tile Bed Clearances

Surface Feature	Minimum Clearance (m)		
	In-ground	Partially Raised	Fully Raised
Water supply well with a watertight casing to a depth of 6 m	15	16.5	18
Any other water supply well (including dug wells)	30	31.5	33
Surface water body*	15	16.5	18
Structures	5	7.5	8
Lot boundaries	3	4.5	6

Source: Table 8.2.1.6B of O.Reg. 332/12, as amended (Ontario Building Code) and increased for a 1.5 m fully raised leaching bed as required by Sentence 8.7.4.2.(11).

The homeowner is advised to have the on-site wastewater system inspected regularly and to follow a wastewater system management program to minimize the risk of failure and impact to the groundwater. Existing tile bed drainage system should be disconnected prior to installation of future septic bed systems.

Best management practices are recommended such as regular pumping of the septic system, cursory inspection of break-out, consideration as to what materials are being discharged to the septic. It is recommended that homeowners take all reasonable measures to conserve water and promote infiltration of water into the subsurface within each of their lots. The homeowner shall consult the following guides available at: <https://www.oowa.org/homeowner-resources/>

- A Guide to Operating & Maintaining Your Septic System
- About Your House: Buying a House with a Well and Septic System

5 Conclusions and Recommendations

The following conclusions and recommendations are based on the investigations and analyses contained within this report:

- The dug wells TW1 (on the western lot) and TW2 (on the eastern lot) are suitable for the purpose of characterizing the bedrock aquifer at the subject site.
- TW1 on the proposed western lot and TW2 on the eastern lot to be severed will provide a sufficient quantity of water for a four-bedroom household based on daily and peak water demands outlined in the D-5-5 procedure.
- In BluMetric’s professional opinion the probable well yield determined on the basis of this investigation is representative of the yield which residents of the proposed lots to be severed are likely to obtain from existing dug wells in the long term.
- The water quality at TW1 and TW2 was found to satisfy the health-related limits of the ODWSOG.
- Pre-filtration and absolute filtration to less than 1 micron prior to ultraviolet (UV) sterilization is recommended.
- Treated water should be tested on a regular basis to ensure the efficacy of the water treatment system. Samples should be tested for bacteriological parameters, and sampling should be conducted at a minimum of two times per year, at times when the risk of contamination of the drinking water source is the greatest (e.g., early spring after the thaw, after an extended dry spell, and/or following heavy rains/flooding).

- The laboratory analytical results for hardness exceeded the Operational Guideline limit (a non-health related parameter). Elevated hardness can be treated with a residential grade water softener. Water softening using potassium chloride salt rather than sodium chloride salt can potentially be used to eliminate additional sodium intake from softened drinking water.
- The laboratory analytical results for sodium exceeded the Aesthetic Guideline limit (a non-health related parameter). Elevated sodium can be treated with under-the-counter reverse osmosis systems installed inside the future dwellings for individuals with sodium restricted diets.
- The proposed lots to be severed are suitable for development at the proposed occupancy based on servicing by individual private wells and onsite septic waste treatment systems.
- Based on the assessed terrain conditions (thin overburden), raised tile beds are anticipated for the proposed severed lots. Any proposed septic system design should be supported by a lot-specific assessment meeting local septic approval requirements.
- The site is considered to be hydrogeologically sensitive due to the need for dug wells as the only source of potable water. As a precautionary measure, the setback distance between a future raised Class 4 sewage system and dug wells on the proposed lots should be at least 45 m.

6 Limiting Conditions

The conclusions presented in this report represent our professional opinion and are based upon the work described in this report and any limiting conditions in the terms of reference, scope of work, or conditions noted herein.

BluMetric makes no warranty as to the accuracy or completeness of the information provided by others, or of conclusions and recommendations predicated on the accuracy of that information.

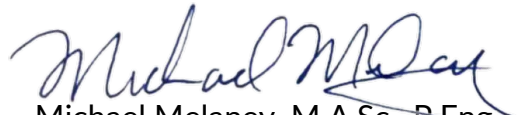
Nothing in this report is intended to constitute or provide a legal opinion. BluMetric makes no representation as to compliance with environmental laws, rules, regulations, or policies established by regulatory agencies.

This report has been prepared for Robert Pittman. Any use a third party makes of this report, any reliance on the report, or decisions based upon the report, are the responsibility of those third parties unless authorization is received from BluMetric in writing. BluMetric accepts no responsibility for any loss or damages suffered by any unauthorized third party as a result of decisions made or actions taken based on this report.

Respectfully submitted,
BluMetric Environmental Inc.



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Hydrogeologist



Michael Melaney, M.A.Sc., P.Eng
Senior Environmental Engineering

7 References

Canada Mortgage and Housing Corporation (CMHC), 2000 (Revised 2014). Household Guide to Water Efficiency.

Drage, J. 2022. Domestic Wells Introduction and Overview. The Groundwater Project, Guelph, Ontario, Canada.

Environment Canada, 2022. Canadian Climate Normals and Averages website:
https://climate.weather.gc.ca/climate_normals/index_e.html

Environment Canada, 2010. Meteorological Service of Canada. Compiled moisture surplus values for Ottawa, Lachute, Mason Anger, Morrisburg

National Sanitation Foundation (NSF) / American National Standards Institute (ANSI), 2019. NSF/ANSI 55-2019 Ultraviolet Microbiological Water Treatment Systems.

Ontario Building Code (OBC), 2012 as amended. O. Reg. 332/12: Building Code under Building Code Act, 1992, S.O. 1992.

Ontario GeoHub, 2024. Ontario Watershed Boundaries (OWB) GIS portal at:
<https://geohub.lio.gov.on.ca/maps/mnrf::ontario-watershed-boundaries-owb/>

Ontario Geological Survey (OGS), OGS Earth website, 2024. Various authors.
<https://www.geologyontario.mndm.gov.on.ca/ogsearth.html>

Ontario Ministry of Environment Conservation and Parks (MECP), 2022a. Water Well Information System (WWIS) online GIS map. <https://www.ontario.ca/page/map-well-records>

Ontario Ministry of Environment (MOE), 2003. Technical Support Document for Ontario Drinking Water Standards, Objectives and Guidelines (ODWSOG) (June 2003). As amended/revised under Ontario Regulation 169/03, 2021.

<https://www.canlii.org/en/on/laws/regu/o-reg-169-03/latest/o-reg-169-03.html>
<https://wccw.ca/wp-content/uploads/2021/08/Technical-Support-Document-for-Ontario-Drinking-Water-Standards-Objectives-and-Guidelines.pdf>

Ontario Ministry of Environment and Energy (MOEE), 1994. Water Management, Policies, Guidelines, Provincial Water Quality Objectives (PWQO).

Ontario Ministry of Environment and Climate Change (MOECC), 2015. Water Supply Wells Requirements and Best Management Practices, (Revised April 2015) website at: <https://dr6j45jk9xcmk.cloudfront.net/documents/4410/a-wwbmp-title-master-table-of-contents-chapter-1.pdf>

Ontario Ministry of Environment Conservation and Parks (MECP), 2024a. Water Well Information System (WWIS) online GIS and database. <https://www.ontario.ca/page/map-well-records>

Ontario Ministry of Environment Conservation and Parks (MECP), 2024b. Permits to Take Water (PTTW) online GIS. <https://www.ontario.ca/page/map-permits-take-water>

Ontario Ministry of Environment and Energy (MOEE), 1996. Procedure D-5-4, Technical Guideline for Individual On-Site Sewage Systems: Water Quality Impact Risk Assessment, August 1996 (revised).

Ontario Ministry of Environment and Energy (MOEE), 1996. Procedure D-5-5, Technical Guidance for Private Wells: Water Supply Assessment, August 1996 (revised).

Ontario Regulation 319/09, 2009. Quinte Conservation Authority: Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses. <https://www.canlii.org/en/on/laws/regu/o-reg-319-09/latest/o-reg-319-09.html>

Ontario Safe Drinking Water Act, 2002. <https://www.ontario.ca/laws/statute/02s32>

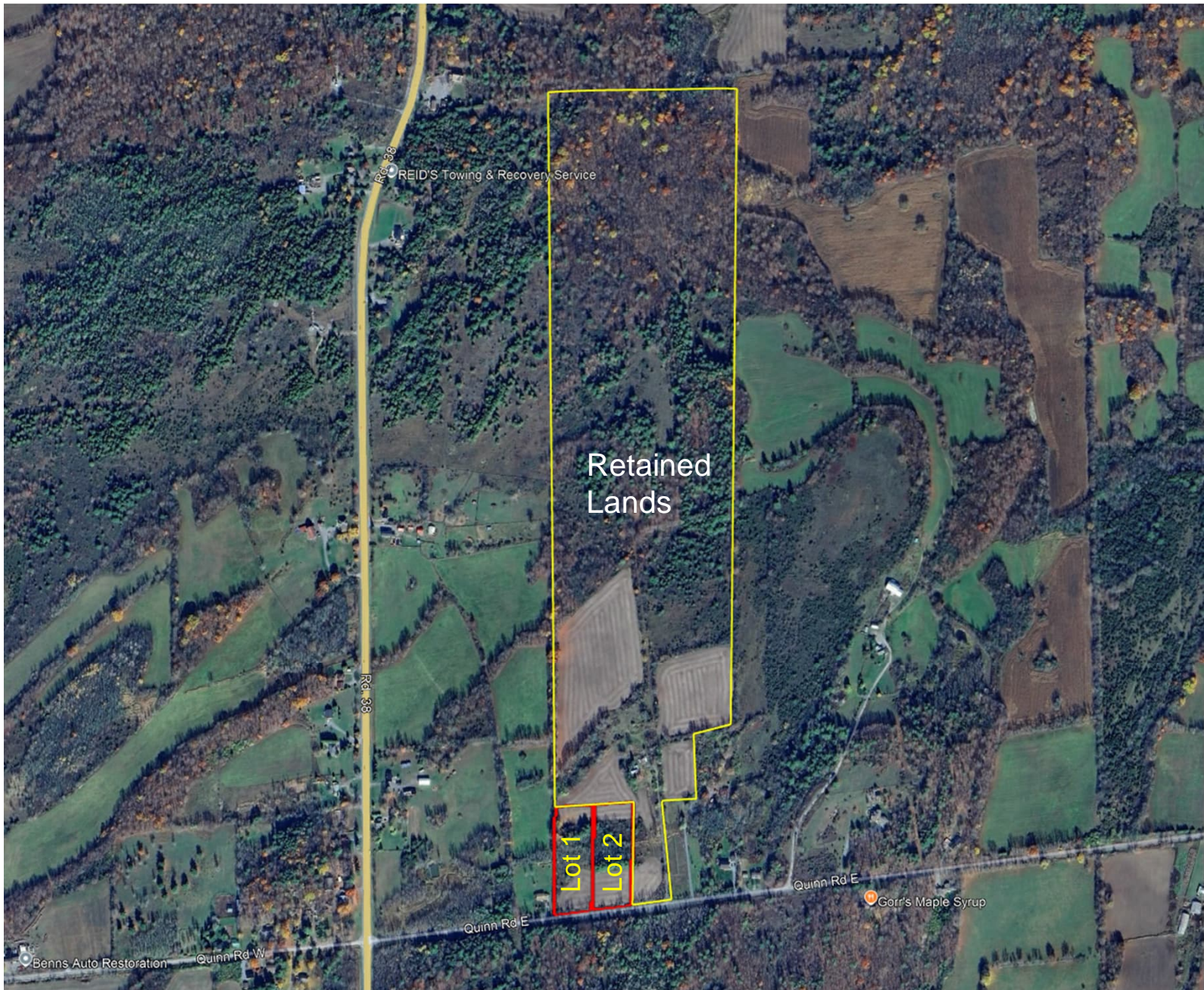
Ontario Water Resources Act, 1990. Revised Statute of Ontario (R.S.O.), Ontario Regulation 903 (O.Reg. 903), 1990, Wells.

Theis, C.V., 1935. The relation between the lowering of the piezometric surface and the rate and duration of discharge of a well using groundwater storage, Trans. American Geophysical Union, Vol. 16, pp. 519-524.

Thornthwaite, C. W., and Mather, J.R., 1957: Instructions and tables for computing potential evapotranspiration and the water balance. Publications in climatology, Volume 10(3), Laboratory of Climatology.

United Counties of Prescott and Russell, 2022. Geographic information system (GIS) at:
<https://alacarte.prescott-russell.on.ca/Html5Viewer/Index.html?Viewer=Public>

Figures



 Indicates Proposed Lot Severances


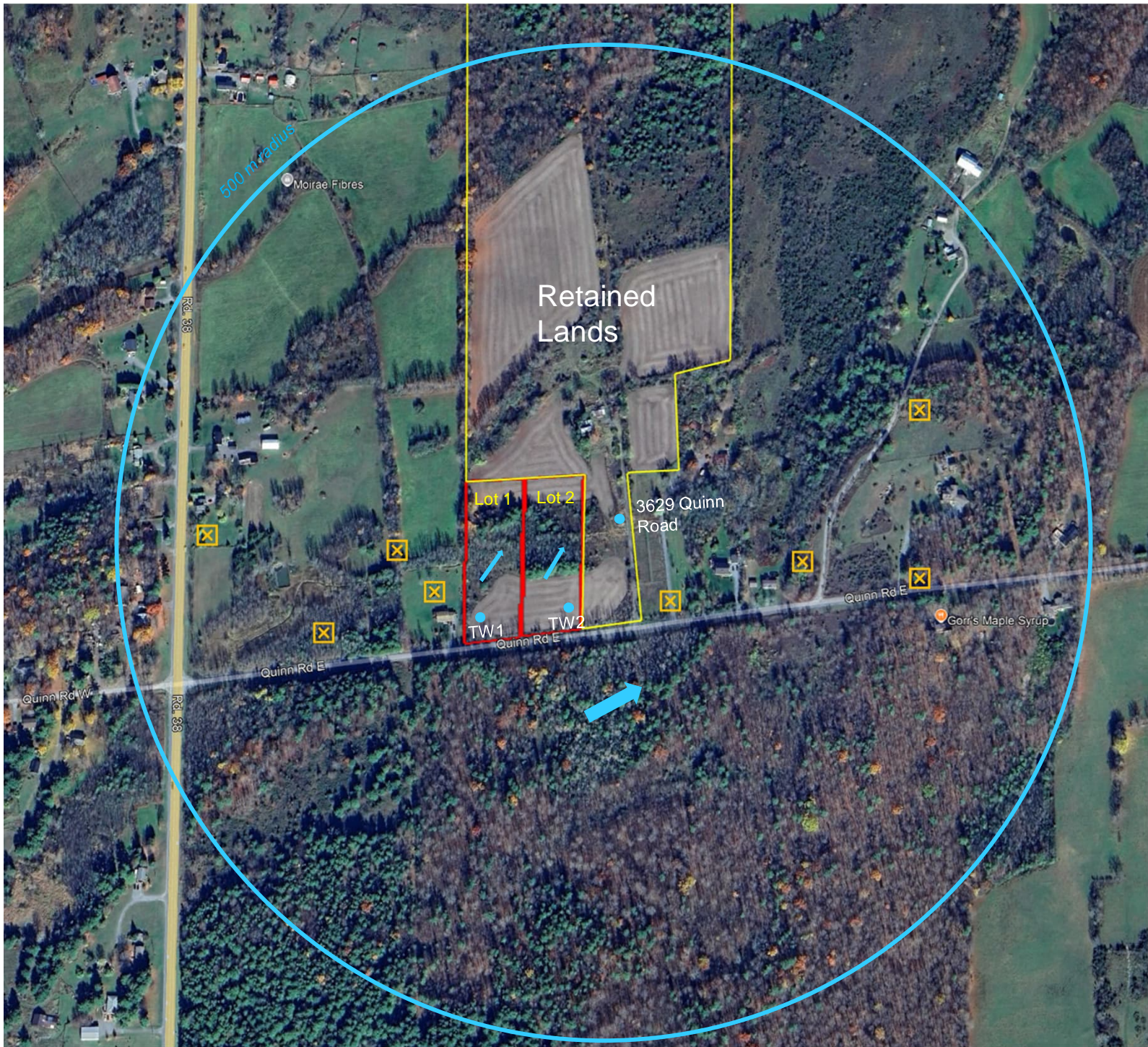
 Indicates Retained Lands

Figure 2 – Site Layout







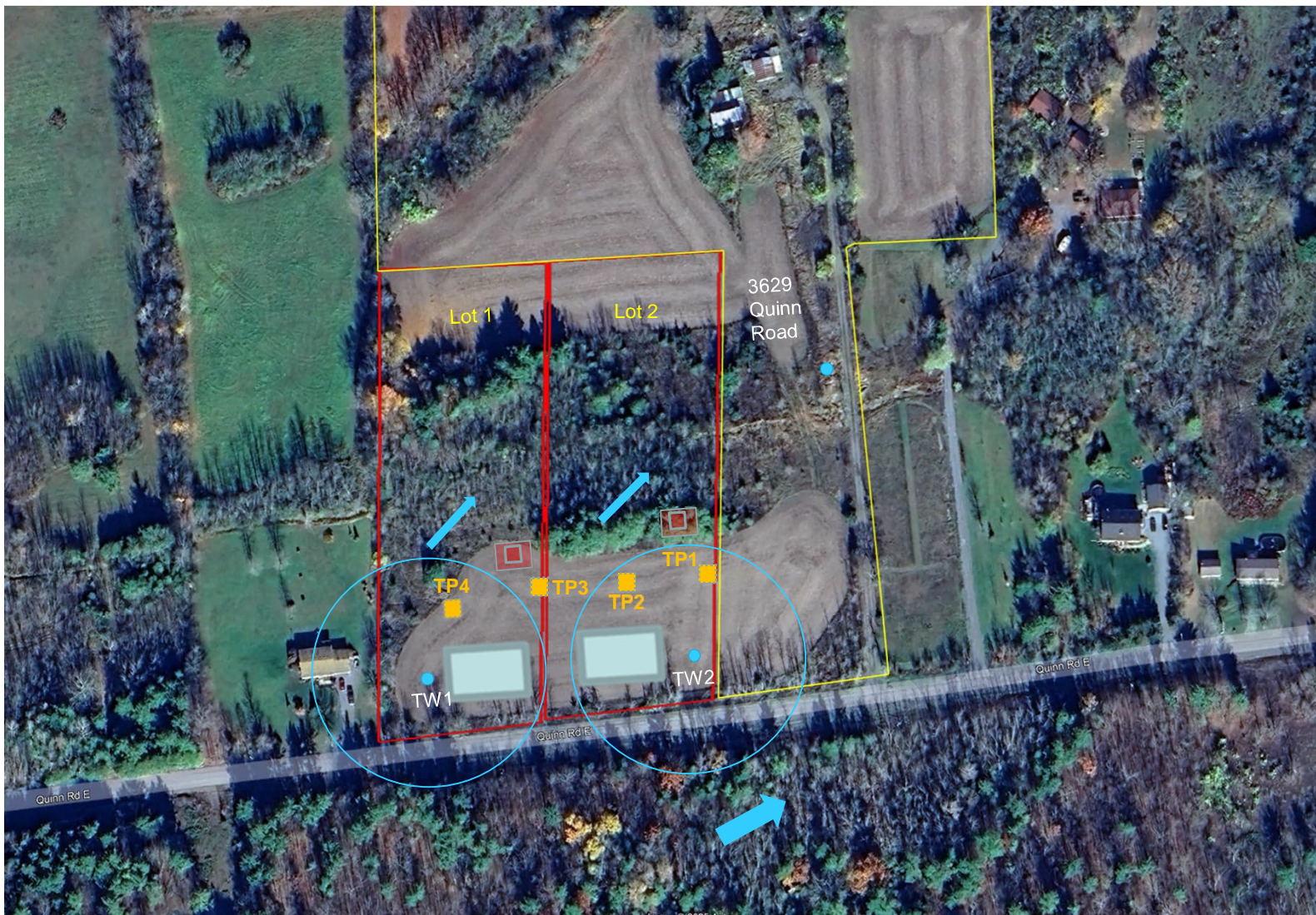

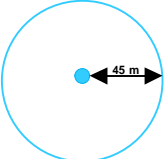
-  Indicates Well Record Location and ID
-  Indicates Proposed Lot Severances
-  Inferred Regional Drainage Direction
-  Inferred Shallow Groundwater Flow and Drainage Direction


Figure 3 – MECP Well Locations



TP4
 Indicates Test Pit Location (August 6, 2024) and depth in metres
0.6 m


 Denotes minimum 45 m separation setback between well supply and septic system

 Indicates Proposed Lot Severances

 Indicates Supply Well Location

 Indicates Recommended Residence Location

 Indicates Recommended Septic System Location

 Inferred Shallow Groundwater and Drainage Flow Direction

 Inferred Regional Groundwater Flow Direction


 Well Location

Figure 4 - Conceptual Lot Development Plan

Appendix A

Well Records

Measurements recorded in: Metric Imperial

A350546

Well Owner's Information

First Name: ROBERT Last Name/Organization: PITMAN E-mail Address: robertgregorup@gmail.com Well Constructed by Well Owner

Mailing Address (Street Number/Name): 46 FRAN DR. Municipality: WOODBRIDGE Province: ON Postal Code: L4L1P3 Telephone No. (inc. area code): 9053205425

Well Location

Address of Well Location (Street Number/Name): QUINN RD Township: SOUTH FRONTENAC Lot: PT6 Concession: 3

County/District/Municipality: FRONTENAC City/Town/Village: HARROWSMITH Province: Ontario Postal Code: [] [] [] [] [] []

UTM Coordinates Zone: 18 Easting: 369731 Northing: 4915345 Municipal Plan and Sublot Number: 13R7028 Other: PARTS 2 & 3

Overburden and Bedrock Materials/Abandonment Sealing Record (see instructions on the back of this form)

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft)
				From To
BLACK	TOPSOIL			0 3
BROWN	LOAM			0.3 1.4
GREY	LIMESTONE			1.4 6.53

Annular Space

Depth Set at (m/ft)	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
From To		
0 2.5	CLAY	20

Results of Well Yield Testing

Time (min)	Draw Down		Recovery	
	Water Level (m/ft)	Time (min)	Water Level (m/ft)	Time (min)
Static Level	1.14		3.81	
1		1		
2	DUG WELL			
3	RESERVE = 9000 GALS			
4	RECOVER = 20+GPM			
5		5		
10		10		
15		15		
20		20		
25		25		
30		30		
40		40		
50		50		
60	3.81	60	3.43	

After test of well yield, water was:
 Clear and sand free
 Other, specify _____

If pumping discontinued, give reason: _____

Pump intake set at (m/ft): 6.53

Pumping rate (l/min / GPM): 675

Duration of pumping: _____ hrs + 60 min

Final water level end of pumping (m/ft): 3.81

If flowing give rate (l/min/GPM): _____

Recommended pump depth (m/ft): 6.53

Recommended pump rate (l/min/GPM): _____

Well production (l/min/GPM): 90+

Disinfected? Yes No

Method of Construction

Cable Tool Diamond Public Commercial Not used

Rotary (Conventional) Jetting Domestic Municipal Dewatering

Rotary (Reverse) Driving Livestock Test Hole Monitoring

Boring Digging Irrigation Cooling & Air Conditioning

Air percussion Industrial

Other, specify _____ Other, specify _____

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft)		Status of Well
			From	To	
90	CONCRETE	7.6	0	6.53	<input checked="" type="checkbox"/> Water Supply <input type="checkbox"/> Replacement Well <input type="checkbox"/> Test Hole <input type="checkbox"/> Recharge Well <input type="checkbox"/> Dewatering Well <input type="checkbox"/> Observation and/or Monitoring Hole <input type="checkbox"/> Alteration (Construction) <input type="checkbox"/> Abandoned, Insufficient Supply <input type="checkbox"/> Abandoned, Poor Water Quality <input type="checkbox"/> Abandoned, other, specify _____ <input type="checkbox"/> Other, specify _____

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft)	
			From	To

Water Details

Water found at Depth (m/ft)	Kind of Water:
3	<input checked="" type="checkbox"/> Fresh <input type="checkbox"/> Untested
	<input type="checkbox"/> Gas <input type="checkbox"/> Other, specify _____
	<input type="checkbox"/> Fresh <input type="checkbox"/> Untested
	<input type="checkbox"/> Gas <input type="checkbox"/> Other, specify _____
	<input type="checkbox"/> Fresh <input type="checkbox"/> Untested
	<input type="checkbox"/> Gas <input type="checkbox"/> Other, specify _____

Hole Diameter

Depth (m/ft)	Diameter (cm/in)
From To	

Well Contractor and Well Technician Information

Business Name of Well Contractor: FRANK'S DRILLING & BLASTING LTD (888) Business Address (Street Number/Name): P.O. BOX 100 Province: ON Postal Code: K0K2S0 Business E-mail Address: info@fobhd.com Municipality: NEWBURGH

Well Contractor's Licence No.: [] [] [] [] [] []

Bus. Telephone No. (inc. area code): 413 378 2178 Name of Well Technician (Last Name, First Name): PAUL GREG Well Technician's Licence No.: 21603 Signature of Technician and/or Contractor: [Signature] Date Submitted: 20230514

Map of Well Location

Please provide a map below following instructions on the back.

Comments: WEST LOT

Well owner's information package delivered: Yes No

Date Package Delivered: 20230514 Date Work Completed: 20230430

Ministry Use Only

Audit No.: 2427879

Received: [] [] [] [] [] []

Measurements recorded in: Metric Imperial

A350547

Well Owner's Information

First Name: **ROBERT** Last Name/Organization: **PITMAN** E-mail Address: **robertgrogan@gmail.com** Well Constructed by Well Owner

Mailing Address (Street Number/Name): **46 FRAN DR** Municipality: **WOODBRIDGE** Province: **ON** Postal Code: **L4L 1P3** Telephone No. (inc. area code): **905-320-5425**

Well Location

Address of Well Location (Street Number/Name): **QUINN RD** Township: **SOUTH FRONTENAC** Lot: **PT6** Concession: **3**

County/District/Municipality: **FRONTENAC** City/Town/Village: **HARROWSMITH** Province: **Ontario** Postal Code:

UTM Coordinates Zone Easting Northing: **NAD 83 181367825 4915358** Municipal Plan and Sublot Number: **13R7028** Other: **PARTS 2:3**

Overburden and Bedrock Materials/Abandonment Sealing Record (see instructions on the back of this form)

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft)	
				From	To
BLACK	TORSOIL			0	0.3
BROWN	LOAM			0.3	1.5
GREY	LIMESTONE			1.5	6.53

Annular Space

Depth Set at (m/ft)	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
0 To 2.5	CLAY	20

Results of Well Yield Testing

After test of well yield, water was:
 Clear and sand free
 Other, specify _____

If pumping discontinued, give reason: _____

Time (min)	Draw Down		Recovery	
	Water Level (m/ft)	Time (min)	Water Level (m/ft)	Time (min)
Static Level	1.17		5.08	
1		1		
2				
3				
4				
5		5		
10			10	
15			15	
20			20	
25			25	
30			30	
40			40	
50			50	
60	5.08	60	4.45	

Pump intake set at (m/ft): **6.53**

Pumping rate (l/min / GPM): **6.75**

Duration of pumping: _____ hrs + **60** min

Final water level end of pumping (m/ft): **5.08**

If flowing give rate (l/min/GPM): _____

Recommended pump depth (m/ft): **6.53**

Recommended pump rate (l/min/GPM): _____

Well production (l/min/GPM): **90+**

Disinfected? Yes No

Method of Construction

Cable Tool Diamond Public Commercial Not used

Rotary (Conventional) Jetting Domestic Municipal Dewatering

Rotary (Reverse) Driving Livestock Test Hole Monitoring

Boring Digging Irrigation Cooling & Air Conditioning

Air percussion Industrial Other, specify _____

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft)		Status of Well
			From	To	
90	CONCRETE	7.6	0	6.53	<input checked="" type="checkbox"/> Water Supply <input type="checkbox"/> Replacement Well <input type="checkbox"/> Test Hole <input type="checkbox"/> Recharge Well <input type="checkbox"/> Dewatering Well <input type="checkbox"/> Observation and/or Monitoring Hole <input type="checkbox"/> Alteration (Construction) <input type="checkbox"/> Abandoned, Insufficient Supply <input type="checkbox"/> Abandoned, Poor Water Quality <input type="checkbox"/> Abandoned, other, specify _____ <input type="checkbox"/> Other, specify _____

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft)	
			From	To

Water Details

Water found at Depth **3** (m/ft) Gas Fresh Untested Other, specify _____

Water found at Depth _____ (m/ft) Gas Fresh Untested Other, specify _____

Water found at Depth _____ (m/ft) Gas Fresh Untested Other, specify _____

Hole Diameter

Depth (m/ft)	Diameter (cm/in)		
		From	To

Well Contractor and Well Technician Information

Business Name of Well Contractor: **FRANK'S DRILLING & BLASTING LTD.** Well Contractor's Licence No.: **68881**

Business Address (Street Number/Name): **P.O. BOX 100** Municipality: **NEWBURGH**

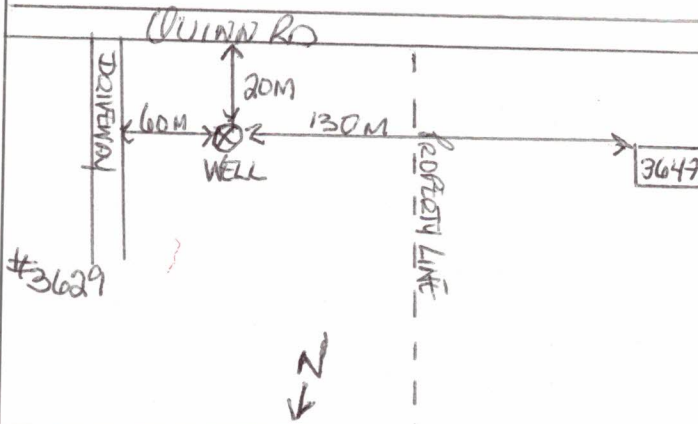
Province: **ON** Postal Code: **K0K2S0** Business E-mail Address: **info@fobhd.com**

Bus. Telephone No. (inc. area code): **613-378-2178** Name of Well Technician (Last Name, First Name): **PARR, GREG**

Well Technician's Licence No.: **2603** Signature of Technician and/or Contractor: _____ Date Submitted: **20230514**

Map of Well Location

Please provide a map below following instructions on the back.



Comments: **EAST LOT**

Well owner's information package delivered: Yes No

Date Package Delivered: **20230514**

Date Work Completed: **20230501**

Ministry Use Only

Audit No. **2427878**

WTM 1182 367560 Per 111
 5R 491151120 Per 7
 2204349
 3 9



B

Elev. 4R 0545
 Basin 214

The Ontario Water Resources Commission Act

WATER WELL RECORD

County or District Frontenac Township, Village, Town or City Portland
 Con. 3 Lot 7 Date completed 3rd June 1968
 (day month year)
 Address Harrow Smith

Casing and Screen Record

Inside diameter of casing 6 1/2"
 Total length of casing 71
 Type of screen
 Length of screen
 Depth to top of screen
 Diameter of finished hole 5 7/8

Pumping Test

Static level 10'
 Test-pumping rate 3 G.P.M.
 Pumping level 31
 Duration of test pumping 20 min
 Water clear or cloudy at end of test cloudy
 Recommended pumping rate 2 G.P.M.
 with pump setting of 33 feet below ground surface

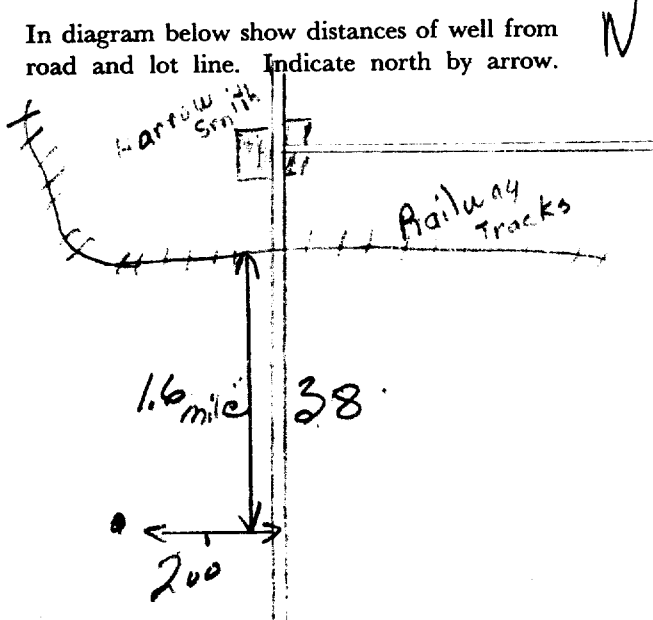
Well Log

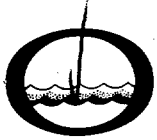
Water Record

Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	Kind of water (fresh, salty, sulphur)
<u>Logan</u>	<u>0</u>	<u>2</u>		
<u>Soft Grey Limestone</u>	<u>2</u>	<u>10</u>		
<u>Hard Grey Limestone</u>	<u>10</u>	<u>34</u>	<u>8</u>	<u>Fresh</u>

For what purpose(s) is the water to be used? House
 Is well on upland, in valley, or on hillside? upland
 Drilling or Boring Firm Lorne Campbell
1968
 Address Newburgh
 Licence Number 2910
 Name of Driller or Borer Bruce Campbell
 Address Newburgh
 Date July 13/68
 (Signature of Licensed Drilling or Boring Contractor)

Location of Well





The Ontario Water Resources Commission Act
WATER WELL RECORD

312 / 79

Water management in Ontario

1. PRINT ONLY IN SPACES PROVIDED

2. CHECK CORRECT BOX WHERE APPLICABLE

11

2205095

MUNICIP 22016

CON. 006

03

COUNTY OR DISTRICT 8 TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE Portland CON., BLOCK, TRACT, SURVEY, ETC. 3 LOT 25-27 8006

DATE COMPLETED 48-53 DAY 26 MO. 4 YR. 70

RC. BASIN CODE RC. ELEVATION RC. 15540 4 0545 5 24

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET	
				FROM	TO
<u>brown clay</u>	<u>blue limestone</u>			<u>0</u>	<u>3</u>
				<u>3</u>	<u>92</u>
		<u>rubber seal cap</u>			

31 0003605 0092315

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER			
10-13	<input checked="" type="checkbox"/> FRESH	<input type="checkbox"/> SALTY	<input type="checkbox"/> SULPHUR	<input type="checkbox"/> MINERAL
15-18	<input type="checkbox"/> FRESH	<input type="checkbox"/> SALTY	<input type="checkbox"/> SULPHUR	<input type="checkbox"/> MINERAL
20-23	<input type="checkbox"/> FRESH	<input type="checkbox"/> SALTY	<input type="checkbox"/> SULPHUR	<input type="checkbox"/> MINERAL
25-28	<input type="checkbox"/> FRESH	<input type="checkbox"/> SALTY	<input type="checkbox"/> SULPHUR	<input type="checkbox"/> MINERAL
30-33	<input type="checkbox"/> FRESH	<input type="checkbox"/> SALTY	<input type="checkbox"/> SULPHUR	<input type="checkbox"/> MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET	
			FROM	TO
<u>10-11</u>	<input checked="" type="checkbox"/> STEEL	<u>188</u>	<u>0</u>	<u>13-18</u>
<u>17-18</u>	<input type="checkbox"/> GALVANIZED <input type="checkbox"/> CONCRETE <input checked="" type="checkbox"/> OPEN HOLE			<u>20-23</u>
<u>24-25</u>	<input type="checkbox"/> STEEL <input type="checkbox"/> GALVANIZED <input type="checkbox"/> CONCRETE <input type="checkbox"/> OPEN HOLE			<u>27-30</u>

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)
FROM TO	
10-13 14-17	
18-21 22-25	
26-29 30-33	

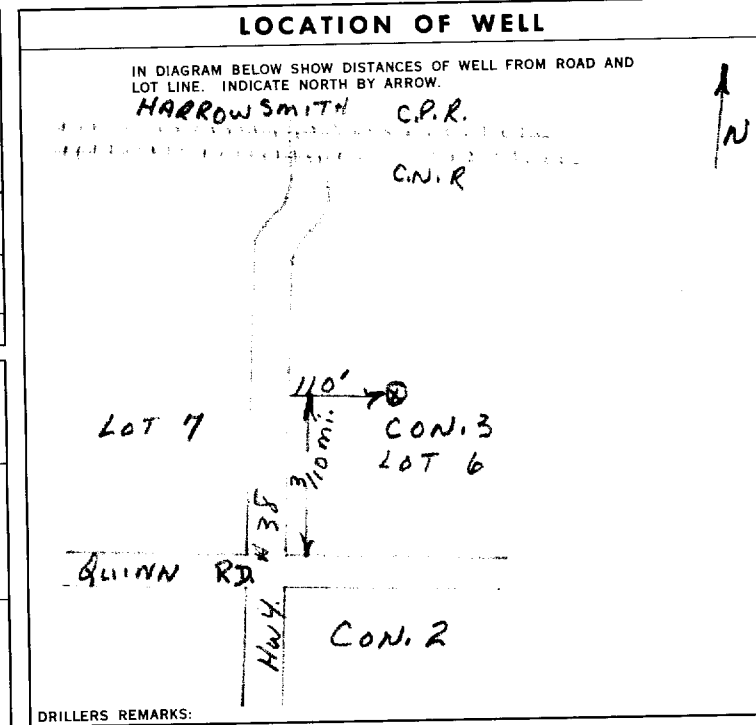
71 PUMPING TEST

PUMPING TEST METHOD	PUMPING RATE GPM	DURATION OF PUMPING HOURS
<input type="checkbox"/> PUMP <input checked="" type="checkbox"/> BAILER	<u>0005</u>	<u>01</u> HOURS <u>30</u> MINS.

STATIC WATER LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING
19-21 <u>004</u> FEET	22-24 <u>092</u> FEET	15 MINUTES 26-28 <u>072</u> FEET 30 MINUTES 29-31 <u>090</u> FEET 45 MINUTES 32-34 <u>090</u> FEET 60 MINUTES 35-37 <u>090</u> FEET

IF FLOWING, GIVE RATE 38-41 70 GPM. PUMP INTAKE SET AT 70 FEET. WATER AT END OF TEST CLEAR CLOUDY

RECOMMENDED PUMP TYPE SHALLOW DEEP. RECOMMENDED PUMP SETTING 090 FEET. RECOMMENDED PUMPING RATE 0003 GPM.



FINAL STATUS OF WELL

WATER SUPPLY ABANDONED, INSUFFICIENT SUPPLY
 OBSERVATION WELL ABANDONED, POOR QUALITY
 TEST HOLE UNFINISHED
 RECHARGE WELL

WATER USE 01

DOMESTIC COMMERCIAL
 STOCK MUNICIPAL
 IRRIGATION PUBLIC SUPPLY
 INDUSTRIAL COOLING OR AIR CONDITIONING
 OTHER NOT USED

METHOD OF DRILLING

CABLE TOOL BORING
 ROTARY (CONVENTIONAL) DIAMOND
 ROTARY (REVERSE) JETTING
 ROTARY (AIR) DRIVING
 AIR PERCUSSION

CONTRACTOR

NAME OF WELL CONTRACTOR Wm H. Doughty Son LICENCE NUMBER 1704

ADDRESS Verona

NAME OF DRILLER OR BORER Bill Crosbie LICENCE NUMBER

SIGNATURE OF CONTRACTOR W H Doughty SUBMISSION DATE DAY 26 MO. 3 YR. 70

OFFICE USE ONLY

DATA SOURCE 1 CONTRACTOR 1704 DATE RECEIVED 110970

DATE OF INSPECTION INSPECTOR P J Kim

REMARKS:



The Ontario Water Resources Commission Act WATER WELL RECORD

31079

Water management in Ontario 1. PRINT ONLY IN SPACES PROVIDED

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22 23 24

COUNTY OR DISTRICT
Frontenac

TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE
Portland

CON., BLOCK, TRACT, SURVEY, ETC.
II

DATE COMPLETED 48-53
DAY 21 MO. 03 YR 72

RC. ELEVATION RC. BASIN CODE
1.5110 4 0525 5 24

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET	
				FROM	TO
Brown	Loam	SHALE	SOFT	0'	8'
Blue	Limestone		HARD	8'	120'

31 00080217 0120315
32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER			
10-13	1 <input checked="" type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR		
	2 <input type="checkbox"/> SALTY	4 <input type="checkbox"/> MINERAL		
15-18	1 <input type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR		
	2 <input type="checkbox"/> SALTY	4 <input type="checkbox"/> MINERAL		
20-23	1 <input type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR		
	2 <input type="checkbox"/> SALTY	4 <input type="checkbox"/> MINERAL		
25-28	1 <input type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR		
	2 <input type="checkbox"/> SALTY	4 <input type="checkbox"/> MINERAL		
30-33	1 <input type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR		
	2 <input type="checkbox"/> SALTY	4 <input type="checkbox"/> MINERAL		

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET	
			FROM	TO
06-11	1 <input checked="" type="checkbox"/> STEEL	.188	0'	0032
	2 <input type="checkbox"/> GALVANIZED			21 1/2
	3 <input type="checkbox"/> CONCRETE			
	4 <input type="checkbox"/> OPEN HOLE			
17-18	1 <input type="checkbox"/> STEEL			20-23
	2 <input type="checkbox"/> GALVANIZED			
	3 <input type="checkbox"/> CONCRETE			
	4 <input checked="" type="checkbox"/> OPEN HOLE			0120
24-25	1 <input type="checkbox"/> STEEL			27-30
	2 <input type="checkbox"/> GALVANIZED			
	3 <input type="checkbox"/> CONCRETE			
	4 <input type="checkbox"/> OPEN HOLE			

SCREEN

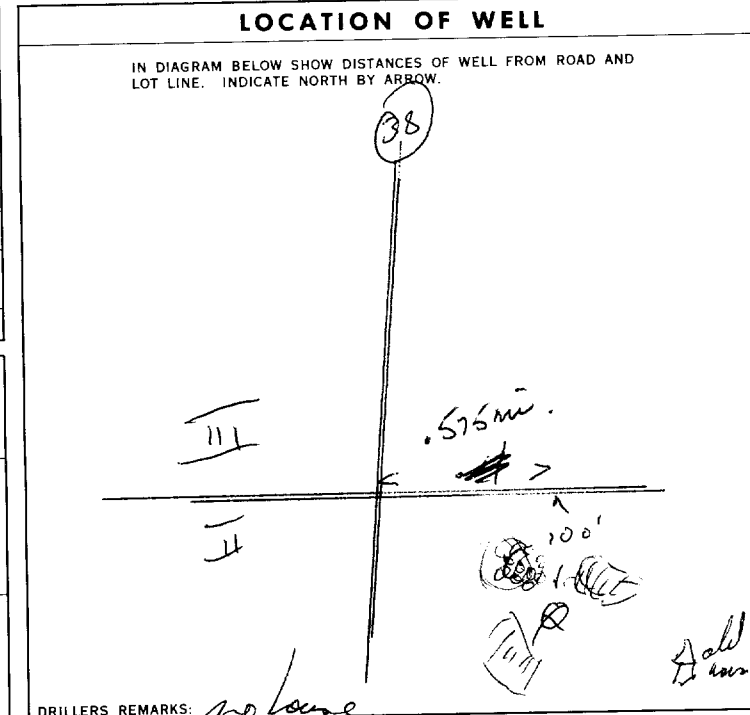
SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET
	31-33	34-38
MATERIAL AND TYPE		DEPTH TO TOP OF SCREEN 41-44 FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)
FROM TO	
10-13	14-17
18-21	22-25
26-29	30-33

71 PUMPING TEST

PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
1 <input type="checkbox"/> PUMP 2 <input checked="" type="checkbox"/> BAILER	0000 74 GPM.	01 15-16 HOURS 00 17-18 MINS.
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING
017 FEET	120 FEET	15 MINUTES 190 FEET 26-28
		30 MINUTES 120 FEET 29-31
		45 MINUTES 120 FEET 32-34
		60 MINUTES 120 FEET 35-37
IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
		1 <input checked="" type="checkbox"/> CLEAR 2 <input type="checkbox"/> CLOUDY
RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
<input type="checkbox"/> SHALLOW <input checked="" type="checkbox"/> DEEP	119 FEET	0000 74 GPM.
50-53 000.0 GPM./FT. SPECIFIC CAPACITY		



FINAL STATUS OF WELL

1 <input checked="" type="checkbox"/> WATER SUPPLY	5 <input type="checkbox"/> ABANDONED, INSUFFICIENT SUPPLY
2 <input type="checkbox"/> OBSERVATION WELL	6 <input type="checkbox"/> ABANDONED, POOR QUALITY
3 <input type="checkbox"/> TEST HOLE	7 <input type="checkbox"/> UNFINISHED
4 <input type="checkbox"/> RECHARGE WELL	

WATER USE

1 <input checked="" type="checkbox"/> DOMESTIC	5 <input type="checkbox"/> COMMERCIAL
2 <input type="checkbox"/> STOCK	6 <input type="checkbox"/> MUNICIPAL
3 <input type="checkbox"/> IRRIGATION	7 <input type="checkbox"/> PUBLIC SUPPLY
4 <input type="checkbox"/> INDUSTRIAL	8 <input type="checkbox"/> COOLING OR AIR CONDITIONING
<input type="checkbox"/> OTHER	9 <input type="checkbox"/> NOT USED

METHOD OF DRILLING

1 <input checked="" type="checkbox"/> CABLE TOOL	6 <input type="checkbox"/> BORING
2 <input type="checkbox"/> ROTARY (CONVENTIONAL)	7 <input type="checkbox"/> DIAMOND
3 <input type="checkbox"/> ROTARY (REVERSE)	8 <input type="checkbox"/> JETTING
4 <input type="checkbox"/> ROTARY (AIR)	9 <input type="checkbox"/> DRIVING
5 <input type="checkbox"/> AIR PERCUSSION	

CONTRACTOR

NAME OF WELL CONTRACTOR Am. H. Dany & Son Ltd.	LICENCE NUMBER 1704
ADDRESS Ulster Ontario	
NAME OF DRILLER OR BORER Howard Green	LICENCE NUMBER
SIGNATURE OF CONTRACTOR H. Dany	SUBMISSION DATE DAY 21 MO. 3 YR 72

OFFICE USE ONLY

DATA SOURCE 1	CONTRACTOR 1704	DATE RECEIVED 270672
DATE OF INSPECTION	INSPECTOR K	
REMARKS: annular space open		P K WI



The Ontario Water Resources Commission Act WATER WELL RECORD

31078

Water management in Ontario

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COUNTY OR DISTRICT

FRONTENAC

TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE

PORTLAND

CON., BLOCK, TRACT, SURVEY, ETC.

DATE COMPLETED

48-53

DAY 12 MO. 04 YR. 72

ING 15 260

RC 4

ELEVATION 0540

RC 5

Basin Code 24

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET	
				FROM	TO
Brown	Loam		SOFT	0'	3'
Blue	Limestone		HARD	3'	67'

31	0003602	0067315
32		

41 WATER RECORD

WATER FOUND - FEET	KIND OF WATER
10-13 0007'	1 <input checked="" type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
15-18	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
20-23	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
25-28	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
30-33	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET	
			FROM	TO
08-11 6 1/4"	1 <input checked="" type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE	.188	0'	7'
17-18	1 <input type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input checked="" type="checkbox"/> OPEN HOLE			20-23
24-25	1 <input type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE			27-30

SCREEN

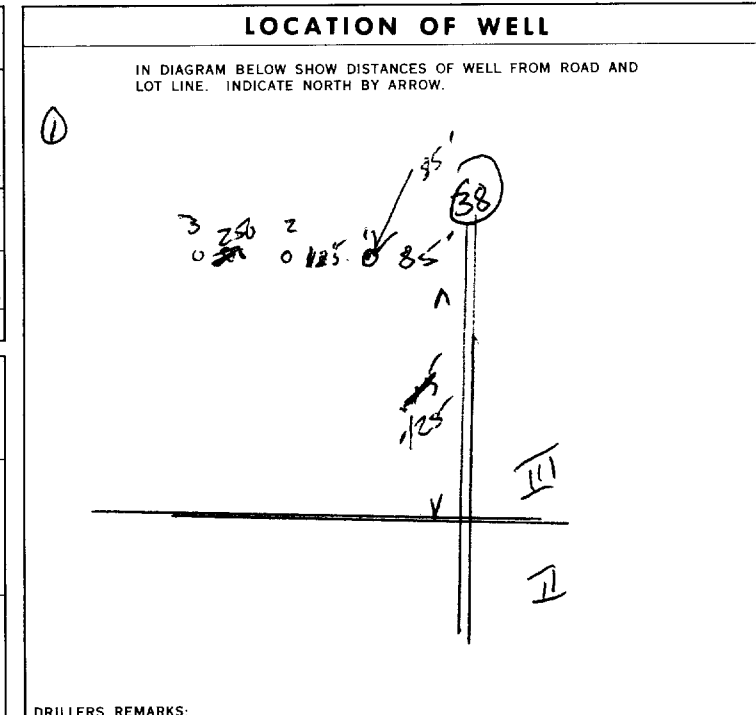
SIZE(S) OF OPENING (SLOT NO.)	DIAMETER	LENGTH
	INCHES	FEET
		41-44
		80

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET	MATERIAL AND TYPE	(CEMENT GROUT, LEAD PACKER, ETC.)
FROM TO		
10-13 14-17		
18-21 22-25		
26-29 30-33		

71 PUMPING TEST

PUMPING TEST METHOD	1 <input type="checkbox"/> PUMP 2 <input checked="" type="checkbox"/> BAILER	PUMPING RATE	0006 GPM.	DURATION OF PUMPING	01 HOURS 00 MINS.
STATIC LEVEL	001 FEET	WATER LEVEL END OF PUMPING	067 FEET	WATER LEVELS DURING	
		15 MINUTES	054 FEET	30 MINUTES	067 FEET
		45 MINUTES	067 FEET	60 MINUTES	067 FEET
IF FLOWING, GIVE RATE		PUMP INTAKE SET AT		WATER AT END OF TEST	
				1 <input checked="" type="checkbox"/> CLEAR 2 <input type="checkbox"/> CLOUDY	
RECOMMENDED PUMP TYPE	<input type="checkbox"/> SHALLOW <input checked="" type="checkbox"/> DEEP	RECOMMENDED PUMP SETTING	065 FEET	RECOMMENDED PUMPING RATE	0005 GPM.
50-53	000.1 GPM./FT. SPECIFIC CAPACITY				



FINAL STATUS OF WELL

1 WATER SUPPLY 5 ABANDONED, INSUFFICIENT SUPPLY
 2 OBSERVATION WELL 6 ABANDONED, POOR QUALITY
 3 TEST HOLE 7 UNFINISHED
 4 RECHARGE WELL

WATER USE

1 DOMESTIC 5 COMMERCIAL
 2 STOCK 6 MUNICIPAL
 3 IRRIGATION 7 PUBLIC SUPPLY
 4 INDUSTRIAL 8 COOLING OR AIR CONDITIONING
 OTHER 9 NOT USED

METHOD OF DRILLING

1 CABLE TOOL 6 BORING
 2 ROTARY (CONVENTIONAL) 7 DIAMOND
 3 ROTARY (REVERSE) 8 JETTING
 4 ROTARY (AIR) 9 DRIVING
 5 AIR PERCUSSION

CONTRACTOR

NAME OF WELL CONTRACTOR: *Shaw, A. Navy & Son Ltd.* LICENCE NUMBER: 1704
 ADDRESS: *Ypsilanti Ont.*
 NAME OF DRILLER OR BORER: *Howard Brown*
 SIGNATURE OF CONTRACTOR: *A. Navy* SUBMISSION DATE: DAY 12 MO. 4 YR. 72

OFFICE USE ONLY

DATA SOURCE: 1 58 CONTRACTOR: 1704 59-62 DATE RECEIVED: 270672 63-68
 DATE OF INSPECTION: INSPECTOR: *K*
 REMARKS: *P K*
CS558 WI



1. PRINT ONLY IN SPACES PROVIDED
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11

2210419

MUNICIP

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COUNTY OR DISTRICT

Frontenac

TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE

Portland

CON. BLOCK, TRACT, SURVEY, ETC.

3

DATE COMPLETED

DAY 17 MO 12

RR3 Harrowsmith, Ontario

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET
Brown	Earth			0 - 13
Blue	Limestone			13 - 110

31	32
----	----

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER			
9	<input checked="" type="checkbox"/> FRESH	<input type="checkbox"/> SALTY	<input type="checkbox"/> SULPHUR	<input type="checkbox"/> MINERAL
15-18	<input type="checkbox"/> FRESH	<input type="checkbox"/> SALTY	<input type="checkbox"/> SULPHUR	<input type="checkbox"/> MINERAL
20-23	<input type="checkbox"/> FRESH	<input type="checkbox"/> SALTY	<input type="checkbox"/> SULPHUR	<input type="checkbox"/> MINERAL
25-28	<input type="checkbox"/> FRESH	<input type="checkbox"/> SALTY	<input type="checkbox"/> SULPHUR	<input type="checkbox"/> MINERAL
30-33	<input type="checkbox"/> FRESH	<input type="checkbox"/> SALTY	<input type="checkbox"/> SULPHUR	<input type="checkbox"/> MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET
6 7/8	STEEL	3/16	0 - 8
17-18	STEEL		20-23
24-25	STEEL		27-30

SCREEN

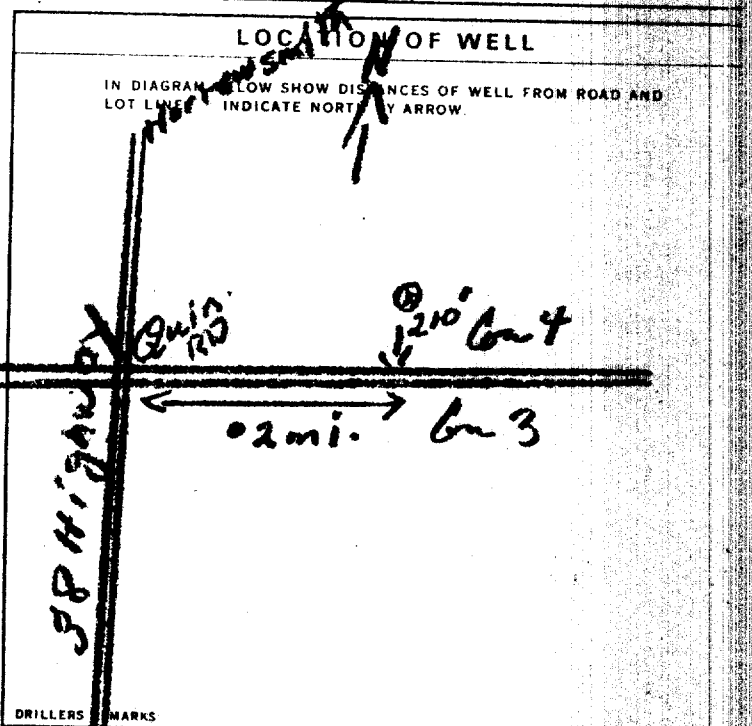
SIZE(S) OF OPENING (SLOF NO 1)	DIAMETER	LENGTH

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET	MATERIAL AND TYPE	CEMENT GROUT LEAD, PACKER, ETC.
10-13		
18-21		
26-29		

71 PUMPING TEST

PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
<input checked="" type="checkbox"/> PUMP	5 GPM	2 HOURS
STATIC LEVEL	WATER LEVELS DURING	
3 FEET	15 MINUTES: 50 FEET	30 MINUTES: 9 FEET
	45 MINUTES: 7 FEET	60 MINUTES: 5 FEET
IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
	109 FEET	
RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
<input checked="" type="checkbox"/> DEEP	109 FEET	5 GPM



FINAL STATUS OF WELL

<input checked="" type="checkbox"/> WATER SUPPLY	<input type="checkbox"/> ABANDONED, INSUFFICIENT SUPPLY
<input type="checkbox"/> OBSERVATION WELL	<input type="checkbox"/> ABANDONED, POOR QUALITY
<input type="checkbox"/> TEST HOLE	<input type="checkbox"/> UNFINISHED
<input type="checkbox"/> RECHARGE WELL	

WATER USE

<input checked="" type="checkbox"/> DOMESTIC	<input type="checkbox"/> COMMERCIAL
<input type="checkbox"/> STOCK	<input type="checkbox"/> MUNICIPAL
<input type="checkbox"/> IRRIGATION	<input type="checkbox"/> PUBLIC SUPPLY
<input type="checkbox"/> INDUSTRIAL	<input type="checkbox"/> COOLING OR AIR CONDITIONING
<input type="checkbox"/> OTHER	<input type="checkbox"/> NOT USED

METHOD OF DRILLING

<input checked="" type="checkbox"/> CABLE TOOL	<input type="checkbox"/> BORING
<input type="checkbox"/> ROTARY (CONVENTIONAL)	<input type="checkbox"/> DIAMOND
<input type="checkbox"/> ROTARY (REVERSE)	<input type="checkbox"/> JETTING
<input type="checkbox"/> ROTARY (AIR)	<input type="checkbox"/> DRIVING
<input type="checkbox"/> AIR PERCUSSION	

CONTRACTOR

NAME OF WELL CONTRACTOR	LICENCE NUMBER
Jack Knox	3202
ADDRESS	
Glenburnie, Ontario	
NAME OF DRILLER OR BORER	LICENCE NUMBER
Law Daddlin	
SIGNATURE OF CONTRACTOR	SUBMISSION DATE
Jack Knox	

OFFICE USE ONLY

DATA SOURCE	CONTRACTOR	DATE RECEIVED
		28 01 86
DATE OF INSPECTION	INSPECTOR	
REMARKS		



WATER WELL RECORD

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK CORRECT BOX WHERE APPLICABLE

11

2211332

MUNICIPALITY: _____ LOT: 4

COUNTY OR DISTRICT: **Frontenac** TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: **Quinn Road** CON. BLOCK, TRACT, SURVEY, ETC.: **3** DATE COMPLETED: **22** MO: **7** YR: **81**

WELL NO.: **3#3, Harrowsmith, Ont. #1110**

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET	
				FROM	TO
Blue	Clay			0	1 1/2
Brown	Limestone		Shale	1 1/2	7
Blue	Limestone			7	82
Grey	Limestone			82	84

31 _____ 32 _____

4 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
82	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input checked="" type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET	
			FROM	TO
6 7/8	1 <input checked="" type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE	3/16	0	22
	1 <input type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE			20-23
	1 <input type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE			77-30

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET

MATERIAL AND TYPE: _____ DEPTH TO TOP OF SCREEN: _____ FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)
22	10 Annular Cement Grout

71 PUMPING TEST

PUMPING TEST METHOD: 1 PUMP 2 BAILER

PUMPING RATE: **26 gal. Per. Hr** GPM

DURATION OF PUMPING: _____ HOURS _____ MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING				
50		15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES	
		26-28	29-31	32-34	35-37	

IF FLOWING, GIVE RATE: _____ GPM

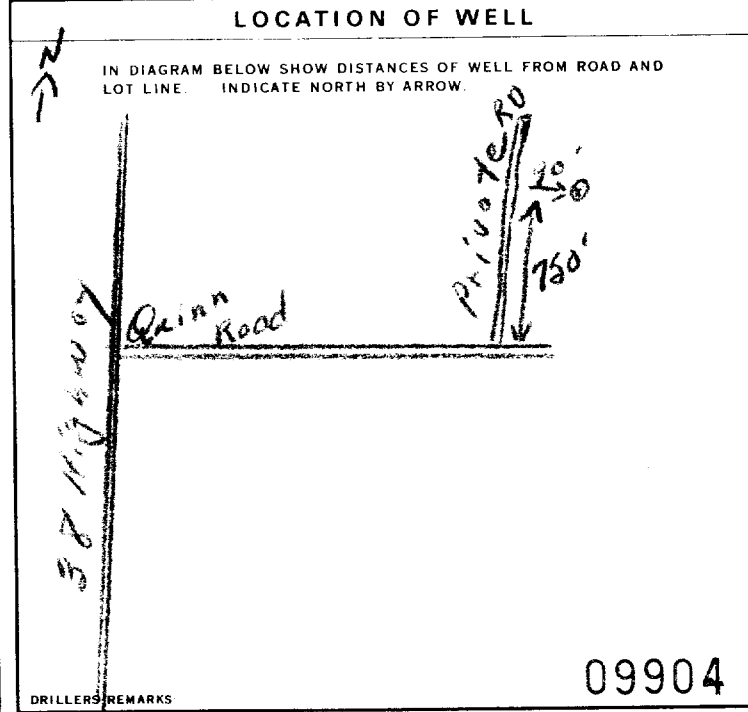
PUMP INTAKE SET AT: _____ FEET

WATER AT END OF TEST: _____ FEET

RECOMMENDED PUMP TYPE: SHALLOW DEEP

RECOMMENDED PUMP SETTING: _____ FEET

RECOMMENDED PUMPING RATE: _____ GPM



FINAL STATUS OF WELL

1 WATER SUPPLY 5 ABANDONED, INSUFFICIENT SUPPLY
2 OBSERVATION WELL 6 ABANDONED, POOR QUALITY
3 TEST HOLE 7 UNFINISHED
4 RECHARGE WELL

WATER USE

1 DOMESTIC 5 COMMERCIAL
2 STOCK 6 MUNICIPAL
3 IRRIGATION 7 PUBLIC SUPPLY
4 INDUSTRIAL 8 COOLING OR AIR CONDITIONING
9 OTHER 10 NOT USED

METHOD OF DRILLING

1 CABLE TOOL 6 BORING
2 ROTARY (CONVENTIONAL) 7 DIAMOND
3 ROTARY (REVERSE) 8 JETTING
4 ROTARY (AIR) 9 DRIVING
5 AIR PERCUSSION

CONTRACTOR

NAME OF WELL CONTRACTOR: **Jack Knox** LICENCE NUMBER: **3202**

ADDRESS: **Glenburnie, Ontario**

NAME OF DRILLER OR BORER: **Arnold Munro** LICENCE NUMBER: **T-0042**

SIGNATURE OF CONTRACTOR: **Jack Knox** SUBMISSION DATE: _____

OFFICE USE ONLY

DATE RECEIVED: **FEB 24 1988**

DATE TO INSPECTOR: _____

REMARKS: _____

CSS.ES



1. PRINT ONLY IN SPACES PROVIDED 2. CHECK [X] CORRECT BOX WHERE APPLICABLE

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MUNICIP. 22016

CON. CON

02

Frontenac Portland R.R. # 3, Harrowsmith DATE COMPLETED 10 05 89

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

Table with columns: GENERAL COLOUR, MOST COMMON MATERIAL, OTHER MATERIALS, GENERAL DESCRIPTION, DEPTH - FEET (FROM, TO). Rows include Soil, Shale, Limestone, Gravel.

31 32

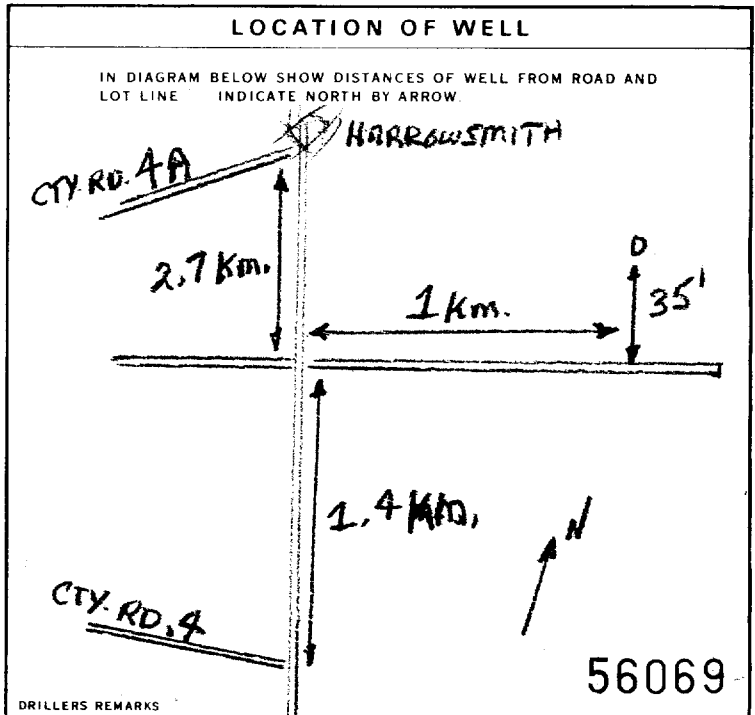
41 WATER RECORD. Includes sections for 10-13, 15-18, 20-23, 25-28, 30-33 with checkboxes for Fresh/Salty, Sulphur/Minerals/Gas.

51 CASING & OPEN HOLE RECORD. Includes sections for 10-11, 17-18, 24-25 with checkboxes for Steel, Galvanized, Concrete, Open Hole, Plastic.

SCREEN. Includes sections for 31-33, 34-38, 39-40 with fields for Size of Opening, Diameter, Length, Material and Type.

61 PLUGGING & SEALING RECORD. Includes sections for 10-13, 15, 18-21, 22-25, 26-29 with fields for Depth Set At, Material and Type.

71 PUMPING TEST. Includes sections for 10, 11-14, 15-16, 17-18, 19-21, 22-24, 25, 26-28, 29-31, 32-34, 35-37, 38-41, 42, 43-45, 46-49.



FINAL STATUS OF WELL, WATER USE, METHOD OF CONSTRUCTION. Includes checkboxes for Water Supply, Observation Well, Test Hole, Recharge Well, Domestic, Stock, Irrigation, Industrial, Cable Tool, Rotary, etc.

CONTRACTOR: CHALK WELL DRILLING LTD. WELL CONTRACTOR'S LICENCE NUMBER: 1507. WELL TECHNICIAN: David Grose, LICENCE NUMBER: 88-202. SUBMISSION DATE: 10 05 89.

OFFICE USE ONLY. DATA SOURCE: 1507. DATE RECEIVED: FEB 27 1990. REMARKS: CSS.ES

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK CORRECT BOX WHERE APPLICABLE

11 2214857 MUNICIPAL 22016 CON. CON. 103

COUNTY OR DISTRICT: Frontenac TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: Portland CON. BLOCK, TRACT, SURVEY ETC: 3 LOT: 5
 #3 Harrowsmith, Ontario K0H1V0 DATE COMPLETED: DAY 24 MO 5 YR 94

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET	
				FROM	TO
Brown	Shale			0	21
Blue	Limestone			21	59
Green	Limestone			59	61
Blue	Limestone			61	74
Brown	Limestone			74	81

31 32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
74	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERALS 6 <input type="checkbox"/> GAS

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET
6 1/4	1 <input checked="" type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE 5 <input type="checkbox"/> PLASTIC	3/16	0 25

SCREEN

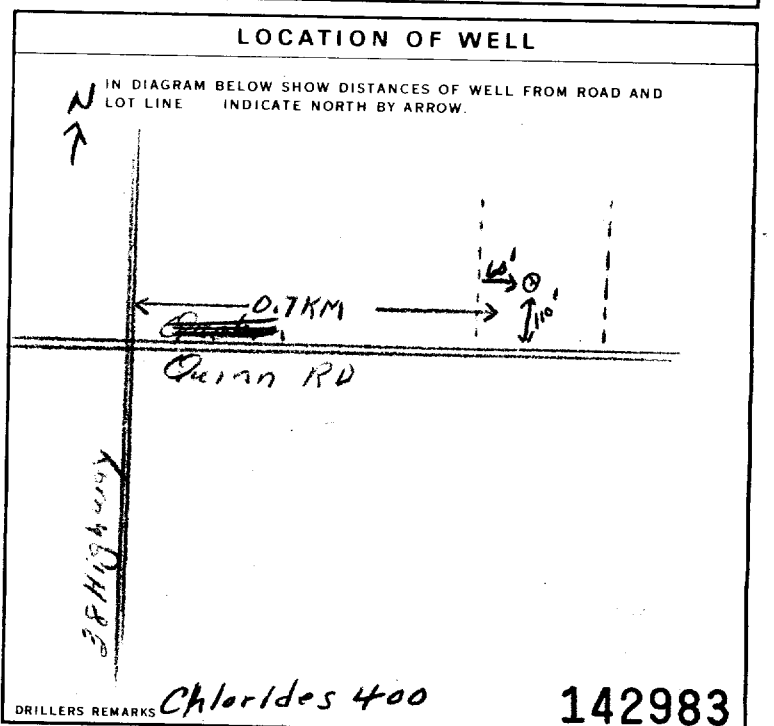
SIZE (S) OF OPENING (SLOT NO.)	DIAMETER	LENGTH
	INCHES	FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET	MATERIAL AND TYPE	(CEMENT GROUT LEAD PACKER, ETC.)
25	4	Annular Cement Grout

71 PUMPING TEST

PUMPING TEST METHOD: 1 PUMP 2 BAILER
 PUMPING RATE: 8 GPM
 DURATION OF PUMPING: 2 HOURS
 WATER LEVELS DURING:
 15 MINUTES: 72 FEET
 30 MINUTES: 73 FEET
 45 MINUTES: 74 FEET
 60 MINUTES: 75 FEET
 RECOMMENDED PUMP TYPE: SHALLOW DEEP
 RECOMMENDED PUMP SETTING: 80 FEET
 RECOMMENDED PUMPING RATE: 8 GPM



FINAL STATUS OF WELL
 1 WATER SUPPLY
 2 OBSERVATION WELL
 3 TEST HOLE
 4 RECHARGE WELL
 5 ABANDONED, INSUFFICIENT SUPPLY
 6 ABANDONED, POOR QUALITY
 7 UNFINISHED
 8 DEWATERING

WATER USE
 1 DOMESTIC
 2 STOCK
 3 IRRIGATION
 4 INDUSTRIAL
 5 COMMERCIAL
 6 MUNICIPAL
 7 PUBLIC SUPPLY
 8 COOLING OR AIR CONDITIONING
 9 NOT USED

METHOD OF CONSTRUCTION
 1 CABLE TOOL
 2 ROTARY (CONVENTIONAL)
 3 ROTARY (REVERSE)
 4 ROTARY (AIR)
 5 AIR PERCUSSION
 6 BORING
 7 DIAMOND
 8 JETTING
 9 DRIVING
 10 DIGGING
 11 OTHER

CONTRACTOR
 NAME OF WELL CONTRACTOR: Jack Knox Well Drilling
 ADDRESS: Glenburnie, Ontario
 NAME OF WELL TECHNICIAN: Wayne Swant - Jack Knox
 SIGNATURE OF TECHNICIAN/CONTRACTOR: Jack Knox
 WELL CONTRACTOR'S LICENSE NUMBER: 3202
 WELL TECHNICIAN'S LICENSE NUMBER: 70010
 SUBMISSION DATE: DAY _____ MO. _____ YR. _____

OFFICE USE ONLY

DATA SOURCE: 58 CONTRACTOR: 3202 DATE RECEIVED: JUN 27 1994
 DATE OF INSPECTION: _____ INSPECTOR: _____
 REMARKS: _____

Print only in spaces provided.
Mark correct box with a checkmark, where applicable.

11

2215762

Municipality 22016 Con 03
10 14 15 22 23 24

County or District	Township/Borough/City/Town/Village <i>Portland</i>	Con block tract survey, etc. <i>3 Plan #</i>	Lot <i>5</i>
Address <i>RR#3 Harrowsmith Dist. KOHIVO</i>		Date completed <i>31 12 96</i>	
Northing		RC	Elevation
RC		Basin Code	ii iii iv

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)					
General colour	Most common material	Other materials	General description	Depth - feet	
				From	To
<i>Brown</i>	<i>Earth</i>			<i>0</i>	<i>1</i>
<i>Brown</i>	<i>Shale</i>			<i>1</i>	<i>3</i>
<i>Blue</i>	<i>Limestone</i>			<i>3</i>	<i>40</i>
<i>Green</i>	<i>Limestone</i>			<i>40</i>	<i>45</i>
<i>Blue</i>	<i>Limestone</i>			<i>45</i>	<i>138</i>

31
32

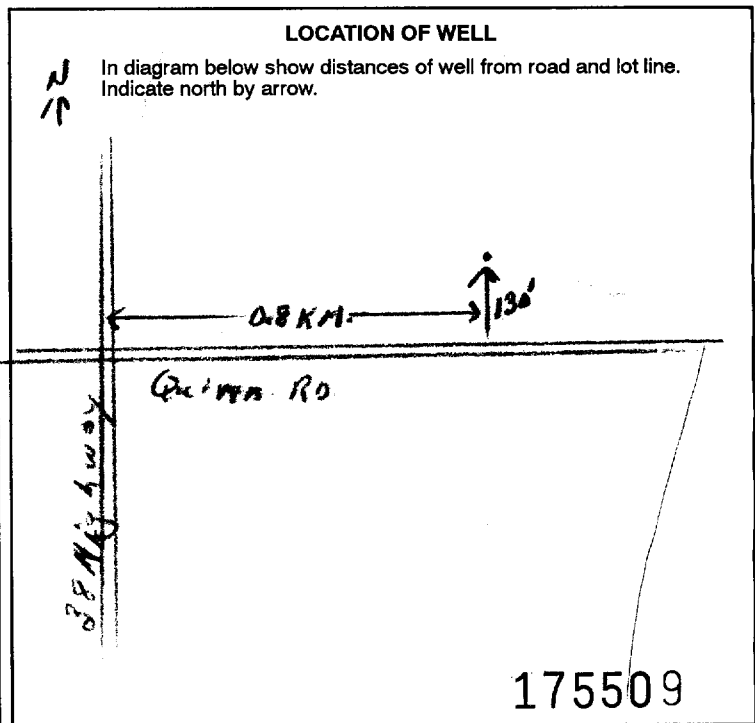
WATER RECORD			
Water found at - feet	Kind of water		
<i>X</i> 10-13	<input type="checkbox"/> Fresh	<input type="checkbox"/> Sulphur	<input type="checkbox"/> Minerals
	<input type="checkbox"/> Salty	<input type="checkbox"/> Gas	
15-18	<input type="checkbox"/> Fresh	<input type="checkbox"/> Sulphur	<input type="checkbox"/> Minerals
	<input type="checkbox"/> Salty	<input type="checkbox"/> Gas	
20-25	<input type="checkbox"/> Fresh	<input type="checkbox"/> Sulphur	<input type="checkbox"/> Minerals
	<input type="checkbox"/> Salty	<input type="checkbox"/> Gas	
25-28	<input type="checkbox"/> Fresh	<input type="checkbox"/> Sulphur	<input type="checkbox"/> Minerals
	<input type="checkbox"/> Salty	<input type="checkbox"/> Gas	
30-33	<input type="checkbox"/> Fresh	<input type="checkbox"/> Sulphur	<input type="checkbox"/> Minerals
	<input type="checkbox"/> Salty	<input type="checkbox"/> Gas	

CASING & OPEN HOLE RECORD				
Inside diam inches	Material	Wall thickness inches	Depth - feet	
			From	To
10-11	<input type="checkbox"/> Steel <input type="checkbox"/> Galvanized <input type="checkbox"/> Concrete <input type="checkbox"/> Open hole <input type="checkbox"/> Plastic			13-16
17-18	<input type="checkbox"/> Steel <input type="checkbox"/> Galvanized <input type="checkbox"/> Concrete <input type="checkbox"/> Open hole <input type="checkbox"/> Plastic			20-23
24-25	<input type="checkbox"/> Steel <input type="checkbox"/> Galvanized <input type="checkbox"/> Concrete <input type="checkbox"/> Open hole <input type="checkbox"/> Plastic			27-30

SCREEN	Sizes of opening (Slot No.)	Diameter	Length
		inches	feet
			Depth at top of screen
			feet

PLUGGING & SEALING RECORD			
<input type="checkbox"/> Annular space		<input checked="" type="checkbox"/> Abandonment	
Depth set at - feet		Material and type (Cement grout, bentonite, etc.)	
From	To		
<i>138</i>	<i>0</i>	<i>Gravel-Cement mix.</i>	
18-21	22-25		
26-29	30-33		

PUMPING TEST	Pumping test method		Pumping rate	Duration of pumping	
	<input type="checkbox"/> Pump	<input type="checkbox"/> Bailor	GPM	Hours	Mins
	Static level	Water level end of pumping	Water levels during		
	19-21	22-24	<input type="checkbox"/> Pumping	<input type="checkbox"/> Recovery	
	feet	feet	15 minutes	30 minutes	45 minutes
			26-28	29-31	32-34
			feet	feet	feet
	feet	feet	feet	feet	feet
	If flowing give rate	Pump intake set at	Water at end of test		
	GPM	feet	<input type="checkbox"/> Clear <input type="checkbox"/> Cloudy		
	Recommended pump type	Recommended pump setting	Recommended pump rate		
	<input type="checkbox"/> Shallow <input type="checkbox"/> Deep	feet	<i>X</i> GPM		



FINAL STATUS OF WELL			
<input type="checkbox"/> Water supply	<input checked="" type="checkbox"/> Abandoned, insufficient supply	<input type="checkbox"/> Unfinished	
<input type="checkbox"/> Observation well	<input type="checkbox"/> Abandoned, poor quality	<input type="checkbox"/> Replacement well	
<input type="checkbox"/> Test hole	<input type="checkbox"/> Abandoned (Other)		
<input type="checkbox"/> Recharge well	<input type="checkbox"/> Dewatering		

WATER USE			
<input type="checkbox"/> Domestic	<input type="checkbox"/> Commercial	<input type="checkbox"/> Not used	
<input type="checkbox"/> Stock	<input type="checkbox"/> Municipal	<input type="checkbox"/> Other	
<input type="checkbox"/> Irrigation	<input type="checkbox"/> Public supply		
<input type="checkbox"/> Industrial	<input type="checkbox"/> Cooling & air conditioning		

METHOD OF CONSTRUCTION			
<input checked="" type="checkbox"/> Cable tool	<input checked="" type="checkbox"/> Air percussion	<input type="checkbox"/> Driving	
<input type="checkbox"/> Rotary (conventional)	<input type="checkbox"/> Boring	<input type="checkbox"/> Digging	
<input type="checkbox"/> Rotary (reverse)	<input type="checkbox"/> Diamond	<input type="checkbox"/> Other	
<input type="checkbox"/> Rotary (air)	<input type="checkbox"/> Jetting		

Name of Well Contractor <i>Jack Knox Well Drilling Ltd</i>	Well Contractor's Licence No. <i>3202</i>
Address <i>Glenburnie, Ontario</i>	
Name of Well Technician <i>Ron Knox</i>	Well Technician's Licence No. <i>T-0041</i>
Signature of Technician/Contractor <i>Jack Knox</i>	Submission date day mo yr

MINISTRY USE ONLY	Data source	Contractor <i>3202</i>	Date received <i>JAN 10 1997</i>
	Date of inspection	Inspector	
	Remarks		

CSS. S

Appendix B

Laboratory Certificates of Analysis

C.O.C.: G 130104

REPORT No: 24-024165 - Rev. 0

Report To:

Blumetric Environmental
 1682 Woodward Dr
 Ottawa, ON K3C 3R8

CADUCEON Environmental Laboratories

285 Dalton Ave
 Kingston, ON K7K 6Z1

Attention: Brett Webster

DATE RECEIVED: 2024-Aug-08
 DATE REPORTED: 2024-Aug-14
 SAMPLE MATRIX: Ground Water

CUSTOMER PROJECT: Pittman Severance
 P.O. NUMBER: P.O# 240360-00

Analyses	Qty	Site Analyzed	Authorized	Date Analyzed	Lab Method	Reference Method
Anions (Liquid)	1	OTTAWA	PCURIEL	2024-Aug-09	A-IC-01	SM 4110B
Colour (Liquid)	1	OTTAWA	STAILLON	2024-Aug-12	A-COL-01	SM 2120C
Cond/pH/Alk Auto (Liquid)	1	OTTAWA	VKASYAN	2024-Aug-12	COND-02/PH-02/A LK-02	SM 2510B/4500H/ 2320B
Coliforms - DC Media (Liquid)	1	KINGSTON	BBURTCH	2024-Aug-08	ECTC-001	MECP E3407
DOC/DIC (Liquid)	1	OTTAWA	VKASYAN	2024-Aug-09	C-OC-01	EPA 415.2
Fecal Coliforms (Liquid)	1	KINGSTON	BBURTCH	2024-Aug-08	FC-001	SM 9222D
HPC MF (Liquid)	1	KINGSTON	BBURTCH	2024-Aug-08	HPC-001	SM 9215D
ICP/MS (Liquid)	1	OTTAWA	AOZKAYMAK	2024-Aug-13	D-ICPMS-01	EPA 200.8
ICP/OES (Liquid)	1	OTTAWA	APRUDYVUS	2024-Aug-12	D-ICP-01	SM 3120B
Ammonia (Liquid)	1	KINGSTON	JYEARWOOD	2024-Aug-09	NH3-001	SM 4500NH3
Organic Nitrogen (Liquid)	1	KINGSTON	KDIBBITS	2024-Aug-14	TPTKN-001	MECP E3516.2
Phenols (Liquid)	1	KINGSTON	EHINCH	2024-Aug-09	PHEN-01	MECP E3179
Sulphide (Liquid)	1	KINGSTON	EHINCH	2024-Aug-08	H2S-001	SM 4500-S2
Tannins (Liquid)	1	KINGSTON	KDIBBITS	2024-Aug-09	TAN-001	SM 5550
TP & TKN (Liquid)	1	KINGSTON	KDIBBITS	2024-Aug-12	TPTKN-001	MECP E3516.2
Turbidity (Liquid)	1	OTTAWA	PLUSSIER	2024-Aug-12	A-TURB-01	SM 2130B

R.L. = Reporting Limit

NC = Not Calculated

Test methods may be modified from specified reference method unless indicated by an *



Michelle Dubien
Data Specialist

Parameter	Units	R.L.	Client I.D.
			TW1
			Sample I.D.
			24-024165-1
			Date Collected
			2024-08-07
			-
Total Coliform (DC Media)	CFU/100mL	1	0
E coli (DC Media)	CFU/100mL	1	0
Heterotrophic Plate Count	CFU/1mL	10	10
Fecal Coliform	CFU/100mL	1	0
Alkalinity(CaCO3) to pH4.5	mg/L	5	349
TDS (Calc. from Cond.)	mg/L	3	731
Conductivity @25°C	uS/cm	1	1350
pH @25°C	pH units	-	8.10
Colour	TCU	2	<2
Turbidity	NTU	0.1	1.2
Fluoride	mg/L	0.1	0.7
Chloride	mg/L	0.5	82.8
Nitrate (N)	mg/L	0.05	0.29
Nitrite (N)	mg/L	0.05	<0.05
Sulphate	mg/L	1	247
Phosphorus (Total)	mg/L	0.01	0.01
Total Kjeldahl Nitrogen	mg/L	0.1	1.5
Ammonia (N)-Total (NH3+NH4)	mg/L	0.05	1.47
Organic Nitrogen	mg/L	0.1	<0.1
Dissolved Organic Carbon	mg/L	0.2	3.9
Tannin & Lignin	mg/L	0.5	<0.5



Michelle Dubien
 Data Specialist

Parameter	Units	R.L.	Client I.D.
			TW1
			Sample I.D.
			24-024165-1
			Date Collected
			2024-08-07
Parameter	Units	R.L.	
Sulphide	mg/L	0.01	<0.01
Phenolics	mg/L	0.001	<0.001
Hardness (as CaCO3)	mg/L	0.02	237
Barium	mg/L	0.001	0.066
Boron	mg/L	0.005	2.28
Calcium	mg/L	0.02	55.8
Iron	mg/L	0.005	0.015
Magnesium	mg/L	0.02	23.7
Manganese	mg/L	0.001	0.014
Potassium	mg/L	0.1	20.8
Sodium	mg/L	0.2	217
Strontium	mg/L	0.001	7.88
Zinc	mg/L	0.005	0.005
Antimony	mg/L	0.0001	0.0003
Arsenic	mg/L	0.0001	0.0005
Beryllium	mg/L	0.0001	<0.0001
Cadmium	mg/L	0.00001 5	<0.000015
Chromium	mg/L	0.001	<0.001
Cobalt	mg/L	0.0001	0.0002
Copper	mg/L	0.0001	0.0003
Lead	mg/L	0.00002	0.00028



Michelle Dubien
Data Specialist

		Client I.D.	TW1
		Sample I.D.	24-024165-1
		Date Collected	2024-08-07
Parameter	Units	R.L.	-
Molybdenum	mg/L	0.0001	0.0008
Nickel	mg/L	0.0002	0.0007
Selenium	mg/L	0.001	<0.001
Silver	mg/L	0.0001	<0.0001
Thallium	mg/L	0.00005	0.00012
Uranium	mg/L	0.00005	0.00063
Vanadium	mg/L	0.0001	0.0004



Michelle Dubien
Data Specialist

C.O.C.: G 108631

REPORT No: 24-024292 - Rev. 0

Report To:

Blumetric Environmental
 1682 Woodward Dr
 Ottawa, ON K3C 3R8

CADUCEON Environmental Laboratories

285 Dalton Ave
 Kingston, ON K7K 6Z1

Attention: Brett Webster

DATE RECEIVED: 2024-Aug-08
 DATE REPORTED: 2024-Aug-15
 SAMPLE MATRIX: Ground Water

CUSTOMER PROJECT: Pittman Severance
 P.O. NUMBER: P.O# 240360-00

Analyses	Qty	Site Analyzed	Authorized	Date Analyzed	Lab Method	Reference Method
Anions (Liquid)	1	OTTAWA	PCURIEL	2024-Aug-09	A-IC-01	SM 4110B
Colour (Liquid)	1	OTTAWA	STAILLON	2024-Aug-12	A-COL-01	SM 2120C
Cond/pH/Alk Auto (Liquid)	1	OTTAWA	VKASYAN	2024-Aug-12	COND-02/PH-02/A LK-02	SM 2510B/4500H/ 2320B
Coliforms - DC Media (Liquid)	1	KINGSTON	BBURTCH	2024-Aug-08	ECTC-001	MECP E3407
DOC/DIC (Liquid)	1	OTTAWA	VKASYAN	2024-Aug-09	C-OC-01	EPA 415.2
Fecal Coliforms (Liquid)	1	KINGSTON	BBURTCH	2024-Aug-08	FC-001	SM 9222D
HPC MF (Liquid)	1	KINGSTON	BBURTCH	2024-Aug-08	HPC-001	SM 9215D
ICP/MS (Liquid)	1	OTTAWA	AOZKAYMAK	2024-Aug-13	D-ICPMS-01	EPA 200.8
ICP/OES (Liquid)	1	OTTAWA	APRUDYVUS	2024-Aug-12	D-ICP-01	SM 3120B
	0	OTTAWA	APRUDYVUS	2024-Aug-12		ICPMS Test
Ammonia (Liquid)	1	KINGSTON	JYEARWOOD	2024-Aug-13	NH3-001	SM 4500NH3
Organic Nitrogen (Liquid)	1	KINGSTON	KDIBBITS	2024-Aug-14	TPTKN-001	MECP E3516.2
Phenols (Liquid)	1	KINGSTON	EHINCH	2024-Aug-09	PHEN-01	MECP E3179
Sulphide (Liquid)	1	KINGSTON	EHINCH	2024-Aug-09	H2S-001	SM 4500-S2
Tannins (Liquid)	1	KINGSTON	KDIBBITS	2024-Aug-09	TAN-001	SM 5550
TP & TKN (Liquid)	1	KINGSTON	YLIEN	2024-Aug-13	TPTKN-001	MECP E3516.2
Turbidity (Liquid)	1	OTTAWA	PLUSSIER	2024-Aug-12	A-TURB-01	SM 2130B

R.L. = Reporting Limit

NC = Not Calculated

Test methods may be modified from specified reference method unless indicated by an *



Michelle Dubien
Data Specialist

Parameter	Units	R.L.	Client I.D.
			TW 2
			Sample I.D.
			24-024292-1
			Date Collected
			2024-08-08
Total Coliform (DC Media)	CFU/100mL	1	22
E coli (DC Media)	CFU/100mL	1	15
Heterotrophic Plate Count	CFU/1mL	10	530
Fecal Coliform	CFU/100mL	1	15
Alkalinity(CaCO3) to pH4.5	mg/L	5	302
TDS (Calc. from Cond.)	mg/L	3	522
Conductivity @25°C	uS/cm	1	979
pH @25°C	pH units	-	7.95
Colour	TCU	2	<2
Turbidity	NTU	0.1	0.1
Fluoride	mg/L	0.1	0.2
Chloride	mg/L	0.5	55.3
Nitrate (N)	mg/L	0.05	0.71
Nitrite (N)	mg/L	0.05	0.06
Sulphate	mg/L	1	143
Phosphorus (Total)	mg/L	0.01	<0.01
Total Kjeldahl Nitrogen	mg/L	0.1	2.2
Ammonia (N)-Total (NH3+NH4)	mg/L	0.05	2.21
Organic Nitrogen	mg/L	0.1	<0.1
Dissolved Organic Carbon	mg/L	0.2	3.1
Tannin & Lignin	mg/L	0.5	<0.5



Michelle Dubien
 Data Specialist

Parameter	Units	R.L.	Client I.D.
			TW 2
			Sample I.D.
			24-024292-1
			Date Collected
			2024-08-08
			-
Sulphide	mg/L	0.01	<0.01
Phenolics	mg/L	0.001	<0.001
Hardness (as CaCO3)	mg/L	0.02	286
Barium	mg/L	0.001	0.071
Boron	mg/L	0.005	1.17
Calcium	mg/L	0.02	74.6
Iron	mg/L	0.005	0.008
Magnesium	mg/L	0.02	24.2
Manganese	mg/L	0.001	0.003
Potassium	mg/L	0.1	15.6
Sodium	mg/L	0.2	108
Strontium	mg/L	0.001	9.19
Zinc	mg/L	0.005	0.007
Antimony	mg/L	0.0001	0.0005
Arsenic	mg/L	0.0001	0.0003
Beryllium	mg/L	0.0001	<0.0001
Cadmium	mg/L	0.00001 5	<0.000015
Chromium	mg/L	0.001	<0.001
Cobalt	mg/L	0.0001	0.0005
Copper	mg/L	0.0001	0.0010
Lead	mg/L	0.00002	0.00018



Michelle Dubien
Data Specialist

		Client I.D.	TW 2
		Sample I.D.	24-024292-1
		Date Collected	2024-08-08
Parameter	Units	R.L.	-
Molybdenum	mg/L	0.0001	0.0007
Nickel	mg/L	0.0002	0.0026
Selenium	mg/L	0.001	<0.001
Silver	mg/L	0.0001	<0.0001
Thallium	mg/L	0.00005	0.00022
Uranium	mg/L	0.00005	0.00060
Vanadium	mg/L	0.0001	0.0003



Michelle Dubien
Data Specialist

C.O.C.: G 130297

REPORT No: 24-030803 - Rev. 0

Report To:

Blumetric Environmental
 1682 Woodward Dr
 Ottawa, ON K3C 3R8

CADUCEON Environmental Laboratories

285 Dalton Ave
 Kingston, ON K7K 6Z1

Attention: Brett Webster

DATE RECEIVED: 2024-Oct-03
 DATE REPORTED: 2024-Oct-07
 SAMPLE MATRIX: Ground Water

CUSTOMER PROJECT:
 P.O. NUMBER: 240360

Analyses	Qty	Site Analyzed	Authorized	Date Analyzed	Lab Method	Reference Method
Coliforms - DC Media (Liquid)	1	KINGSTON	BBURTCH	2024-Oct-03	ECTC-001	MECP E3407
Fecal Coliforms (Liquid)	1	KINGSTON	BBURTCH	2024-Oct-03	FC-001	SM 9222D
HPC MF (Liquid)	1	KINGSTON	BBURTCH	2024-Oct-03	HPC-001	SM 9215D

R.L. = Reporting Limit

NC = Not Calculated

Test methods may be modified from specified reference method unless indicated by an *

Client I.D.	Sample I.D.	Date Collected	Parameter	Total Coliform (DC Media)	E coli (DC Media)	Background (DC Media)	Heterotrophic Plate Count	Fecal Coliform
			Units	CFU/100mL	CFU/100mL	CFU/100mL	CFU/1mL	CFU/100mL
			R.L.	1	1	1	10	1
				-	-	-	-	-
TW2	24-030803-1	2024-Oct-03		0	0	0	10	0



Brandon Burtch
Microbiology Supervisor

C.O.C.: DW 132970

REPORT No: 24-037978 - Rev. 0

Report To:
 Private Kingston

CADUCEON Environmental Laboratories
 285 Dalton Ave
 Kingston, ON K7K 6Z1

Attention: Robert Pittman

DATE RECEIVED: 2024-Dec-10
 DATE REPORTED: 2024-Dec-11
 SAMPLE MATRIX: Drinking Water

CUSTOMER PROJECT:
 P.O. NUMBER:

Analyses	Qty	Site Analyzed	Authorized	Date Analyzed	Lab Method	Reference Method
Coliforms - DC Media (Liquid)	1	KINGSTON	BBURTCH	2024-Dec-10	ECTC-001	MECP E3407

R.L. = Reporting Limit
 NC = Not Calculated

Test methods may be modified from specified reference method unless indicated by an *

Client I.D.	Sample I.D.	Date Collected	Parameter	Total Coliform (DC Media)	E coli (DC Media)
			Units	CFU/100mL	CFU/100mL
			R.L.	1	1
				-	-
3629 Quinn Rd.East Well	24-037978-1	2024-Dec-09		0	0



Brandon Burtch
Microbiology Supervisor

The analytical results reported herein refer to the samples as received and relate only to the items tested. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

Appendix C

Aquifer Analysis



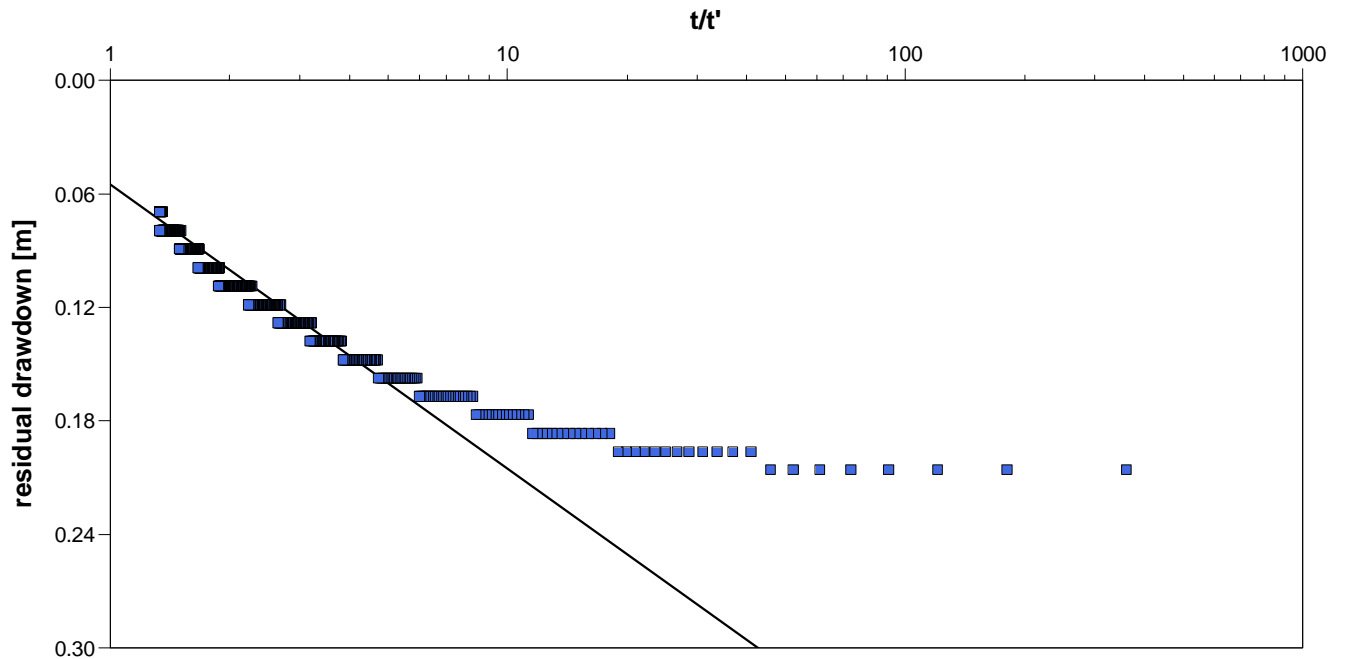
Pumping Test Analysis Report

Project: Pittman Sevrance

Number: 240360

Client: Robert Pittman

Location: Quinn Road	Pumping Test: Pumping Test TW1 - Recovery	Pumping Well: TW1
Test Conducted by: BM		Test Date: 2025-03-11
Analysis Performed by: EL	TW1 - Recovery	Analysis Date: 2025-03-11
Aquifer Thickness: 5.40 m	Discharge: variable, average rate 5.5 [U.S. gal/min]	



Calculation using THEIS & JACOB

Observation Well	Transmissivity [m ² /s]	Hydraulic Conductivity [m/s]	Radial Distance to PW [m]
TW1	4.22×10^{-4}	7.82×10^{-5}	0.45



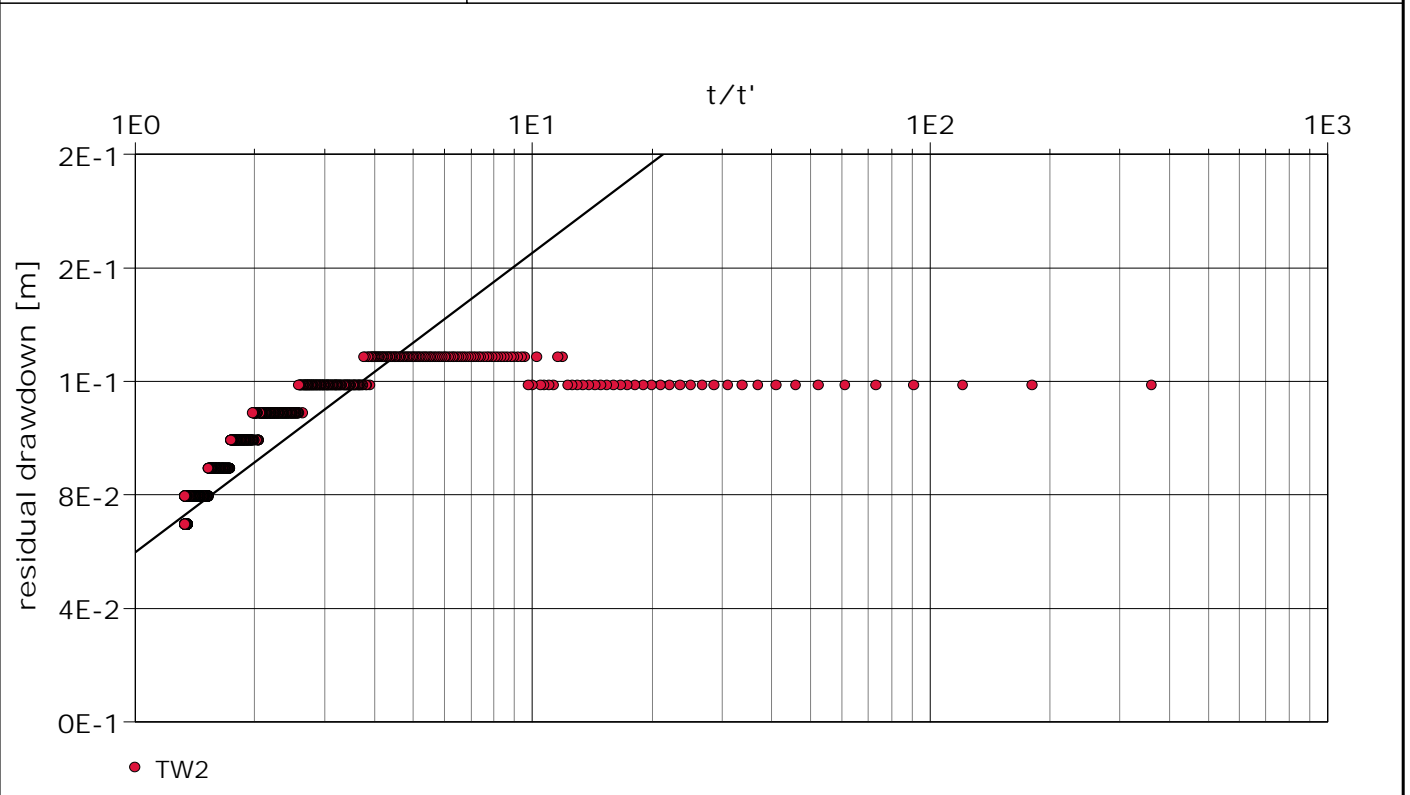
Pumping Test Analysis Report

Project: Pittman Sevrance

Number: 240360

Client: Robert Pittman

Location: Quinn Road	Pumping Test: Pumping Test TW1 - Recovery	Pumping Well: TW1
Test Conducted by: BM		Test Date: 2025-03-11
Analysis Performed by: EL	TW2 - Recovery	Analysis Date: 2025-03-12
Aquifer Thickness: 5.40 m	Discharge: variable, average rate 5.5 [U.S. gal/min]	



Calculation using THEIS & JACOB

Observation Well	Transmissivity [m ² /s]	Hydraulic Conductivity [m/s]	Radial Distance to PW [m]
TW2	6.02 × 10 ⁻⁴	1.11 × 10 ⁻⁴	99.03



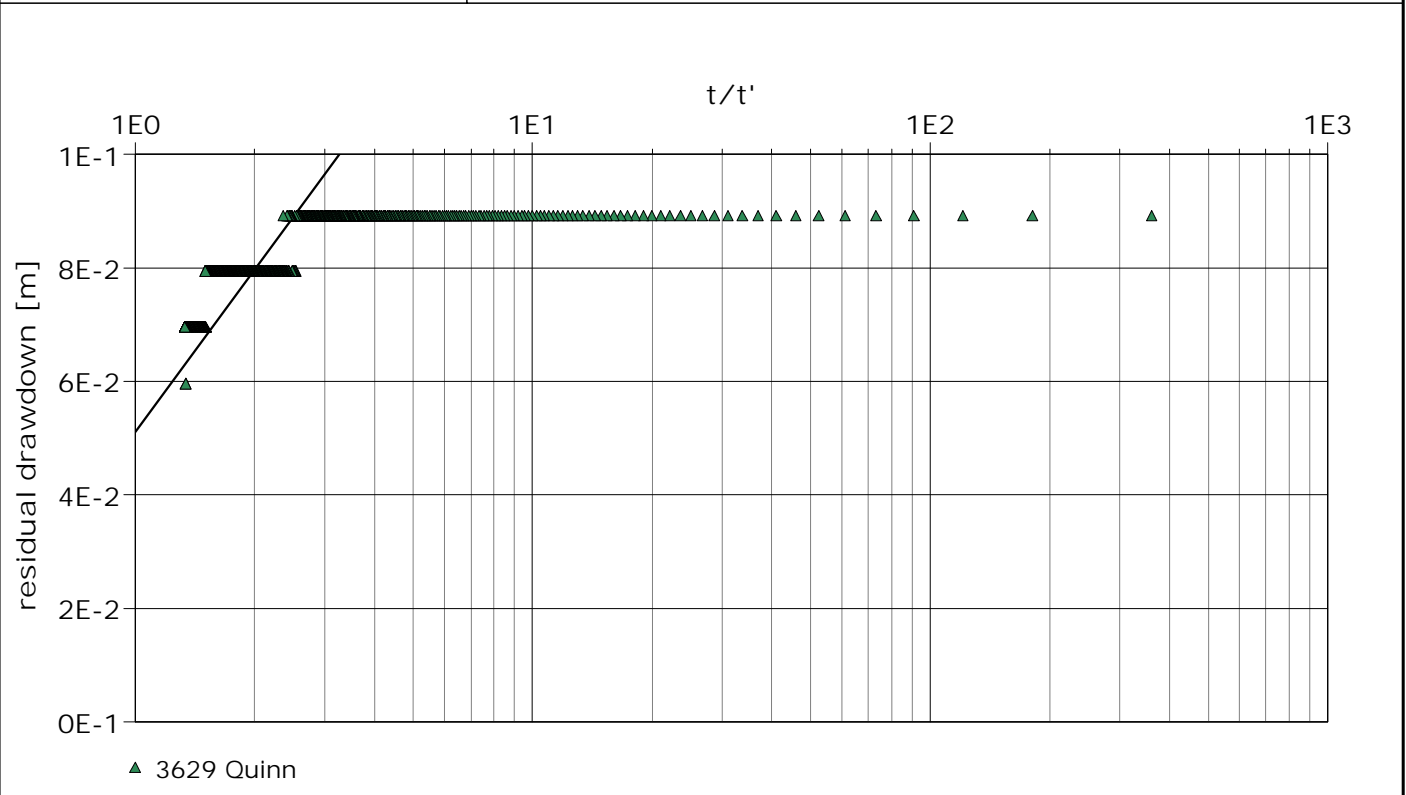
Pumping Test Analysis Report

Project: Pittman Sevrance

Number: 240360

Client: Robert Pittman

Location: Quinn Road	Pumping Test: Pumping Test TW1 - Recovery	Pumping Well: TW1
Test Conducted by: BM		Test Date: 2025-03-11
Analysis Performed by: EL	3629 - Recovery	Analysis Date: 2025-03-12
Aquifer Thickness: 5.40 m	Discharge: variable, average rate 5.5 [U.S. gal/min]	



Calculation using THEIS & JACOB

Observation Well	Transmissivity [m ² /s]	Hydraulic Conductivity [m/s]	Radial Distance to PW [m]
3629 Quinn	6.67×10^{-4}	1.23×10^{-4}	189.77



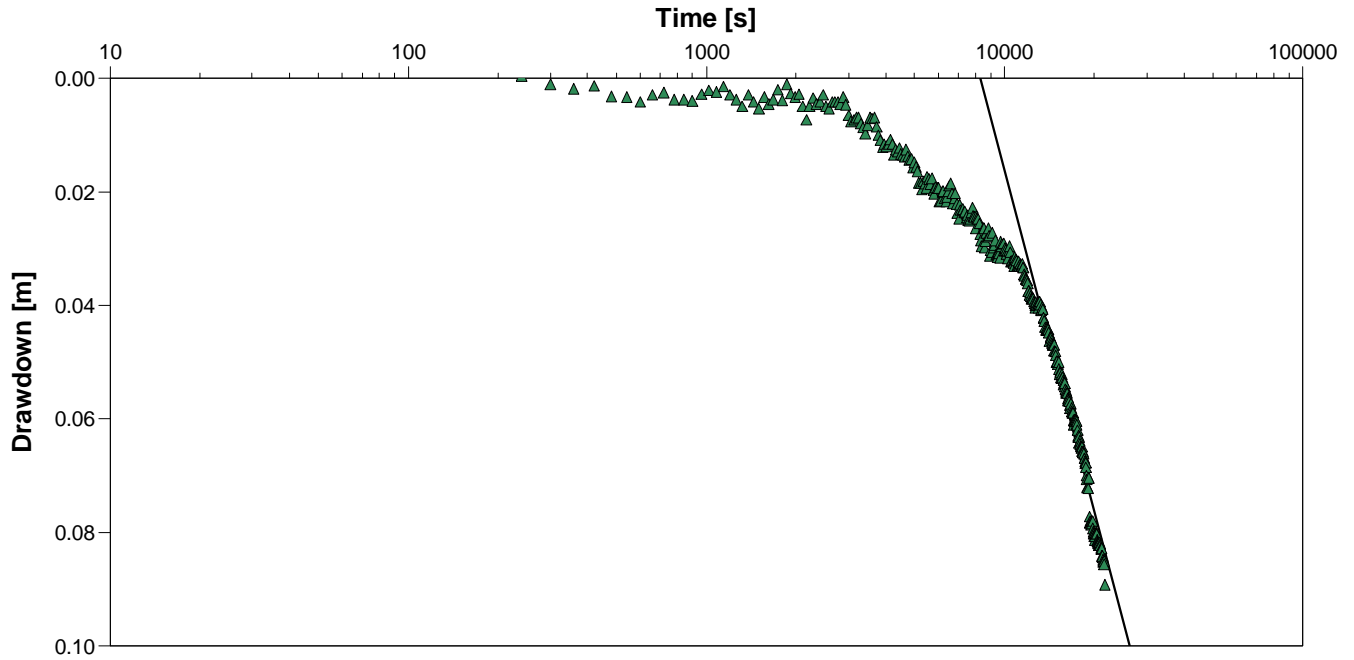
Pumping Test Analysis Report

Project: Pittman Sevrance

Number: 240360

Client: Robert Pittman

Location: Quinn Road	Pumping Test: Pumping Test TW1 - Drawdown	Pumping Well: TW1
Test Conducted by:		Test Date: 2025-03-12
Analysis Performed by:	3629 Quinn - Drawdown	Analysis Date: 2025-03-12
Aquifer Thickness: 5.50 m	Discharge Rate: 5.5 [U.S. gal/min]	



Calculation using COOPER & JACOB

Observation Well	Transmissivity [m ² /d]	Hydraulic Conductivity [m/d]	Storage coefficient	Radial Distance to PW [m]
3629 Quinn	2.75×10^1	5.00×10^0	1.65×10^{-4}	189.77



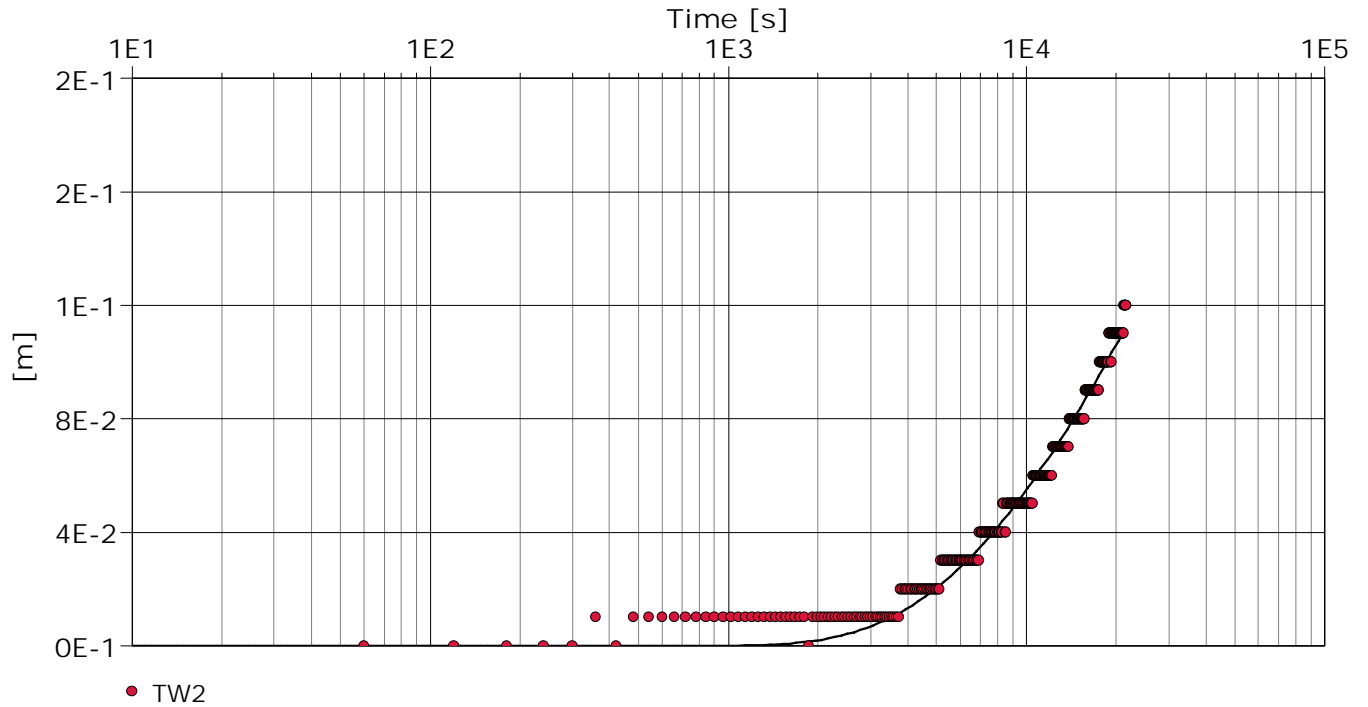
Pumping Test Analysis Report

Project: Pittman Sevrance

Number: 240360

Client: Robert Pittman

Location: Quinn Road	Pumping Test: Pumping Test TW1 - Drawdown	Pumping Well: TW1
Test Conducted by:		Test Date: 2025-03-12
Analysis Performed by:	TW2 - Drawdown	Analysis Date: 2025-03-12
Aquifer Thickness: 5.50 m	Discharge Rate: 5.5 [U.S. gal/min]	



Calculation using Theis with Jacob Correction

Observation Well	Transmissivity [m ² /d]	Hydraulic Conductivity [m/d]	Storage coefficient	Radial Distance to PW [m]
TW2	2.22 × 10 ¹	4.04 × 10 ⁰	5.71 × 10 ⁻⁴	99.03

Appendix D

Nitrate Impact Assessment Calculations

Robert Pittman - 3629 Quinn Road East, Harrowsmith, Ontario

Thornthwaite Calculation	
Thornthwaite Method (1957)	Potential Evapotranspiration
<i>'Hydrology and Hydraulic Systems' 4th edition by Ram S. Gupta, 2017</i>	
Et month = 1.62 (10*Tm/I) ^a	
where:	
a = 675*10 ⁻⁹ I ³ - 771*10 ⁻⁷ I ² + 179*10 ⁻⁴ *I + 492*10 ⁻³	
I _i = sum (Tm/5) ^{1.514}	

Canada Climate Normals					
Environment Canada Climate Normals: KINGSTON					
Ontario					
Month	Temp C	I _i	Et (cm) unadjusted	Daylight Factor	Et (mm) adjusted
January	-7.7	frozen			
Feb	-6.9	frozen			
March	-1.5	frozen			
April	6.5	1.4877	2.9527	1.13	0.0334
May	13.1	4.2984	6.3385	1.28	0.0811
June	18.2	7.0714	9.0708	1.29	0.1170
July	20.9	8.7189	10.5471	1.31	0.1382
Aug	19.7	7.9723	9.8887	1.21	0.1197
Sept	15.2	5.3836	7.4537	1.04	0.0775
Oct	8.4	2.1934	3.9049	0.94	0.0367
Nov	2.5	0.3501	1.0420	0.79	0.0082
Dec	-4.1	frozen			
		37.476	51.198		0.612
	a =	1.0901			metres

Note: Daylight Factor is an adjustment factor for possible hours of sunshine based on latitude.
 Monthly temperature from Environment Canada Climate Normals website at:
https://climate.weather.gc.ca/climate_normals/index_e.html

▼ Temperature

1981 to 2010 Canadian Climate Normals station data

Temperature														
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	Code
Daily Average (°C)	-7.7	-6.9	-1.5	6.5	13.1	18.2	20.9	19.7	15.2	8.4	2.5	-4.1	7.0	D

▼ Precipitation

1981 to 2010 Canadian Climate Normals station data

Precipitation														
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	C
Rainfall (mm)	38.0	24.4	40.0	73.0	86.4	81.1	63.0	68.7	107.9	93.4	88.9	47.1	811.8	C
Snowfall (cm)	42.6	32.9	25.9	7.5	0.1	0.0	0.0	0.0	0.0	1.0	12.0	31.9	153.8	C
Precipitation (mm)	80.6	57.3	65.8	80.5	86.4	81.1	63.0	68.7	107.9	94.3	100.9	79.0	965.6	C

Environment Canada Climate Normals: KINGSTON Ontario	965.6 mm
Potential Evapotranspiration (PE)	612 mm
Surplus Water (Precipitation - PE)	354 mm

Predictive Nitrate Impact Assessment			
PRE DEVELOPMENT CONDITIONS		POST DEVELOPMENT CONDITIONS	
Infiltration Factors		Infiltration Factors	
Topography	0.3 flat	Topography	0.3 flat
Soil	0.2 sand and clay	Soil	0.2 sand and clay
Cover	0.1 cultivated	Cover	0.1 cultivated
Total	0.6	Total	0.6
Site Characteristics		Site Characteristics	
Area of Site :	21000 m ² 2.10 hectares	Area of Site :	21,000 m ² 2.10 hectares
		Area of each roof:	300 m ²
		Total of roof areas:	600 m ²
		Length of roadways:	10 m
		Width of roadways:	5 m
		Total area of roadways:	100 m ²
		Impervious Area	700 m ²
		Percent Impervious Area =	3.33 %
Infiltration Area =	21,000 m ²	Infiltration Area =	20,300 m ²
Septic Effluent		Septic Effluent	
Concentration of Effluent (Cs) =	40 mg/L	Concentration of Effluent (Cs) =	40 mg/L
Daily Sewage Flow (Cs) =	0 m ³	Daily Sewage Flow (Cs) =	2 m ³
Infiltration Calculation		Infiltration Calculation	
Nitrate concentration in precipitation (C _i) =	0 mg/L	Nitrate concentration in precipitation (C _i) =	0 mg/L
Environment Canada Climate Normals: KINGSTON Ontario	965.6 mm/yr	Environment Canada Climate Normals: KINGSTON Ontario	965.6 mm/yr
Surplus Water (Thornthwaite calc attached)	354 mm/yr	Surplus Water (Thornthwaite calc attached)	354 mm/yr
Factored Surplus Water =	212 mm/yr	Factored Surplus Water =	212 mm/yr
Total volume of Infiltration	4,458 m ³	Total volume of Infiltration	4,309 m ³
			mm/yr
Infiltration flow entering the system (Q _i) =	12 m ³ /day	Infiltration Flow Entering the System (Q _i) =	12 m ³ /day
Mass Balance Model (MOEE, 1995)		Mass Balance Model (MOEE, 1995)	
$C_T = (Q_b C_b + Q_e C_e + Q_i C_i) / (Q_b + Q_e + Q_i) =$ Cumulative Nitrate Concentration		$C_T = (Q_b C_b + Q_e C_e + Q_i C_i) / (Q_b + Q_e + Q_i) =$ Cumulative Nitrate Concentration	
Q _b = flow entering the system across the upgradient area	0 m ³ /day	Q _b = flow entering the system across the upgradient area	0 m ³ /day
C _b = background nitrate concentration	0 mg/L	C _b = background nitrate concentration	0 mg/L
Q _e = flow entering the system from the septic drainfield	0 m ³ /day	Q _e = flow entering the system from the septic drainfield	2 m ³ /day
C _e = concentration of nitrates in the septic effluent	40 mg/L	C _e = concentration of nitrates in the septic effluent	40 mg/L
Q _i = flow entering the system from infiltration	12 m ³ /day	Q _i = flow entering the system from infiltration	12 m ³ /day
C _i = Concentration of nitrates in the infiltrate	0 mg/L	C _i = Concentration of nitrates in the infiltrate	0 mg/L
C_T =	0.0 mg/L	C_T =	5.8 mg/L
Estimate Number of Lots	1 lots	Estimate Number of Lots	2 lots



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Ottawa@blumetric.ca

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Yellowknife@blumetric.ca

200-4445 SW 35th Terrace
Gainesville, FL 32608
USA

T 877.487.8436
Gainesville@blumetric.ca

Report from Public Services

Application Number: _____

Applicant's Name: _____

Concession: _____ **Lot:** _____ **District:** _____

Road: _____

Road Maintenance: Year-round Seasonal

Sight Lines: Are there adequate sight lines for the entrance? Yes No

If no, what changes would be required to improve sight lines?

Road Conditions:

1. Are there any special drainage/ditching concerns related to creation of new lot(s)?

Yes No

If yes, what action is the applicant required to take?

2. Is the overall road condition adequate to serve increased development/traffic?

Yes No

If no, please explain, and indicate if there are any measures that could be taken to correct the inadequacies.

Road Widening Required?

Yes No To be determined by an Ontario Land Surveyor

Any specific requirement?

Approved by the Public Services?

Yes Yes, with conditions No

If yes, with conditions, please describe conditions below.

Evan Bancroft
Signature on behalf of Public Services

Date

July 31, 2025

File: SEV/FRS/172/2025
SEV/FRS/173/2025
MV/FRS/174/2025

Sent by E-mail

Christine Woods
Manager of Planning
Development Services
Township of South Frontenac
P.O. Box 100
Sydenham, Ontario
K0H 2T0

Dear Ms. Woods:

**Re: Consent Applications PL-BDJ-2025-0074 and PL-BDJ-2025-0075 (Lot Creation) & Minor Variance Application PL-ZNA-2025-0076
3629 Quinn Rd East; Township of South Frontenac
Waterbody: unnamed tributary of Millhaven Creek & unevaluated wetlands**

Staff of the Cataraqi Region Conservation Authority (CRCA) have reviewed the above-noted applications for consent and minor variance. The applications involve the severance of two 1.0 ha parcels of vacant land from an existing 37.8 ha rural property for the purpose of creating two new building lots. Future residential development is planned for the 35.8 ha retained parcel. A minor variance is necessary to permit reduced lot frontages for each lot.

Discussion

CRCA's scope of review with respect to this application is the avoidance of natural hazards (e.g. flooding and erosion) associated with the unnamed watercourses and wetlands on the subject property and protection of the hydrologic function of wetlands. We offer the following comments for the Committee of Adjustment's consideration, based on our role as a commenting agency responsible for natural hazards on *Planning Act* applications, and as administrator of Ontario Regulation 41/24: *Prohibited Activities, Exemptions and Permits*.

Natural Hazards / Ontario Regulation 41/24

Surface Water Features

Cataraqi Conservation, through implementation of Ontario Regulation 41/24: *Prohibited Activities, Exemptions and Permits* requires development (building and structures) and site alteration (excavation, grading, placement of fill) to be located outside of natural hazard areas and set back a minimum of 30 m from surface water features including watercourses (creeks, streams) and

wetlands. The intent is to protect development from potential flooding and erosion hazards and to preserve the hydrologic function of these features.

Unnamed Tributary of Millhaven Creek

The subject lands are within a drainage catchment the flows east into Millhaven Creek. There is a watercourse that runs across the southern portion of the subject lands approximately 98 m back from Quinn Road. The watercourse is a regulated feature and as such a 30 m setback is applied. The survey sketch provided shows that there are building envelopes on the severed and retained lands outside of the required 30 m setback from the watercourse. However, the proposed lot configuration results in the severed lots being divided by the watercourse.

Staff note that it may not be feasible to access the northern portion of the severed lots since this would require a crossing of the watercourse, which may not be permitted by CRCA. As such, staff recommend that an alternative lot configuration be considered where the rear lot line follows the watercourse to avoid the need for future watercourse crossings.

Unevaluated Wetlands

Mapping identified pockets of unevaluated wetlands on the subject lands, generally in the area in and around of the watercourse. Staff are accepting of the findings of the Natural Heritage Site Assessment which confirms the presence of riparian vegetation in the watercourse channel but notes that the area is not large enough to be considered a distinct community. Based on this, CRCA have no concerns related to the hydrologic function of wetlands on the subject lands.

Staff recommend that native vegetation (trees, shrubs, native plants) within 30 metres of watercourse on the subject lands be kept in place, to help stabilize soils and protect the hydrologic function of the surface water features in the long-term.

Karst Topography

The subject lands have been identified on provincial OGS Mapping as having inferred karst. Karst is a type of unstable bedrock that is relatively common in the Cataraqui Region area and is considered a natural hazard under the 2024 Provincial Planning Statement and Ontario Regulation 41/024. As with other natural hazards, there is risk of damage to buildings, property and human safety when development is located within or near unstable bedrock. Accordingly, CRCA's regulation directs development away from these areas and features.

CRCA staff have reviewed available information (e.g. aerial imagery, soils and geology mapping, topographic info.) and completed a site inspection of the subject lands. Based on our preliminary findings, we did not encounter evidence of karst in the area of the future development envelopes (generally within 50 m of Quinn Road).

Should karst features (e.g. fissures, crevices, sinkholes, etc.) be encountered on the subject lands during construction/excavation of the site, the applicant will need to contact CRCA staff to determine appropriate actions which would include additional assessment by a qualified professional to determine the extent and risks associated with karst at the property.

Recommendation

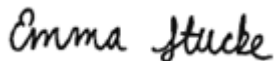
Staff have **no objection** to approval of PL-BDJ-2025-0074, PL-BDJ-2025-0075 and PL-ZNA-2025-0076 based on our review of natural hazards and have identified considerations above in **bold**.

Ontario Regulation 41/24

Please note that portions of the subject lands within 30 m of the watercourse are subject to Ontario Regulation 41/24: *Prohibited Activities, Exemptions and Permits* (formerly O. Reg. 148/06). The purpose of the regulation is to ensure that proposed changes (e.g. development and site alteration) to a property are not affected by natural hazards, such as flooding and erosion, and that the changes do not put other properties at greater risk from these hazards and to ensure the protection of wetlands. **Current and future landowners are advised to contact CRCA before considering any work within 30 metres of the watercourse on the subject lands.**

Please inform this office of any decision made by the Committee with regard to these applications. If you have any questions, please contact the undersigned at 613-546-4228 ext. 239, or by e-mail at estucke@crca.ca

Sincerely,



Emma Stucke, RPP, MCIP
Resource Planner

cc. Robert Pittman, applicant, by email
Elysia Ackroyd, agent, by email

From: [Emma Stucke](#)
To: [Christine Woods](#)
Cc: [Kate Kaestner](#)
Subject: RE: Notices of Deferral: Pittman Applications (3629 Quinn Road East)
Date: August 26, 2025 9:42:49 AM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)
[image006.png](#)
[image007.png](#)
[image008.png](#)

Hi Christine,

Thanks for providing this. Overall, I see the proposed revisions as an improvement compared to the last concept and continue to have no objections to the severance.

Sincerely,
Emma

Emma Stucke MCIP, RPP (she/her)
Resource Planner
Phone: (613) 546-4228 ext. 239

From: Christine Woods <cwoods@southfrontenac.net>
Sent: August 26, 2025 9:06 AM
To: Emma Stucke <EStucke@crca.ca>
Cc: Kate Kaestner <kkaestner@southfrontenac.net>
Subject: RE: Notices of Deferral: Pittman Applications (3629 Quinn Road East)

Emma,

We received the attached revised plan, which will go to Committee of Adjustment on September 11th. Please let me know if you have any comment on the revised plan.

Sincerely,

Christine Woods RPP, MCIP
Manager of Planning
Development Services

p: +613-376-3027

e: cwoods@southfrontenac.net

a: 4432 George St., Box 100
Sydenham, ON K0H 2T0

Temporary office: 3910 Battersea Road, Sunbury
www.southfrontenac.net



South Frontenac is a welcoming and thriving rural community

 Please consider the environment before printing this email

From: Emma Stucke <ESTucke@crca.ca>
Sent: August 25, 2025 4:50 PM
To: Kate Kaestner <kkaestner@southfrontenac.net>
Cc: Christine Woods <cwoods@southfrontenac.net>
Subject: RE: Notices of Deferral: Pittman Applications (3629 Quinn Road East)

Hi Kate,

Thanks for passing on the notices of deferral. I'm following up to see if you need any further info from me with respect to my comment letter.

Let me know!

Thanks,
Emma

Emma Stucke MCIP, RPP (she/her)
Resource Planner
Phone: (613) 546-4228 ext. 239

From: Kate Kaestner <kkaestner@southfrontenac.net>
Sent: August 18, 2025 3:04 PM
To: Emma Stucke <ESTucke@crca.ca>
Subject: Notices of Deferral: Pittman Applications (3629 Quinn Road East)

Good afternoon Emma,

Please find attached Notices of Deferral for the Pittman applications at 3629 Quinn Road East).

Kind regards,

Kate



Kate Kaestner
Planning Clerk
Development Services Department
Township of South Frontenac

p: +613-376-3027

e: kkaestner@southfrontenac.net

a: Box 100, Sydenham, ON, K0H 2T0

o: 3910 Battersea Road, Sunbury, ON

www.southfrontenac.net



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Township of South Frontenac Staff Report



To: Committee of Adjustment

Prepared by: Development Services Department

Meeting Date: September 11, 2025

Subject: Revised Consent Applications PL-BDJ-2025-0074 and 0075, Minor Variance Application PL-ZNA-20250076, Pittman (Fotenn), 3629 Quinn Road East, Portland District

Summary

The consent applications are for the creation of two rural residential lots. The minor variance application is to allow the severed and retained parcels to have less than the required lot frontage. The Committee of Adjustment is being asked to make a decision on the consent applications in conjunction with the minor variance application. This report recommends approval of the three applications.

Background

The subject property is located south of Harrowsmith, east of Road 38 and on the north side of Quinn Road East. It runs north to an unopened road allowance. The northern two thirds of the property is forest and old farm fields. The southern portion of the property is generally level. It contains agricultural fields and is developed with a single detached dwelling, a detached garage and a shed. A watercourse bisects the property approximately 100m north of Quinn Road East.

The neighbourhood has a mix of rural residential properties and agricultural properties.

The subject lands are in the Rural designation in the Township of South Frontenac Official Plan. The lands are zoned Rural (RU) in Zoning By-law No. 2003-75, as amended.

The Committee of Adjustment held a public hearing for the subject applications in August 2025. The Committee granted the applicant's request to defer making decisions until they had an opportunity to revisit the proposed lot layouts in consideration for Cataraqui Conservation's comments.

Revised applications PL-BDJ-2025-0074 and PL-BDJ-2025-0075 are for the creation of two vacant residential lots on Quinn Road East. Both lots would be 0.8ha (2 acres) in size with 63m frontage. The depth of the lots was reduced preserve the tillable agricultural field to the north, and to eliminate the need for potential watercourse crossings, as recommended by Cataraqui Conservation. The rear lot lines would align with the northern extent of the 30m setback from the watercourse. The retained lands (3629 Quinn Road East) would be 36.3ha (89.6 acres) in size with 64m frontage.

Minor variance application PL-ZNA-2025-0076 is requesting reduced frontages for the severed and retained parcels because the RU zone requires 76m frontage.

Supporting Documents

A **Planning Justification Report** (Fotenn Planning + Design, July 3, 2025) was submitted in support of the applications. The report assessed the appropriateness of the proposal in the context of the surrounding area as well as its conformity with the applicable policy and regulatory framework. It included a minimum distance separation study for livestock facilities. Fotenn submitted a subsequent letter (August 19, 2025) in support of the revised consent applications, indicating that they address technical comments and enhance the protection of rural and natural features.

A **Natural Heritage Site Assessment** (Ecological Services, August 6, 2024) was submitted in support of the applications. This study was required to confirm the existence of a mapped wetland along the watercourse, and to define its boundary, on the severed parcels. The study determined that there was no wetland on the severed parcels. The consultant evaluated the watercourse, riparian area, and woodland on the severed and retained parcels. They also reviewed the area for species at risk habitat and significant wildlife habitat.

The Natural Heritage Site Assessment included the following recommendations:

1. Development should be setback a minimum of 30m from the watercourse,
2. The land within 30m of the watercourse should not be clearcut and should remain vegetated to provide a buffer, and
3. No tree removal should be undertaken between April 1 and September 30 to protect nesting birds and prevent harm to roosting bats.

A **Hydrogeological Assessment** (BluMetric Environmental Inc., April 3, 2025, updated July 30, 2025) was submitted in support of the applications. This study was required because the severed parcels would have less than the required 76m frontage, and would be functionally smaller than the minimum 0.8ha lot size required due to the location of the watercourse.

A dug well was constructed on each of the severed parcels. The consultant conducted 6-hour pumping tests on the wells, water level monitoring, water quality analyses and interference assessment.

The study concluded that an adequate supply of potable water is available for a typical single detached dwelling on each new lot and that soil conditions are suitable for the installation of sewage systems. The report included the following recommendations:

1. Water treatment including pre-filtration and ultraviolet sterilization, as well as an under-the-counter reverse osmosis system for individuals with sodium restricted diets,
2. Regular testing of treated water for bacteriological parameters,
3. Any proposed septic system design should be supported by a lot-specific assessment meeting local septic approval requirements, and

4. The setback distance between a future raised Class 4 sewage system and dug wells on the proposed lots should be at least 45m as a precautionary measure due to the hydrogeological sensitive nature of the site.

The Hydrogeological Assessment was reviewed by Malroz Engineering Inc. on behalf of the Township. They agreed with the consultant's recommendations.

Department and Agency Comments

Public Services reported on July 22, 2025, that there are adequate entrance sight lines for both the severed parcels and the retained parcel. Road widening is to be determined by an Ontario Land Surveyor. A 20-metre right-of-way is required on Quinn Road East. Any shortfall of the right-of-way as measured 10 metres from the centreline of the road shall be dedicated to the Township. Public Services had no comment on the proposed reduced lot frontages.

Cataraqui Conservation staff indicated in a letter dated July 31, 2025, that they have no objection to the applications. They recommended the applicant consider an alternative lot configuration where the rear lot lines would follow the watercourse to avoid the need for future watercourse crossings, because crossings may not be permitted by CRCA under O. Reg. 41/24. They also recommended that native vegetation (trees, shrubs, native plants) within 30 metres of watercourse on the subject lands be kept in place, to help stabilize soils and protect the hydrologic function of the surface water features in the long-term. Finally, they noted that should karst features (e.g. fissures, crevices, sinkholes, etc.) be encountered on the subject lands during construction/excavation of the site, the owner will need to contact CRCA staff to determine appropriate actions which would include additional assessment by a qualified professional to determine the extent and risks associated with karst at the property. On August 26, 2025, they noted the proposed revisions are an improvement compared to the last concept. They continue to have no objections to the applications.

Public Comments

No comments were received from the public at the time this report was written.

Planning Analysis

The consent applications need to be assessed against the applicable policies of the Provincial Planning Statement 2024 (PPS), County of Frontenac Official Plan, and Township of South Frontenac Official Plan, as well as the provisions of Zoning By-law No. 2003-75. The minor variance application needs to be assessed against the four tests of a minor variance outlined in Section 45(1) of the Planning Act.

Minimum Distance Separation for Livestock Facilities

In conformity with the PPS, the Township Official Plan requires all division of land for non-farm uses to comply with the Minimum Distance Separation Formulae I (MDS I) (section 7.1(I)). The Township Zoning By-law also requires residential development to comply with MDS I.

The subject lands are in a rural and agricultural area where there are several existing livestock facilities. The Planning Justification Report (Fotenn Planning + Design, July 3, 2025) evaluated these livestock facilities against The Minimum Distance Separation (MDS) Document (OMAFRA Publication 853). MDS setbacks were calculated for barns at 4372 Road 38 and at 3609 Quinn Road East. It was determined that the severed parcels would conform to the applicable minimum distance separation policies.

Rural Residential Uses

The PPS allows residential lot creation on Rural lands where site conditions are suitable for the provision of appropriate sewage and water services. The County Official Plan and the Township Official Plan also permit residential development in the Rural designation.

Section 5.7.4 of the Township Official Plan indicates that a maximum of three rural residential lots may be created by consent from a landholding provided that the new lots meet the General Consent Policies, as well as all other applicable policies. The subject property is eligible for severances under Section 5.7.4. There have been no previous severances from the lot existing on the day of adoption of the Township Official Plan.

Section 5.7.4 requires the frontage, size and shape of any lot created for rural residential purposes through the severance approval process to be appropriate for the proposed use and to conform to the provisions of the zoning by-law.

The severed parcels would be a minimum of 0.8ha in size, which is the minimum lot area required in the Rural designation and the RU zone for a residential lot. The parcels would be rectangular-shaped.

The severed parcels would have approximately 63m frontage and the retained parcel would have 64.6m frontage on Quinn Road East. These frontages would be less than the minimum 76m lot frontage required in the Rural designation and the RU zone. Section 5.7.4(ii)(a) of the Official Plan allows the municipality to consider reductions to this requirement provided the overall intent of the Official Plan is maintained. The minor variance application requests 60m lot frontages.

The minimum 76m lot frontage is intended to allow for a separation between driveways and to improve traffic safety. Public Services noted that the severed parcels and retained parcel would each have adequate sight lines for an entrance.

Minimum lot frontages are also required to ensure a development pattern that is reasonably consistent in nature and to avoid an overdeveloped appearance. Existing lots along this part of Quinn Road East have frontages ranging from 40m to 70m, so the proposed reduced lot frontages would be consistent with the existing lot fabric of the neighbourhood.

Finally, minimum lot frontages help ensure a reasonable separation between uses. Separation between wells and sewage systems is especially important for protecting groundwater in hydrogeological sensitive areas.

A hydrogeological assessment and terrain analysis was required in support of the applications because the proposed lots would have less than the required 76m frontage, and would be functionally smaller than the minimum 0.8ha lot size required due to the

location of the watercourse (i.e. development would logically need to occur on the land between the watercourse and the road).

The Hydrogeological Assessment (BluMetric Environmental Inc., April 3, 2025, updated July 30, 2025) concluded that an adequate supply of potable water is available for a typical single detached dwelling on each new lot and that soil conditions are suitable for the installation of a sewage system. Figure 4 of the report is a conceptual lot development plan that illustrates how a well, a sewage system and a house can fit on each of the severed parcels with consideration for the recommended 45m separation distance between the wells and sewage systems. The development could also achieve the required 30m setback from the watercourse and other applicable zone provisions.

Staff are satisfied that the proposed reduced frontages would not compromise the functionality, accessibility or rural character of the severed parcels. It would also not impact the continued use of the retained parcel, 150m north of the road.

Special Development Requirements

Staff recommend that a development agreement be a condition of the consent approvals. The development agreement would be used to notify potential purchasers and future owners about special requirements that will apply to development of the severed parcels.

Specifically, to make them aware of the Natural Heritage Site Assessment and the Hydrogeological Assessment and the recommendations that must be implemented. The agreement would also make them aware that they will need to have lot grading and drainage plans prepared that implement the recommendations of these reports.

Cataraqui Conservation noted that the subject lands are in an area of inferred karst. The development agreement would make people aware of this potential, and provide direction on what to do if karst features are encountered during construction/excavation of the site.

Conclusion

The consent applications meet the criteria outlined in section 51(24) of the Planning Act, do not require a plan of subdivision for the proper and orderly development of the municipality, are consistent with the PPS, and conform to the County and Township Official Plans. The severed parcels and retained parcel will comply with the Zoning By-law subject to the requested minor variance for lot frontage.

It is the opinion of Planning staff that the proposed 60m lot frontages meet the four tests for a minor variance – the variances maintain the general intent and purpose of the Official Plan and Zoning By-law, they are desirable for the appropriate development of the lands, and they are minor in nature.

Notice/Consultation

Notice of the Statutory Public Hearings was given pursuant to the requirements of the Planning Act, at least 14 days in advance of the Public Hearings in August and in September. This included notice given:

- by mail to every owner of land within 60 metres of the subject lands

- by posting notice signs on the subject lands
- by e-mail to prescribed persons and public bodies

Recommendation for Consent Applications

It is recommended that the Committee of Adjustment receive comments from the public and, pending comments received, approve revised applications PL-BDJ-2025-0074 and PL-BDJ-2025-0075, each for consent to sever one new rural residential lot from 3629 Quinn Road East, Part of Lot 6, Concession 3, District of Portland, Township of South Frontenac, subject to the following conditions:

Expiry Period

1. Conditions imposed must be met within two years of the date of Notice of Decision, as required by Section 53(41) of the *Planning Act*, RSO 1990, as amended. If conditions are not fulfilled as prescribed within two years, the application shall be deemed to be refused. Provided the conditions are fulfilled within two years, the application is valid for two years from the date of Certificate of Official issuance. The deed must be registered within two years of the issuance of the Certificate of Official.

Severed Lands

2. The lands to be severed shall be for the creation of one new residential lot a minimum of 0.8 hectare in area with a minimum of 60 metres of frontage on Quinn Road East. The lot area, frontage and configuration of the proposed severed lot shall be consistent with application sketch.

Survey/Reference Plan or Registerable Description

3. An acceptable reference plan or legal description of the severed lands in duplicate [Registry Act, s.81, Land Titles Act, s. 150], the deed or instrument conveying the severed lands, and the Certificate of Official shall be submitted to the Secretary-Treasurer for review and consent endorsement within a period of two years [Planning Act, s. 53(41)] after the date that "Notice of Decision" is given [Planning Act, ss. 53(17) and 53(24)].
4. The Ontario Land Surveyor or the applicant shall submit the draft Reference Plan, including an area calculation and noting frontage along the road, electronically or in paper form for review and approval by planning staff prior to depositing the Reference Plan with the Land Registry Office. The Ontario Land Surveyor shall also confirm that the retained parcel has a minimum 60m lot frontage on Quinn Road East.

Road Allowance Widening

5. The Ontario Land Surveyor who prepares the reference plan referred to in Condition #3 and #4 shall also determine by survey the width of Quinn Road East to be 20m. If such a width is less than 20m, the owner shall dedicate to the Township land along the frontage of the severed lands in the following manner as required:

- a. The land to be dedicated shall be the width required to provide 10m from the centre of the existing travelled road;
- b. The land to be dedicated shall be described as a separate part on a Reference Plan of Survey to be prepared and deposited at the Owner's expense and filed with the Secretary-Treasurer prior to the issuance of the Certificate of Official;
- c. The Transfer/Deed from the Owner for the land to be dedicated shall be engrossed in the of "The Corporation of the Township of South Frontenac", and shall include the following attached to the Transfer/Deed as a Schedule:

The Transferor hereby transfers the lands to the municipality for the purpose of widening the adjacent highway pursuant to Section 31(6) of the Municipal Act, 2001, Chapter 25, as amended.
- d. The Transfer/Deed for the land to be dedicated shall be registered by the Owner at the Owner's expense;
- e. The duplicate registered Transfer/Deed for the land to be dedicated together with a letter of opinion of a solicitor qualified to practice law in the Province of Ontario addressed to the Secretary-Treasurer confirming that the municipality acquired good and marketable title to the land free and clear of all liens and encumbrances shall be delivered to the Secretary-Treasurer prior to the issuance of the Certificate of Official.

Municipal Requirements

6. Payment of the balance of any outstanding taxes and local improvement charges shall be made to the Township Treasurer. This includes all taxes levied as of the date of the issuance of the Certificate of Official. It also includes any hydrogeological assessment peer review fee if it is greater than the collected deposit.
7. The Township of South Frontenac shall receive 5% of the value of the severed parcel, in lieu of parkland [Planning Act, s. 51(1), By-law 2023-104].
8. In the event that there are abandoned wells located on the severed parcel or the retained property, the wells shall be sealed in accordance with the requirements of the Ministry of the Environment, Conservation and Parks and that this work shall be accomplished prior to the issuance of the Certificate of Official.
9. The applicant shall enter into a Development Agreement with the Township to be registered on title to the severed parcel to address the following matters and environmental standards of the Township:
 - a. Requirement for an entrance permit for any new or relocated entrances;
 - b. Implementation of the recommendations of the Natural Heritage Site Assessment (Ecological Services, August 6, 2024);
 - c. Implementation of the recommendations of the Hydrogeological Assessment (BluMetric Environmental Inc., July 30, 2025);

- d. Requirement for a lot grading and drainage plan that implements the recommendations of the above reports, to be submitted at the building permit stage;
- e. Notice regarding what to do if karst features are encountered during construction/excavation of the site;
- f. Notice regarding compliance with the Endangered Species Act; and
- g. Notice regarding archeological resources and human remains.

Zoning

- 10. The applicant is required to apply for a minor variance to permit the severed parcel to have a minimum 60 metres of lot frontage and the retained parcel to have a minimum 60 metres lot frontage.
- 11. Where a violation of Zoning By-law No. 2003-75 is evident, the appropriate minor variance or rezoning be obtained to the satisfaction of the Township.

Recommendation for Minor Variance Application

It is recommended that the Committee of Adjustment receive comments from the public and, pending comments received, approve minor variance application PL-ZNA-2025-0076 for 3629 Quinn Road East such that the two severed parcels and the retained parcel from consent applications PL-BDJ-2025-0074 and PL-BDJ-2025-0075 are permitted to each have a minimum of 60m lot frontage.

Report Prepared By:

Christine Woods, RPP, MCIP, Manager of Planning



Application Requirements

The following items must be submitted with your application. Any application which does not include the below required information may not be accepted or will not be considered complete.

- 1. A pre-consultation meeting is a requirement prior to submission of the application.

Pre-consultation meeting fee	\$152.00
------------------------------	----------

- 2. One hard copy of this completed application form signed and commissioned.
- 3. A Sketch of your proposal (see Question 26 for details on what to include). The sketch must be drawn with accurate dimensions and measurements. It is recommended that you take your time to carefully assemble the data and create the sketch. You may wish to secure the assistance of a person who specializes in the drafting of sketches.

- 4. The applicable **non-refundable** application fee, payable to the Township of South Frontenac:

Application Type:	FEE:
Consent Application	\$1,368.00
Change of conditions	\$325.00
Change of conditions requiring re-circulation	\$568.00

- 5. Agency Review Fees (as applicable). A separate **cheque or proof of payment**, payable to the applicable Conservation Authority, is to be submitted to the Township with the completed application. The on-site sewage disposal review fee may be included in the payment of the application fee to the Township.

Agency:	FEE:
Township of South Frontenac onsite sewage disposal review (per new lot)	\$515
Cataraqui Conservation (per new lot or lot addition)	\$445
Quinte Conservation (per new lot or lot addition)	\$450
Rideau Valley Conservation Authority (per new lot or lot addition)	\$500

Please Note: These fees are for consultation on this application only; agencies may require additional fees if permit applications are required prior to any construction.

- 6. Required studies & Supporting Information identified at pre-consultation (if applicable)
- 7. Deed or transfer, or authorization for Township Staff to acquire title documents (if applicable)

TOWNSHIP OF SOUTH FRONTENAC CONSENT APPLICATION

Collection of Personal Information:

Personal information requested on the application form is required under the *Planning Act*. This information will be used by the Township for the purpose of reviewing the application. It may be made available to those boards, Commissions, Authorities, Agencies and Persons having an interest in this matter. Any questions regarding the collection of this information should be directed to the Secretary Treasurer of the Committee of Adjustment (P.O. Box 100, Sydenham, Ont., K0H 2T0, Phone 613-376-3027 ext. 2224).

What is considered when reviewing an application?

In considering an application, the decision-making approval authority, shall have regard, among other matters, to the health, safety, convenience and welfare of the present and future inhabitants of the municipality and to:

- The effect of development on matters of provincial interest as referred to in Section 2 of the Planning Act.
- Whether the proposed severed lot is premature or in the public interest.
- Whether the consent conforms to the intent of the Official Plan and adjacent plans of subdivision (if any)
- The suitability of the land for the purposes for which it is being severed
- If affordable housing units are being proposed, the suitability of the proposed units for affordable housing
- The number, width, location and proposed grades and elevations of roadways and their adequacy in relation to any proposed roadway linking the proposed severed area with the established roadway system.
- The dimensions and shape of the proposed lot.
- Any restrictions on the subject land (or on the buildings and structures to be erected on it) and any restrictions on abutting lands.
- Conservation of natural resources and flood control.
- The adequacy of utilities and municipal services.
- The adequacy of schools.
- The area of land, if any, exclusive of roadways, that is to be conveyed or dedicated for public purposes (such as for parks).
- The physical configuration of the new lot having regard to energy conservation.
- Site Plan Control
- County of Frontenac Official Plan
- Township of South Frontenac Official Plan
- Township of South Frontenac Zoning By-Law
- Provincial Policy Statement

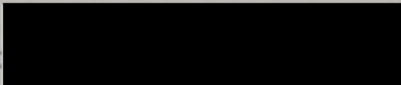
TOWNSHIP OF SOUTH FRONTENAC CONSENT APPLICATION

For Office Use Only

Date Received: _____ File Number: _____

1. Name of Owner(s): Robert Pittman

Full Mailing Address of Owner(s): 30 Arran Cresent, Woodbridge, ON L4L 1G5

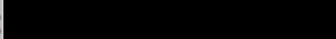
Phone number of Owner(s): 

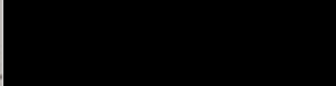
Email Address of Owner(s): 

2. If the applicant is **NOT** the owner of the subject land, the written authorization of the owner that the applicant is authorized to make the application, be provided below.

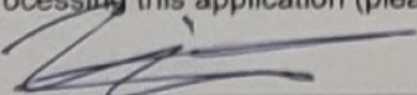
Name of Authorized Applicant/Agent: Fotenn Consultants Inc. c/o Elysia Ackroyd

Full Mailing Address of Authorized Applicant/Agent: 4 Cataraqui Street 315, Kingston, K7K 1Z7

Phone number of Authorized Applicant/Agent: 

Email Address of Authorized Applicant/Agent: 

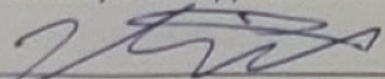
Agent as named above is hereby authorized to act on behalf of the owners for purposes of processing this application (please fill out the last page).



Signature(s) of Owner(s)

Communications are to be sent to: Owner(s) Agent

3. **Permission to Enter Subject Lands:** Permission is hereby granted to the relevant staff, committee members, and necessary commenting agencies to enter the premises (subject lands) subject to this development application for the purposes of making inspections associated with this application.



(Signature of the property owner)

(Signature of the property owner)

June 24, 2025
(Date)

TOWNSHIP OF SOUTH FRONTENAC CONSENT APPLICATION

4. Have you consulted with Township Planning Staff regarding this application?

Yes No

Date Fee Paid: _____

Name of Planner: Christine Woods

Date of Meeting: December 12th, 2022

5. The description of the subject land:

District: Bedford Portland Loughborough Storrington

Civic Address: 3629 Quinn Road East, South Frontenac

Concession Number: CON 3 Lot Number: Part of Lot 6

Reference Plan Number: 13R-7028 Part Number(s): _____

Roll Number: 102908001013900

Property Identification Number (PIN): 36140-0201

6. Indicate the frontage(s), depth and area of the subject land. The subject land is the whole property prior to any changes. Please indicate the name of the road/lane and waterbody (if applicable).

Frontage on water (m): N/A Frontage on road/lane (m): +/- 191 metres

Name of Waterbody: N/A Name of Road/Lane: Quinn Road East

Depth(m): +/- 1,337 metres Area(acres/ha): +/- 93 acres, +/- 37.8 hectares

7. Select the type of consent being applied for:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Creation of a New Lot | <input type="checkbox"/> Correction of Title |
| <input type="checkbox"/> Easement (right of way) | <input type="checkbox"/> Lease |
| <input type="checkbox"/> Lot Addition | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Charge/Discharge of Mortgage | |

8. Please provide a brief description of your application. Indicate the reason why you are applying for a consent.

The purpose of these applications is to create two new rural residential lots, to be developed with single detached dwellings. The consent will result in a total of three lots (two severed and one retained). A minor variance application is necessary to allow a reduced frontage for each of the retained and severed lots. Please refer to Planning Justification Letter in support of application.

TOWNSHIP OF SOUTH FRONTENAC CONSENT APPLICATION

9. Create a NEW LOT – Complete this section ONLY if you are applying to create a new lot.

The following information is regarding the land intended to be severed (created) and the land to be retained.

	Severed Lot (Proposed new lot):	Retained Lot:
Frontage on Road/Lane (m):	63.0 metres	64.6 metres
Name of Road/Lane:	Quinn Road East	Quinn Road East
Frontage on Water (m):	N/A	N/A
Name of Waterbody:	N/A	N/A
Depth (m):	+/- 170.8 metres	+/- 1,337.4 metres
Acres (acres or ha):	1.05 ha	35.8 ha

Please list the existing and proposed **USES and STRUCTURES**.

	Severed Lot (Proposed new lot):	Retained Lot:
Existing Use of Lot:	Rural	Rural
Existing Buildings/Structures:	None	Single detached dwelling, and several accessory structures
Proposed Use of Lot:	Rural residential	Rural (no change)
Proposed Buildings/Structures:	Anticipated single detached dwelling	None (no change)

TOWNSHIP OF SOUTH FRONTENAC CONSENT APPLICATION

10. LOT ADDITION – Complete this section ONLY if you are applying for a lot addition.

The following information is regarding the land intended to be severed (created) and the land to be retained.

	Proposed Lot Addition (Severed parcel):	Retained Lot:
Frontage on Road/Lane (m):	N/A	N/A
Name of Road/Lane:	N/A	N/A
Frontage on Water (m):	N/A	N/A
Name of Waterbody:	N/A	N/A
Depth (m):	N/A	N/A
Acres (acres or ha):	N/A	N/A

The following information is regarding the Benefitting Lands also known as the land being enlarged which are receiving the lot addition.

	Existing Benefitting Lot: (Before Lot Addition)	Enlarged Lot with added Land: (After Lot Addition)
Frontage on Road/Lane (m):	N/A	N/A
Name of Road/Lane:	N/A	N/A
Frontage on Water (m):	N/A	N/A
Name of Waterbody:	N/A	N/A
Depth (m):	N/A	N/A
Acres (acres or ha):	N/A	N/A

TOWNSHIP OF SOUTH FRONTENAC CONSENT APPLICATION

Please list the existing and proposed **USES and STRUCTURES**.

	Lot Addition:	Retained Lands:	Benefitting Lands:
Existing Use of Lot:	N/A	N/A	N/A
Existing Buildings/Structures:	N/A	N/A	N/A
Proposed Use of Lot:	N/A	N/A	N/A
Proposed Buildings/Structures:	N/A	N/A	N/A

11. EASEMENTS & RIGHT OF WAY – Complete this section if you ONLY are applying for an easement or a right-of-way

Length: N/A Depth: N/A Width: N/A Area: N/A

Civic address of Benefitting lands: N/A

Roll Number of Benefitting Lands: N/A

Describe the purpose and effect of the easement and the property that will benefit:

N/A

12. Type of Servicing Proposed – WATER (Indicate the method by which water will be provided):

(NEW LOT) Severed Parcel		Retained Parcel	
<input type="checkbox"/>	Municipal water system	<input type="checkbox"/>	Municipal water system
<input checked="" type="checkbox"/>	Privately owned and operated well	<input checked="" type="checkbox"/>	Privately owned and operated well
<input type="checkbox"/>	Lake water	<input type="checkbox"/>	Lake water
<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	Other: _____

TOWNSHIP OF SOUTH FRONTENAC CONSENT APPLICATION

13. Type of Sewage Disposal System Proposed (How will sewage disposal system be provided?):

(NEW LOT) Severed Parcel	Retained Parcel
<input type="checkbox"/> Publicly owned and operated communal septic system	<input type="checkbox"/> Publicly owned and operated communal septic system
<input checked="" type="checkbox"/> Privately owned and operated individual septic system:	<input type="checkbox"/> Privately owned and operated individual septic system:
<input checked="" type="checkbox"/> Leaching Bed (Class 4)	<input type="checkbox"/> Leaching bed (Class 4)
<input type="checkbox"/> Holding Tank (Class 5)	<input type="checkbox"/> Holding Tank (Class 5)
<input type="checkbox"/> Greywater Pit (Class 2)	<input type="checkbox"/> Greywater Pit (Class 2)
<input type="checkbox"/> Privy/Outhouse (Class 1)	<input type="checkbox"/> Privy/Outhouse (Class 1)

14. Please list the name of the person(s) to whom the land or an interest in the land is to be transferred, charged or leased (*if known*):

N/A

15. Are there any existing easements or restrictive covenants? Yes No Unknown
 If Yes, please provide a description of each easement or covenant and its effect:

16. Are you aware of any abandoned wells on the subject property? Yes No

17. Name of road or lane which accesses:

The new lot (lot addition or Right of Way): Quinn Road East

The retained lot: Quinn Road East

Please indicate whether access to the land will be by:

- | | |
|--|--|
| <input type="checkbox"/> Provincial highway | <input type="checkbox"/> Lane |
| <input checked="" type="checkbox"/> Municipal Road - maintained year round | <input type="checkbox"/> A right of way |
| <input type="checkbox"/> Municipal Road - seasonally maintained | <input type="checkbox"/> Water (see next page) |

TOWNSHIP OF SOUTH FRONTENAC CONSENT APPLICATION

If access is by water only, describe the parking and docking facilities to be used and the approximate distance of these facilities from the subject land and the nearest public road. Parking and Docking for water access only properties **MUST** be legally deeded access. Please provide confirmation.

The New Lot: N/A - not a water access lot

The Retained Lot: N/A - not a water access lot

18. What is the zoning of the subject lands? (Check www.frontenacmaps.ca)

Rural (RU) Zone

19. What is the current [Official Plan Designation](#) of the subject lands?

Rural

20. Please describe how the application conforms with the [Township Official Plan](#) & [County Official Plan](#) by **citing specific applicable** sections and sub sections. Please make sure to look at Sections 5 and 7 in the Township Official Plan and Section 3 in the County Official Plan. If you are unsure, please indicate that you do not know.

Please refer to supporting planning justification letter.

21. Is the application consistent with the 2020 [Provincial Policy Statement](#)?

Yes No Unknown

Please explain:

Please refer to supporting planning justification letter.

TOWNSHIP OF SOUTH FRONTENAC CONSENT APPLICATION

22. Has the subject land ever been, or is currently, the subject of an application for approval of a plan of subdivision under section 51 of the *Planning Act*, for a consent under section 53 of the *Planning Act*, for a minor variance, for approval of a site plan, or for an amendment to an official plan, an amendment to the zoning by-law or a Minister’s zoning order? Complete all applicable

<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown	
Application Type	Application Number	Date of Application	Decision
<input type="checkbox"/> Plan of Subdivision			
<input checked="" type="checkbox"/> Consent		1986	Approved
<input type="checkbox"/> Minor Variance			
<input type="checkbox"/> Site Plan Approval			
<input type="checkbox"/> Official Plan Amendment			
<input type="checkbox"/> Zoning By-law Amendment			
<input type="checkbox"/> Minister’s Zoning Order			

23. Has land been previously severed from the subject property, since September 5, 2000? If yes, please provide date of transfer; name of transferee and uses of the land.

Yes October 10, 1986, No

24. Did the current owner acquire the subject land as a result of a consent? Yes No

25. Is the applicant requesting a Certificate of Official for the retained land? Yes No

** If yes – the applicant must provide a lawyer’s statement that there is no land abutting the subject lands that are owned by the owner of the subject land, other than the land that could be conveyed without contravening section 50 of the *Planning Act*.

26. A SKETCH must be submitted. For more information on what the sketch needs to show, please see “A guide to completing your consent application form”. If your application is approved and then the required survey shows different frontages, area and location than was submitted, a new consent may be required including submission of a new application and fees.**

TOWNSHIP OF SOUTH FRONTENAC CONSENT APPLICATION

Please note that the sketch must include the same metric as on the application, switching between meters and feet will not be acceptable unless both are shown.

The sketch must include the following:

- A directional arrow with North at the top of the page.
- The boundaries and dimensions of the whole property. LABEL the part that is to be severed and the part that is to be retained, including the total area (acres or hectares), road frontages on all roads/lanes for each and waterbodies.
- Indicate if the owner of the subject property also owns other lands near the proposal.
- The distance between the subject land and the nearest road, bridge or railway crossing
- The location of all land previously severed from the parcel (if applicable) originally acquired by the current owner of the subject land.
- All natural and artificial features that are located on the subject property and on land beside the subject property. Please label and show the approximate location of:
 - a. Existing Buildings, wells and septic systems, bridges, railways, roads, hydro lines
 - b. Waterbodies, watercourses, drainage ditches, river or stream banks, wetlands, wooded areas
 - c. Landfills, propane facility, quarry's and pits
 - d. Barns

Note: The existence of a nearby barn will require you to complete a Minimum Distance Separation Calculation in order to consider compatibility issues. Please check with the Planning Department regarding the implications of any farm structure, on your application.

- Please include any information on natural and artificial features (as listed above) that in the applicant's opinion may affect the application
- Please indicate the current uses of land that is surrounding the property, such as residential, agricultural and commercial uses (if agricultural, please indicate the approximate distance of any barn structure from the proposed new lot).
- The location, width and name of any roads within or abutting the subject land, indicating whether it is an unopened road allowance, a public travelled road, a private road or a right of way.

TOWNSHIP OF SOUTH FRONTENAC CONSENT APPLICATION

- If access to the subject land is by water only, please show the location of the parking and boat docking facilities to be used, and the title documents to demonstrate legal deeded use of these facilities
- The location and nature of any easement affecting the subject land.
- The location of any abandoned wells on the property

PERMISSION, ACKNOWLEDGEMENT, AGREEMENT AND DECLARATION OF APPLICATION

I/ We, the undersigned, being the registered property owner(s) and/or agent acting on behalf of the owner agree that the information recorded in this Consent Application Form is accurate and agrees that representatives of the Township and relevant commenting agencies may enter onto the subject property for the purpose of determining the appropriateness of the site for the proposed development.

ACKNOWLEDGEMENT OF ADDITIONAL REQUIREMENTS

I/ We, the undersigned, being the registered property owner(s) and/or agent acting on behalf of the owner, acknowledge that additional studies and/or peer review and/or legal review may be required by the Township as a part of the review of my/our application. Should the need arise, I/we are responsible for completing the studies as requested in order for the application to be deemed complete.

Attached to this application is payment to the Township of South Frontenac in the correct amount representing payment of the application fee, and additional payment (or proof of payment) for any required commenting agency review fees.

AGREEMENT TO INDEMNIFY

The applicant hereby agrees to indemnify and save harmless The Corporation of the Township of South Frontenac (“the Municipality”) from all costs and expenses that the Municipality may incur in connection with the processing of the applicant’s application for approval under the *Planning Act*.

Without limiting the foregoing, such costs will include all legal, engineering, planning, and consulting fees and charges incurred or payable by the Municipality to process the application together with all costs and expenses arising from or incurred in connection with the Municipality being required, or requested by the applicant, to appear at the hearing of any appeal to the Ontario Land Tribunal from any decision of the Council, Delegated Decision of Council, or Committee of Adjustments, of their designated approval authority, as the case may be, hearing the applicant’s application.

The Owner/Applicant further agrees to provide the Municipality, upon request and in cases where an application has been appealed to the Ontario Land Tribunal, with a deposit (over and above the normal application fee), from which the Municipality may, from time to time charge any fees and expenses incurred by the Municipality to prepare for and participate in the hearing. If such appeal expenses exceed the deposit, the Owner/Applicant shall pay the difference forthwith upon being billed by the municipality, with interest at the rate of 1.25% per month (15% per annum) on accounts overdue more than 30 days.

TOWNSHIP OF SOUTH FRONTENAC CONSENT APPLICATION

The applicant/owner acknowledges and agrees that if any amount owing to the Municipality in respect of the application is not paid when due, the Municipality will not appear before the Ontario Land Tribunal in in connection with the application until the invoice has been paid in full.

DECLARATION FOR THE PRESCRIBED INFORMATION

Note: Do not sign until in the presence of the Commissioner of Oaths. You will be required to provide photo identification (i.e. driver's license).

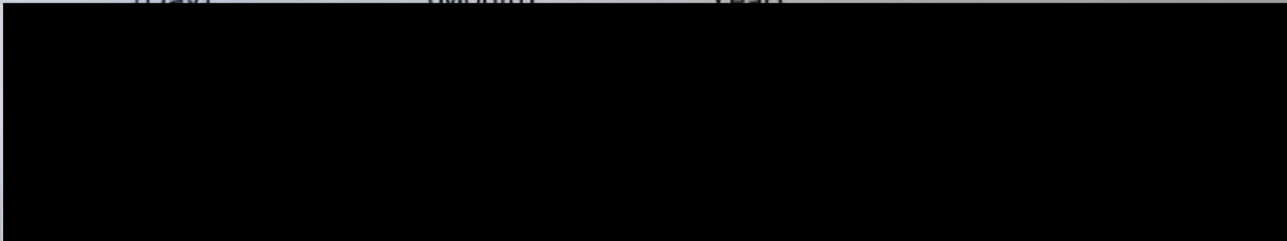
I/We, ROBERT PITTMAN,
(Name of Owner / Agent)

of the CITY OF VAUGHAN, ONTARIO
(Municipality, Town, City name)

do solemnly declare that the information contained in this application is true and that the information contained in the documents that accompany this application is true, and acknowledge that personal information and all other material collected on this form and provided to the municipality as part of this application, including all names, addresses, opinions and comments, is collected under the authority of the *Planning Act*, R.S.O. 1990, as amended, will be used to assist in making a decision on this matter and will be made available for public disclosure. I/We are aware the information collected in this Application will be provided in the applicable Agenda and posted on the Township's website.

Sworn (or declared) before me in the CITY OF TORONTO, ONTARIO
(Municipality name)

On this 24TH day of JUNE, 2025.
(Day) (Month) Year



Authorized Agent



Affix Commissioner of Oaths stamp below signatures

3629 QUINN ROAD EAST, SOUTH FRONTENAC

CONSENT + MINOR VARIANCE

1

August 19, 2025

Kate Kaestner

Planning Clerk/Secretary-Treasurer, Committee of Adjustment
Planning Department
Township of South Frontenac

Via Email: kkaestner@southfrontenac.net

**RE: 3629 Quinn Road East, South Frontenac
Applications for Consent and Minor Variance
Planning Justification Report**

Dear Ms. Kaestner,

Fotenn Planning + Design was retained by Robert Pittman ("the applicant") to prepare applications for consent and minor variance at 3629 Quinn Road East. Applications were submitted on July 14, 2025 and a response was provided on July 16, 2025. The applications were scheduled for the August 14, 2025 Committee of Adjustment meeting but were deferred at the request of the applicant to reevaluate the lot configuration in response to comments made by the Cataraqui Region Conservation Authority (CRCA), and other site considerations. This letter is submitted in support of the revised applications. The applications are now proposed to be heard on the September 11, 2025 Committee of Adjustment agenda. The technical studies submitted in support of the application remain relevant and applicable.

Revised Proposal

The revised application continues to propose consent to create two new rural residential lots fronting Quinn Road East, though now with reduced lot sizes. In this new proposal, each severed lot has been reduced from approximately 1.5 ha to 0.82 ha. The retained lands have been increased from approximately 35.89 ha to 36.37 ha. The application for minor variance to permit the reduced frontages for single detached residential uses in the Rural (RU) zone remains the same. The proposed frontage of the retained lot is 64.6 metres, while the proposed frontage for each of the severed lots is 63 metres, whereas a minimum frontage of 76 metres is required. The intention of this reduction is to preserve the tillable agricultural field located north of the proposed severances, and to eliminate the need for potential watercourse crossings, as recommended by CRCA through their July 31st comments. In these comments, staff recommended that an alternative lot configuration be considered where the rear lot line follows the watercourse to avoid the need for future watercourse crossings. The revised plan now proposes that the rear lot lines of the severed lots align with the northern extent of the 30 metre setback of the watercourse, thereby minimizing opportunity for crossing, as no development is permitted in this 30 metre setback.

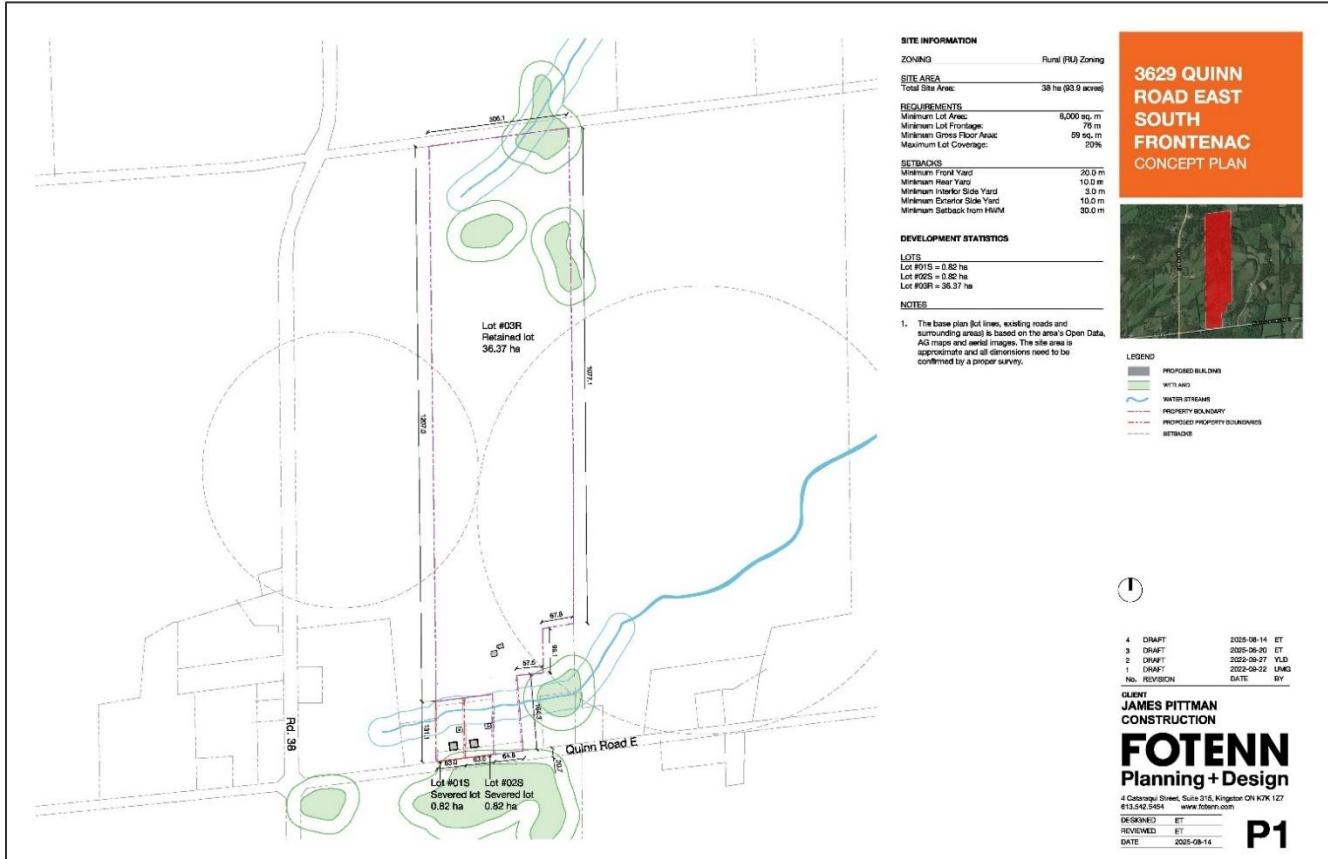


Figure 1: Revised Concept Plan (Source: Fotenn Planning + Design)

The technical studies submitted in support of the July 14, 2025 applications remain valid. The Minimum Distance Separation (MDS) Study continues to apply as the relative location of proposed building envelopes and nearby livestock facilities has not changed, and the proximity of the severed lots to the MDS influence areas are now reduced as a result of the lot reconfiguration. The Scoped Natural Heritage Site Assessment (NHA) remains applicable, as the revised lot configuration strengthens the original recommendations by aligning lot lines with the tributary and avoiding potential crossings, while maintaining a 30 metre buffer from development. Similarly, the Hydrogeological Assessment and Terrain Analysis continues to demonstrate that the proposed lots can be safely and sustainably serviced by private well and septic systems; the modest reduction in lot size from 1.5 ha to 0.82 ha should not affect groundwater supply, quality, or the feasibility of recommended setbacks. Collectively, these studies confirm that the revised proposal remains technically supportable and consistent with good planning.

The revised application continues to satisfy the four tests of minor variance under Section 45(1) of the *Planning Act*. The general intent and purpose of the Official Plan is maintained as the proposal still represents limited rural residential lot creation that is compatible with surrounding uses, appropriately serviced, and protects against potential impacts on the watercourse. The general intent and purpose of the zoning by-law is upheld, as the Rural (RU) Zone supports large rural lots with private servicing. While frontage relief remains necessary, all lots exceed the minimum lot area and continue to provide sufficient space for dwellings, septic systems, wells, and setbacks. The variance remains minor in nature, as the reduction in frontage does not affect lot functionality, servicing, or compatibility with the established lot fabric. The variance is still desirable for the appropriate development of the land, as it enables the efficient creation of rural residential lots on existing road frontage while preserving rural and natural features, ensuring that the lots are both functional and sustainable.

Conclusion

The revised consent and minor variance applications at 3629 Quinn Road East addresses technical comments and enhances the protection of rural and natural features. The application will allow a form of appropriate rural residential development on the site which will complement the existing character of the area.

The minor variance application continues to maintain the intent and purpose of the OP and zoning by-law, is minor in nature, and desirable for the appropriate development of the site in question. It is our opinion that the proposed applications for consent and minor variance remain appropriate for the site and represent good land use planning. Should you have any questions or comments, please do not hesitate to contact us at 613.542.5454.

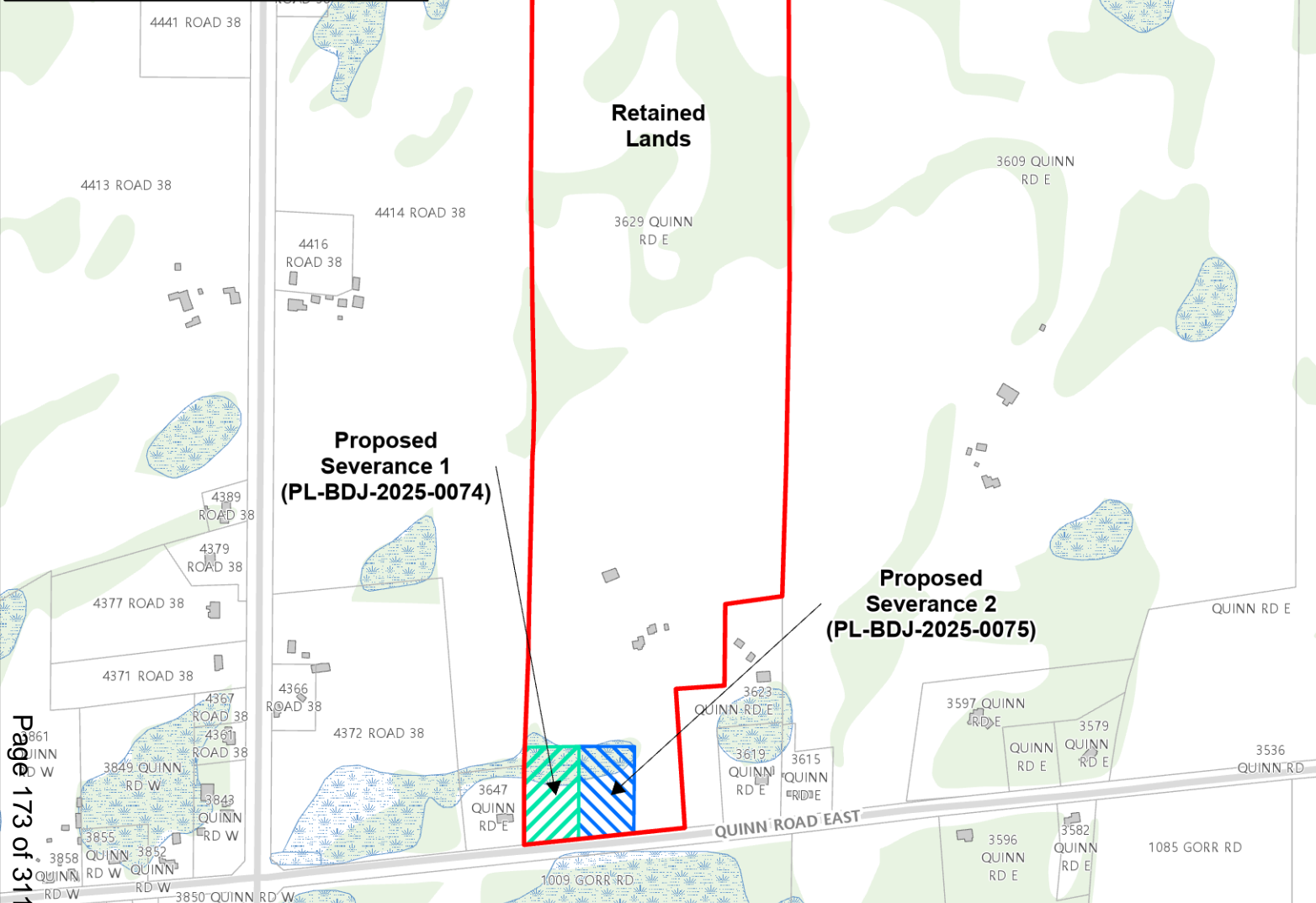
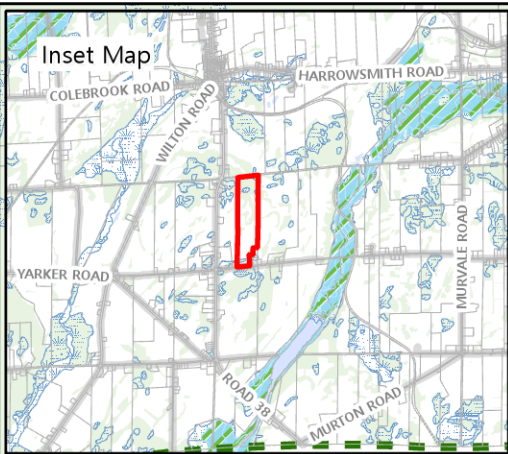
Respectfully submitted,



Elysia Ackroyd, MCIP RPP
Senior Planner
Fotenn Planning + Design



Tara McInnes
Planner
Fotenn Planning + Design














SOUTH FRONTENAC

PL-BDJ-2025-0074
 PL-BDJ-2025-0075
 PL-ZNA-2025-0076

(PITTMAN)
 3629 QUINN ROAD EAST

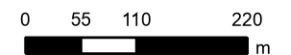
Legend

-  Subject Lands
-  Proposed Severance (Lot 1)
-  Proposed Severance (Lot 2)
-  Wetland
-  Wooded Area
-  Lake Trout Lake - At Capacity
-  Lake Trout Lake - Not at Capacity
-  Non-Lake Trout Lake - At Capacity
-  Waterbody
-  Township Boundary
-  Road

Produced by the County of Frontenac under license with the Ontario Ministry of Natural Resources © King's Printer for Ontario, 2025.

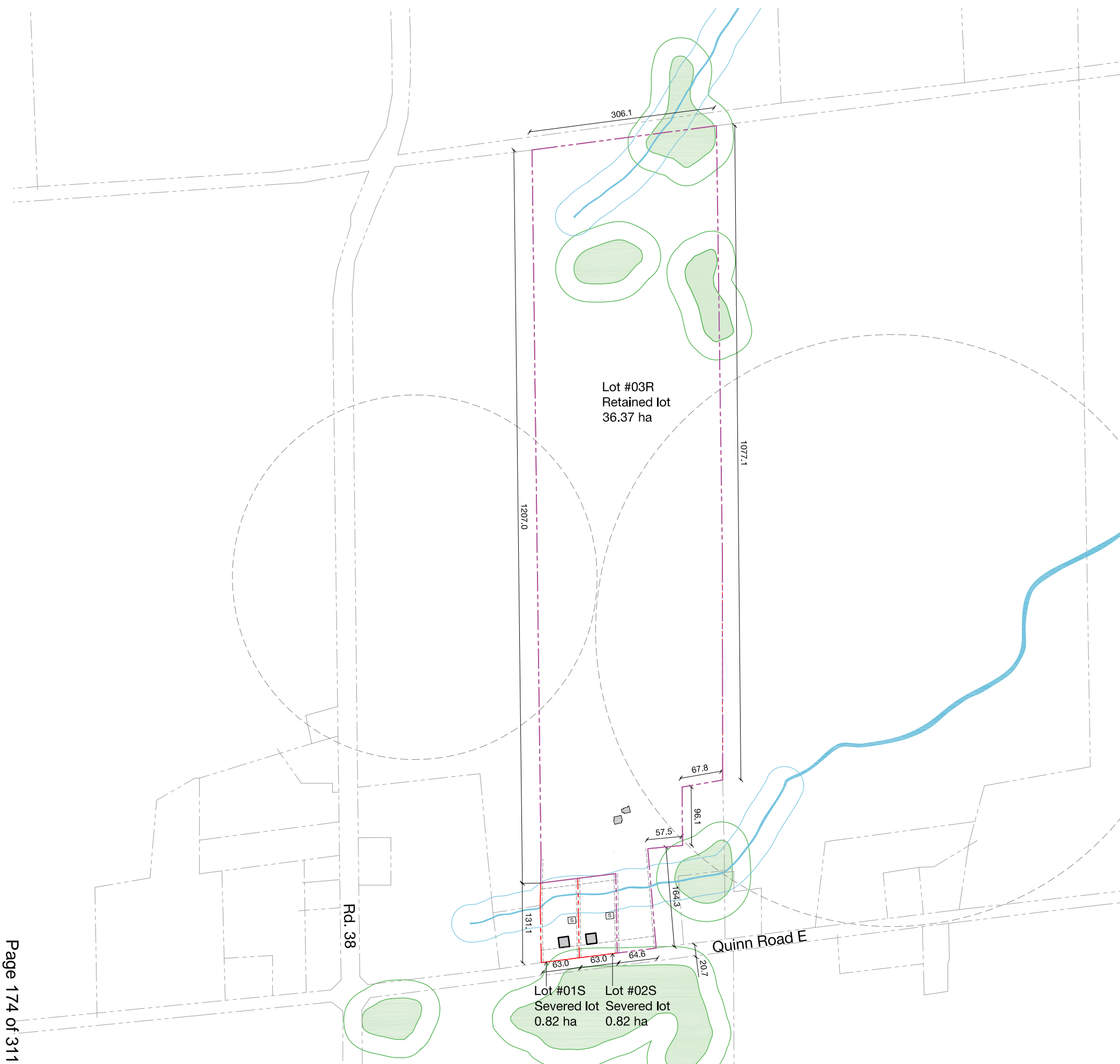
While the County makes every effort to insure that the information presented is accurate for the intended uses of this map, there is an inherent error in all mapping products, and accuracy of the mapping cannot be guaranteed for all possible uses. This map displays basic topographic features only.

Scale: 1:7,500



UTM Zone 18 NAD 83

Date: 26/08/2025



SITE INFORMATION

ZONING Rural (RU) Zoning

SITE AREA
Total Site Area: 38 ha (93.9 acres)

REQUIREMENTS
Minimum Lot Area: 8,000 sq. m
Minimum Lot Frontage: 76 m
Minimum Gross Floor Area: 59 sq. m
Maximum Lot Coverage: 20%

SETBACKS
Minimum Front Yard 20.0 m
Minimum Rear Yard 10.0 m
Minimum Interior Side Yard 3.0 m
Minimum Exterior Side Yard 10.0 m
Minimum Setback from HWM 30.0 m

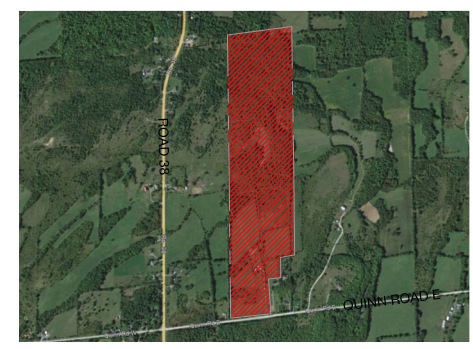
DEVELOPMENT STATISTICS

LOTS
Lot #01S = 0.82 ha
Lot #02S = 0.82 ha
Lot #03R = 36.37 ha

NOTES

1. The base plan (lot lines, existing roads and surrounding areas) is based on the area's Open Data, AG maps and aerial images. The site area is approximate and all dimensions need to be confirmed by a proper survey.

3629 QUINN ROAD EAST SOUTH FRONTENAC CONCEPT PLAN



LEGEND

	PROPOSED BUILDING
	WETLAND
	WATER STREAMS
	PROPERTY BOUNDARY
	PROPOSED PROPERTY BOUNDARIES
	SETBACKS



4	DRAFT	2025-08-14	ET
3	DRAFT	2025-06-20	ET
2	DRAFT	2022-09-27	YLD
1	DRAFT	2022-09-22	UMG
No.	REVISION	DATE	BY

CLIENT
JAMES PITTMAN CONSTRUCTION

FOTENN
Planning + Design

4 Cataraqui Street, Suite 315, Kingston ON K7K 1Z7
613.542.5454 www.fotenn.com

DESIGNED	ET
REVIEWED	ET
DATE	2025-08-14

P1

Calculations

3609 Quinn Road E

Farm contact information

Kathy Huff
3609 Quinn Road E
Harrowsmith, ON
k0h1v0
613-372-1514

Location of existing livestock facility or anaerobic digester

County of Frontenac
Township of South Frontenac
PORTLAND
Concession 3 , Lot 5
Roll number: 102908001013300

Total lot size

180.39 ac

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Medium-framed, mature; 227 - 680 kg (including unweaned offspring)	10	10 NU	2500 ft ²
Solid	Goats, Does & bucks (for meat; includes unweaned offspring)	100	12.5 NU	1500 ft ²
Solid	Chickens, Layer hens (for eating eggs; after transfer from pullet barn), Floor Run	334	2.2 NU	334 ft ²
Solid	Ducks, Muscovy	333 ft ²	1.2 NU	333 ft ²
Solid	Pheasants	333 ft ²	1.2 NU	333 ft ²

Setback summary

Existing manure storage	V3. Solid, outside, no cover, >= 30% DM		
Design capacity	27.2 NU		
Potential design capacity	81.7 NU		
Factor A (odour potential)	0.73	Factor B (design capacity)	299.36
Factor D (manure type)	0.7	Factor E (encroaching land use)	1.1

Building base distance 'F' (A x B x D x E)
(minimum distance from livestock barn) 169 m (554 ft)

Actual distance from livestock barn 506 m (1660 ft)

Storage base distance 'S'
(minimum distance from manure storage) No existing manure storage

Actual distance from manure storage NA



Ecological Services
R.R. #1, 3803 Sydenham Road
Elginburg, Ontario K0H 1M0
Phone: (613) 376-6916
E-mail: mail@ecologicalservices.ca

NATURAL HERITAGE SITE ASSESSMENT

3629 Quinn Road; LOT 6, CON 3
South Frontenac Township, Frontenac County

Prepared for: Robert Pittman

Prepared by: **Megan Snetsinger, M.Sc.**
megan@ecologicalservices.ca

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1.0 INTRODUCTION

1.1 Property Location

The subject property is on Quinn Road in South Frontenac, on Lot 6 / Concession 3 of the geographic township of Portland. The property is in EcoDistrict 6E-9: Havelock.

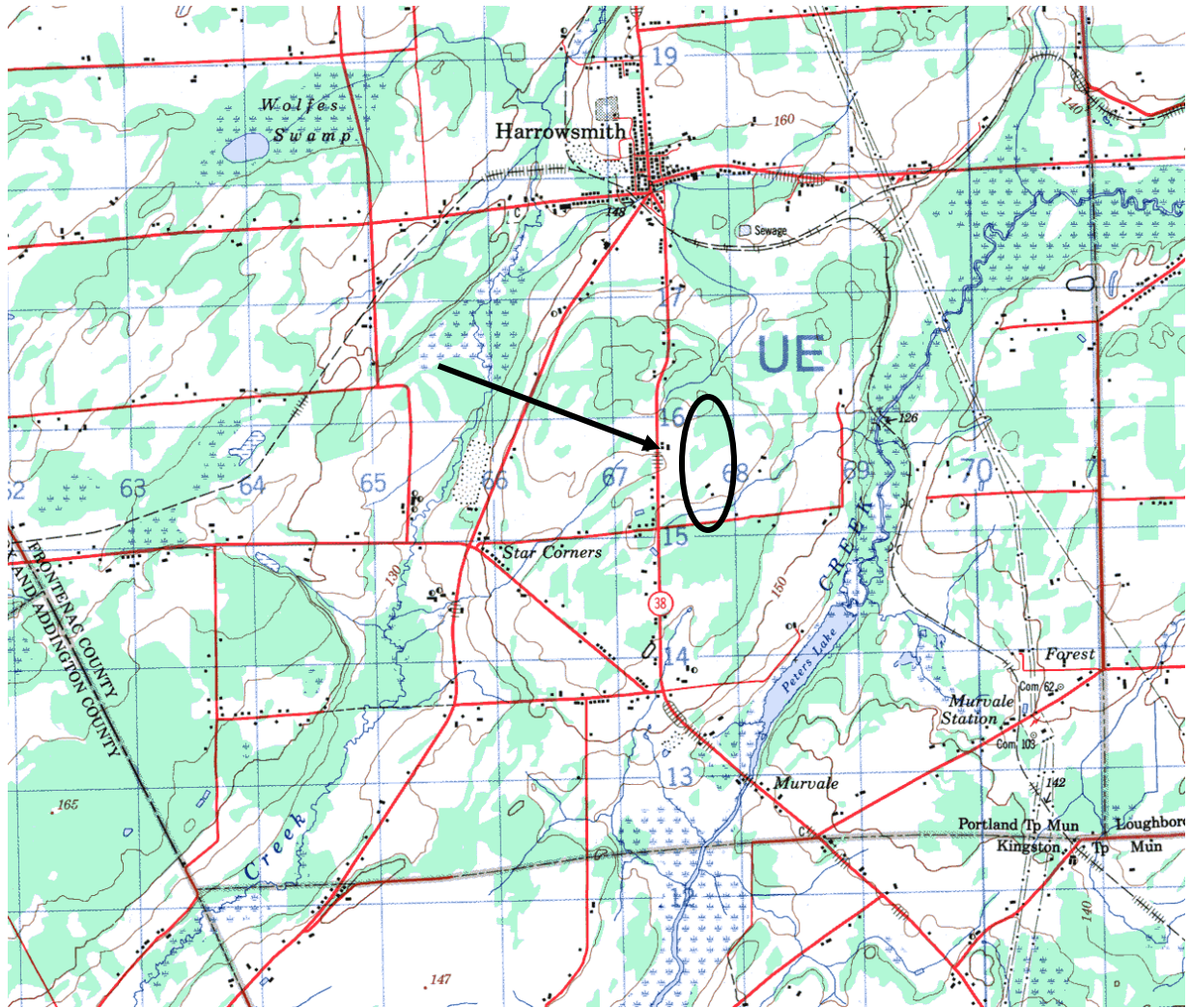


Figure 1. Topographic map, showing the relative location of the subject property, which is indicated by the black circle. Base map is an annotated detail from topographic map 31 C/07, Sydenham.

1.2 Description of Application

Two severances are proposed from the subject property (Figure 2). Both proposed lots and the retained land have frontage on Quinn Road. The retained land has a driveway along the east side of the property to an existing single-family home and outbuildings north of the proposed severances; it is in poor condition and the retained land may be redeveloped. The proposed severances are not developed, and are proposed as residential lots.

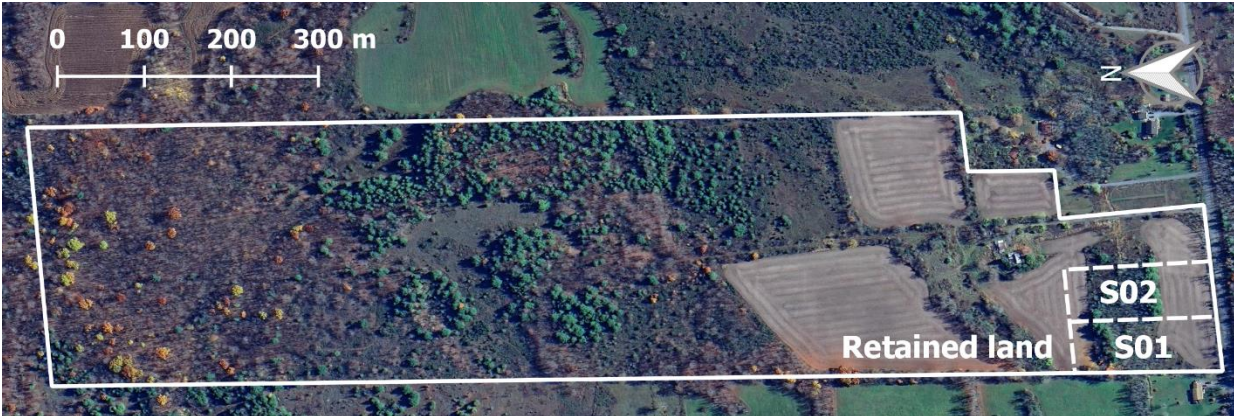


Figure 2. Approximate boundaries of the subject property (solid white line) and the two proposed severances (broken lines). Base map from Google Earth, created using QGIS.

1.3 Methodology

Ecological Services carried out field work and desktop research to determine if the proposed development will have a negative impact to the area's natural heritage features and their associated functions. Our assessment of the property's natural heritage features is based on the requirements laid out in section 2.1 of the Provincial Policy Statement, as well as the South Frontenac Official Plan.

We surveyed the property May 24, 2024 (personnel Megan Snetsinger and Mary Alice Snetsinger). The weather was sunny and clear, and the temperature was 24°C at 3:00 when we began our assessment. We identified habitat communities on and around the proposed development following the methodology outlined in the Ecological Land Classification (ELC) for Southern Ontario (Lee et al. 1998) and when applicable, the Ontario Wetland Evaluation System (OWES) Southern Manual (OMNR 2022). We considered significant natural features, fish habitat, significant wildlife habitat (SWH, as described in OMNRF 2015), and Species at Risk when performing our site investigation.

Desktop research provided information on the presence of rare species and potential habitat on and adjacent to the subject property, from the following sources:

- Natural Heritage Information Centre (NHIC) data accessed via the Ontario Make a Map tool for natural heritage areas; grid square: 18UQ6715
- Ontario GeoHub for wetlands and Areas of Natural and Scientific Interest
- Fish ON-Line
- Fisheries and Oceans Canada map of aquatic Species at Risk
- Ontario Nature Reptiles and Amphibians of Ontario Atlas
- eBird
- iNaturalist

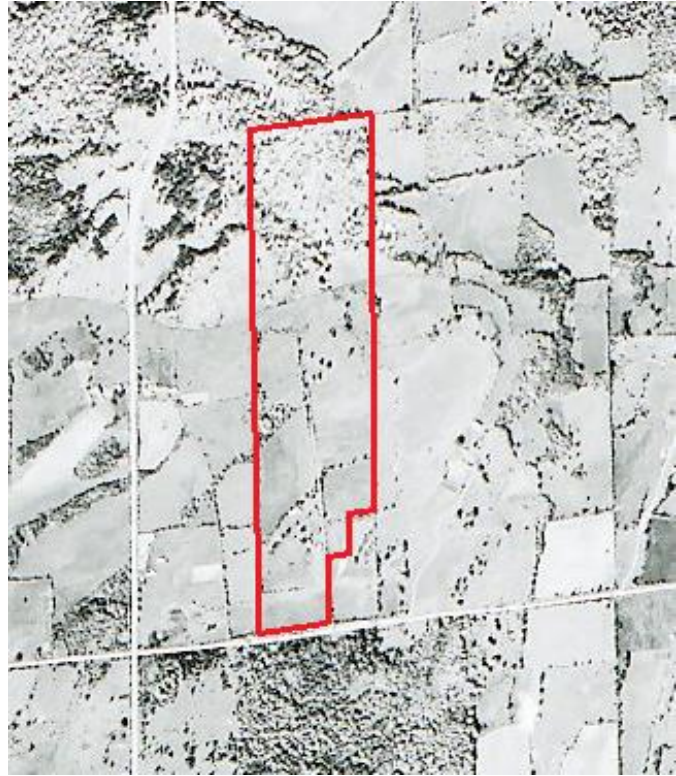
2.0 SITE DESCRIPTION

2.1 Present and Historical Land Use

The south end of the subject property is mostly in active/recent agricultural use, with a channel (likely a farm ditch) crossing the property. The southernmost field was ploughed at the time of our field visit, and the soil was bare. There is a new well dug on each of the proposed lots. We did not survey the north end of the retained land, as it is not adjacent to the proposed development, but we noted from satellite imagery that most of it appears to have tree cover, which is a combination of deciduous and mixed forest.

In 1954, more of the property had open fields (Figure 3), although there is some tree cover at the north end.

Figure 3. 1954 imagery of the subject property (outlined in red). Imagery from the University of Toronto Map & Data Library.



2.2 Ecological Land Classification

The south end of the property, closest to Quinn Road, is characterized by **Cultural (CU)** communities, i.e., those maintained by anthropogenic-based disturbances. There is evidence of past agricultural use in the southernmost field (e.g., old stalks, corn cobs), but it is presently ploughed and largely bare of vegetation. The other fields on the property are in active agricultural use. Around the edges of the fields, as well as along the driveway and around the residential buildings, there are a variety of disturbance-tolerant species: e.g., Dog-Strangling Vine, Orchard Grass, Common Dandelion, Red Clover, White Clover, Virginia Creeper, Blue-eyed Grass, Queen Anne's Lace, Chickweed, Pigweed, King Devil, Field Cinquefoil.

Along the driveway there are a variety of shrubs in a **Cultural Thicket (CUT)** community, including Common Lilac, European Buckthorn, Grey Dogwood, Prickly Ash, Red Cedar, Staghorn Sumac, and Apple. North of the ploughed field is another thicket with a similar assemblage of shrubs. This community also has some White Pine and Green Ash. It would likely have formerly been a forest ecosite, but the tree cover does not presently meet the definition of a forest community due to dieback of the ash trees. North of the channel, there is one patch of with sufficient tree cover to define as a **Dry – Fresh White Pine – Maple – Oak – Mixed Forest Ecosite (FOM2)** community, likely because fewer ash trees are present. White Pine is the dominant coniferous component to the forest, and with a mix of deciduous trees (e.g., Sugar Maple, White Oak, Shagbark Hickory).

The channel is not large enough to map as a distinct ELC community, but there are different species along its extent. Reed-canary Grass is nearly monotypic in the channel, with some other species of wet environments along the edges: American Water Horehound, Meadowsweet, Awl-fruited Sedge, Bladder Sedge, Yellow Sedge, Retrorse Sedge.

There is a muddy track used by vehicles to connect the ploughed field and the cropland to the north. The channel path has been torn up at this location, and we observed water pooling in the tire tracks, supporting some Water Plantain and Water Purslane.

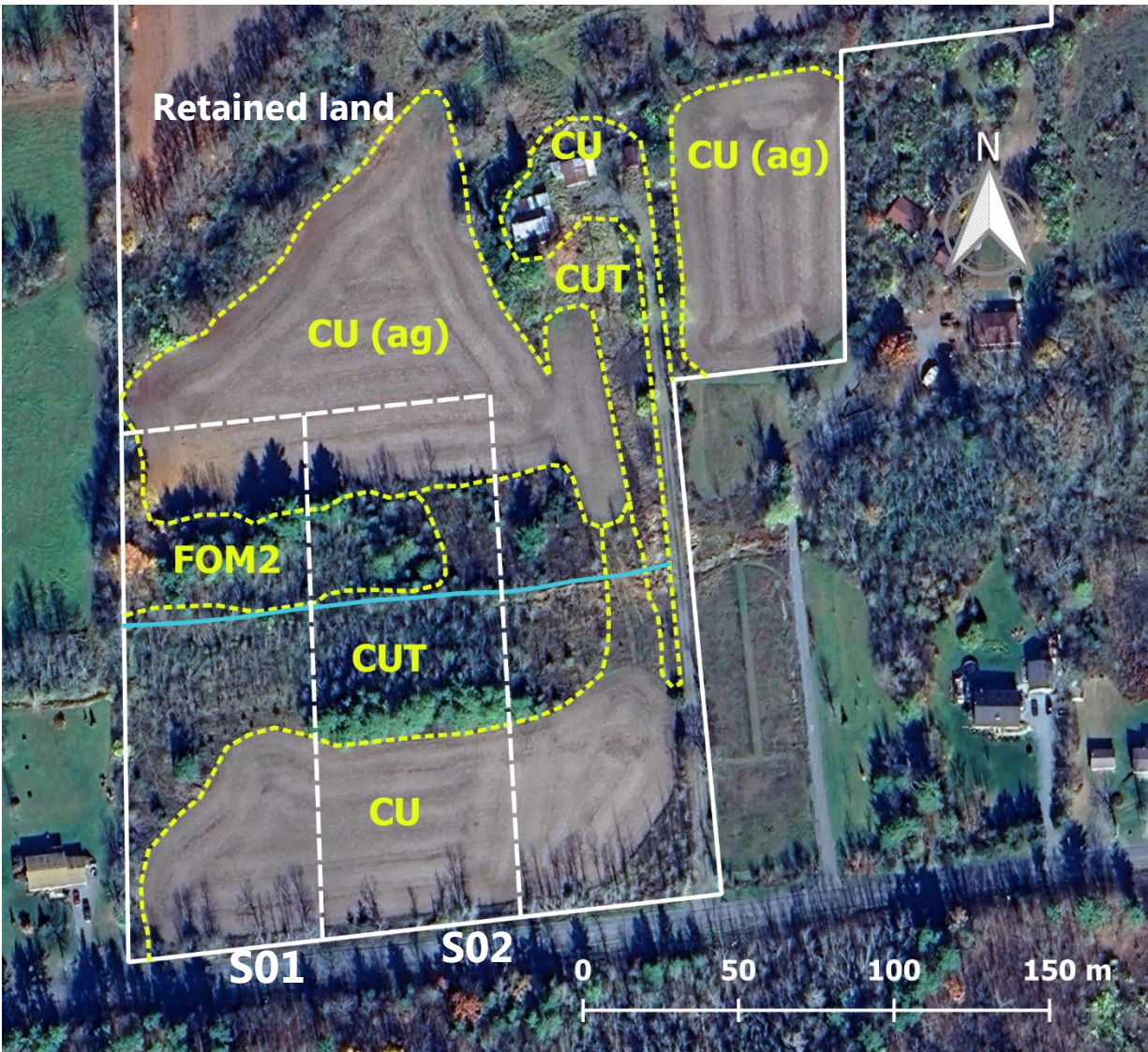



Figure 4. Ecological Land Classification (ELC) mapping, in yellow, of vegetation communities on the subject property near the proposed severances. The white lines denote the approximate property outline (solid line) and the proposed severances (broken line). The channel across the property is indicated with a blue line. Base map from Google Earth, created using QGIS.

3.0 ASSESSMENT OF NATURAL HERITAGE FEATURES

On or adjacent to
proposed development?

3.1. Wetlands	
<p>3.1.1 Provincially Significant Wetland or Coastal Wetland</p> <p>The <i>Millhaven Creek</i> PSW is the closest to the subject property, over 1 km to the east. It is not adjacent.</p>	Yes <input type="checkbox"/> <input checked="" type="checkbox"/> No
<p>3.1.2 Locally Significant Wetland</p> <p>There are no locally significant wetland identified by the Township or any evaluated non-significant wetlands adjacent to the subject property.</p>	Yes <input type="checkbox"/> <input checked="" type="checkbox"/> No
<p>3.1.3 Unevaluated Wetland</p> <p>Ontario mapping data includes a layer of unevaluated wetland, which is procedurally-generated mapping of potential areas of wetland. On the proposed severances, there is an area mapped as unevaluated wetland within the CUT/FOM2 area around the channel.</p> <p>There are several factors that define wetland under the Ontario Wetland Evaluation System, including that in wetlands must have over 50% relative coverage of wetland plants. We assessed the area, and found that the assemblage of vegetation is dominated by upland species and facultative species (i.e., those that tolerate a variety of conditions). This is not wetland. The channel has more wetland or facultative species, but this is a riparian community rather than wetland.</p> <p>There are also patches of unevaluated wetland mapped adjacent to the property, including along the channel to the east and west and on the property across Quinn Road. We cannot access other properties to assess them for wetland presence, but we can review satellite imagery. In our opinion, some of these adjacent areas of unevaluated wetland do appear to be wetland (e.g., across Quinn Road and almost 120 m west). The proposed severances are unlikely to impact these adjacent areas of wetland, given intervening distance and topography.</p>	Yes <input checked="" type="checkbox"/> <input type="checkbox"/> No
<p>3.2 Areas of Natural and Scientific Interest</p> <p>The <i>Harrowsmith Bog</i> Life Science ANSI is the closest to the subject property, over 3 km to the northwest. It is not adjacent.</p>	Yes <input type="checkbox"/> <input checked="" type="checkbox"/> No
<p>3.3 Significant Woodland</p> <p>The FOM2 patch north of the channel is about 0.3 ha, which is too small to meet any criteria for significance.</p>	Yes <input checked="" type="checkbox"/> <input type="checkbox"/> No

On or adjacent to proposed development?

<p>The woodland south of Quinn Road is on adjacent lands that we did not assess, but a measurement of the area based on satellite imagery puts it close to 60 ha. It likely is significant for size and interior habitat, and could have other ecological functions or uncommon characteristics depending on what is in the woodland. The proposed severances and development of residential lots north of Quinn Road is unlikely to impact this woodland.</p>	
<p>3.4 Significant Valleyland</p> <p>The land where the severances are proposed does not meet the morphological characteristics of a valleyland. There are no Environmental Protection or Environmentally Sensitive Areas (which would include significant valleyland) mapped by South Frontenac Township adjacent to the subject property.</p>	<p>Yes <input type="checkbox"/> <input checked="" type="checkbox"/> No</p>
<p>3.5 Surface Water and Fish Habitat</p> <p>The watercourse that crosses the property is a straight line that appears to have been channelized (Figure 5). It is likely an old farm ditch. The channel width is variable, between 2-4 m across. During our site visit there was some water in the channel with no sign of flow. Most of the channel length has dense growth of monotypic Reed-canary Grass, with some bare patches on the west side of the property. We observed no sign of fish. Given the dense vegetation the potential for fish presence appears low, although if there is direct connection to fish habitat there could be some marginal habitat. Regardless, we do recommend that development on the proposed lots meet a 30 m setback from the channel, as recommended in the South Frontenac Official Plan. The concept plan for this development includes a 30 m setback from the channel.</p>  <p>Figure 5. Ontario Make-a-map satellite imagery of the subject property (red outline). Note the straight line of the channel across the property through the thicket.</p>	<p>Yes <input checked="" type="checkbox"/> <input type="checkbox"/> No</p>

On or adjacent to
proposed development?

<p>We also observed what may be a hand-dug well about 15 m south of the channel near the west side of the property (see Attachment 1). This is not a natural heritage feature, and is located within the recommended setback.</p>	
<p>3.6 Species at Risk Habitat</p> <p>There are no Species at Risk (Endangered or Threatened) records from Natural Heritage Information Centre (NHIC) data. Our other database searches did not indicate any nearby SAR. We did not observe any SAR during our field visit.</p>	<p>Yes <input type="checkbox"/> <input checked="" type="checkbox"/> No</p>
<p>3.7 Significant Wildlife Habitat</p> <p>Significant wildlife habitat (SWH) constitutes locations where species concentrate at a vulnerable point in their life cycle, where rare vegetation communities or specialized habitat is present, and areas important to migratory or non-migratory species (animal movement corridors), as well as to the habitat of rare species (including any species of conservation concern not covered above). The criteria (OMNRF 2015) for most SWH categories were not met on or adjacent to the proposed development. Our discussion is limited to potentially relevant SWH.</p> <p><i>Bat Maternity Colonies.</i> Maternity colonies require large-diameter cavity trees in deciduous or mixed forest habitat; snags are preferred. This SWH is found in forest ELC ecosites, which includes FOM. The small patch of forest north of the channel on the proposed severances is about 0.3 ha, which is technically too small to identify as a distinct ELC community (we mapped it to distinguish features on a smaller site), so it may not be large enough to categorize as SWH. However, as the forest patch is almost entirely within the recommended setback from the channel, any bat roosting trees present are unlikely to be impacted by the proposed severance. We recommend that the forest patch should remain standing (i.e., not be clearcut). We also recommend that any tree cutting outside of the forest should take place outside of the bat roosting season (April 15 to September 30) to mitigate any potential harm to bats that may be roosting on the property.</p> <p><i>Raptor Wintering Areas.</i> The criteria for this SWH require confirmed, regular use by specific raptor birds of combined forest and open habitat of over 20 ha. The criteria schedule suggests that raptors prefer least disturbed sites for winter hunting grounds, in extensive fallow fields (>15 ha) that are windswept with little snow accumulation. The woodland south of Quinn Road is large and has several open fields around its south and east sides, although there are not many eBird records around the woodland for the associated species. The proposed severances are unlikely to impact any raptor wintering activity in the adjacent woodland.</p>	<p>Yes <input checked="" type="checkbox"/> <input type="checkbox"/> No</p>

On or adjacent to
proposed development?

<p><i>Colonially-Nesting Bird Breeding Habitat (Tree/Shrubs)</i>. This SWH requires treed wetland. There is no suitable habitat on the subject property, and we observed no stick nests on any of the dead-standing trees. There is a NHIC record of a Mixed Wader Nesting Colony in the relevant UTM block, which is associated with this type of SWH. However, NHIC grid squares are large; this habitat is likely associated with an area of wetland from another part of the square.</p> <p><i>Special Concern and Rare Wildlife Species</i>. There is one rare species from NHIC data: Wood Thrush. In our other database searches, there are nearby eBird records for Wood Thrush and Eastern Wood-pewee. We did not observe any rare species during our site visit.</p> <p>Woodland birds:</p> <p>Wood Thrush (<i>Hylocichla mustelina</i>) – designated as Threatened¹ under the SARA and as Special Concern under the ESA; and</p> <p>Eastern Wood-pewee (<i>Contopus virens</i>) – designated as Special Concern under the SARA and under the ESA.</p> <p>These bird species are typically found in deciduous or mixed woodland habitat. On the subject property, the woodland is small and fragmented from the adjacent woodland. It is also less extensive than it would have previously been, due to the die-back of the ash trees in the CUT. There is a much larger area of woodland (with a deciduous component) south of Quinn Road, which is likely to be more attractive to woodland birds. The proposed development is unlikely to impact habitat in the adjacent woodland. The woodland on the proposed severances falls within 30 m of the channel, which is the setback we have recommended. Outside of that setback, development on the severances would not be in woodland habitat. Regardless, we do recommend that any tree cutting should be done outside of the breeding season (April 1 to August 31), to comply with the intention of the Migratory Birds Convention Act, to mitigate any direct harm to these or other nesting songbirds.</p>	
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4.0 CONCLUSIONS AND RECOMMENDATIONS

In our opinion, is a more detailed Environmental Impact Statement (EIS) required to demonstrate the appropriateness of the proposed development?

Yes No

If yes, which natural feature(s) should the assessment focus on?

¹ Although this species has a Threatened designations, the Provincial Policy Statement refers to Ontario designations when discussing SAR. So we have grouped it with other rare/Special Concern species.

Recommendations for Mitigation

1. Development on the proposed lots and any redevelopment on the retained land should meet a minimum setback of 30 m from the channel.
2. The land within 30 m of the channel should not be clearcut and should remain vegetated, to provide a buffer for the channel.
3. No tree removal should be undertaken between April 1 and September 30, to protect nesting birds and prevent harm to roosting bats.

Environmental Impact Statement: It is our opinion that the proposed undertaking will have no negative impact on the natural heritage features or on their ecological functions, and that the proposal is consistent with the intent of the Provincial Policy Statement.

Yes No

Is monitoring recommended?

Yes No

Signature:



5.0 Literature Cited, References, and Personal Contacts

Fisheries and Oceans Canada: Aquatic species at risk map. Web site maintained by Fisheries and Oceans Canada, compiling critical habitat and distribution data for aquatic species.
<<http://www.dfo-mpo.gc.ca/species-especes/sara-lep/map-carte/index-eng.html>>

Fish ON-Line. Web site maintained by the Ontario Ministry of Natural Resources and Forestry, with information on element occurrences. <<https://www.gisapplication.lrc.gov.on.ca/FishONLine/Index.html?site=FishONLine&viewer=FishONLine&locale=en-US>>

Henson, B.L. and K.E. Brodribb 2005. Great Lakes Conservation Blueprint for Terrestrial Biodiversity, Volume 2: Ecodistrict Summaries. Nature Conservancy of Canada.

Lee, H.T., W.D. Bakowsky, J. Riley, J. Bowles, M. Puddister, P. Uhlig and S. McMurray. 1998. Ecological Land Classification for Southern Ontario. First Approximation and Its Application. Ontario Ministry of Natural Resources, Southcentral Science Section, Science Development and Technology Transfer Branch. SCSS Field Guide FG-02. 225 pp.

Natural Heritage Information Center. Make a Map: Natural Heritage Areas. Web site maintained by the Ontario Ministry of Natural Resources and Forestry, with species rarity rankings and information on element occurrences.
<https://www.lioapplications.lrc.gov.on.ca/Natural_Heritage/index.html?viewer=Natural_Heritage.Natural_Heritage&locale=en-CA> .

MNR, Ministry of Natural Resources. 2000. Significant Wildlife Habitat Technical Guide. 151 pp. Fish and Wildlife Branch, Technical Section.

- OMNR, Ontario Ministry of Natural Resources. 2010. Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement, 2005. 2nd edition. Toronto: Queen's Printer for Ontario. 248 pp.
- OMNR, Ontario Ministry of Natural Resources. 2022. Ontario Wetland Evaluation System, Southern Manual, 4th Edition. 239 pp.
- OMNRF, Ontario Ministry of Natural Resources and Forestry. 2015. Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E. OMNRF Regional Operations, Peterborough, Ontario. 38 pp.
- Provincial Policy Statement. 2020. Issued under Section 3 of the Planning Act. Province of Ontario. 53 pp.
- Township of South Frontenac: Official Plan. March 2003. Consolidated January 2024.
- University of Toronto Libraries. Map and Data Library. <https://mdl.library.utoronto.ca/collections/air-photos/1954-air-photos-southern-ontario/index>

Attachment 1. Site Photos



Photo 1. The channel across the subject property, dense with Reed-canary Grass. The channel is bounded on both sides by thicket (CUT).



Photo 2. The channel across the subject property, at the west end where there are patches without Reed-canary Grass. The channel is bounded on both by thicket (CUT) on the south/left and by forest (FOM2) on the north/right.



Photo 3. The channel across the subject property, facing west from the driveway, with the thicket (CUT) around it.



Photo 4. The dead ash trees in the thicket (CUT) community, which was likely formerly a treed community.



Photo 5. The forest (FOM2) north of the channel.



Photo 6. The hand dug well observed 15 m south of the channel.



Photo 7. The driveway on the retained land, to the existing house. The active agricultural fields are visible in the background.



Photo 8. The ploughed field on the proposed severances. Development on the lots is proposed on this site.

Hydrogeological Assessment

Quinn Road, Frontenac County, Lot 6, Concession 3

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Project Number: 240360
July 30, 2025

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- Appendix A: Well Records
- Appendix B: Lab Certificates of Analysis
- Appendix C: Aquifer Analysis
- Appendix D: Nitrate Impact Assessment Calculations

1 Introduction

BluMetric Environmental Inc. (BluMetric®) was retained to conduct a hydrogeological assessment to support an application for a two-lot severance at 3629 Quinn Road East, Harrowsmith, Ontario (Roll #: 102908001013900). The site location is indicated in Figure 1. The proposed severances cover approximately 1.05 hectares each. The site is in a rural area (a municipal water supply and municipal wastewater treatment system is not available) and the proposed severances will be serviced by private residential water supply wells and individual onsite septic sewage systems. Test wells TW1 and TW2 were used as the test well on the western and eastern lots to be severed, respectively.

This study was conducted with regards to the following regulations and guidelines:

- Ontario Ministry of the Environment, Conservation and Parks (MECP) Procedure D-5-4, Technical Guideline for Individual On-Site Sewage Systems, Water Quality Impact Risk Assessment (MOEE, 1996).
- Procedure D-5-5, Technical Guidance for Private Wells, Water Supply Assessment (MOEE, 1996b).
- Ontario Water Resources Act, 1990. Ontario Regulation 903 (O. Reg. 903), 1990, Wells.



Figure 1: Site Location

1.1 Scope of Work

The scope of work of this assessment included the following components:

- Desktop review of background information (water well records, geological databases, hydrology information, topography, known water uses).
- Inspect the lot for shallow groundwater/surface water conditions.
- Conduct a 6-hour pumping test at two new dug wells (TW1 and TW2) and monitor water levels at the pumping wells during pumping and recovery. The 6-hour pumping test occurred during low recharge conditions between late June to early September. Test well recoveries could be measured over multiple days. Water levels from the well on the retained lot was monitored during the pumping test.

- Collect and submit groundwater samples at the end of the 6-hour pumping test from TW1 and TW2 for laboratory analysis of parameters outlined in the D-5-5 technical guidance in addition to organic nitrogen, phosphorus and metals. Water quality results were compared to Ontario Drinking Water Standards, Objectives and Guidelines.
- Analyse pumping test data to determine aquifer parameters.

1.2 Site Description

The site is located approximately 20 kilometres northwest of Kingston, Ontario along the northern side of Quinn Road east of County Road 38 (Figure 1). The site is comprised of gradually sloping open fields, forested areas wetland areas. The proposed lands to be severed include two 1.05 ha plots located in the south corner of the site. Residential development is proposed to take place on both lots and dug wells have been constructed for each.

1.3 Surrounding Land Use

Surrounding land uses within 500 m of the subject site are described below:

- **North**
 - Rural residential
 - Agriculture
 - Woodlot
- **East**
 - Rural Commercial (Sugar Shack)
 - Agriculture
 - Woodlot
 - Rural Residential
- **South**
 - Wetland
 - Woodlot
 - Quinn Road
- **West**
 - Rural Residential
 - Agriculture
 - County Road 38
 - Wetland
 - Woodlot

All existing development in the area are supported by the use of private individual water supply wells and onsite septic sewage systems. All neighbouring water supplies are derived from drilled wells while the onsite water supplies will be derived from dug wells (well records provided in Appendix A). The construction of dug wells was to obtain the best water quality and quantity as recommended to Robert Pittman by BluMetric.

1.4 Proposed Severances

The proposed severances involve the creation of 3 residential lots on 37.9 ha (Figure 1). The proposed severances are described as follows:

- Lot 1 (Severed A) – 1.05 ha, 63 metres of frontage, open field, existing dug well;
- Lot 2 (Severed B) – 1.05 ha, 63 metres of frontage, open field, existing dug well;
- Retained Lot – 35.89 ha, 64.6 metres of frontage open field and forested area, existing dug well.

2 Methodology

2.1 Background Information

A review of available background information was conducted including:

- MECP water well records;
- Topographic Databases;
- Ontario Geological Survey (OGS) online geology mapping databases;
- Ontario Natural Heritage Information Centre mapping database;
- County of Frontenac Interactive Mapping Online GIS Portal;
- Ontario Watershed Information Tool (OWIT).

2.2 Test Pitting

Four (4) test pits were advanced at the site as part of the investigation. The test pits (TP1 to TP4) were advanced by BluMetric to describe soil stratigraphy using a hand shovel on October 18, 2024, on each of the lots to be severed.

The soil profile at each test pit was logged by direct examination of the sides and bottoms of the test pits. Representative samples were collected in clean plastic bags. The test pit locations are shown on Figure 4.

2.3 Aquifer Testing

2.3.1 Test Wells

Two residential supply wells, A350546 and A350547, were constructed in 2023. Supply well A350546 was constructed and completed as a concrete cased dug well to a depth of 6.53 metres below ground surface (mbgs) by Frank’s Drilling and Blasting LTD. Supply well A350547 was constructed and completed as a concrete cased dug well to a depth of 6.53 mbgs by Franks Drilling and Blasting LTD. Both test wells are situated along a topographic high and are advanced into bedrock as summarized in Table 1.

Table 1: Test Wells Summary

Well ID	Year of Installation	Depth to Bedrock (m)	Casing Depth (m)	Depth to Water Bearing Fractures (m)	Total Depth (m)
TW1 (A350546)	2023	1.4	6.53	3.0	6.53
TW2 (A350547)	2023	1.5	6.53	3.0	6.53

2.3.2 Observation Wells

One water well was selected for use as an observation well during a second aquifer test. Aquifer tests were conducted on August 7, 2024, and August 8, 2024, and are detailed in section 2.2.3. One observation well (dug well) is located on the retained lot however a well record is not available to verify the details of its construction. Data recording of water levels at pumping wells and observation wells commenced one day prior to pumping and terminated three days post pumping. The residents were asked to not use their wells during the time of the pumping test.

Table 2: Observation Wells

Well ID	Year of Installation	Depth to Bedrock (m)	Casing Depth (m)	Depth to Water Bearing Fractures (m)	Total Depth (m)
3629 Quinn Road (Dug well)	Unknown				

2.3.3 Aquifer Tests

BluMetric staff conducted the first six-hour, constant discharge aquifer tests at supply well A350546 on August 7, 2024, and at supply well A350547 on August 8, 2024. Each well was pumped at a rate of 25 L/min for 360 min with a combined total of 18,000 litres of groundwater pumped from the aquifer. The testing program included observation of three wells (the pumping well and two observation wells) for each pumping test as required by Ontario Guideline D-5-5 for land parcels of 15 ha or less.

A second 3.5-hour constant discharge aquifer test was completed on October 3, 2024, by BluMetric staff. The second test included the pumping of one test well (A350547) at a rate of approximately 41 L/min. A combined total of 8,610 litres was pumped during the second pumping test.

Water levels were recorded during aquifer testing by manual methods (water level sounding meters) and with pressure transducer/datalogger units (Solinst Level Logger™). Post pumping observation was acquired with pressure transducers for a minimum of 24 hours to assess groundwater recharge. Results of the aquifer tests are provided in Section 3.4.6.

2.4 Water Sampling

All wells were disinfected prior to the six-hour constant rate discharge pumping and any subsequent resampling event by shock chlorination. A water sample was collected in laboratory provided containers at the end of each aquifer test and placed immediately into a cooler with ice and transported to Caduceon laboratory in Kingston, a CALA accredited laboratory. Samples were analyzed for the list of chemical and microbiological parameters specified in Procedure D-5-5 (MOEE, 1996b). Further sampling of well A350547 was carried out on October 3, 2024, December 2, 2024, and December 9, 2024, to confirm microbiological parameters following initial exceedances in TW2. Laboratory certificates are appended in Appendix B.

Field measurements for temperature, pH, conductivity, and oxidation reduction potential (ORP) were carried out using a YSI™ Professional series multimeter. Free chlorine residual and turbidity measurements were collected using a Hanna HI93414 calibrated to 1.0 mg/L chlorine solution and turbidity standards of <0.1 and 15 NTU. Colour measurements were collected using a Hanna 96727 calibrated with 0 and 250 PCU standards.

Microbiological quality sampling was conducted after the free chlorine residual concentration reduced to non-detectable or below the instrument's limit of detection of 0.01 mg/L.

2.5 Well Owner Interviews

A standard well owner interview form was sent to the neighboring property owners along Quinn Road prior to conducting the pumping tests. The well-owner interview form requests details from neighboring water well users regarding well water quality and quantity and onsite wastewater treatment systems. All of the solicited neighboring water well users declined to fill out the interview form.

3 Geology and Hydrogeology

3.1 Site Physiography and Drainage

The Site is geographically situated within two catchments. The western and northern parts of the Site are situated within the Wilton Creek-Little Creek Napanee River Catchment, while the southern and eastern parts of the site are situated within the Millhaven Creek Catchment (OWIT, 2024). Surface water drainage at the Site is diverted to a ditch located on the south end of the site. The northern part of the site drains south towards the ditch, while the southern end of the site (including the lots to be severed) drains north towards the ditch. This ditch then flows east-northeast towards Millhaven Creek.

3.2 Surficial Geology

Four (4) shallow test pits (TP1 to TP4) were advanced using a hand shovel by BluMetric on October 18, 2024. Test pit locations are indicated on Figure 4. The following is a summary of stratigraphy encountered at the test pit locations.

TP1	(hand excavated using a shovel)
0-0.23 m	brown, SILTY TOPSOIL with some organics
0.23 to 0.53 m:	dry, brown SILTY CLAY with some gravel
	Sample taken from 0.23 to 0.53 m
	Test pit was terminated at 0.53 m (bedrock refusal)
	No groundwater was observed in test pit

TP2 (hand dug using a shovel)
0-0.23 m brown, SILTY TOPSOIL with some organics
0.23 to 0.63 m: dry, brown/grey SILTY CLAY with some gravel
0.63 to 0.66 m: damp, grey CLAY with some black sand
Sample taken from 0.23 to 0.63 m
Test pit was terminated at 0.66 m (bedrock refusal)
No groundwater was observed in test pit

TP3 (hand excavated using a shovel)
0-0.2 m TOPSOIL with some organics
0.2 to 0.41 m: dry, brown CLAYEY SILT/SAND with trace gravel
Sample taken from 0.20 to 0.41 m
Test pit was terminated at 0.41 m (bedrock refusal)
No groundwater was observed in test pit

TP4 (hand excavated using a shovel)
0-0.2 m TOPSOIL with some organics
0.2 to 0.35 m: dry, brown SILTY SAND with trace gravel
Sample taken from 0.20 to 0.35 m
Test pit was terminated at 0.35 m (bedrock refusal)
No groundwater was observed in test pit

The Ontario Geological Survey (2024) classifies the site as exposed bedrock with areas of less than 1.0 m of drift consisting of clay, silt, sand, gravel, and diamicton.

Well records for test wells TW1 and TW2 indicate that bedrock was encountered between 1.4 m and 1.5 m bgs at both locations. Soils stratigraphy on both well records show topsoil from ground surface to 0.3 m bgs followed by loam from 0.3 m bgs to bedrock at approximately 1.5 m bgs. Descriptions of soil stratigraphy at test pits TP1 to TP4 are generally consistent with the findings of the water well records search where overburden thickness varies between 0 m to 2.4 m.

3.3 Bedrock Geology

Geological mapping information from the OGS Earth website (OGS, 2024) shows that the site is located within a sequence of horizontally bedded Ordovician carbonate sedimentary rocks. The uppermost bedrock unit is the Shadow Lake Formation which is of Ordovician age. The bedrock is

described as limestone and dolostone (towards base). The site is in an area of inferred karst as determined by the OGS Karst mapping layer (OGS, 2024).

3.4 Hydrogeology

An unconfined water table does not appear to exist in the overburden unit as evidenced by the test pits which remained dry over two days after their excavation. Drainage / infiltration within the overburden unit is expected to be influenced by topography and is inferred to have an easterly component towards Millhaven Creek.

The primary water supply aquifer in the vicinity of the site occurs within the horizontally bedded Ordovician carbonate sedimentary bedrock. The bedrock aquifer has water bearing fracture zones (i.e., horizontal bedding plane fractures) that occur between sedimentary layers of bedrock. Permeability within these strata is controlled by fractures. The primary porosity (i.e. the 'primary fracture network') is associated with horizontal bedding plane fractures. A secondary porosity is associated with subvertical fracturing. The direction of regional groundwater flow in bedrock at the site is inferred to be to the to the east-northeast towards Millhaven Creek.

Information from the Ontario Source Protection Atlas, (MECP, 2023) website indicates that the site is:

- Not within a wellhead protection area;
- Is not within an intake protection zone;
- Is not within an issue contributing area;
- Is not within a significant groundwater recharge area;
- A highly vulnerable aquifer does not occur beneath the site.

3.4.1 Water Well Records

A total of 8 MECP water well records from the MECP Water Well Information System (WWIS; MECP, 2024) were reviewed (individual well records are provided in Appendix A). Wells selected within 500 m of the proposed severance are depicted on Figure 3 and summarized in Table 3. It should be noted that that well record locations are based on the database coordinates and may be subject to varying degrees of error. Well depths, overburden thickness, depth of casing, aquifer interception points and well yield related information were reviewed in detail and included Table 3. The review of water well records within 500 m of the subdivision provided the following relevant information:

- Depth to bedrock varies from 0 m bgs to 2.4 m bgs;
- Bedrock is reported as shale and/or limestone in all of the well records;
- Static water levels in the identified water wells range from 0.3 mbgs to 21.0 mbgs;
- The only dug wells in the MECP WWIS 500 m map area are those constructed at the Site;
- One of the 8 wells identified in the MECP WWIS were dry at the time of construction;
- Reported well pumping rates for drilled wells range from 0 L/min to 23 L/min;
- Six of the records produced water described as “clear”;
- The well record for supply well A350546 indicates: a depth of 6.53 mbgs; a test pumping rate of 178 GPM (675 L/min); and an approximate reserve of 34,000 L;
- The well record for supply well A350547 indicates: a depth of 6.53 mbgs; a test pumping rate of 178 GPM (675 L/min); and an approximate reserve of 34,000 L.

Table 3: Summary of MECP Water Well Records

MECP Water Well Record Summary											
Well Record ID	Depth to Bedrock (m)	Overburden Material	Total Depth (m)	Bedrock Material	Casing Depth (m)	Depth to Water Bearing Zone(s) (m)	Static Water Level (m)	Drawdown after Drillers Pumping Test (m)	Recommended Pumping Rate (L/min)	Dug/Drilled	Comments
2203354	0.0		41.1	Limestone	3.0	30.5	18.3	41.1		Drilled	Clear
2204349	0.6	Loam	10.4	Limestone	2.1	2.4	3.0	9.4	14	Drilled	Cloudy
2205784	2.4	Brown Loam	36.6	Limestone	6.7	14.0	5.2	36.6	0	Drilled	Clear
2205787	0.9	Brown Loam	20.4	Limestone	2.1	2.1	0.3	20.4	23	Drilled	Clear
2210419	0.3	Brown Loam	33.5	Limestone	2.4	2.7	0.9	33.5	23	Drilled	Clear
2211332	2.0	Clay	25.6	Limestone	6.7	25.0	15.2			Drilled	Untested
2212789	0.3	Loam / Gravel	9.1	Shale / Limestone	7.3	7.3	5.5	9.1	18	Drilled	Clear
2214857	0.0		24.7	Shale / Limestone	7.6	22.6	21.0	22.9	0	Drilled	Clear



Taken collectively this information shows that the wells in the area can provide a suitable water supply. A review of the MECP Permit to Take Water (PTTW) database was carried out within a 5 km radius of the site. PTTW information was obtained directly from the MECP interactive GIS system (MECP, 2024b). No permits were identified within the search area.

3.4.2 Potential Sources of Contamination

The following potential onsite sources of contamination at the site were identified (Drage, 2022):

- The proposed parcels to be severed have historically been used for agricultural purposes based on aerial imagery, namely the growing and harvesting of hay, which may have necessitated the use of nutrients (nitrogen and phosphorus) as an agricultural practice.
- Dug wells are vulnerable to shallow groundwater contaminants originating from agricultural practices (fertilizers, livestock), the application of road salt, and septic system effluent.
- Groundwater in dug wells often contains microbial contaminants because the short groundwater flow paths do not allow microbes to be removed by natural filtration within the aquifer.
- Dug wells are also prone to elevated concentrations of decomposed plant matter within soil and organic carbon.

The following potential offsite sources of contamination were identified:

- Agricultural activities at neighbouring may be a source of nutrients (nitrogen and phosphorus).
- Application of road salt along Quinn Road East is expected to have caused some limited impacts to the area immediately bordering the road and ditches. No onsite impact is expected as a result of road salt application activities.

3.4.3 Hydrogeological Sensitivity

The subject lands are within an area mapped as ‘inferred karst’ as determined by the OGS Karst mapping layer (OGS, 2023). No obvious karst traits were found based on review of local Lidar data for the site; therefore a site-specific karst assessment was not deemed necessary.

The water well records show that the overburden thickness within 800 m of the subject property varies from 0 to 2.4 m and has an average thickness of 0.8 m. The overburden material is primarily described in well records as loam. The well record for test well TW1 shows that the depth to bedrock is 1.4 m and the well record for test well TW2 shows that depth to bedrock is 1.5 m. The onsite test

pits varied in depth from 0.35 to 0.66 mbgs and the material encountered was silty clay and silty sand.

The most suitable source of potable groundwater for the proposed lot is the bedrock aquifer. The thin overburden layer will not provide any degree of isolation between bedrock and effluent from the septic systems which are proposed for the lots to be severed. Based on the terrain analysis findings, the site is considered to be hydrogeologically sensitive due to thin soils, so protective measures (extra depth of well casing and extra setback between wells and septic beds) are discussed and recommended in Sections 5 and 6. Mitigative measures for protection of water quality include imposing a minimum 45 m separation distance between well and septic system and mandating well water quality treatment with ultraviolet (UV) light disinfection.

3.4.4 Groundwater Quality

The severed lots are proposed to be serviced by dug wells. Water quality was assessed at both the western lot (via test well TW1) and eastern lot (via test well TW2) to be severed. Laboratory analytical results from the groundwater samples collected at the end of the 6-hour pumping test at test wells TW1 and TW2 along with field measurement data are summarized in Table 4. Laboratory certificates of analysis are included in Appendix B.

A review of the analytical data summarized in Table 4 indicates that all tested water quality parameters were below the health and aesthetic related ODWSOG with the exception of the following:

Well A350546 (TW1)

- Sodium
- Hardness
- Total Dissolved Solids

Well A350547 (TW2)

- Escherichia Coli
- Total Coliforms
- Fecal Coliforms
- Hardness
- Total Dissolved Solids

Hardness - Hardness was reported at 237 mg/L in well A3350546 (TW1), and 286 mg/L in well A350547 (TW2), both exceeding the ODWSOG OG of 80-100 mg/L. Hardness is caused by dissolved calcium and magnesium and is expressed as the equivalent quantity of calcium carbonate. Hardness levels below 500 mg/L in drinking water are considered generally acceptable for most domestic purposes and can be treated using a conventional water softener system. Softening using a domestic water softener increases the sodium level in drinking water.

Total Dissolved Solids - The average TDS concentration measured of the two groundwater samples collected as part of this study is 627 mg/L. The analytical results for TDS at test wells TW1 and TW2 were measured to be 731 mg/L and 522 mg/L, respectively, both of which exceed the aesthetic objective (AO) limit. TDS is a measure of the inorganic substances dissolved in water. The principal constituents of TDS are chloride, sulphates, calcium, magnesium, and bicarbonates. The effects of TDS on drinking water quality depend on the levels of the individual components. Excessive hardness, taste, mineral deposition, or corrosion are common properties of water with elevated TDS. Water with a TDS concentration above 500 mg/L may not be palatable. Procedure D-5-5 does not provide a treatability limit for TDS, but it does require a written rationale that corrosion, encrustation, or taste problems will not occur.

A Langelier Saturation Index (LSI) and Ryznar Stability Index (RSI) of 0.83 and 6.4, respectively, was calculated from the water quality results indicating the water is supersaturated with respect to calcium carbonate (CaCO₃) and scale forming may occur. Water softening, already recommended for hardness, will remove calcium in the water supply and reduce the potential for mineral deposition and corrosion to plumbing fixtures.

Sodium - Sodium concentrations are reported at 217 mg/L in test well TW1 and 108 mg/L in in test well TW2. A concentration exceeding 20 mg/L is to be reported to the local Medical Officer of health so that this information can be communicated to local physicians for their use with patients on sodium restricted diets. Potassium chloride can be used in place of sodium chloride to reduce the sodium content in water softening applications. Measured sodium levels exceed the ODWSOG aesthetic objective guideline of 200 mg/L. It is recommended that an under-the-counter reverse osmosis system be installed inside the future dwellings for individuals with sodium restricted diets.

Total and Fecal Coliforms, Escherichia Coli – The analytical results for total coliforms, fecal coliforms and Escherichia coli measured in the groundwater sample collected from test well TW2 on August 7th, 2024, were above the ODWSOG limit (between 15 and 22 counts / 100 mL). Procedure D-5-5 indicates that the ODWSOG limit for total coliforms, fecal coliforms and Escherichia coli is used as an indicator of inadequate disinfection within distribution systems. For private water wells the MECP

and Health Units have historically used the limit of <5 counts /100 mL in the absence of a chlorine residual as indicating acceptable water quality concerning total coliforms, and D-5-5 indicates total coliform counts of less than 6 per 100 ml are acceptable.

A second groundwater sample was collected by BluMetric from test well TW2 on October 3rd, 2024, at the end of a 4-hour pumping test and was analyzed for microbiological parameters. Laboratory analytical results of the collected groundwater sample show the absence of total coliforms and other measured microbiological parameters, as summarized in Table 4, satisfying the ODWSOG. Two (2) additional groundwater samples were collected on December 2nd and December 9th, 2025, by the property owner at 3629 Quinn Road East via grab sampling methods to confirm the previous sampling results. Laboratory analytical results of the collected groundwater sample continued to show the absence of total coliforms and other measured microbiological parameters, as summarized in Table 4.

Table 4: Summary of Groundwater Analytical Results

Parameter	Units	RDL	ODWSOG	TW1	TW2	TW2	TW2	TW2
				6 hours	6 hours	03-Oct-24	02-Dec-24	09-Dec-24
Microbiological Parameters (Health)								
Escherichia Coli	ct/100 mL	0	0 ^{MAC}	0	15	0	0	0
Total Coliforms	ct/100 mL	0	0 ^{MAC}	0	22	0	0	0
Fecal Coliforms	ct/100 mL	0	not specified	0	15	0	-	-
Chemical Parameters (Health)								
Fluoride	mg/L	0.1	1.5 ^{MAC}	0.7	0.2	-	-	-
Turbidity (Lab)	NTU	0.1	5 ^{AO}	1.2	0.1	-	-	-
N-NO ₂ (Nitrite)	mg/L	0.1	1 ^{MAC}	<0.05	0.06	-	-	-
N-NO ₃ (Nitrate)	mg/L	0.1	10 ^{MAC}	0.29	0.71	-	-	-
Sodium	mg/L	1	20 ^{MA} / 200 ^{AO}	217	108	-	-	-
Manganese	mg/L	1	0.05 ^{AO}	0.014	0.003	-	-	-
Arsenic	mg/L	1	0.01 ^{new MAC}	0.0005	0.0003	-	-	-
Boron	mg/L	1	5 ^{IMAC}	2.28	1.17	-	-	-
Uranium	mg/L	1	0.02 ^{MAC}	0.00063	0.0006	-	-	-
Chemical Parameters with Aesthetic Objectives/ Operational Guidelines								
N-NH ₃ (Ammonia)	mg/L	0.02	not specified	1.47	2.21	-	-	-
pH	no units	1	6.5-8.5 ^{AO}	8.10	7.95	-	-	-
Hardness as CaCO ₃	mg/L	1	100 ^{OG}	237	286	-	-	-
Alkalinity (as CaCO ₃)	mg/L	5	500 ^{OG}	349	302	-	-	-
TDS (COND - CALC)	mg/L	1	500 ^{AO}	731	522	-	-	-
Calcium	mg/L	1	-	55.8	74.6	-	-	-
Chloride	mg/L	1	250 ^{AO}	82.8	55.3	-	-	-
Colour	TCU	2	5 ^{AO}	<2	<2	-	-	-
Conductivity	uS/cm	5	-	1350	979	-	-	-
DOC	mg/L	0.5	5 ^{AO}	3.9	3.1	-	-	-
Hydrogen Sulphide	mg/L	0.01	0.05 ^{AO}	<0.01	<0.01	-	-	-
Sulphate	mg/L	1	500 ^{AO}	247	143	-	-	-
Tannin & Lignin	mg/L	0.1	-	<0.5	<0.5	-	-	-
Magnesium	mg/L	1	-	23.7	24.2	-	-	-
Potassium	mg/L	1	-	20.8	15.6	-	-	-
Iron	mg/L	0.03	0.3 ^{AO}	0.015	0.008	-	-	-
Manganese	mg/L	0.01	0.05 ^{AO}	0.014	0.003	-	-	-
Field Parameters								
pH	no units	0.01	6.5-8.5 ^{AO}	7.63	7.43	-	-	-
Chlorine Residual	mg/L	0.01	non detectable	0	0	-	-	-
Conductivity	uS/cm	0.1	-	1297	942	-	-	-
Turbidity	NTU	0.01	5 ^{AO}	0.26	0.15	-	-	-
Colour	TCU	10	5 ^{AO}	0	0	-	-	-
Temperature (°C)	°C	0.1	-	-	-	-	-	-

Notes:
Bold and shaded indicates results exceed criteria
RDL - Reported Detection Limit

'-' - Not Tested/Reported

Hydrogen Sulphide is reported as a calculated value based on the Sulphide concentration determined by colorimetric method.

MA = Medical officer of health advisory if sodium exceeds 20 mg/L. Sodium AO is 200 mg/L

Ontario Ministry of Environment (MOE), 2003/2022. Ontario Drinking Water Standards, Objectives and Guidelines (ODWSOG) (June 2003). As amended.

3.4.5 Groundwater Quantity

As part of the 6-hour pumping tests, test wells TW1 and TW2 were pumped by BluMetric on August 7 and August 8, 2024, at a constant rate of 20.5 L/min continuously over a period of six hours. Pressure transducer/datalogger were installed inside the dug wells at the retained lot on 3629 Quinn Road to measure groundwater interference during pumping of test well TW1 and TW2. A summary of the water levels measured over the course of the 6-hour pumping tests is included in Table 5 and Table 6.

Table 5: Summary of Measured Groundwater Levels During Pumping Test (TW1)

Test Well ID	Depth to Bedrock (mbgs)	Borehole Depth (mbgs)	07-Aug-24		08-Aug-24	12-Aug-24
			Static Water Level (mbtoc)	Water level at end of 6-hr pumping test (mbtoc)	Water Level After 24-hr Recovery (mbtoc)	Water Level After 96-hr Recovery (mbtoc)
TW1	1.40	6.53	1.46	1.68	1.53	1.17

Table 6: Summary of Measured Groundwater Levels During Pumping Test (TW2)

Test Well ID	Depth to Bedrock (mbgs)	Borehole Depth (mbgs)	08-Aug-24		09-Aug-24	12-Aug-24
			Static Water Level (mbtoc)	Water level at end of 6-hr pumping test (mbtoc)	Water Level After 24-hr Recovery (mbtoc)	Water Level After 96-hr Recovery (mbtoc)
TW2	1.50	6.53	1.57	1.76	1.49	1.22

As shown in Table 5 and Table 6, the static water levels prior to the start of the 6-hour pumping test at test wells TW1 and TW2 was 1.46 m btoc and 1.57 m btoc, respectively. Water levels at test well TW1 and TW2 prior to pump shutoff after 6 hours of pumping were 1.68 m btoc and 1.76 m btoc, respectively. Based on these water level measurements, total drawdowns of 0.22 m and 0.19 m were observed at the end of the 6-hour pump tests. Based on static water level measurements and well depths shown on the well records (recommended pump depths were at the bottom of the well), test wells TW1 and TW2 have available drawdowns of 5.07 m and 4.96 m, respectively. At the end of the 6-hour pumping test, test wells TW1 and TW2 had approximately 96% of the initial water column remaining above the pump.

As shown in Table 5 and Table 6, water levels at test wells TW1 and TW2 had recovered to 1.53 m btoc and 1.49 m btoc approximately 24 hours following pump shutoff, indicating that both test wells recovered to approximately 68% and 142%, respectively, of the initial static water levels measured immediately before the start of the 6-hour pumping test. Recovery water levels above 100% four (4) days after pump shutoff are likely due to a combination of precipitation (13.2 mm and 20.8 mm of precipitation was measured at the Environment Canada weather station in Hartington, Ontario, on August 8th and 9th, respectively, located approximately 5 km from the site) and/or natural variations in water levels.

A summary of measured water levels at observation wells that were monitored during the two six-hour pumping tests is included in Table 7.

Table 7: Observation Well Responses

Pumping Well	Observation Well	Radial Distance (m)	Drawdown After 1 hour (m)	Drawdown After 2 hours (m)	Drawdown After 6 hours (m)
TW1 (6-hr test)	TW2	100	0.02	0.04	0.11
	3629 Quinn Road	190	0.01	0.02	0.08
TW2 (6-hr test)	TW1	100	0.02	0.03	0.09
	3629 Quinn Road	120	0.03	0.04	0.1

As shown in Table 7, the worst-case drawdown observed after 6 hours of continuous, constant rate pumping at a rate of 20.5 L/min was 0.11 m. As per procedure D-5-5, discussed in more detail below, the daily water demand for a 4-bedroom dwelling is 2,250 L/day, which represents drawdown exhibited after approximately 2 hours of continuous pumping at a rate of 20.5 L/min (0.04 m based on Table 7). The Canadian Mortgage and Housing Corporation’s Household Guide to Water Efficiency (CMHC, 2000, revised 2014), also discussed in more detail below, indicates that the average daily residential water use in Ontario is 1,125 L/day for a four-bedroom house, which represents drawdown exhibited after approximately 1 hours of continuous pumping at a rate of 20.5 L/min (0.03 m based on Table 7). Based on the worst-case drawdowns observed in neighboring water wells after 1 hour (0.03 m) and 2 hours (0.04 m) of the constant rate pumping test, which are representative of daily water use scenarios of the future dwellings on the proposed lots to be severed, negative impacts associated to well interference are not anticipated.

As summarized in Table 8, the amount of groundwater pumped out of test wells TW1 and TW2 over the course of the 6-hour pumping test was approximately 7,358 L per well. Based measured drawdowns of 0.22 meters and 0.19 meters at the end of the 6-hr pumping test, the calculated volume of water pumped from test wells TW1 and TW2 were approximately 7,362 L and 7,351 L,

respectively, assuming that both test wells are cylindrical and have casing radiuses of 0.46 meters. It is also assumed that both test wells have additional groundwater storage outside the immediate vicinity of the casing (representing the dug well excavation that was backfilled with porous sand/gravel) that extends to a radius of approximately 3.2 meters. Based on a 24-hr recovery of 0.15 meters and 0.27 meters, the calculated volume of water produced by test wells TW1 and TW2 over a 24-hr period was calculated to be approximately 4,967 L and 10,331 L, respectively.

Table 8: Water Volumes Produced in Test Wells TW1 and TW2 During Recovery (6-hr Pumping Test)

Test Well ID	Volume of Water Pumped During 6-hr Pumping Test (L; Flowmeter)	Calculated Volume of Water Pumped During 6-Hour Pumping Test (L)	Height of Water Column Recovery After 24 hrs (m)	Volume of Water Produced After 24-hrs of Recovery (L)
TW1	7358	7362	0.15	4967
TW2	7358	7351	0.27	10331

* Calculated volumes assume both test wells are cylindrical, have casing radiuses of 0.46 m and additional water storage extending to a radius of 3.2 m.

Analyses of the 6-hour pumping test conducted on test well TW1 were conducted using AquiferTest 10.0 software in order to estimate aquifer parameters. Aquifer parameters were calculated using the Theis (1935) method for an unconfined aquifer as summarized in the table below. Appendix C includes pumping test analysis reports for drawdown and recovery phases of the pumping test for the pumping well and selected observation wells.

Table 9: Summary of Transmissivity, Hydraulic Conductivity, and Storativity

Well	Type	T (m ² /d)			K (m/s)	S
		Drawdown	Recovery	Mean	Mean	
TW1	Pumping Well	-	4x10 ¹	4x10 ¹	8x10 ⁻⁵	-
TW2	Observation Well	2x10 ¹	5x10 ¹	3x10 ¹	1x10 ⁻⁴	6x10 ⁻⁴
3629 Quinn Road	Observation Well	3x10 ¹	4x10 ¹	3x10 ¹	1x10 ⁻⁴	2x10 ⁻⁴
Mean				3x10 ¹	9x10 ⁻⁵	4x10 ⁻⁴

The calculated aquifer parameters for pumping well TW1 and observation wells TW2 and 3629 Quinn Road are similar to published literature values for coarse/medium sand (Domenico and Schwartz, 1990), however values are likely representing a composite of fractured limestone and gravel, consistent with the construction materials of dug wells.

In order to calculate the productive capacity of test wells TW1 and TW2, the Farvolden (1959) method was used to estimate a sustainable pumping rate for 20 years without exceeding the available drawdown in the test wells. The Farvolden (1959) method is defined by the following equation:

$$Q_{20} = 0.68 * T * H_A * 0.7$$

Where:

T = Transmissivity (m²/day)

H_A = Available drawdown (m)

Q₂₀ = 20-year safe yield

Using a mean transmissivity value of 3x10¹ m²/d and an available drawdown of 5 m, the Farvolden (1959) method suggests that the test wells can sustain a 20-year safe yield pumping rate of 71.4 m³/day, or 50 L/min.

The suitability of test wells TW1 and TW2 to supply an adequate amount of water for the proposed severances was assessed using the methodology provided in MECP Procedure D-5-5 (MOEE, 1996), which indicates the number of people per dwelling is the number of bedrooms plus one. For the purpose of this study, it is assumed that future residences on the proposed severances will be a four-bedroom single family homes, therefore the number of persons residing in each residence is assumed to be five. Procedure D-5-5 indicates the minimum 'per-person water requirement' is 450 L/day, which is 2,250 L/day per dwelling.

Procedure D-5-5 also indicates that 'peak demand' is assumed to occur over a 120-minute period and is to be based on a per person usage rate of 3.75 L/min during that period. Using this information, the 'peak demand rate' per four-bedroom house is 3.75 x 5 = 18.75 L/min for a total of 2,250 L over a 120-min period. The pumping rate used for the pumping tests at TW1 and TW2 was 20.5 L/min therefore a total of 7,358 L was pumped from each test well in 360 mins and still had approximately 96% of the initial water column remaining above the pump. The Farvolden (1959) method, calculated using measured aquifer parameters of the test wells, also suggests that the test wells can sustain a 20-year safe yield pumping rate of 50 L/min. Based on the recovery data measured during the two 6-hr pumping tests, test wells TW1 and TW2 can supply between 4,967 L and 10,331 L of groundwater over a 24-hr period for domestic use.

Based on this information, both test wells can satisfy the requirements to accommodate both daily and peak water demand requirement for a four-bedroom house based on the D-5-5 procedure (2,250 L/day per dwelling).

The Canadian Mortgage and Housing Corporation's Household Guide to Water Efficiency (CMHC, 2000, revised 2014) indicates that the average daily residential water use in Ontario is 225 L per person per day (1,125 L/day for a four-bedroom house). Current Ontario Building Code requirements (OBC, 2012) for water conservation specify that toilet and shower consumption must now comply with lower use requirements (OBC Table 7.6.4.2.A & B and Table 7.6.4.1). Based on the new requirements, toilet water demand is assumed to be 4.8 L/flush. Shower consumption is assumed to be 7.6 L/min. Toilet use accounts for approximately 25% of total domestic water use, and shower use accounts for approximately 20% (CMHC, 2014). The OBC efficiencies will result in an average per person domestic water usage of 163 L/day. This suggests that the daily household water demand could often be less than 815 L/day.

4 Development Considerations

4.1 Water Treatment

The new severed lots will be serviced by dug wells therefore the following water treatment items are recommended:

- Pre-filtration (25 and/or 10 micron and 5 micron) followed by absolute filtration to less than 1 micron prior to ultraviolet (UV) sterilization.
- UV sterilization with a National Sanitation Foundation (NSF) Class-A (NSF, 2019) device.
- Under-the-counter reverse osmosis system be installed inside the future dwellings for individuals with sodium restricted diets.

Since filtration and disinfection both contribute to the removal or inactivation of waterborne pathogens, both treatment processes are recommended, along with a service contract with a qualified contractor to ensure the on-going maintenance and performance of the water treatment system.

The water within the overburden aquifer has elevated hardness. Installation of a residential grade water softener would reduce the concentrations of hardness and extend the lifespan of the UV sterilization system. Conventional water softeners introduce sodium into the water supply.

The concentration of sodium in the water supply already exceeds the ‘medical notification limit’ of 20 mg/L for people on a sodium reduced diet, so a conventional water softener is not recommended. Softening using potassium chloride salt rather than sodium chloride salt can be used to eliminate additional sodium intake from softened drinking water. Sodium can also be removed from drinking water by using reverse osmosis or by distillation.

4.2 Testing of Treated Water

Treated water from the proposed dug wells for the proposed two-lot severance should be tested on a regular basis for bacteriological parameters. Free microbiological testing for water wells is available through Public Health Ontario. Details regarding sample bottle pickup and sampling procedures can be accessed at the Eastern Ontario Health Unit website (<https://eohu.ca/en/my-environment/well-water-testing>). Sampling should be conducted at a minimum of two times per year, at times when the risk of contamination of the drinking water source is the greatest, (e.g. early spring after the thaw, after an extended dry spell, and/or following heavy rain/flooding).

4.3 Wastewater Treatment and Disposal

MECP’s Procedure D-5-4 (MOEE, 1996) provides a methodology for assessing the risks associated with individual onsite sewage systems. Developments consisting of lots which average 1 hectare (with no lot being smaller than 0.8 hectares) may not require a detailed hydrogeological assessment if it can be demonstrated that the area is not hydrogeologically sensitive. The lot sizes of the proposed lots to be severed are approximately 1.05 hectares each. The site is also considered hydrogeologically sensitive due to thin overburden and is located within an area mapped as ‘inferred karst’, therefore an assessment of the potential impact of effluent from a wastewater treatment system (i.e., a nitrate dilution calculation) was conducted.

The assessment is based on a reasonable estimate of groundwater recharge by infiltration from precipitation. The method relies on estimates of evaporation, evapotranspiration, infiltration and runoff and inputs regarding surficial soil type, vegetative ground cover and topography. A nitrate effluent concentration of 40 mg/L and a wastewater flow of 1,000 Litre/day per lot is used (based on OBC Table 8.2.1.3.A, which indicates a daily rate of 2,000 L/day for 2 x 4-bedroom dwelling).

A mean annual precipitation value (net of evaporation and evapotranspiration processes) of 965.6 mm/year was used (Environment Canada, Climate Normals 2022 – Centreville).

An estimation of infiltration was calculated based on site specific information and the infiltration factors provided in the document MOEE Hydrogeological Technical Information Requirements for Land Development Applications (MOEE, 1995). The calculations are provided in Appendix D. The assessment shows that the nitrate impact for the proposed severances will be approximately 5.8 mg/L. This assessment shows that nitrate in effluent from proposed development will have an acceptable impact on receiving water quality.

4.3.1 Sewage System Design

Based on the assessed terrain conditions (thin overburden), a fully raised tile bed is anticipated for the proposed severed lot. Any proposed septic system design should be supported by a lot-specific assessment meeting local septic approval requirements.

Sewage systems are designed according to Part 8 of the Ontario Building Code (OBC, 2012). The OBC sets out minimum design and construction standards for all approved classes of sewage systems. It is proposed that this site be serviced with traditional Class 4 sewage systems consisting of a septic tank and separate leaching bed.

Wherever possible, leaching beds should be located down gradient from any nearby wells or surface water bodies. The Ontario Building Code stipulates minimum clearance distances for in-ground and raised tile beds. Table 6 gives clearances for the various types of beds. In order to provide a safety margin, it is BluMetric’s recommendation that an offset of at least 45 m (1.5x minimum clearance) be observed between an onsite wastewater treatment system and TW1 and TW2. The septic system and bed should be placed in a downgradient or side gradient location relative to the planned dug well. Clearance distances in Table 6 also apply to wells and sewage systems located on neighbouring lots. A conceptual lot development plan showing setbacks is included as Figure 4.

Table 10: Tile Bed Clearances

Surface Feature	Minimum Clearance (m)		
	In-ground	Partially Raised	Fully Raised
Water supply well with a watertight casing to a depth of 6 m	15	16.5	18
Any other water supply well (including dug wells)	30	31.5	33
Surface water body*	15	16.5	18
Structures	5	7.5	8
Lot boundaries	3	4.5	6

Source: Table 8.2.1.6B of O.Reg. 332/12, as amended (Ontario Building Code) and increased for a 1.5 m fully raised leaching bed as required by Sentence 8.7.4.2.(11).

The homeowner is advised to have the on-site wastewater system inspected regularly and to follow a wastewater system management program to minimize the risk of failure and impact to the groundwater. Existing tile bed drainage system should be disconnected prior to installation of future septic bed systems.

Best management practices are recommended such as regular pumping of the septic system, cursory inspection of break-out, consideration as to what materials are being discharged to the septic. It is recommended that homeowners take all reasonable measures to conserve water and promote infiltration of water into the subsurface within each of their lots. The homeowner shall consult the following guides available at: <https://www.oowa.org/homeowner-resources/>

- A Guide to Operating & Maintaining Your Septic System
- About Your House: Buying a House with a Well and Septic System

5 Conclusions and Recommendations

The following conclusions and recommendations are based on the investigations and analyses contained within this report:

- The dug wells TW1 (on the western lot) and TW2 (on the eastern lot) are suitable for the purpose of characterizing the bedrock aquifer at the subject site.
- TW1 on the proposed western lot and TW2 on the eastern lot to be severed will provide a sufficient quantity of water for a four-bedroom household based on daily and peak water demands outlined in the D-5-5 procedure.
- In BluMetric's professional opinion the probable well yield determined on the basis of this investigation is representative of the yield which residents of the proposed lots to be severed are likely to obtain from existing dug wells in the long term.
- The water quality at TW1 and TW2 was found to satisfy the health-related limits of the ODWSOG.
- Pre-filtration and absolute filtration to less than 1 micron prior to ultraviolet (UV) sterilization is recommended.
- Treated water should be tested on a regular basis to ensure the efficacy of the water treatment system. Samples should be tested for bacteriological parameters, and sampling should be conducted at a minimum of two times per year, at times when the risk of contamination of the drinking water source is the greatest (e.g., early spring after the thaw, after an extended dry spell, and/or following heavy rains/flooding).

- The laboratory analytical results for hardness exceeded the Operational Guideline limit (a non-health related parameter). Elevated hardness can be treated with a residential grade water softener. Water softening using potassium chloride salt rather than sodium chloride salt can potentially be used to eliminate additional sodium intake from softened drinking water.
- The laboratory analytical results for sodium exceeded the Aesthetic Guideline limit (a non-health related parameter). Elevated sodium can be treated with under-the-counter reverse osmosis systems installed inside the future dwellings for individuals with sodium restricted diets.
- The proposed lots to be severed are suitable for development at the proposed occupancy based on servicing by individual private wells and onsite septic waste treatment systems.
- Based on the assessed terrain conditions (thin overburden), raised tile beds are anticipated for the proposed severed lots. Any proposed septic system design should be supported by a lot-specific assessment meeting local septic approval requirements.
- The site is considered to be hydrogeologically sensitive due to the need for dug wells as the only source of potable water. As a precautionary measure, the setback distance between a future raised Class 4 sewage system and dug wells on the proposed lots should be at least 45 m.

6 Limiting Conditions

The conclusions presented in this report represent our professional opinion and are based upon the work described in this report and any limiting conditions in the terms of reference, scope of work, or conditions noted herein.

BluMetric makes no warranty as to the accuracy or completeness of the information provided by others, or of conclusions and recommendations predicated on the accuracy of that information.

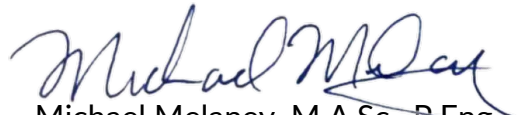
Nothing in this report is intended to constitute or provide a legal opinion. BluMetric makes no representation as to compliance with environmental laws, rules, regulations, or policies established by regulatory agencies.

This report has been prepared for Robert Pittman. Any use a third party makes of this report, any reliance on the report, or decisions based upon the report, are the responsibility of those third parties unless authorization is received from BluMetric in writing. BluMetric accepts no responsibility for any loss or damages suffered by any unauthorized third party as a result of decisions made or actions taken based on this report.

Respectfully submitted,
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7 References

Canada Mortgage and Housing Corporation (CMHC), 2000 (Revised 2014). Household Guide to Water Efficiency.

Drage, J. 2022. Domestic Wells Introduction and Overview. The Groundwater Project, Guelph, Ontario, Canada.

Environment Canada, 2022. Canadian Climate Normals and Averages website:
https://climate.weather.gc.ca/climate_normals/index_e.html

Environment Canada, 2010. Meteorological Service of Canada. Compiled moisture surplus values for Ottawa, Lachute, Mason Anger, Morrisburg

National Sanitation Foundation (NSF) / American National Standards Institute (ANSI), 2019. NSF/ANSI 55-2019 Ultraviolet Microbiological Water Treatment Systems.

Ontario Building Code (OBC), 2012 as amended. O. Reg. 332/12: Building Code under Building Code Act, 1992, S.O. 1992.

Ontario GeoHub, 2024. Ontario Watershed Boundaries (OWB) GIS portal at:
<https://geohub.lio.gov.on.ca/maps/mnrf::ontario-watershed-boundaries-owb/>

Ontario Geological Survey (OGS), OGS Earth website, 2024. Various authors.
<https://www.geologyontario.mndm.gov.on.ca/ogsearth.html>

Ontario Ministry of Environment Conservation and Parks (MECP), 2022a. Water Well Information System (WWIS) online GIS map. <https://www.ontario.ca/page/map-well-records>

Ontario Ministry of Environment (MOE), 2003. Technical Support Document for Ontario Drinking Water Standards, Objectives and Guidelines (ODWSOG) (June 2003). As amended/revised under Ontario Regulation 169/03, 2021.

<https://www.canlii.org/en/on/laws/regu/o-reg-169-03/latest/o-reg-169-03.html>
<https://wccw.ca/wp-content/uploads/2021/08/Technical-Support-Documents-for-Ontario-Drinking-Water-Standards-Objectives-and-Guidelines.pdf>

Ontario Ministry of Environment and Energy (MOEE), 1994. Water Management, Policies, Guidelines, Provincial Water Quality Objectives (PWQO).

Ontario Ministry of Environment and Climate Change (MOECC), 2015. Water Supply Wells Requirements and Best Management Practices, (Revised April 2015) website at: <https://dr6j45jk9xcmk.cloudfront.net/documents/4410/a-wwbmp-title-master-table-of-contents-chapter-1.pdf>

Ontario Ministry of Environment Conservation and Parks (MECP), 2024a. Water Well Information System (WWIS) online GIS and database. <https://www.ontario.ca/page/map-well-records>

Ontario Ministry of Environment Conservation and Parks (MECP), 2024b. Permits to Take Water (PTTW) online GIS. <https://www.ontario.ca/page/map-permits-take-water>

Ontario Ministry of Environment and Energy (MOEE), 1996. Procedure D-5-4, Technical Guideline for Individual On-Site Sewage Systems: Water Quality Impact Risk Assessment, August 1996 (revised).

Ontario Ministry of Environment and Energy (MOEE), 1996. Procedure D-5-5, Technical Guidance for Private Wells: Water Supply Assessment, August 1996 (revised).

Ontario Regulation 319/09, 2009. Quinte Conservation Authority: Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses. <https://www.canlii.org/en/on/laws/regu/o-reg-319-09/latest/o-reg-319-09.html>

Ontario Safe Drinking Water Act, 2002. <https://www.ontario.ca/laws/statute/02s32>

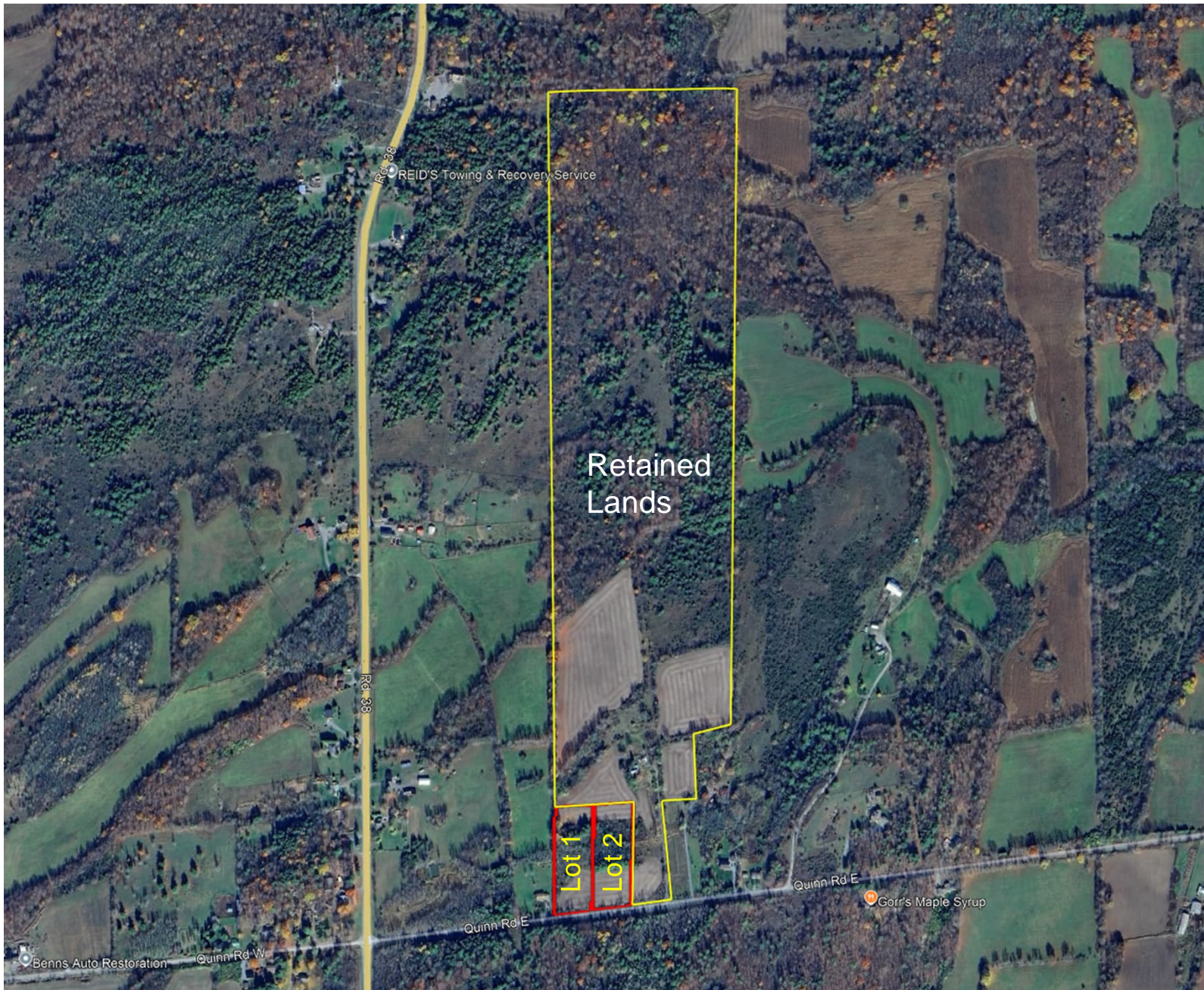
Ontario Water Resources Act, 1990. Revised Statute of Ontario (R.S.O.), Ontario Regulation 903 (O.Reg. 903), 1990, Wells.

Theis, C.V., 1935. The relation between the lowering of the piezometric surface and the rate and duration of discharge of a well using groundwater storage, Trans. American Geophysical Union, Vol. 16, pp. 519-524.

Thornthwaite, C. W., and Mather, J.R., 1957: Instructions and tables for computing potential evapotranspiration and the water balance. Publications in climatology, Volume 10(3), Laboratory of Climatology.

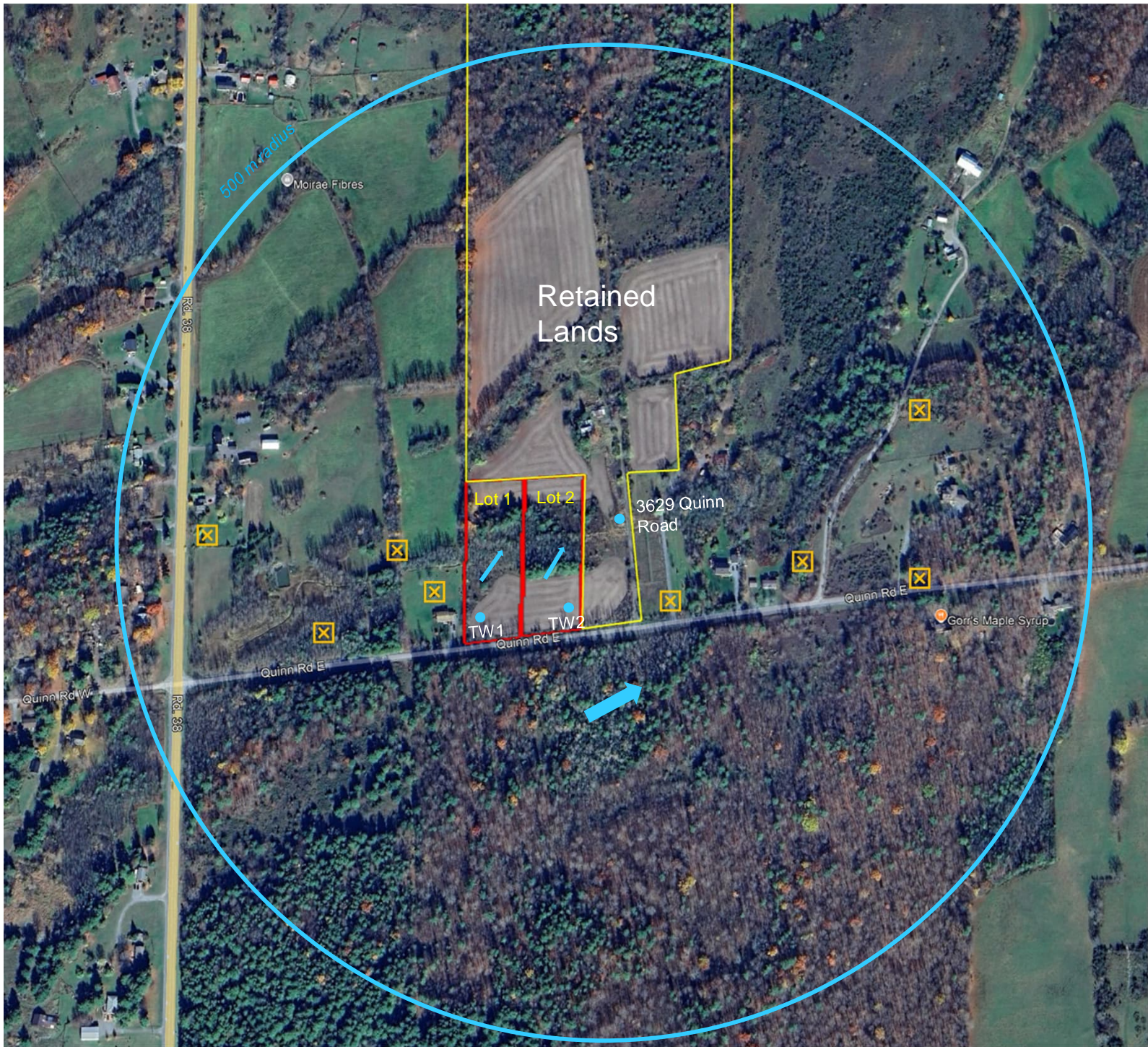
United Counties of Prescott and Russell, 2022. Geographic information system (GIS) at:
<https://alacarte.prescott-russell.on.ca/Html5Viewer/Index.html?Viewer=Public>

Figures



- Indicates Proposed Lot Severances
- Indicates Retained Lands

Figure 2 – Site Layout







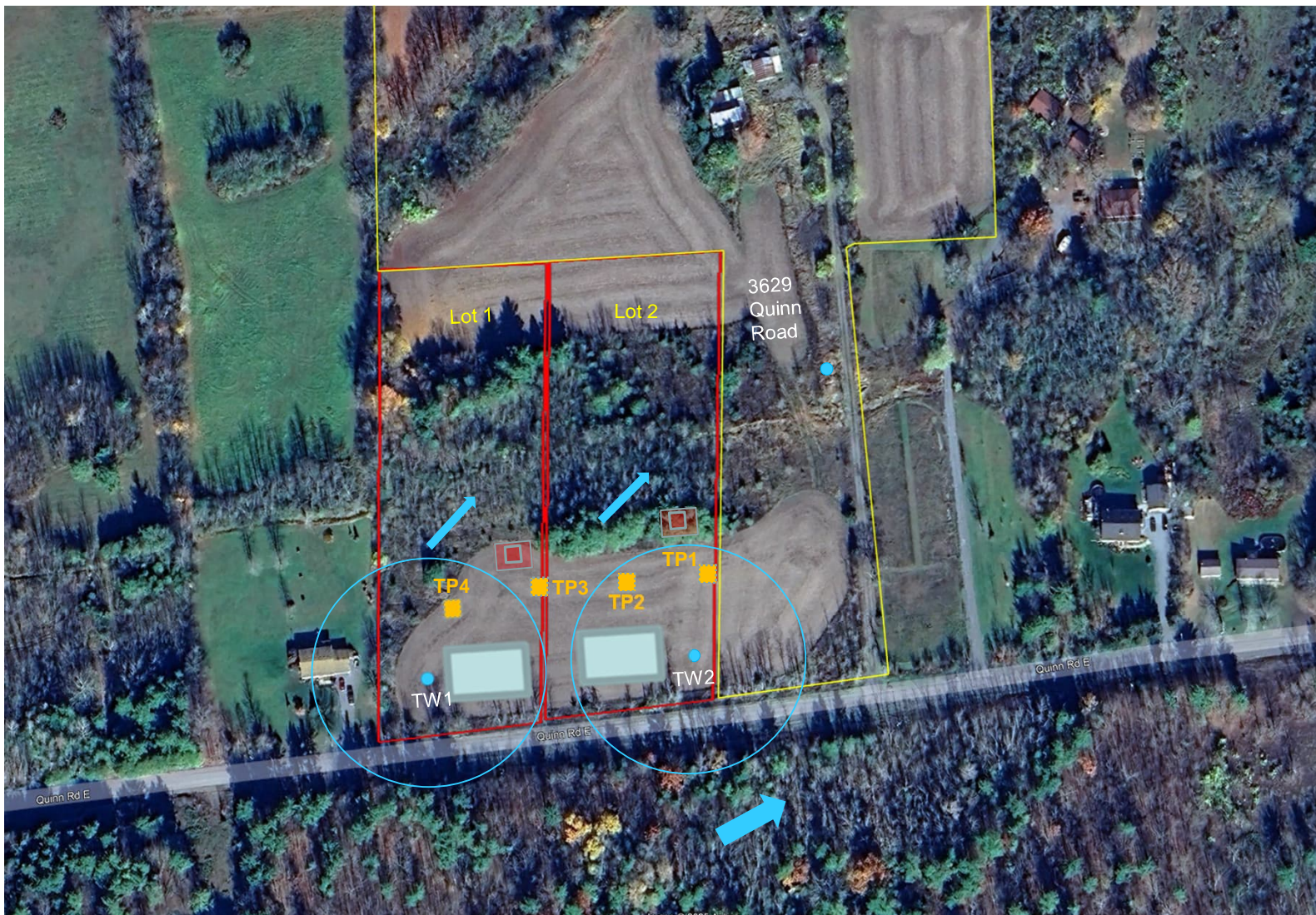

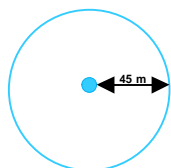
-  Indicates Well Record Location and ID
-  Indicates Proposed Lot Severances
-  Inferred Regional Drainage Direction
-  Inferred Shallow Groundwater Flow and Drainage Direction


Figure 3 – MECP Well Locations



TP4
 Indicates Test Pit Location (August 6, 2024) and depth in metres
0.6 m


 Denotes minimum 45 m separation setback between well supply and septic system

 Indicates Proposed Lot Severances

 Indicates Supply Well Location

 Indicates Recommended Residence Location

 Indicates Recommended Septic System Location

 Inferred Shallow Groundwater and Drainage Flow Direction

 Inferred Regional Groundwater Flow Direction

 Well Location

Figure 4 - Conceptual Lot Development Plan

Appendix A

Well Records

Measurements recorded in: Metric Imperial

A350546

Well Owner's Information

First Name: ROBERT, Last Name/Organization: PITMAN, E-mail Address: robertgregorup@gmail.com, Mailing Address: 46 FRAN DR., Municipality: WOODBRIDGE, Province: ON, Postal Code: L4L1P3, Telephone No.: 9053205425

Well Location

Address of Well Location: QUINN RD, Township: SOUTH FRONTENAC, Lot: PT6, Concession: 3, County/District/Municipality: FRONTENAC, City/Town/Village: HARROWSMITH, Province: Ontario, Postal Code: , UTM Coordinates: Zone 18, Easting 369731, Northing 4915345, Municipal Plan and Sublot Number: 13R7028, Other: PARTS 2 & 3

Overburden and Bedrock Materials/Abandonment Sealing Record (see instructions on the back of this form)

Table with 5 columns: General Colour, Most Common Material, Other Materials, General Description, Depth (m/ft) From To. Rows include BLACK TOPSOIL, BROWN LOAM, GREY LIMESTONE.

Annular Space table with 4 columns: Depth Set at (m/ft) From To, Type of Sealant Used (Material and Type), Volume Placed (m³/ft³). Row: 0 to 2.5 CHAY, 20.

Method of Construction and Well Use checkboxes. Includes Cable Tool, Rotary, Boring, Air percussion, etc.

Construction Record - Casing table with 5 columns: Inside Diameter (cm/in), Open Hole OR Material, Wall Thickness (cm/in), Depth (m/ft) From To, Status of Well. Row: 90, CONCRETE, 7.6, 0 to 6.53.

Construction Record - Screen table with 5 columns: Outside Diameter (cm/in), Material, Slot No., Depth (m/ft) From To, Status of Well.

Water Details and Hole Diameter sections. Water found at Depth 3 (m/ft), Kind of Water: Fresh.

Well Contractor and Well Technician Information. Business Name: FRANK'S DRILLING & BLASTING LTD, Well Contractor's Licence No. 4881, Business Address: P.O. BOX 100, NEWBURGH, Province: ON, Postal Code: K0K2S0, Business E-mail Address: info@fobhd.com, Name of Well Technician: GREG, Well Technician's Licence No. 21603, Date Submitted: 20230514.

Results of Well Yield Testing table. Columns: Draw Down (Time, Water Level), Recovery (Time, Water Level). Includes pumping rate 675 l/min/GPM, final water level 3.81 m/ft.

Map of Well Location and Ministry Use Only section. Map shows QUINN RD, DEWEY LN, PROPERTY LINE, WEST LOT, and well location. Ministry Use Only: Audit No. 2427879, Date Package Delivered: 20230514, Date Work Completed: 20230430.

Measurements recorded in: Metric Imperial

A350547

Well Owner's Information

First Name: **ROBERT** Last Name/Organization: **PITMAN** E-mail Address: **robertgrogan@gmail.com** Well Constructed by Well Owner

Mailing Address (Street Number/Name): **46 FRAN DR** Municipality: **WOODBRIDGE** Province: **ON** Postal Code: **L4L1P3** Telephone No. (inc. area code): **905-320-5425**

Well Location

Address of Well Location (Street Number/Name): **QUINN RD** Township: **SOUTH FRONTENAC** Lot: **PT6** Concession: **3**

County/District/Municipality: **FRONTENAC** City/Town/Village: **HARROWSMITH** Province: **Ontario** Postal Code:

UTM Coordinates Zone Easting Northing: **NAD 83 181367825 4915358** Municipal Plan and Sublot Number: **13R7028** Other: **PARTS 2:3**

Overburden and Bedrock Materials/Abandonment Sealing Record (see instructions on the back of this form)

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft)	
				From	To
BLACK	TORSOIL			0	0.3
BROWN	LOAM			0.3	1.5
GREY	LIMESTONE			1.5	6.53

Annular Space

Depth Set at (m/ft)	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
0 To 2.5	CLAY	20

Results of Well Yield Testing

After test of well yield, water was:
 Clear and sand free
 Other, specify _____

If pumping discontinued, give reason: _____

Time (min)	Draw Down		Recovery	
	Water Level (m/ft)	Time (min)	Water Level (m/ft)	Time (min)
Static Level	1.17		5.08	
1		1		
2				
3				
4				
5		5		
10			10	
15			15	
20			20	
25			25	
30			30	
40			40	
50			50	
60	5.08	60	4.45	

Pump intake set at (m/ft): **6.53**

Pumping rate (l/min / GPM): **6.75**

Duration of pumping: _____ hrs + **60** min

Final water level end of pumping (m/ft): **5.08**

If flowing give rate (l/min/GPM): _____

Recommended pump depth (m/ft): **6.53**

Recommended pump rate (l/min/GPM): _____

Well production (l/min/GPM): **90+**

Disinfected? Yes No

Method of Construction

Cable Tool Diamond Public Commercial Not used

Rotary (Conventional) Jetting Domestic Municipal Dewatering

Rotary (Reverse) Driving Livestock Test Hole Monitoring

Boring Digging Irrigation Cooling & Air Conditioning

Air percussion Industrial Other, specify _____

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft)		Status of Well
			From	To	
90	CONCRETE	7.6	0	6.53	<input checked="" type="checkbox"/> Water Supply <input type="checkbox"/> Replacement Well <input type="checkbox"/> Test Hole <input type="checkbox"/> Recharge Well <input type="checkbox"/> Dewatering Well <input type="checkbox"/> Observation and/or Monitoring Hole <input type="checkbox"/> Alteration (Construction) <input type="checkbox"/> Abandoned, Insufficient Supply <input type="checkbox"/> Abandoned, Poor Water Quality <input type="checkbox"/> Abandoned, other, specify _____ <input type="checkbox"/> Other, specify _____

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft)	
			From	To

Water Details

Water found at Depth **3** (m/ft) Gas Fresh Untested Other, specify _____

Water found at Depth _____ (m/ft) Gas Fresh Untested Other, specify _____

Water found at Depth _____ (m/ft) Gas Fresh Untested Other, specify _____

Hole Diameter

Depth (m/ft)	Diameter (cm/in)		
		From	To

Well Contractor and Well Technician Information

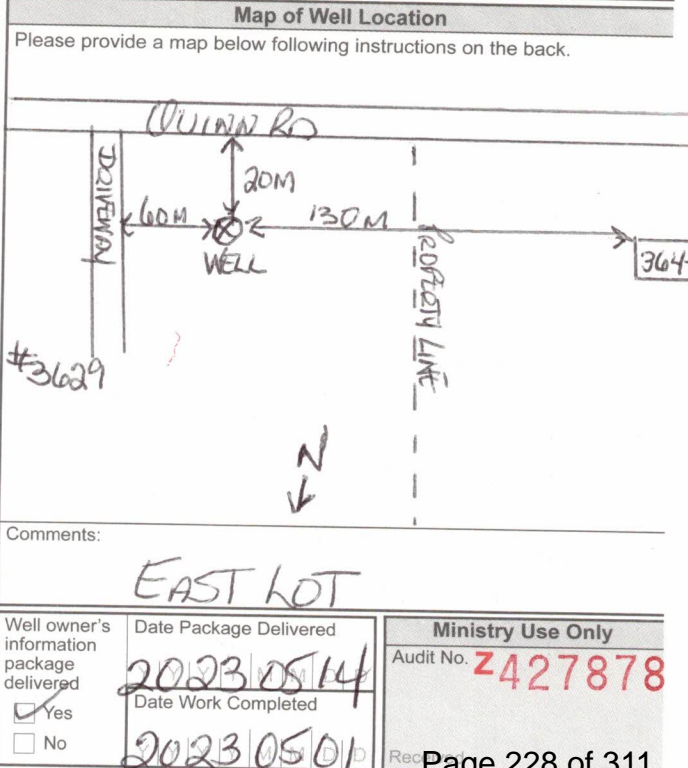
Business Name of Well Contractor: **FRANK'S DRILLING & BLASTING LTD.** Well Contractor's Licence No.: **68881**

Business Address (Street Number/Name): **P.O. BOX 100** Municipality: **NEWBURGH**

Province: **ON** Postal Code: **K0K2S0** Business E-mail Address: **info@fobhd.com**

Bus. Telephone No. (inc. area code): **613-378-2178** Name of Well Technician (Last Name, First Name): **PARR, GREG**

Well Technician's Licence No.: **2603** Signature of Technician and/or Contractor: _____ Date Submitted: **20230514**



Well owner's information package delivered: Yes No

Date Package Delivered: **20230514**

Date Work Completed: **20230501**

Ministry Use Only

Audit No. **2427878**

WTM 1182 367560 Per 111
 5R 491151120 Per 7
 2204349
 3 9



B

Elev. 4R 0545
 Basin 214

The Ontario Water Resources Commission Act

WATER WELL RECORD

County or District Frontenac Township, Village, Town or City Portland
 Con. 3 Lot 7 Date completed 3rd June 1968
 (day month year)
 Address Harrow Smith

Casing and Screen Record

Inside diameter of casing 6 1/2"
 Total length of casing 71
 Type of screen
 Length of screen
 Depth to top of screen
 Diameter of finished hole 5 7/8

Pumping Test

Static level 10'
 Test-pumping rate 3 G.P.M.
 Pumping level 31
 Duration of test pumping 20 min
 Water clear or cloudy at end of test cloudy
 Recommended pumping rate 2 G.P.M.
 with pump setting of 33 feet below ground surface

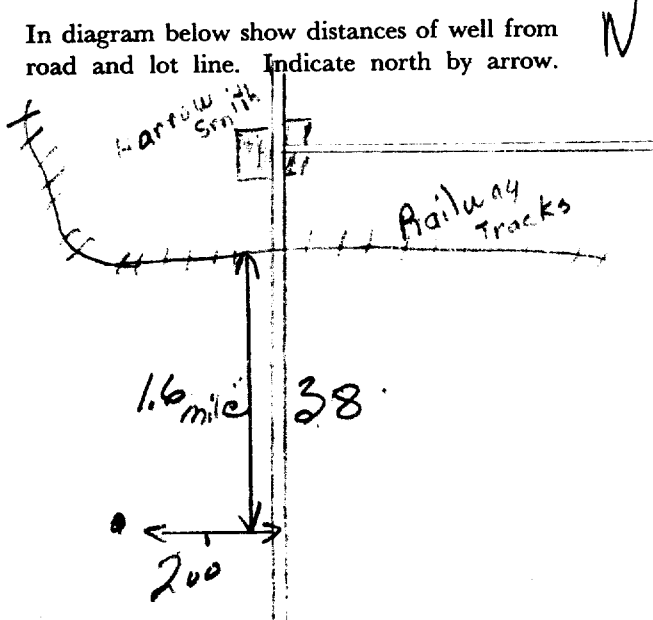
Well Log

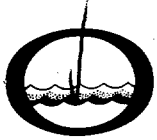
Water Record

Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	Kind of water (fresh, salty, sulphur)
<u>Logan</u>	<u>0</u>	<u>2</u>		
<u>Soft Grey Limestone</u>	<u>2</u>	<u>10</u>		
<u>Hard Grey Limestone</u>	<u>10</u>	<u>34</u>	<u>8</u>	<u>Fresh</u>

For what purpose(s) is the water to be used? House
 Is well on upland, in valley, or on hillside? upland
 Drilling or Boring Firm Lorne Campbell
1968
 Address Newburgh
 Licence Number 2910
 Name of Driller or Borer Bruce Campbell
 Address Newburgh
 Date July 13/68
 (Signature of Licensed Drilling or Boring Contractor)

Location of Well





The Ontario Water Resources Commission Act

WATER WELL RECORD

312 / 79

Water management in Ontario

1. PRINT ONLY IN SPACES PROVIDED

2. CHECK CORRECT BOX WHERE APPLICABLE

11

2205095

MUNICIP

22016

CON

CDN

03

COUNTY OR DISTRICT

TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE

CON., BLOCK, TRACT, SURVEY, ETC.

LOT 25-27

8

Portland

3

8006

DATE COMPLETED

DAY 26 MO 03 YR 70

15540

4

0545

5

24

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET	
				FROM	TO
brown clay	blue limestone			0	3
				3	92
		rubber seal cap			

31

0003605

0092315

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER			
10-13	<input checked="" type="checkbox"/> FRESH	<input type="checkbox"/> SALTY	<input type="checkbox"/> SULPHUR	<input type="checkbox"/> MINERAL
15-18	<input type="checkbox"/> FRESH	<input type="checkbox"/> SALTY	<input type="checkbox"/> SULPHUR	<input type="checkbox"/> MINERAL
20-23	<input type="checkbox"/> FRESH	<input type="checkbox"/> SALTY	<input type="checkbox"/> SULPHUR	<input type="checkbox"/> MINERAL
25-28	<input type="checkbox"/> FRESH	<input type="checkbox"/> SALTY	<input type="checkbox"/> SULPHUR	<input type="checkbox"/> MINERAL
30-33	<input type="checkbox"/> FRESH	<input type="checkbox"/> SALTY	<input type="checkbox"/> SULPHUR	<input type="checkbox"/> MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET	
			FROM	TO
10-11	<input checked="" type="checkbox"/> STEEL	188	0	13-18
17-18	<input type="checkbox"/> STEEL			20-23
24-25	<input type="checkbox"/> STEEL			27-30

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)
10-13	14-17
18-21	22-25
26-29	30-33

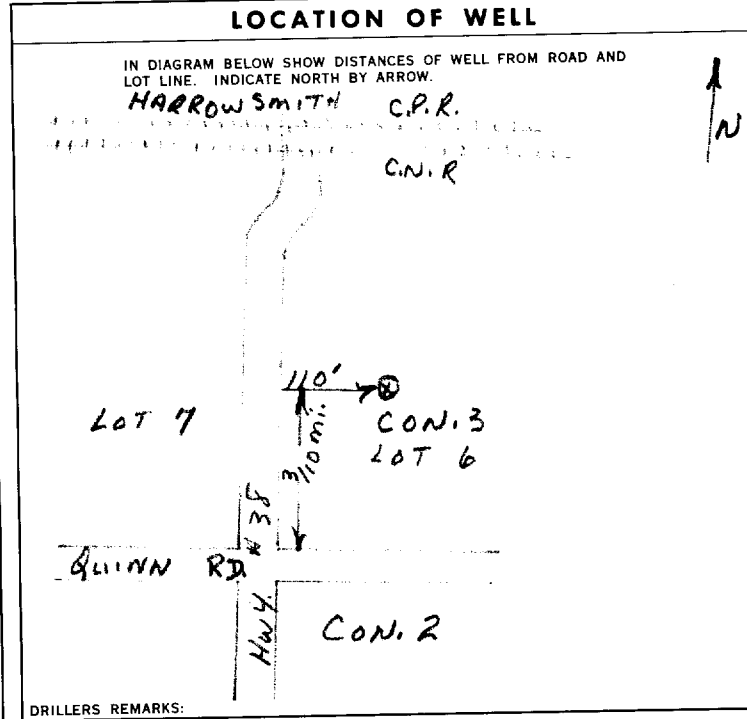
71 PUMPING TEST

PUMPING TEST METHOD	PUMPING RATE GPM	DURATION OF PUMPING HOURS
<input checked="" type="checkbox"/> PUMP <input checked="" type="checkbox"/> BAILER	0005	01 30

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING
004	092	15 MINUTES: 072, 30 MINUTES: 090, 45 MINUTES: 090, 60 MINUTES: 090

IF FLOWING, GIVE RATE GPM	PUMP INTAKE SET AT FEET	WATER AT END OF TEST
000.1	70	<input checked="" type="checkbox"/> CLEAR <input type="checkbox"/> CLOUDY

RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING FEET	RECOMMENDED PUMPING RATE GPM
<input type="checkbox"/> SHALLOW <input type="checkbox"/> DEEP	090	0003



FINAL STATUS OF WELL

<input checked="" type="checkbox"/> WATER SUPPLY	<input type="checkbox"/> ABANDONED, INSUFFICIENT SUPPLY
<input type="checkbox"/> OBSERVATION WELL	<input type="checkbox"/> ABANDONED, POOR QUALITY
<input type="checkbox"/> TEST HOLE	<input type="checkbox"/> UNFINISHED
<input type="checkbox"/> RECHARGE WELL	

WATER USE

<input checked="" type="checkbox"/> DOMESTIC	<input type="checkbox"/> COMMERCIAL
<input type="checkbox"/> STOCK	<input type="checkbox"/> MUNICIPAL
<input type="checkbox"/> IRRIGATION	<input type="checkbox"/> PUBLIC SUPPLY
<input type="checkbox"/> INDUSTRIAL	<input type="checkbox"/> COOLING OR AIR CONDITIONING
<input type="checkbox"/> OTHER	<input type="checkbox"/> NOT USED

METHOD OF DRILLING

<input checked="" type="checkbox"/> CABLE TOOL	<input type="checkbox"/> BORING
<input type="checkbox"/> ROTARY (CONVENTIONAL)	<input type="checkbox"/> DIAMOND
<input type="checkbox"/> ROTARY (REVERSE)	<input type="checkbox"/> JETTING
<input type="checkbox"/> ROTARY (AIR)	<input type="checkbox"/> DRIVING
<input type="checkbox"/> AIR PERCUSSION	

CONTRACTOR	NAME OF WELL CONTRACTOR	LICENCE NUMBER
	Wm H. Dougal Son	1704
	Verona	
CONTRACTOR	NAME OF DRILLER OR BOREH	LICENCE NUMBER
	Bill Crosbie	
	Signature of Contractor	SUBMISSION DATE
	DAY 26 MO 3 YR 70	

OFFICE USE ONLY	DATA SOURCE	CONTRACTOR	DATE RECEIVED
	1	1704	110970
	DATE OF INSPECTION	INSPECTOR	
		P. Km	
	REMARKS:		



The Ontario Water Resources Commission Act

WATER WELL RECORD

31079

Water management in Ontario 1. PRINT ONLY IN SPACES PROVIDED

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2205784

MUNICIP. 22016

CON. 02W

92

COUNTY OR DISTRICT

TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE

CON., BLOCK, TRACT, SURVEY, ETC.

LOT 25-27

FRONTENAC

PORTLAND

DATE COMPLETED 48-53

DAY 21 MO. 03 YR 72

3 HARROWSMITH

15110

RC 4

ELEVATION 0525

RC 5

BASIN CODE 24

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET	
				FROM	TO
Brown	Loam	SHALE	SOFT	0'	8'
Blue	Limestone		HARD	8'	120'

31

00080217 0120315

32

41

WATER RECORD

51 CASING & OPEN HOLE RECORD

WATER FOUND AT - FEET	KIND OF WATER			
10-13	1 <input checked="" type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR		
	2 <input type="checkbox"/> SALTY	4 <input type="checkbox"/> MINERAL		
15-18	1 <input type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR		
	2 <input type="checkbox"/> SALTY	4 <input type="checkbox"/> MINERAL		
20-23	1 <input type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR		
	2 <input type="checkbox"/> SALTY	4 <input type="checkbox"/> MINERAL		
25-28	1 <input type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR		
	2 <input type="checkbox"/> SALTY	4 <input type="checkbox"/> MINERAL		
30-33	1 <input type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR		
	2 <input type="checkbox"/> SALTY	4 <input type="checkbox"/> MINERAL		

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET	
06-11	1 <input checked="" type="checkbox"/> STEEL	.188	0'	0032
	2 <input type="checkbox"/> GALVANIZED			21 1/2
	3 <input type="checkbox"/> CONCRETE			
	4 <input type="checkbox"/> OPEN HOLE			
17-18	1 <input type="checkbox"/> STEEL			20-23
	2 <input type="checkbox"/> GALVANIZED			
	3 <input type="checkbox"/> CONCRETE			
	4 <input checked="" type="checkbox"/> OPEN HOLE			0120
24-25	1 <input type="checkbox"/> STEEL			27-30
	2 <input type="checkbox"/> GALVANIZED			
	3 <input type="checkbox"/> CONCRETE			
	4 <input type="checkbox"/> OPEN HOLE			

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET
	34-38	39-40

61 PLUGGING & SEALING RECORD

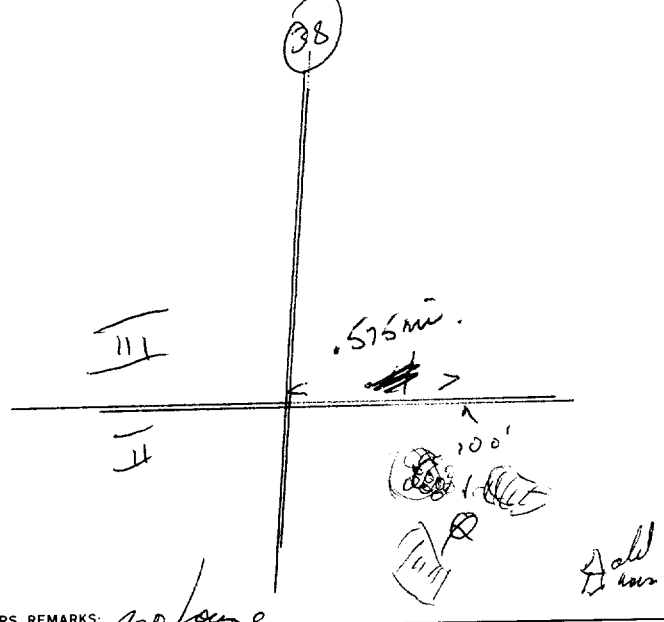
DEPTH SET AT - FEET	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)
10-13	14-17
18-21	22-25
26-29	30-33

71

PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
1 <input type="checkbox"/> PUMP 2 <input checked="" type="checkbox"/> BAILER	0000 74 GPM.	01 15-16 HOURS 00 17-18 MINS.
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING
017 FEET	120 FEET	15 MINUTES 190 FEET 26-28
		30 MINUTES 120 FEET 29-31
		45 MINUTES 120 FEET 32-34
		60 MINUTES 120 FEET 35-37
IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
		1 <input checked="" type="checkbox"/> CLEAR 2 <input type="checkbox"/> CLOUDY
RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
<input type="checkbox"/> SHALLOW <input checked="" type="checkbox"/> DEEP	119 FEET	0000 74 GPM.
50-53 000.0 GPM./FT. SPECIFIC CAPACITY		

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS: no loose

FINAL STATUS OF WELL

- 1 WATER SUPPLY
- 2 OBSERVATION WELL
- 3 TEST HOLE
- 4 RECHARGE WELL
- 5 ABANDONED, INSUFFICIENT SUPPLY
- 6 ABANDONED, POOR QUALITY
- 7 UNFINISHED

WATER USE

- 1 DOMESTIC
- 2 STOCK
- 3 IRRIGATION
- 4 INDUSTRIAL
- 5 OTHER
- 6 COMMERCIAL
- 7 MUNICIPAL
- 8 PUBLIC SUPPLY
- 9 COOLING OR AIR CONDITIONING
- 9 NOT USED

METHOD OF DRILLING

- 1 CABLE TOOL
- 2 ROTARY (CONVENTIONAL)
- 3 ROTARY (REVERSE)
- 4 ROTARY (AIR)
- 5 AIR PERCUSSION
- 6 BORING
- 7 DIAMOND
- 8 JETTING
- 9 DRIVING

CONTRACTOR	NAME OF WELL CONTRACTOR	LICENCE NUMBER
	Am. H. Dany & Son Ltd.	1704
	ADDRESS	
	Victoria Ontario	
CONTRACTOR	NAME OF DRILLER OR BORER	LICENCE NUMBER
	Howard Green	
CONTRACTOR	SIGNATURE OF CONTRACTOR	SUBMISSION DATE
	[Signature]	DAY 21 MO. 3 YR 72

OFFICE USE ONLY	DATA SOURCE	CONTRACTOR	DATE RECEIVED
	1	1704	270672
	DATE OF INSPECTION	INSPECTOR	
		K	
REMARKS:			
annular space open			
			P K
			WI

895-58



The Ontario Water Resources Commission Act

WATER WELL RECORD

31078

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22016

CON.

QPN

03

COUNTY OR DISTRICT: **FRONTENAC** TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: **PORTLAND** CON., BLOCK, TRACT, SURVEY, ETC.: **III** LOT: **007**

DATE COMPLETED: DAY **12** MO. **04** YR. **72**

ING: **15260** RC: **4** ELEVATION: **0540** RC: **5** BASIN CODE: **24**

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET	
				FROM	TO
Brown	Loam		SOFT	0'	3'
Blue	Limestone		HARD	3'	67'

31 0003602 0067315

32

41 WATER RECORD

WATER FOUND - FEET	KIND OF WATER			
10-13	1 <input checked="" type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR	14	
	2 <input type="checkbox"/> SALTY	4 <input type="checkbox"/> MINERAL		
15-18	1 <input type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR	19	
	2 <input type="checkbox"/> SALTY	4 <input type="checkbox"/> MINERAL		
20-23	1 <input type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR	24	
	2 <input type="checkbox"/> SALTY	4 <input type="checkbox"/> MINERAL		
25-28	1 <input type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR	29	
	2 <input type="checkbox"/> SALTY	4 <input type="checkbox"/> MINERAL		
30-33	1 <input type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR	34	
	2 <input type="checkbox"/> SALTY	4 <input type="checkbox"/> MINERAL	80	

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET	
			FROM	TO
00-11	1 <input checked="" type="checkbox"/> STEEL	12		13-16
11-14	2 <input type="checkbox"/> GALVANIZED	.189	0'	71
	3 <input type="checkbox"/> CONCRETE			0007
	4 <input type="checkbox"/> OPEN HOLE			
17-18	1 <input type="checkbox"/> STEEL	19		20-23
	2 <input type="checkbox"/> GALVANIZED			
	3 <input type="checkbox"/> CONCRETE			
	4 <input checked="" type="checkbox"/> OPEN HOLE			0067
24-25	1 <input type="checkbox"/> STEEL	26		27-30
	2 <input type="checkbox"/> GALVANIZED			
	3 <input type="checkbox"/> CONCRETE			
	4 <input type="checkbox"/> OPEN HOLE			

SCREEN

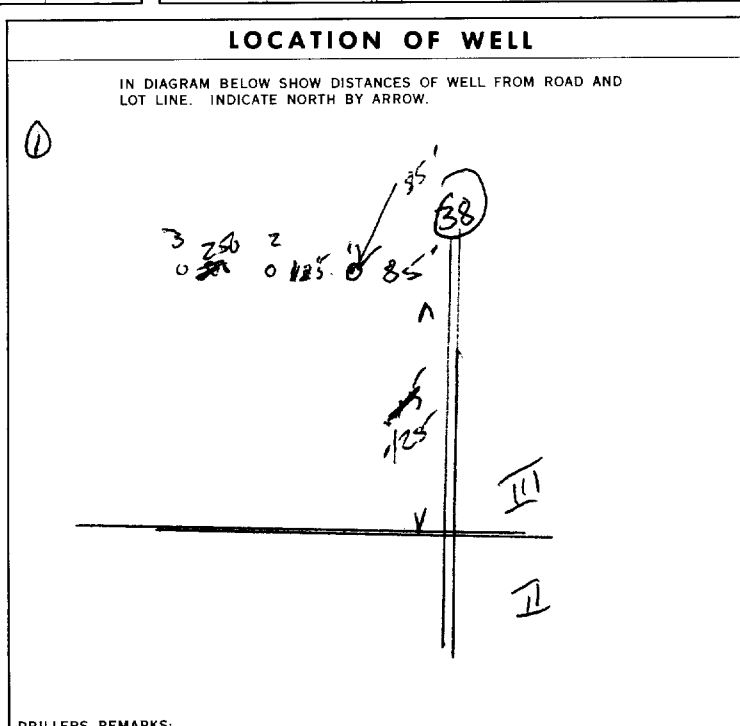
SIZE(S) OF OPENING (SLOT NO.)	DIAMETER	LENGTH
	31-33	34-38
	INCHES	FEET
MATERIAL AND TYPE	DEPTH TO TOP OF SCREEN	
	41-44	80
	FEET	

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET		MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)
FROM	TO	
10-13	14-17	
18-21	22-25	
26-29	30-33	80

71 PUMPING TEST

PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
1 <input type="checkbox"/> PUMP 2 <input checked="" type="checkbox"/> BAILER	0006 GPM.	01 15-16 HOURS 00 17-18 MINS.
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING
19-21	22-24	15 MINUTES 26-28
001 FEET	067 FEET	054 FEET
		067 FEET
		067 FEET
		067 FEET
IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
		1 <input checked="" type="checkbox"/> CLEAR 2 <input type="checkbox"/> CLOUDY
RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
<input type="checkbox"/> SHALLOW <input checked="" type="checkbox"/> DEEP	065 FEET	0005 GPM.
50-53 000.1 GPM./FT. SPECIFIC CAPACITY		



FINAL STATUS OF WELL

1 WATER SUPPLY 5 ABANDONED, INSUFFICIENT SUPPLY
 2 OBSERVATION WELL 6 ABANDONED, POOR QUALITY
 3 TEST HOLE 7 UNFINISHED
 4 RECHARGE WELL

WATER USE

1 DOMESTIC 5 COMMERCIAL
 2 STOCK 6 MUNICIPAL
 3 IRRIGATION 7 PUBLIC SUPPLY
 4 INDUSTRIAL 8 COOLING OR AIR CONDITIONING
 OTHER 9 NOT USED

METHOD OF DRILLING

1 CABLE TOOL 6 BORING
 2 ROTARY (CONVENTIONAL) 7 DIAMOND
 3 ROTARY (REVERSE) 8 JETTING
 4 ROTARY (AIR) 9 DRIVING
 5 AIR PERCUSSION

CONTRACTOR

NAME OF WELL CONTRACTOR: **Shaw, H. Navy & Son Ltd.** LICENCE NUMBER: **1704**
 ADDRESS: **Uxbridge Ont.**
 NAME OF DRILLER OR BORER: **Howard Brown**
 SIGNATURE OF CONTRACTOR: **H. Navy** SUBMISSION DATE: DAY **12** MO. **4** YR. **72**

OFFICE USE ONLY

DATA SOURCE: **1** CONTRACTOR: **1704** DATE RECEIVED: **270672**
 DATE OF INSPECTION: _____ INSPECTOR: **K**
 REMARKS: _____
CS258 WI



1. PRINT ONLY IN SPACES PROVIDED
2. CHECK CORRECT BOX WHERE APPLICABLE

11

2210419

MUNICIP

CON.

COUNTY OR DISTRICT

Frontenac

TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE

Portland

CON. BLOCK, TRACT, SURVEY, ETC.

3

DATE COMPLETED

DAY 17 MO 12

RR3 Harrowsmith, Ontario

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET
Brown	Earth			0 - 13
Blue	Limestone			13 - 110

31	32
----	----

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER			
9	<input checked="" type="checkbox"/> FRESH	<input type="checkbox"/> SALTY	<input type="checkbox"/> SULPHUR	<input type="checkbox"/> MINERAL
15-18	<input type="checkbox"/> FRESH	<input type="checkbox"/> SALTY	<input type="checkbox"/> SULPHUR	<input type="checkbox"/> MINERAL
20-23	<input type="checkbox"/> FRESH	<input type="checkbox"/> SALTY	<input type="checkbox"/> SULPHUR	<input type="checkbox"/> MINERAL
25-28	<input type="checkbox"/> FRESH	<input type="checkbox"/> SALTY	<input type="checkbox"/> SULPHUR	<input type="checkbox"/> MINERAL
30-33	<input type="checkbox"/> FRESH	<input type="checkbox"/> SALTY	<input type="checkbox"/> SULPHUR	<input type="checkbox"/> MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET
6 7/8	STEEL	3/16	0 - 8
17-18	STEEL		20-23
24-25	STEEL		27-30

SCREEN

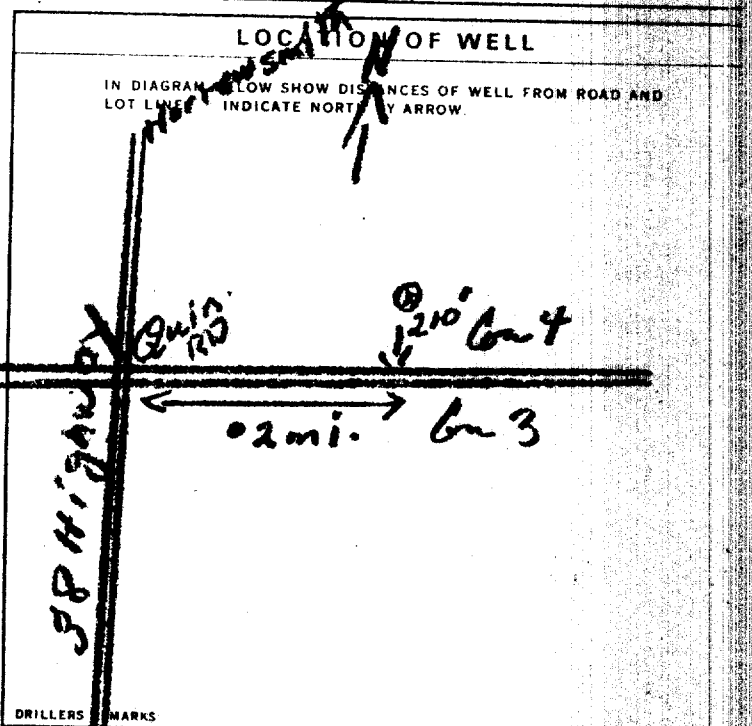
SIZE(S) OF OPENING (SLOF NO 1)	DIAMETER	LENGTH

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET	MATERIAL AND TYPE	CEMENT GROUT LEAD, PACKER, ETC.
10-13		
18-21		
26-29		

71 PUMPING TEST

PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
<input checked="" type="checkbox"/> PUMP	5 GPM	2 HOURS
STATIC LEVEL	WATER LEVELS DURING	
3 FEET	15 MINUTES: 50 FEET	30 MINUTES: 9 FEET
	45 MINUTES: 7 FEET	60 MINUTES: 5 FEET
IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
	109 FEET	
RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
<input checked="" type="checkbox"/> DEEP	109 FEET	5 GPM



FINAL STATUS OF WELL

<input checked="" type="checkbox"/> WATER SUPPLY	<input type="checkbox"/> ABANDONED, INSUFFICIENT SUPPLY
<input type="checkbox"/> OBSERVATION WELL	<input type="checkbox"/> ABANDONED, POOR QUALITY
<input type="checkbox"/> TEST HOLE	<input type="checkbox"/> UNFINISHED
<input type="checkbox"/> RECHARGE WELL	

WATER USE

<input checked="" type="checkbox"/> DOMESTIC	<input type="checkbox"/> COMMERCIAL
<input type="checkbox"/> STOCK	<input type="checkbox"/> MUNICIPAL
<input type="checkbox"/> IRRIGATION	<input type="checkbox"/> PUBLIC SUPPLY
<input type="checkbox"/> INDUSTRIAL	<input type="checkbox"/> COOLING OR AIR CONDITIONING
<input type="checkbox"/> OTHER	<input type="checkbox"/> NOT USED

METHOD OF DRILLING

<input checked="" type="checkbox"/> CABLE TOOL	<input type="checkbox"/> BORING
<input type="checkbox"/> ROTARY (CONVENTIONAL)	<input type="checkbox"/> DIAMOND
<input type="checkbox"/> ROTARY (REVERSE)	<input type="checkbox"/> JETTING
<input type="checkbox"/> ROTARY (AIR)	<input type="checkbox"/> DRIVING
<input type="checkbox"/> AIR PERCUSSION	

CONTRACTOR

NAME OF WELL CONTRACTOR	LICENCE NUMBER
Jack Knox	3202
ADDRESS	
Glenburnie, Ontario	
NAME OF DRILLER OR BORER	LICENCE NUMBER
Law Daddlin	
SIGNATURE OF CONTRACTOR	SUBMISSION DATE
Jack Knox	

OFFICE USE ONLY

DATA SOURCE	CONTRACTOR	DATE RECEIVED
		28 01 86
DATE OF INSPECTION	INSPECTOR	
REMARKS		



WATER WELL RECORD

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK CORRECT BOX WHERE APPLICABLE

11

2211332

MUNICIPALITY: _____ LOT: 4

COUNTY OR DISTRICT: **Frontenac** TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: **Quinn Road** CON. BLOCK, TRACT, SURVEY, ETC.: **3** DATE COMPLETED: **22** MO: **7** YR: **81**

WELL NO.: **3#3, Harrowsmith, Ont. H110**

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET	
				FROM	TO
Blue	Clay			0	1 1/2
Brown	Limestone		Shale	1 1/2	7
Blue	Limestone			7	82
Grey	Limestone			82	84

31 _____ 32 _____

4 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
82	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input checked="" type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET	
			FROM	TO
6 7/8	1 <input checked="" type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE	3/16	0	22
	1 <input type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE			20-23
	1 <input type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE			77-30

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET

MATERIAL AND TYPE: _____ DEPTH TO TOP OF SCREEN: _____

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)
22	10 Annular Cement Grout

71 PUMPING TEST

PUMPING TEST METHOD: 1 PUMP 2 BAILER

PUMPING RATE: **26 Gal. Per. Hr** GPM

DURATION OF PUMPING: _____ HOURS _____ MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING				
50		15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES	
		26-28	29-31	32-34	35-37	

IF FLOWING, GIVE RATE: _____ GPM

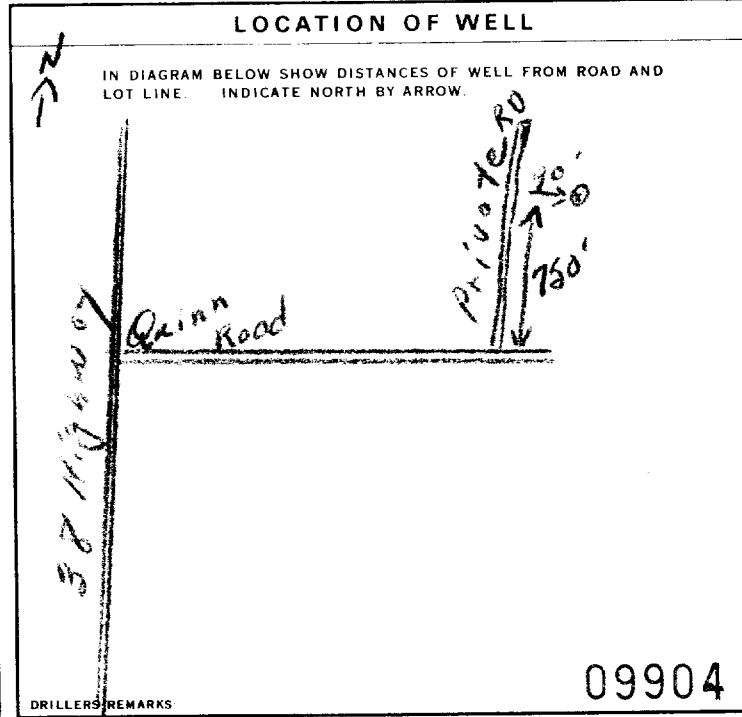
PUMP INTAKE SET AT: _____ FEET

WATER AT END OF TEST: _____ FEET

RECOMMENDED PUMP TYPE: SHALLOW DEEP

RECOMMENDED PUMP SETTING: _____ FEET

RECOMMENDED PUMPING RATE: _____ GPM



FINAL STATUS OF WELL

1 WATER SUPPLY 5 ABANDONED, INSUFFICIENT SUPPLY
2 OBSERVATION WELL 6 ABANDONED, POOR QUALITY
3 TEST HOLE 7 UNFINISHED
4 RECHARGE WELL

WATER USE

1 DOMESTIC 5 COMMERCIAL
2 STOCK 6 MUNICIPAL
3 IRRIGATION 7 PUBLIC SUPPLY
4 INDUSTRIAL 8 COOLING OR AIR CONDITIONING
 OTHER NOT USED

METHOD OF DRILLING

1 CABLE TOOL 6 BORING
2 ROTARY (CONVENTIONAL) 7 DIAMOND
3 ROTARY (REVERSE) 8 JETTING
4 ROTARY (AIR) 9 DRIVING
5 AIR PERCUSSION

CONTRACTOR

NAME OF WELL CONTRACTOR: **Jack Knox** LICENCE NUMBER: **3202**

ADDRESS: **Glenburnie, Ontario**

NAME OF DRILLER OR BOREN: **Arnold Munro** LICENCE NUMBER: **T-0042**

SIGNATURE OF CONTRACTOR: **Jack Knox** SUBMISSION DATE: _____

OFFICE USE ONLY

DATE RECEIVED: **FEB 24 1988**

DATE TO INSPECTOR: _____

REMARKS: _____

CSS.ES



1. PRINT ONLY IN SPACES PROVIDED 2. CHECK [X] CORRECT BOX WHERE APPLICABLE

11 2212739 22016 CON 02

Frontenac Portland R.R. # 3, Harrowsmith II 5 DATE COMPLETED 10 05 89

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

Table with columns: GENERAL COLOUR, MOST COMMON MATERIAL, OTHER MATERIALS, GENERAL DESCRIPTION, DEPTH - FEET (FROM, TO). Rows include Soil, Shale, Limestone, Gravel.

31 32

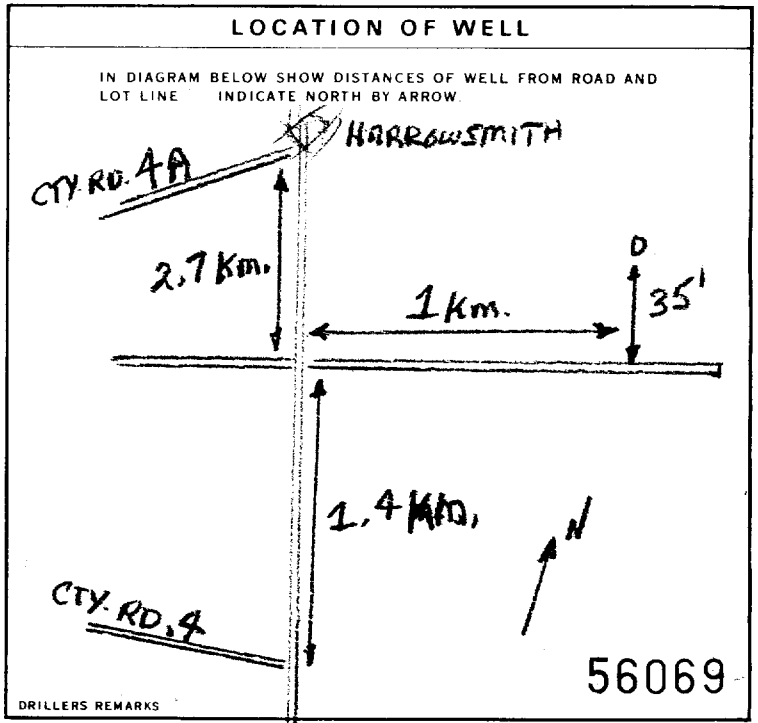
41 WATER RECORD. Includes sections for 10-13, 15-18, 20-23, 25-28, 30-33 with checkboxes for Fresh/Salty, Sulphur/Minerals/Gas.

51 CASING & OPEN HOLE RECORD. Includes sections for 10-11, 17-18, 24-25 with checkboxes for Steel, Galvanized, Concrete, Open Hole, Plastic.

SCREEN. Includes sections for 31-33, 34-38, 39-40 with fields for Size of Opening, Diameter, Length, Material and Type.

61 PLUGGING & SEALING RECORD. Includes sections for 10-13, 15, 18-21, 22-25, 26-29 with fields for Depth Set At, Material and Type.

71 PUMPING TEST. Includes sections for 10, 11-14, 15-16, 17-18, 19-21, 22-24, 25, 26-28, 29-31, 32-34, 35-37, 38-41, 42, 43-45, 46-49.



FINAL STATUS OF WELL, WATER USE, METHOD OF CONSTRUCTION. Includes checkboxes for Water Supply, Domestic, Cable Tool, etc.

CONTRACTOR: CHALK WELL DRILLING LTD. WELL CONTRACTOR'S LICENCE NUMBER: 1507. WELL TECHNICIAN: David Grose, LICENCE NUMBER: 88-202. SUBMISSION DATE: 10 05 89.

OFFICE USE ONLY. DATA SOURCE: 1507. DATE RECEIVED: FEB 27 1990. INSPECTOR: CSS.ES

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK CORRECT BOX WHERE APPLICABLE

11

2214857

MUNICIPALITY 22016

CON. 103

COUNTY OR DISTRICT: Frontenac TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: Portland CON. BLOCK, TRACT, SURVEY ETC: 3 LOT: 5

#3 Harrowsmith, Ontario K0H1V0 DATE COMPLETED DAY 24 MO 5 YR 94

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET	
				FROM	TO
Brown	Shale			0	21
Blue	Limestone			21	59
Green	Limestone			59	61
Blue	Limestone			61	74
Brown	Limestone			74	81

31 32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
74	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERALS 6 <input type="checkbox"/> GAS

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET
6 1/4	1 <input checked="" type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE 5 <input type="checkbox"/> PLASTIC	3/16	0 25

SCREEN

SIZE (S) OF OPENING (SLOT NO.)	DIAMETER	LENGTH
	INCHES	FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET	MATERIAL AND TYPE	(CEMENT GROUT LEAD PACKER, ETC.)
25	4	Annular Cement Grout

71 PUMPING TEST

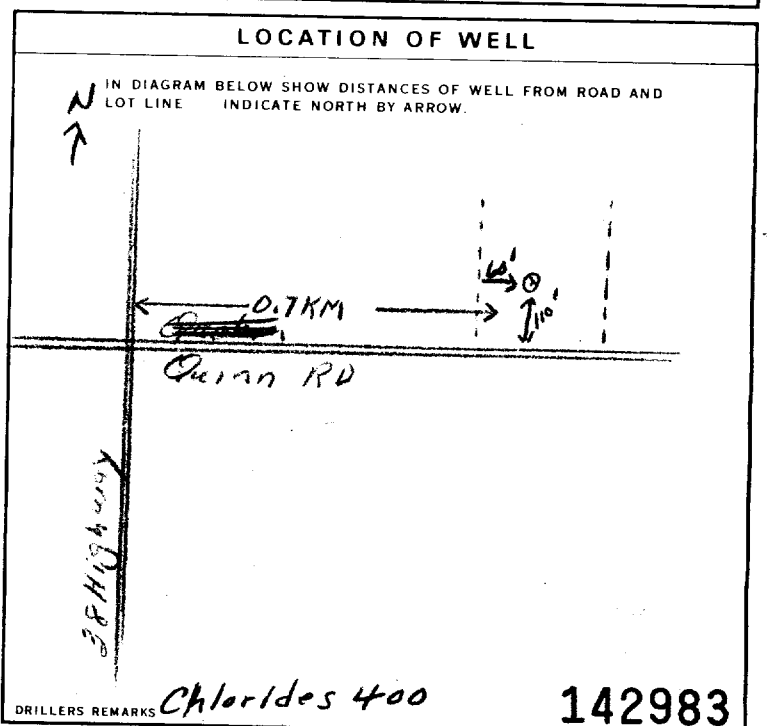
PUMPING TEST METHOD: 1 PUMP 2 BAILER

PUMPING RATE: 8 GPM DURATION OF PUMPING: 2 HOURS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING
69	75	15 MINUTES: 72 30 MINUTES: 73 45 MINUTES: 74 60 MINUTES: 75

RECOMMENDED PUMP TYPE: SHALLOW DEEP

RECOMMENDED PUMP SETTING: 80 FEET RECOMMENDED PUMPING RATE: 8 GPM



FINAL STATUS OF WELL

1 WATER SUPPLY 5 ABANDONED, INSUFFICIENT SUPPLY
2 OBSERVATION WELL 6 ABANDONED, POOR QUALITY
3 TEST HOLE 7 UNFINISHED
4 RECHARGE WELL DEWATERING

WATER USE

1 DOMESTIC 5 COMMERCIAL
2 STOCK 6 MUNICIPAL
3 IRRIGATION 7 PUBLIC SUPPLY
4 INDUSTRIAL 8 COOLING OR AIR CONDITIONING
 OTHER 9 NOT USED

METHOD OF CONSTRUCTION

1 CABLE TOOL 6 BORING
2 ROTARY (CONVENTIONAL) 7 DIAMOND
3 ROTARY (REVERSE) 8 JETTING
4 ROTARY (AIR) 9 DRIVING
5 AIR PERCUSSION DIGGING OTHER

CONTRACTOR

NAME OF WELL CONTRACTOR: Jack Knox Well Drilling WELL CONTRACTOR'S LICENSE NUMBER: 3202

ADDRESS: Glenburnie, Ontario

NAME OF WELL TECHNICIAN: Wayne Swant - Jack Knox WELL TECHNICIAN'S LICENSE NUMBER: 70070

SIGNATURE OF TECHNICIAN/CONTRACTOR: Jack Knox SUBMISSION DATE: DAY _____ MO. _____ YR. _____

OFFICE USE ONLY

DATA SOURCE: 58 CONTRACTOR: 3202 DATE RECEIVED: JUN 27 1994

DATE OF INSPECTION: _____ INSPECTOR: _____

REMARKS: _____

Appendix B

Laboratory Certificates of Analysis

C.O.C.: G 130104

REPORT No: 24-024165 - Rev. 0

Report To:

Blumetric Environmental
 1682 Woodward Dr
 Ottawa, ON K3C 3R8

CADUCEON Environmental Laboratories

285 Dalton Ave
 Kingston, ON K7K 6Z1

Attention: Brett Webster

DATE RECEIVED: 2024-Aug-08
 DATE REPORTED: 2024-Aug-14
 SAMPLE MATRIX: Ground Water

CUSTOMER PROJECT: Pittman Severance
 P.O. NUMBER: P.O# 240360-00

Analyses	Qty	Site Analyzed	Authorized	Date Analyzed	Lab Method	Reference Method
Anions (Liquid)	1	OTTAWA	PCURIEL	2024-Aug-09	A-IC-01	SM 4110B
Colour (Liquid)	1	OTTAWA	STAILLON	2024-Aug-12	A-COL-01	SM 2120C
Cond/pH/Alk Auto (Liquid)	1	OTTAWA	VKASYAN	2024-Aug-12	COND-02/PH-02/A LK-02	SM 2510B/4500H/ 2320B
Coliforms - DC Media (Liquid)	1	KINGSTON	BBURTCH	2024-Aug-08	ECTC-001	MECP E3407
DOC/DIC (Liquid)	1	OTTAWA	VKASYAN	2024-Aug-09	C-OC-01	EPA 415.2
Fecal Coliforms (Liquid)	1	KINGSTON	BBURTCH	2024-Aug-08	FC-001	SM 9222D
HPC MF (Liquid)	1	KINGSTON	BBURTCH	2024-Aug-08	HPC-001	SM 9215D
ICP/MS (Liquid)	1	OTTAWA	AOZKAYMAK	2024-Aug-13	D-ICPMS-01	EPA 200.8
ICP/OES (Liquid)	1	OTTAWA	APRUDYVUS	2024-Aug-12	D-ICP-01	SM 3120B
Ammonia (Liquid)	1	KINGSTON	JYEARWOOD	2024-Aug-09	NH3-001	SM 4500NH3
Organic Nitrogen (Liquid)	1	KINGSTON	KDIBBITS	2024-Aug-14	TPTKN-001	MECP E3516.2
Phenols (Liquid)	1	KINGSTON	EHINCH	2024-Aug-09	PHEN-01	MECP E3179
Sulphide (Liquid)	1	KINGSTON	EHINCH	2024-Aug-08	H2S-001	SM 4500-S2
Tannins (Liquid)	1	KINGSTON	KDIBBITS	2024-Aug-09	TAN-001	SM 5550
TP & TKN (Liquid)	1	KINGSTON	KDIBBITS	2024-Aug-12	TPTKN-001	MECP E3516.2
Turbidity (Liquid)	1	OTTAWA	PLUSSIER	2024-Aug-12	A-TURB-01	SM 2130B

R.L. = Reporting Limit

NC = Not Calculated

Test methods may be modified from specified reference method unless indicated by an *



Michelle Dubien
Data Specialist

Parameter	Units	R.L.	Client I.D.
			TW1
			Sample I.D.
			24-024165-1
			Date Collected
			2024-08-07
			-
Total Coliform (DC Media)	CFU/100mL	1	0
E coli (DC Media)	CFU/100mL	1	0
Heterotrophic Plate Count	CFU/1mL	10	10
Fecal Coliform	CFU/100mL	1	0
Alkalinity(CaCO3) to pH4.5	mg/L	5	349
TDS (Calc. from Cond.)	mg/L	3	731
Conductivity @25°C	uS/cm	1	1350
pH @25°C	pH units	-	8.10
Colour	TCU	2	<2
Turbidity	NTU	0.1	1.2
Fluoride	mg/L	0.1	0.7
Chloride	mg/L	0.5	82.8
Nitrate (N)	mg/L	0.05	0.29
Nitrite (N)	mg/L	0.05	<0.05
Sulphate	mg/L	1	247
Phosphorus (Total)	mg/L	0.01	0.01
Total Kjeldahl Nitrogen	mg/L	0.1	1.5
Ammonia (N)-Total (NH3+NH4)	mg/L	0.05	1.47
Organic Nitrogen	mg/L	0.1	<0.1
Dissolved Organic Carbon	mg/L	0.2	3.9
Tannin & Lignin	mg/L	0.5	<0.5



Michelle Dubien
 Data Specialist

Parameter	Units	R.L.	Client I.D.
			TW1
			Sample I.D.
			24-024165-1
			Date Collected
			2024-08-07
Parameter	Units	R.L.	
Sulphide	mg/L	0.01	<0.01
Phenolics	mg/L	0.001	<0.001
Hardness (as CaCO3)	mg/L	0.02	237
Barium	mg/L	0.001	0.066
Boron	mg/L	0.005	2.28
Calcium	mg/L	0.02	55.8
Iron	mg/L	0.005	0.015
Magnesium	mg/L	0.02	23.7
Manganese	mg/L	0.001	0.014
Potassium	mg/L	0.1	20.8
Sodium	mg/L	0.2	217
Strontium	mg/L	0.001	7.88
Zinc	mg/L	0.005	0.005
Antimony	mg/L	0.0001	0.0003
Arsenic	mg/L	0.0001	0.0005
Beryllium	mg/L	0.0001	<0.0001
Cadmium	mg/L	0.00001 5	<0.000015
Chromium	mg/L	0.001	<0.001
Cobalt	mg/L	0.0001	0.0002
Copper	mg/L	0.0001	0.0003
Lead	mg/L	0.00002	0.00028



Michelle Dubien
Data Specialist

		Client I.D.	TW1
		Sample I.D.	24-024165-1
		Date Collected	2024-08-07
Parameter	Units	R.L.	-
Molybdenum	mg/L	0.0001	0.0008
Nickel	mg/L	0.0002	0.0007
Selenium	mg/L	0.001	<0.001
Silver	mg/L	0.0001	<0.0001
Thallium	mg/L	0.00005	0.00012
Uranium	mg/L	0.00005	0.00063
Vanadium	mg/L	0.0001	0.0004



Michelle Dubien
Data Specialist

C.O.C.: G 108631

REPORT No: 24-024292 - Rev. 0

Report To:

Blumetric Environmental
 1682 Woodward Dr
 Ottawa, ON K3C 3R8

CADUCEON Environmental Laboratories

285 Dalton Ave
 Kingston, ON K7K 6Z1

Attention: Brett Webster

DATE RECEIVED: 2024-Aug-08
 DATE REPORTED: 2024-Aug-15
 SAMPLE MATRIX: Ground Water

CUSTOMER PROJECT: Pittman Severance
 P.O. NUMBER: P.O# 240360-00

Analyses	Qty	Site Analyzed	Authorized	Date Analyzed	Lab Method	Reference Method
Anions (Liquid)	1	OTTAWA	PCURIEL	2024-Aug-09	A-IC-01	SM 4110B
Colour (Liquid)	1	OTTAWA	STAILLON	2024-Aug-12	A-COL-01	SM 2120C
Cond/pH/Alk Auto (Liquid)	1	OTTAWA	VKASYAN	2024-Aug-12	COND-02/PH-02/A LK-02	SM 2510B/4500H/ 2320B
Coliforms - DC Media (Liquid)	1	KINGSTON	BBURTCH	2024-Aug-08	ECTC-001	MECP E3407
DOC/DIC (Liquid)	1	OTTAWA	VKASYAN	2024-Aug-09	C-OC-01	EPA 415.2
Fecal Coliforms (Liquid)	1	KINGSTON	BBURTCH	2024-Aug-08	FC-001	SM 9222D
HPC MF (Liquid)	1	KINGSTON	BBURTCH	2024-Aug-08	HPC-001	SM 9215D
ICP/MS (Liquid)	1	OTTAWA	AOZKAYMAK	2024-Aug-13	D-ICPMS-01	EPA 200.8
ICP/OES (Liquid)	1	OTTAWA	APRUDYVUS	2024-Aug-12	D-ICP-01	SM 3120B
	0	OTTAWA	APRUDYVUS	2024-Aug-12		ICPMS Test
Ammonia (Liquid)	1	KINGSTON	JYEARWOOD	2024-Aug-13	NH3-001	SM 4500NH3
Organic Nitrogen (Liquid)	1	KINGSTON	KDIBBITS	2024-Aug-14	TPTKN-001	MECP E3516.2
Phenols (Liquid)	1	KINGSTON	EHINCH	2024-Aug-09	PHEN-01	MECP E3179
Sulphide (Liquid)	1	KINGSTON	EHINCH	2024-Aug-09	H2S-001	SM 4500-S2
Tannins (Liquid)	1	KINGSTON	KDIBBITS	2024-Aug-09	TAN-001	SM 5550
TP & TKN (Liquid)	1	KINGSTON	YLIEN	2024-Aug-13	TPTKN-001	MECP E3516.2
Turbidity (Liquid)	1	OTTAWA	PLUSSIER	2024-Aug-12	A-TURB-01	SM 2130B

R.L. = Reporting Limit

NC = Not Calculated

Test methods may be modified from specified reference method unless indicated by an *



Michelle Dubien
Data Specialist

Parameter	Units	R.L.	Client I.D.
			TW 2
			Sample I.D.
			24-024292-1
			Date Collected
			2024-08-08
			-
Total Coliform (DC Media)	CFU/100mL	1	22
E coli (DC Media)	CFU/100mL	1	15
Heterotrophic Plate Count	CFU/1mL	10	530
Fecal Coliform	CFU/100mL	1	15
Alkalinity(CaCO3) to pH4.5	mg/L	5	302
TDS (Calc. from Cond.)	mg/L	3	522
Conductivity @25°C	uS/cm	1	979
pH @25°C	pH units	-	7.95
Colour	TCU	2	<2
Turbidity	NTU	0.1	0.1
Fluoride	mg/L	0.1	0.2
Chloride	mg/L	0.5	55.3
Nitrate (N)	mg/L	0.05	0.71
Nitrite (N)	mg/L	0.05	0.06
Sulphate	mg/L	1	143
Phosphorus (Total)	mg/L	0.01	<0.01
Total Kjeldahl Nitrogen	mg/L	0.1	2.2
Ammonia (N)-Total (NH3+NH4)	mg/L	0.05	2.21
Organic Nitrogen	mg/L	0.1	<0.1
Dissolved Organic Carbon	mg/L	0.2	3.1
Tannin & Lignin	mg/L	0.5	<0.5



Michelle Dubien
 Data Specialist

Parameter	Units	R.L.	Client I.D.
			Sample I.D.
			Date Collected
			TW 2
			24-024292-1
			2024-08-08
			-
Sulphide	mg/L	0.01	<0.01
Phenolics	mg/L	0.001	<0.001
Hardness (as CaCO3)	mg/L	0.02	286
Barium	mg/L	0.001	0.071
Boron	mg/L	0.005	1.17
Calcium	mg/L	0.02	74.6
Iron	mg/L	0.005	0.008
Magnesium	mg/L	0.02	24.2
Manganese	mg/L	0.001	0.003
Potassium	mg/L	0.1	15.6
Sodium	mg/L	0.2	108
Strontium	mg/L	0.001	9.19
Zinc	mg/L	0.005	0.007
Antimony	mg/L	0.0001	0.0005
Arsenic	mg/L	0.0001	0.0003
Beryllium	mg/L	0.0001	<0.0001
Cadmium	mg/L	0.00001 5	<0.000015
Chromium	mg/L	0.001	<0.001
Cobalt	mg/L	0.0001	0.0005
Copper	mg/L	0.0001	0.0010
Lead	mg/L	0.00002	0.00018



Michelle Dubien
Data Specialist

		Client I.D.	TW 2
		Sample I.D.	24-024292-1
		Date Collected	2024-08-08
Parameter	Units	R.L.	-
Molybdenum	mg/L	0.0001	0.0007
Nickel	mg/L	0.0002	0.0026
Selenium	mg/L	0.001	<0.001
Silver	mg/L	0.0001	<0.0001
Thallium	mg/L	0.00005	0.00022
Uranium	mg/L	0.00005	0.00060
Vanadium	mg/L	0.0001	0.0003



Michelle Dubien
Data Specialist

C.O.C.: G 130297

REPORT No: 24-030803 - Rev. 0

Report To:

Blumetric Environmental
 1682 Woodward Dr
 Ottawa, ON K3C 3R8

CADUCEON Environmental Laboratories

285 Dalton Ave
 Kingston, ON K7K 6Z1

Attention: Brett Webster

DATE RECEIVED: 2024-Oct-03
 DATE REPORTED: 2024-Oct-07
 SAMPLE MATRIX: Ground Water

CUSTOMER PROJECT:
 P.O. NUMBER: 240360

Analyses	Qty	Site Analyzed	Authorized	Date Analyzed	Lab Method	Reference Method
Coliforms - DC Media (Liquid)	1	KINGSTON	BBURTCH	2024-Oct-03	ECTC-001	MECP E3407
Fecal Coliforms (Liquid)	1	KINGSTON	BBURTCH	2024-Oct-03	FC-001	SM 9222D
HPC MF (Liquid)	1	KINGSTON	BBURTCH	2024-Oct-03	HPC-001	SM 9215D

R.L. = Reporting Limit

NC = Not Calculated

Test methods may be modified from specified reference method unless indicated by an *

Client I.D.	Sample I.D.	Date Collected	Parameter	Total Coliform (DC Media)	E coli (DC Media)	Background (DC Media)	Heterotrophic Plate Count	Fecal Coliform
			Units	CFU/100mL	CFU/100mL	CFU/100mL	CFU/1mL	CFU/100mL
			R.L.	1	1	1	10	1
				-	-	-	-	-
TW2	24-030803-1	2024-Oct-03		0	0	0	10	0



Brandon Burtch
Microbiology Supervisor

C.O.C.: DW 132970

REPORT No: 24-037978 - Rev. 0

Report To:
 Private Kingston

CADUCEON Environmental Laboratories
 285 Dalton Ave
 Kingston, ON K7K 6Z1

Attention: Robert Pittman

DATE RECEIVED: 2024-Dec-10
 DATE REPORTED: 2024-Dec-11
 SAMPLE MATRIX: Drinking Water

CUSTOMER PROJECT:
 P.O. NUMBER:

Analyses	Qty	Site Analyzed	Authorized	Date Analyzed	Lab Method	Reference Method
Coliforms - DC Media (Liquid)	1	KINGSTON	BBURTCH	2024-Dec-10	ECTC-001	MECP E3407

R.L. = Reporting Limit
 NC = Not Calculated

Test methods may be modified from specified reference method unless indicated by an *

Client I.D.	Sample I.D.	Date Collected	Parameter	Total Coliform (DC Media)	E coli (DC Media)
			Units	CFU/100mL	CFU/100mL
			R.L.	1	1
				-	-
3629 Quinn Rd.East Well	24-037978-1	2024-Dec-09		0	0



Brandon Burtch
Microbiology Supervisor

The analytical results reported herein refer to the samples as received and relate only to the items tested. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

Appendix C

Aquifer Analysis



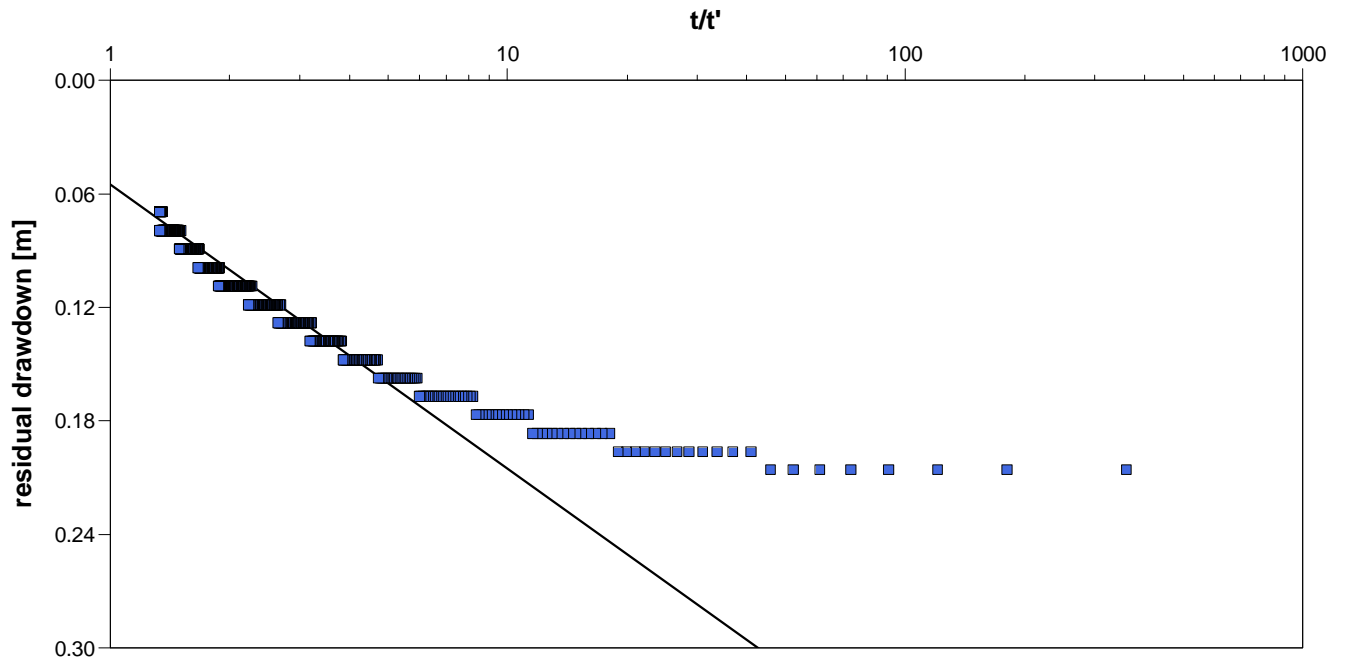
Pumping Test Analysis Report

Project: Pittman Sevrance

Number: 240360

Client: Robert Pittman

Location: Quinn Road	Pumping Test: Pumping Test TW1 - Recovery	Pumping Well: TW1
Test Conducted by: BM		Test Date: 2025-03-11
Analysis Performed by: EL	TW1 - Recovery	Analysis Date: 2025-03-11
Aquifer Thickness: 5.40 m	Discharge: variable, average rate 5.5 [U.S. gal/min]	



Calculation using THEIS & JACOBI

Observation Well	Transmissivity [m ² /s]	Hydraulic Conductivity [m/s]	Radial Distance to PW [m]
TW1	4.22×10^{-4}	7.82×10^{-5}	0.45



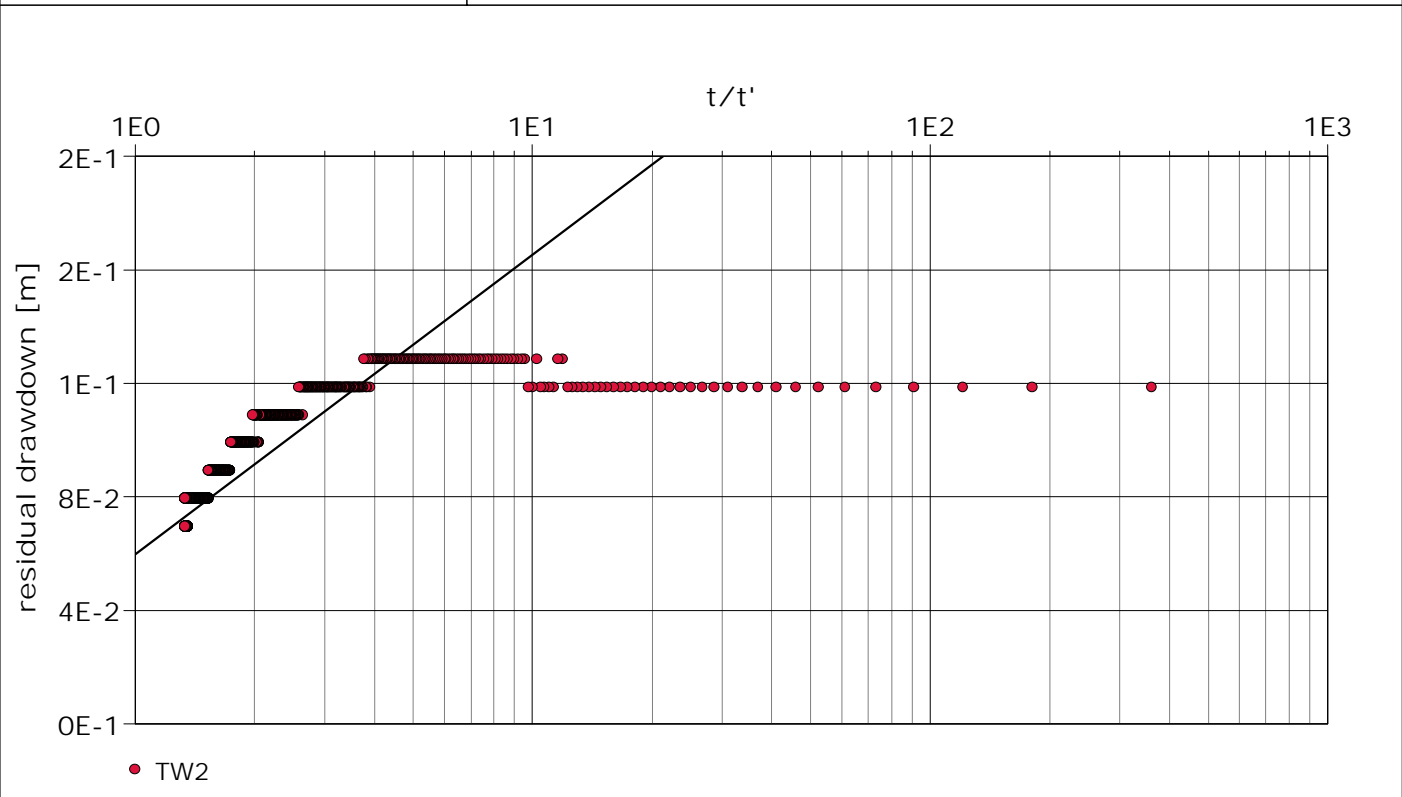
Pumping Test Analysis Report

Project: Pittman Sevrance

Number: 240360

Client: Robert Pittman

Location: Quinn Road	Pumping Test: Pumping Test TW1 - Recovery	Pumping Well: TW1
Test Conducted by: BM		Test Date: 2025-03-11
Analysis Performed by: EL	TW2 - Recovery	Analysis Date: 2025-03-12
Aquifer Thickness: 5.40 m	Discharge: variable, average rate 5.5 [U.S. gal/min]	



Calculation using THEIS & JACOB

Observation Well	Transmissivity [m ² /s]	Hydraulic Conductivity [m/s]	Radial Distance to PW [m]
TW2	6.02 × 10 ⁻⁴	1.11 × 10 ⁻⁴	99.03



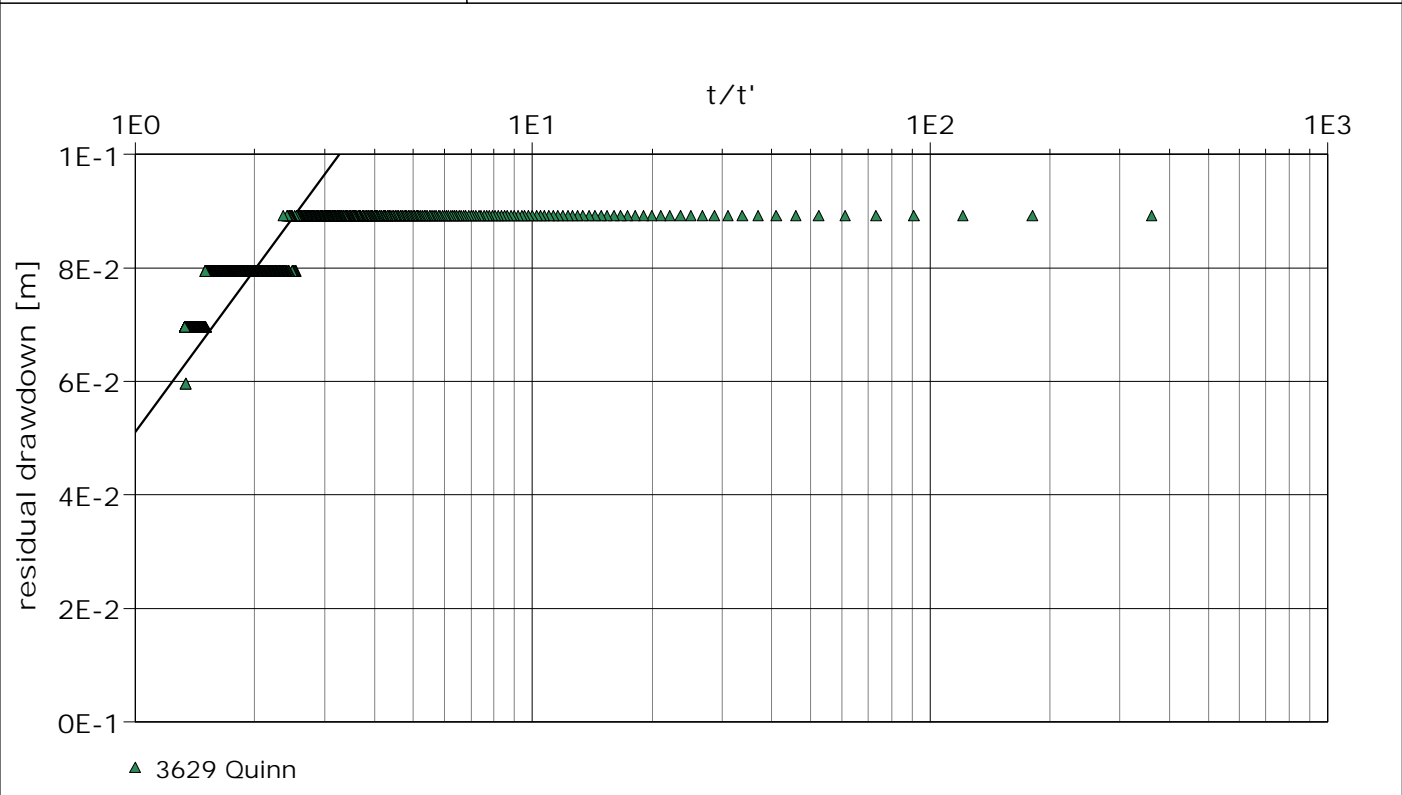
Pumping Test Analysis Report

Project: Pittman Sevrance

Number: 240360

Client: Robert Pittman

Location: Quinn Road	Pumping Test: Pumping Test TW1 - Recovery	Pumping Well: TW1
Test Conducted by: BM		Test Date: 2025-03-11
Analysis Performed by: EL	3629 - Recovery	Analysis Date: 2025-03-12
Aquifer Thickness: 5.40 m	Discharge: variable, average rate 5.5 [U.S. gal/min]	



Calculation using THEIS & JACOB

Observation Well	Transmissivity [m ² /s]	Hydraulic Conductivity [m/s]	Radial Distance to PW [m]
3629 Quinn	6.67×10^{-3}	1.23×10^{-4}	189.77



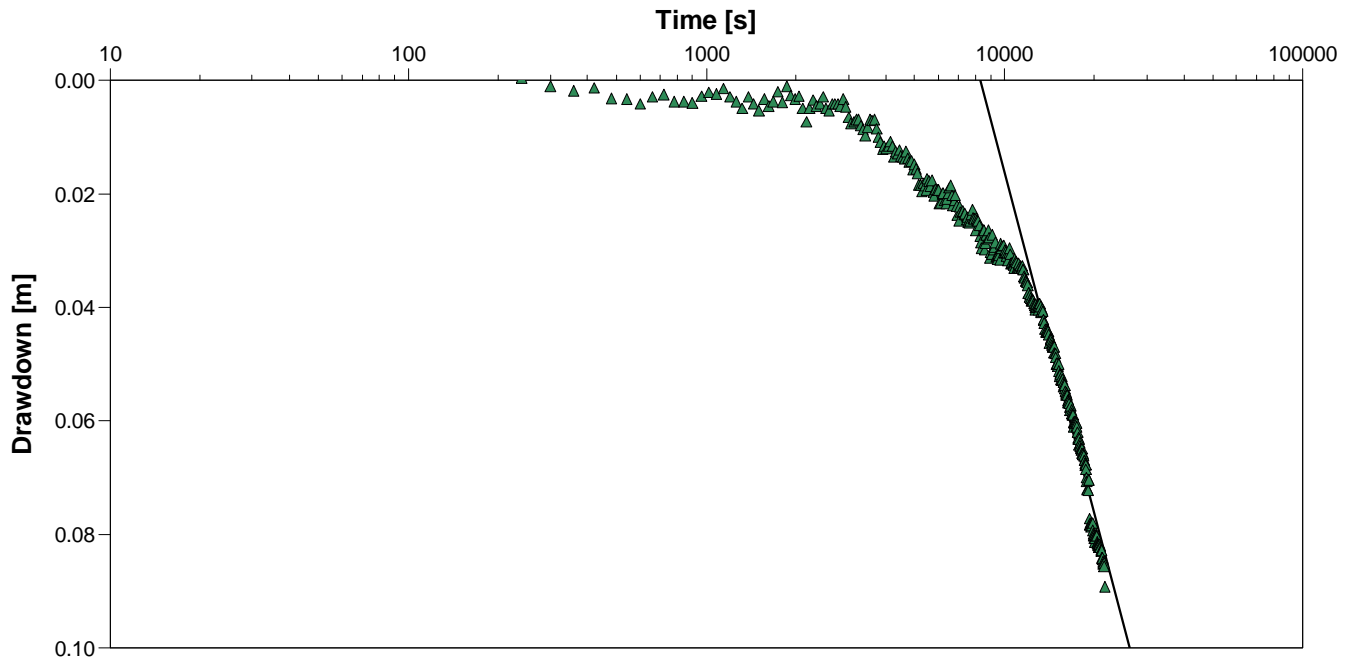
Pumping Test Analysis Report

Project: Pittman Sevrance

Number: 240360

Client: Robert Pittman

Location: Quinn Road	Pumping Test: Pumping Test TW1 - Drawdown	Pumping Well: TW1
Test Conducted by:		Test Date: 2025-03-12
Analysis Performed by:	3629 Quinn - Drawdown	Analysis Date: 2025-03-12
Aquifer Thickness: 5.50 m	Discharge Rate: 5.5 [U.S. gal/min]	



Calculation using COOPER & JACOB

Observation Well	Transmissivity [m ² /d]	Hydraulic Conductivity [m/d]	Storage coefficient	Radial Distance to PW [m]
3629 Quinn	2.75×10^1	5.00×10^0	1.65×10^{-4}	189.77



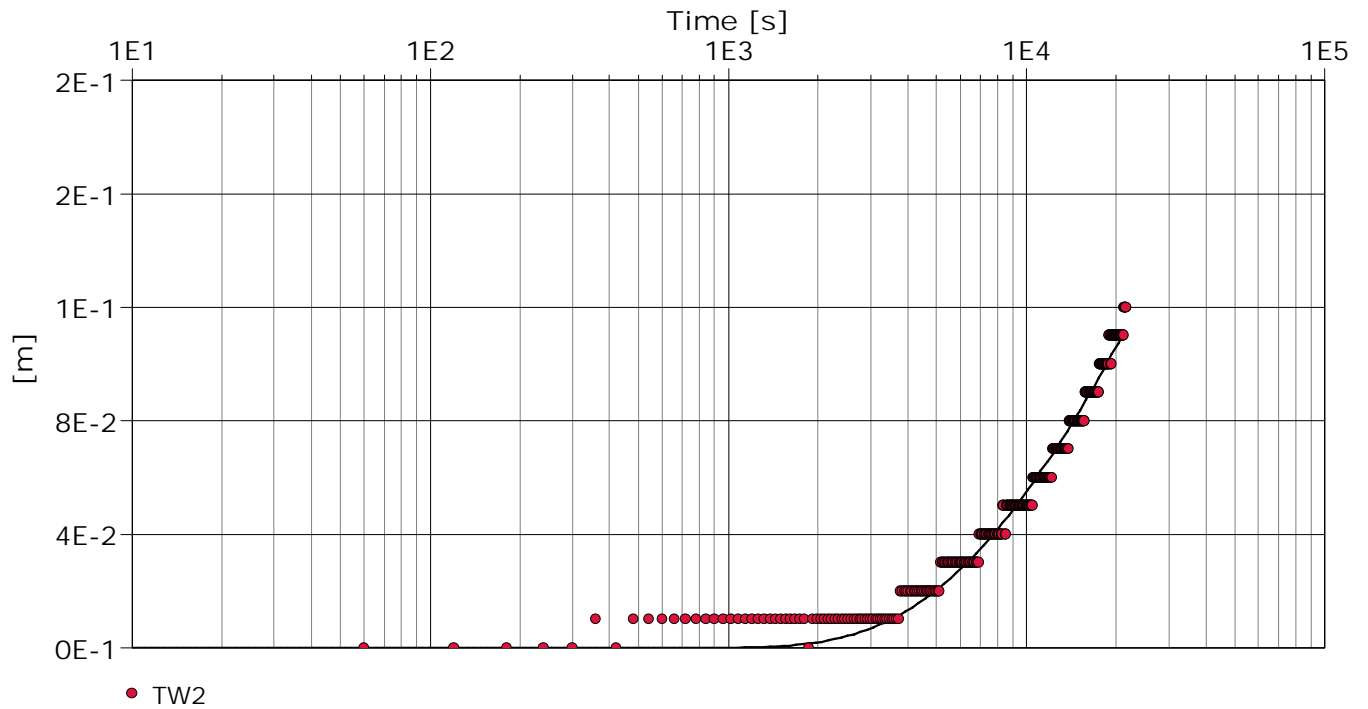
Pumping Test Analysis Report

Project: Pittman Sevrance

Number: 240360

Client: Robert Pittman

Location: Quinn Road	Pumping Test: Pumping Test TW1 - Drawdown	Pumping Well: TW1
Test Conducted by:		Test Date: 2025-03-12
Analysis Performed by:	TW2 - Drawdown	Analysis Date: 2025-03-12
Aquifer Thickness: 5.50 m	Discharge Rate: 5.5 [U.S. gal/min]	



Calculation using Theis with Jacob Correction

Observation Well	Transmissivity [m ² /d]	Hydraulic Conductivity [m/d]	Storage coefficient	Radial Distance to PW [m]
TW2	2.22 × 10 ¹	4.04 × 10 ⁰	5.71 × 10 ⁻⁴	99.03

Appendix D

Nitrate Impact Assessment Calculations

Robert Pittman - 3629 Quinn Road East, Harrowsmith, Ontario

Thornthwaite Calculation	
Thornthwaite Method (1957)	Potential Evapotranspiration
<i>'Hydrology and Hydraulic Systems' 4th edition by Ram S. Gupta, 2017</i>	
Et month = 1.62 (10*Tm/I) ^a	
where:	
a = 675*10 ⁻⁹ I ³ - 771*10 ⁻⁷ I ² + 179*10 ⁻⁴ *I + 492*10 ⁻³	
I _i = sum (Tm/5) ^{1.514}	

Canada Climate Normals					
Environment Canada Climate Normals: KINGSTON					
Ontario					
Month	Temp C	I _i	Et (cm) unadjusted	Daylight Factor	Et (mm) adjusted
January	-7.7	frozen			
Feb	-6.9	frozen			
March	-1.5	frozen			
April	6.5	1.4877	2.9527	1.13	0.0334
May	13.1	4.2984	6.3385	1.28	0.0811
June	18.2	7.0714	9.0708	1.29	0.1170
July	20.9	8.7189	10.5471	1.31	0.1382
Aug	19.7	7.9723	9.8887	1.21	0.1197
Sept	15.2	5.3836	7.4537	1.04	0.0775
Oct	8.4	2.1934	3.9049	0.94	0.0367
Nov	2.5	0.3501	1.0420	0.79	0.0082
Dec	-4.1	frozen			
		37.476	51.198		0.612
	a =	1.0901			metres

Note: Daylight Factor is an adjustment factor for possible hours of sunshine based on latitude.
 Monthly temperature from Environment Canada Climate Normals website at:
https://climate.weather.gc.ca/climate_normals/index_e.html

▼ Temperature

1981 to 2010 Canadian Climate Normals station data

Temperature														
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	Code
Daily Average (°C)	-7.7	-6.9	-1.5	6.5	13.1	18.2	20.9	19.7	15.2	8.4	2.5	-4.1	7.0	D

▼ Precipitation

1981 to 2010 Canadian Climate Normals station data

Precipitation														
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	C
Rainfall (mm)	38.0	24.4	40.0	73.0	86.4	81.1	63.0	68.7	107.9	93.4	88.9	47.1	811.8	C
Snowfall (cm)	42.6	32.9	25.9	7.5	0.1	0.0	0.0	0.0	0.0	1.0	12.0	31.9	153.8	C
Precipitation (mm)	80.6	57.3	65.8	80.5	86.4	81.1	63.0	68.7	107.9	94.3	100.9	79.0	965.6	C

Environment Canada Climate Normals: KINGSTON Ontario	965.6 mm
Potential Evapotranspiration (PE)	612 mm
Surplus Water (Precipitation - PE)	354 mm

Predictive Nitrate Impact Assessment			
PRE DEVELOPMENT CONDITIONS		POST DEVELOPMENT CONDITIONS	
Infiltration Factors		Infiltration Factors	
Topography	0.3 flat	Topography	0.3 flat
Soil	0.2 sand and clay	Soil	0.2 sand and clay
Cover	0.1 cultivated	Cover	0.1 cultivated
Total	0.6	Total	0.6
Site Characteristics		Site Characteristics	
Area of Site :	21000 m ² 2.10 hectares	Area of Site :	21,000 m ² 2.10 hectares
		Area of each roof:	300 m ²
		Total of roof areas:	600 m ²
		Length of roadways:	10 m
		Width of roadways:	5 m
		Total area of roadways:	100 m ²
		Impervious Area	700 m ²
		Percent Impervious Area =	3.33 %
Infiltration Area =	21,000 m ²	Infiltration Area =	20,300 m ²
Septic Effluent		Septic Effluent	
Concentration of Effluent (Cs) =	40 mg/L	Concentration of Effluent (Cs) =	40 mg/L
Daily Sewage Flow (Cs) =	0 m ³	Daily Sewage Flow (Cs) =	2 m ³
Infiltration Calculation		Infiltration Calculation	
Nitrate concentration in precipitation (C _i) =	0 mg/L	Nitrate concentration in precipitation (C _i) =	0 mg/L
Environment Canada Climate Normals: KINGSTON Ontario	965.6 mm/yr	Environment Canada Climate Normals: KINGSTON Ontario	965.6 mm/yr
Surplus Water (Thornthwaite calc attached)	354 mm/yr	Surplus Water (Thornthwaite calc attached)	354 mm/yr
Factored Surplus Water =	212 mm/yr	Factored Surplus Water =	212 mm/yr
Total volume of Infiltration	4,458 m ³	Total volume of Infiltration	4,309 m ³
			mm/yr
Infiltration flow entering the system (Q _i) =	12 m ³ /day	Infiltration Flow Entering the System (Q _i) =	12 m ³ /day
Mass Balance Model (MOEE, 1995)		Mass Balance Model (MOEE, 1995)	
$C_T = (Q_b C_b + Q_s C_s + Q_i C_i) / (Q_b + Q_s + Q_i) =$ Cumulative Nitrate Concentration		$C_T = (Q_b C_b + Q_s C_s + Q_i C_i) / (Q_b + Q_s + Q_i) =$ Cumulative Nitrate Concentration	
Q _b = flow entering the system across the upgradient area	0 m ³ /day	Q _b = flow entering the system across the upgradient area	0 m ³ /day
C _b = background nitrate concentration	0 mg/L	C _b = background nitrate concentration	0 mg/L
Q _s = flow entering the system from the septic drainfield	0 m ³ /day	Q _s = flow entering the system from the septic drainfield	2 m ³ /day
C _s = concentration of nitrates in the septic effluent	40 mg/L	C _s = concentration of nitrates in the septic effluent	40 mg/L
Q _i = flow entering the system from infiltration	12 m ³ /day	Q _i = flow entering the system from infiltration	12 m ³ /day
C _i = Concentration of nitrates in the infiltrate	0 mg/L	C _i = Concentration of nitrates in the infiltrate	0 mg/L
C_T =	0.0 mg/L	C_T =	5.8 mg/L
Estimate Number of Lots	1 lots	Estimate Number of Lots	2 lots



1682 Woodward Dr.
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Gainesville, FL 32608
USA

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Gainesville@blumetric.ca

July 31, 2025

File: SEV/FRS/172/2025
SEV/FRS/173/2025
MV/FRS/174/2025

Sent by E-mail

Christine Woods
Manager of Planning
Development Services
Township of South Frontenac
P.O. Box 100
Sydenham, Ontario
K0H 2T0

Dear Ms. Woods:

**Re: Consent Applications PL-BDJ-2025-0074 and PL-BDJ-2025-0075 (Lot Creation) & Minor Variance Application PL-ZNA-2025-0076
3629 Quinn Rd East; Township of South Frontenac
Waterbody: unnamed tributary of Millhaven Creek & unevaluated wetlands**

Staff of the Cataraqi Region Conservation Authority (CRCA) have reviewed the above-noted applications for consent and minor variance. The applications involve the severance of two 1.0 ha parcels of vacant land from an existing 37.8 ha rural property for the purpose of creating two new building lots. Future residential development is planned for the 35.8 ha retained parcel. A minor variance is necessary to permit reduced lot frontages for each lot.

Discussion

CRCA's scope of review with respect to this application is the avoidance of natural hazards (e.g. flooding and erosion) associated with the unnamed watercourses and wetlands on the subject property and protection of the hydrologic function of wetlands. We offer the following comments for the Committee of Adjustment's consideration, based on our role as a commenting agency responsible for natural hazards on *Planning Act* applications, and as administrator of Ontario Regulation 41/24: *Prohibited Activities, Exemptions and Permits*.

Natural Hazards / Ontario Regulation 41/24

Surface Water Features

Cataraqi Conservation, through implementation of Ontario Regulation 41/24: *Prohibited Activities, Exemptions and Permits* requires development (building and structures) and site alteration (excavation, grading, placement of fill) to be located outside of natural hazard areas and set back a minimum of 30 m from surface water features including watercourses (creeks, streams) and

wetlands. The intent is to protect development from potential flooding and erosion hazards and to preserve the hydrologic function of these features.

Unnamed Tributary of Millhaven Creek

The subject lands are within a drainage catchment the flows east into Millhaven Creek. There is a watercourse that runs across the southern portion of the subject lands approximately 98 m back from Quinn Road. The watercourse is a regulated feature and as such a 30 m setback is applied. The survey sketch provided shows that there are building envelopes on the severed and retained lands outside of the required 30 m setback from the watercourse. However, the proposed lot configuration results in the severed lots being divided by the watercourse.

Staff note that it may not be feasible to access the northern portion of the severed lots since this would require a crossing of the watercourse, which may not be permitted by CRCA. As such, staff recommend that an alternative lot configuration be considered where the rear lot line follows the watercourse to avoid the need for future watercourse crossings.

Unevaluated Wetlands

Mapping identified pockets of unevaluated wetlands on the subject lands, generally in the area in and around of the watercourse. Staff are accepting of the findings of the Natural Heritage Site Assessment which confirms the presence of riparian vegetation in the watercourse channel but notes that the area is not large enough to be considered a distinct community. Based on this, CRCA have no concerns related to the hydrologic function of wetlands on the subject lands.

Staff recommend that native vegetation (trees, shrubs, native plants) within 30 metres of watercourse on the subject lands be kept in place, to help stabilize soils and protect the hydrologic function of the surface water features in the long-term.

Karst Topography

The subject lands have been identified on provincial OGS Mapping as having inferred karst. Karst is a type of unstable bedrock that is relatively common in the Cataraqui Region area and is considered a natural hazard under the 2024 Provincial Planning Statement and Ontario Regulation 41/024. As with other natural hazards, there is risk of damage to buildings, property and human safety when development is located within or near unstable bedrock. Accordingly, CRCA's regulation directs development away from these areas and features.

CRCA staff have reviewed available information (e.g. aerial imagery, soils and geology mapping, topographic info.) and completed a site inspection of the subject lands. Based on our preliminary findings, we did not encounter evidence of karst in the area of the future development envelopes (generally within 50 m of Quinn Road).

Should karst features (e.g. fissures, crevices, sinkholes, etc.) be encountered on the subject lands during construction/excavation of the site, the applicant will need to contact CRCA staff to determine appropriate actions which would include additional assessment by a qualified professional to determine the extent and risks associated with karst at the property.

Recommendation

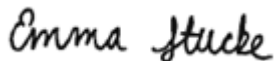
Staff have **no objection** to approval of PL-BDJ-2025-0074, PL-BDJ-2025-0075 and PL-ZNA-2025-0076 based on our review of natural hazards and have identified considerations above in **bold**.

Ontario Regulation 41/24

Please note that portions of the subject lands within 30 m of the watercourse are subject to Ontario Regulation 41/24: *Prohibited Activities, Exemptions and Permits* (formerly O. Reg. 148/06). The purpose of the regulation is to ensure that proposed changes (e.g. development and site alteration) to a property are not affected by natural hazards, such as flooding and erosion, and that the changes do not put other properties at greater risk from these hazards and to ensure the protection of wetlands. **Current and future landowners are advised to contact CRCA before considering any work within 30 metres of the watercourse on the subject lands.**

Please inform this office of any decision made by the Committee with regard to these applications. If you have any questions, please contact the undersigned at 613-546-4228 ext. 239, or by e-mail at estucke@crca.ca

Sincerely,



Emma Stucke, RPP, MCIP
Resource Planner

cc. Robert Pittman, applicant, by email
Elysia Ackroyd, agent, by email

From: [Emma Stucke](#)
To: [Christine Woods](#)
Cc: [Kate Kaestner](#)
Subject: RE: Notices of Deferral: Pittman Applications (3629 Quinn Road East)
Date: August 26, 2025 9:42:49 AM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)
[image006.png](#)
[image007.png](#)
[image008.png](#)

Hi Christine,

Thanks for providing this. Overall, I see the proposed revisions as an improvement compared to the last concept and continue to have no objections to the severance.

Sincerely,
Emma

Emma Stucke MCIP, RPP (she/her)
Resource Planner
Phone: (613) 546-4228 ext. 239

From: Christine Woods <cwoods@southfrontenac.net>
Sent: August 26, 2025 9:06 AM
To: Emma Stucke <EStucke@crca.ca>
Cc: Kate Kaestner <kkaestner@southfrontenac.net>
Subject: RE: Notices of Deferral: Pittman Applications (3629 Quinn Road East)

Emma,

We received the attached revised plan, which will go to Committee of Adjustment on September 11th. Please let me know if you have any comment on the revised plan.

Sincerely,

Christine Woods RPP, MCIP
Manager of Planning
Development Services

p: +613-376-3027

e: cwoods@southfrontenac.net

a: 4432 George St., Box 100
Sydenham, ON K0H 2T0

Temporary office: 3910 Battersea Road, Sunbury
www.southfrontenac.net



South Frontenac is a welcoming and thriving rural community

 Please consider the environment before printing this email

From: Emma Stucke <ESTucke@crca.ca>
Sent: August 25, 2025 4:50 PM
To: Kate Kaestner <kkaestner@southfrontenac.net>
Cc: Christine Woods <cwoods@southfrontenac.net>
Subject: RE: Notices of Deferral: Pittman Applications (3629 Quinn Road East)

Hi Kate,

Thanks for passing on the notices of deferral. I'm following up to see if you need any further info from me with respect to my comment letter.

Let me know!

Thanks,
Emma

Emma Stucke MCIP, RPP (she/her)
Resource Planner
Phone: (613) 546-4228 ext. 239

From: Kate Kaestner <kkaestner@southfrontenac.net>
Sent: August 18, 2025 3:04 PM
To: Emma Stucke <ESTucke@crca.ca>
Subject: Notices of Deferral: Pittman Applications (3629 Quinn Road East)

Good afternoon Emma,

Please find attached Notices of Deferral for the Pittman applications at 3629 Quinn Road East).

Kind regards,

Kate



Kate Kaestner
Planning Clerk
Development Services Department
Township of South Frontenac

p: +613-376-3027

e: kkaestner@southfrontenac.net

a: Box 100, Sydenham, ON, K0H 2T0

o: 3910 Battersea Road, Sunbury, ON

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Report from Public Services

Application Number: _____

Applicant's Name: _____

Concession: _____ **Lot:** _____ **District:** _____

Road: _____

Road Maintenance: Year-round Seasonal

Sight Lines: Are there adequate sight lines for the entrance? Yes No

If no, what changes would be required to improve sight lines?

Road Conditions:

1. Are there any special drainage/ditching concerns related to creation of new lot(s)?

Yes No

If yes, what action is the applicant required to take?

2. Is the overall road condition adequate to serve increased development/traffic?

Yes No

If no, please explain, and indicate if there are any measures that could be taken to correct the inadequacies.

Road Widening Required?

Yes No To be determined by an Ontario Land Surveyor

Any specific requirement?

Approved by the Public Services?

Yes Yes, with conditions No

If yes, with conditions, please describe conditions below.

Evan Bancroft
Signature on behalf of Public Services

Date

Township of South Frontenac Staff Report



To: Committee of Adjustment

Prepared by: Development Services Department

Meeting Date: September 11, 2025

Subject: Revised Consent Applications PL-BDJ-2025-0074 and 0075, Minor Variance Application PL-ZNA-20250076, Pittman (Fotenn), 3629 Quinn Road East, Portland District

Summary

The consent applications are for the creation of two rural residential lots. The minor variance application is to allow the severed and retained parcels to have less than the required lot frontage. The Committee of Adjustment is being asked to make a decision on the consent applications in conjunction with the minor variance application. This report recommends approval of the three applications.

Background

The subject property is located south of Harrowsmith, east of Road 38 and on the north side of Quinn Road East. It runs north to an unopened road allowance. The northern two thirds of the property is forest and old farm fields. The southern portion of the property is generally level. It contains agricultural fields and is developed with a single detached dwelling, a detached garage and a shed. A watercourse bisects the property approximately 100m north of Quinn Road East.

The neighbourhood has a mix of rural residential properties and agricultural properties.

The subject lands are in the Rural designation in the Township of South Frontenac Official Plan. The lands are zoned Rural (RU) in Zoning By-law No. 2003-75, as amended.

The Committee of Adjustment held a public hearing for the subject applications in August 2025. The Committee granted the applicant's request to defer making decisions until they had an opportunity to revisit the proposed lot layouts in consideration for Cataraqui Conservation's comments.

Revised applications PL-BDJ-2025-0074 and PL-BDJ-2025-0075 are for the creation of two vacant residential lots on Quinn Road East. Both lots would be 0.8ha (2 acres) in size with 63m frontage. The depth of the lots was reduced preserve the tillable agricultural field to the north, and to eliminate the need for potential watercourse crossings, as recommended by Cataraqui Conservation. The rear lot lines would align with the northern extent of the 30m setback from the watercourse. The retained lands (3629 Quinn Road East) would be 36.3ha (89.6 acres) in size with 64m frontage.

Minor variance application PL-ZNA-2025-0076 is requesting reduced frontages for the severed and retained parcels because the RU zone requires 76m frontage.

Supporting Documents

A **Planning Justification Report** (Fotenn Planning + Design, July 3, 2025) was submitted in support of the applications. The report assessed the appropriateness of the proposal in the context of the surrounding area as well as its conformity with the applicable policy and regulatory framework. It included a minimum distance separation study for livestock facilities. Fotenn submitted a subsequent letter (August 19, 2025) in support of the revised consent applications, indicating that they address technical comments and enhance the protection of rural and natural features.

A **Natural Heritage Site Assessment** (Ecological Services, August 6, 2024) was submitted in support of the applications. This study was required to confirm the existence of a mapped wetland along the watercourse, and to define its boundary, on the severed parcels. The study determined that there was no wetland on the severed parcels. The consultant evaluated the watercourse, riparian area, and woodland on the severed and retained parcels. They also reviewed the area for species at risk habitat and significant wildlife habitat.

The Natural Heritage Site Assessment included the following recommendations:

1. Development should be setback a minimum of 30m from the watercourse,
2. The land within 30m of the watercourse should not be clearcut and should remain vegetated to provide a buffer, and
3. No tree removal should be undertaken between April 1 and September 30 to protect nesting birds and prevent harm to roosting bats.

A **Hydrogeological Assessment** (BluMetric Environmental Inc., April 3, 2025, updated July 30, 2025) was submitted in support of the applications. This study was required because the severed parcels would have less than the required 76m frontage, and would be functionally smaller than the minimum 0.8ha lot size required due to the location of the watercourse.

A dug well was constructed on each of the severed parcels. The consultant conducted 6-hour pumping tests on the wells, water level monitoring, water quality analyses and interference assessment.

The study concluded that an adequate supply of potable water is available for a typical single detached dwelling on each new lot and that soil conditions are suitable for the installation of sewage systems. The report included the following recommendations:

1. Water treatment including pre-filtration and ultraviolet sterilization, as well as an under-the-counter reverse osmosis system for individuals with sodium restricted diets,
2. Regular testing of treated water for bacteriological parameters,
3. Any proposed septic system design should be supported by a lot-specific assessment meeting local septic approval requirements, and

4. The setback distance between a future raised Class 4 sewage system and dug wells on the proposed lots should be at least 45m as a precautionary measure due to the hydrogeological sensitive nature of the site.

The Hydrogeological Assessment was reviewed by Malroz Engineering Inc. on behalf of the Township. They agreed with the consultant's recommendations.

Department and Agency Comments

Public Services reported on July 22, 2025, that there are adequate entrance sight lines for both the severed parcels and the retained parcel. Road widening is to be determined by an Ontario Land Surveyor. A 20-metre right-of-way is required on Quinn Road East. Any shortfall of the right-of-way as measured 10 metres from the centreline of the road shall be dedicated to the Township. Public Services had no comment on the proposed reduced lot frontages.

Cataraqui Conservation staff indicated in a letter dated July 31, 2025, that they have no objection to the applications. They recommended the applicant consider an alternative lot configuration where the rear lot lines would follow the watercourse to avoid the need for future watercourse crossings, because crossings may not be permitted by CRCA under O. Reg. 41/24. They also recommended that native vegetation (trees, shrubs, native plants) within 30 metres of watercourse on the subject lands be kept in place, to help stabilize soils and protect the hydrologic function of the surface water features in the long-term. Finally, they noted that should karst features (e.g. fissures, crevices, sinkholes, etc.) be encountered on the subject lands during construction/excavation of the site, the owner will need to contact CRCA staff to determine appropriate actions which would include additional assessment by a qualified professional to determine the extent and risks associated with karst at the property. On August 26, 2025, they noted the proposed revisions are an improvement compared to the last concept. They continue to have no objections to the applications.

Public Comments

No comments were received from the public at the time this report was written.

Planning Analysis

The consent applications need to be assessed against the applicable policies of the Provincial Planning Statement 2024 (PPS), County of Frontenac Official Plan, and Township of South Frontenac Official Plan, as well as the provisions of Zoning By-law No. 2003-75. The minor variance application needs to be assessed against the four tests of a minor variance outlined in Section 45(1) of the Planning Act.

Minimum Distance Separation for Livestock Facilities

In conformity with the PPS, the Township Official Plan requires all division of land for non-farm uses to comply with the Minimum Distance Separation Formulae I (MDS I) (section 7.1(I)). The Township Zoning By-law also requires residential development to comply with MDS I.

The subject lands are in a rural and agricultural area where there are several existing livestock facilities. The Planning Justification Report (Fotenn Planning + Design, July 3, 2025) evaluated these livestock facilities against The Minimum Distance Separation (MDS) Document (OMAFRA Publication 853). MDS setbacks were calculated for barns at 4372 Road 38 and at 3609 Quinn Road East. It was determined that the severed parcels would conform to the applicable minimum distance separation policies.

Rural Residential Uses

The PPS allows residential lot creation on Rural lands where site conditions are suitable for the provision of appropriate sewage and water services. The County Official Plan and the Township Official Plan also permit residential development in the Rural designation.

Section 5.7.4 of the Township Official Plan indicates that a maximum of three rural residential lots may be created by consent from a landholding provided that the new lots meet the General Consent Policies, as well as all other applicable policies. The subject property is eligible for severances under Section 5.7.4. There have been no previous severances from the lot existing on the day of adoption of the Township Official Plan.

Section 5.7.4 requires the frontage, size and shape of any lot created for rural residential purposes through the severance approval process to be appropriate for the proposed use and to conform to the provisions of the zoning by-law.

The severed parcels would be a minimum of 0.8ha in size, which is the minimum lot area required in the Rural designation and the RU zone for a residential lot. The parcels would be rectangular-shaped.

The severed parcels would have approximately 63m frontage and the retained parcel would have 64.6m frontage on Quinn Road East. These frontages would be less than the minimum 76m lot frontage required in the Rural designation and the RU zone. Section 5.7.4(ii)(a) of the Official Plan allows the municipality to consider reductions to this requirement provided the overall intent of the Official Plan is maintained. The minor variance application requests 60m lot frontages.

The minimum 76m lot frontage is intended to allow for a separation between driveways and to improve traffic safety. Public Services noted that the severed parcels and retained parcel would each have adequate sight lines for an entrance.

Minimum lot frontages are also required to ensure a development pattern that is reasonably consistent in nature and to avoid an overdeveloped appearance. Existing lots along this part of Quinn Road East have frontages ranging from 40m to 70m, so the proposed reduced lot frontages would be consistent with the existing lot fabric of the neighbourhood.

Finally, minimum lot frontages help ensure a reasonable separation between uses. Separation between wells and sewage systems is especially important for protecting groundwater in hydrogeological sensitive areas.

A hydrogeological assessment and terrain analysis was required in support of the applications because the proposed lots would have less than the required 76m frontage, and would be functionally smaller than the minimum 0.8ha lot size required due to the

location of the watercourse (i.e. development would logically need to occur on the land between the watercourse and the road).

The Hydrogeological Assessment (BluMetric Environmental Inc., April 3, 2025, updated July 30, 2025) concluded that an adequate supply of potable water is available for a typical single detached dwelling on each new lot and that soil conditions are suitable for the installation of a sewage system. Figure 4 of the report is a conceptual lot development plan that illustrates how a well, a sewage system and a house can fit on each of the severed parcels with consideration for the recommended 45m separation distance between the wells and sewage systems. The development could also achieve the required 30m setback from the watercourse and other applicable zone provisions.

Staff are satisfied that the proposed reduced frontages would not compromise the functionality, accessibility or rural character of the severed parcels. It would also not impact the continued use of the retained parcel, 150m north of the road.

Special Development Requirements

Staff recommend that a development agreement be a condition of the consent approvals. The development agreement would be used to notify potential purchasers and future owners about special requirements that will apply to development of the severed parcels.

Specifically, to make them aware of the Natural Heritage Site Assessment and the Hydrogeological Assessment and the recommendations that must be implemented. The agreement would also make them aware that they will need to have lot grading and drainage plans prepared that implement the recommendations of these reports.

Cataraqui Conservation noted that the subject lands are in an area of inferred karst. The development agreement would make people aware of this potential, and provide direction on what to do if karst features are encountered during construction/excavation of the site.

Conclusion

The consent applications meet the criteria outlined in section 51(24) of the Planning Act, do not require a plan of subdivision for the proper and orderly development of the municipality, are consistent with the PPS, and conform to the County and Township Official Plans. The severed parcels and retained parcel will comply with the Zoning By-law subject to the requested minor variance for lot frontage.

It is the opinion of Planning staff that the proposed 60m lot frontages meet the four tests for a minor variance – the variances maintain the general intent and purpose of the Official Plan and Zoning By-law, they are desirable for the appropriate development of the lands, and they are minor in nature.

Notice/Consultation

Notice of the Statutory Public Hearings was given pursuant to the requirements of the Planning Act, at least 14 days in advance of the Public Hearings in August and in September. This included notice given:

- by mail to every owner of land within 60 metres of the subject lands

- by posting notice signs on the subject lands
- by e-mail to prescribed persons and public bodies

Recommendation for Consent Applications

It is recommended that the Committee of Adjustment receive comments from the public and, pending comments received, approve revised applications PL-BDJ-2025-0074 and PL-BDJ-2025-0075, each for consent to sever one new rural residential lot from 3629 Quinn Road East, Part of Lot 6, Concession 3, District of Portland, Township of South Frontenac, subject to the following conditions:

Expiry Period

1. Conditions imposed must be met within two years of the date of Notice of Decision, as required by Section 53(41) of the *Planning Act*, RSO 1990, as amended. If conditions are not fulfilled as prescribed within two years, the application shall be deemed to be refused. Provided the conditions are fulfilled within two years, the application is valid for two years from the date of Certificate of Official issuance. The deed must be registered within two years of the issuance of the Certificate of Official.

Severed Lands

2. The lands to be severed shall be for the creation of one new residential lot a minimum of 0.8 hectare in area with a minimum of 60 metres of frontage on Quinn Road East. The lot area, frontage and configuration of the proposed severed lot shall be consistent with application sketch.

Survey/Reference Plan or Registerable Description

3. An acceptable reference plan or legal description of the severed lands in duplicate [Registry Act, s.81, Land Titles Act, s. 150], the deed or instrument conveying the severed lands, and the Certificate of Official shall be submitted to the Secretary-Treasurer for review and consent endorsement within a period of two years [Planning Act, s. 53(41)] after the date that "Notice of Decision" is given [Planning Act, ss. 53(17) and 53(24)].
4. The Ontario Land Surveyor or the applicant shall submit the draft Reference Plan, including an area calculation and noting frontage along the road, electronically or in paper form for review and approval by planning staff prior to depositing the Reference Plan with the Land Registry Office. The Ontario Land Surveyor shall also confirm that the retained parcel has a minimum 60m lot frontage on Quinn Road East.

Road Allowance Widening

5. The Ontario Land Surveyor who prepares the reference plan referred to in Condition #3 and #4 shall also determine by survey the width of Quinn Road East to be 20m. If such a width is less than 20m, the owner shall dedicate to the Township land along the frontage of the severed lands in the following manner as required:

- a. The land to be dedicated shall be the width required to provide 10m from the centre of the existing travelled road;
- b. The land to be dedicated shall be described as a separate part on a Reference Plan of Survey to be prepared and deposited at the Owner's expense and filed with the Secretary-Treasurer prior to the issuance of the Certificate of Official;
- c. The Transfer/Deed from the Owner for the land to be dedicated shall be engrossed in the of "The Corporation of the Township of South Frontenac", and shall include the following attached to the Transfer/Deed as a Schedule:

The Transferor hereby transfers the lands to the municipality for the purpose of widening the adjacent highway pursuant to Section 31(6) of the Municipal Act, 2001, Chapter 25, as amended.
- d. The Transfer/Deed for the land to be dedicated shall be registered by the Owner at the Owner's expense;
- e. The duplicate registered Transfer/Deed for the land to be dedicated together with a letter of opinion of a solicitor qualified to practice law in the Province of Ontario addressed to the Secretary-Treasurer confirming that the municipality acquired good and marketable title to the land free and clear of all liens and encumbrances shall be delivered to the Secretary-Treasurer prior to the issuance of the Certificate of Official.

Municipal Requirements

6. Payment of the balance of any outstanding taxes and local improvement charges shall be made to the Township Treasurer. This includes all taxes levied as of the date of the issuance of the Certificate of Official. It also includes any hydrogeological assessment peer review fee if it is greater than the collected deposit.
7. The Township of South Frontenac shall receive 5% of the value of the severed parcel, in lieu of parkland [Planning Act, s. 51(1), By-law 2023-104].
8. In the event that there are abandoned wells located on the severed parcel or the retained property, the wells shall be sealed in accordance with the requirements of the Ministry of the Environment, Conservation and Parks and that this work shall be accomplished prior to the issuance of the Certificate of Official.
9. The applicant shall enter into a Development Agreement with the Township to be registered on title to the severed parcel to address the following matters and environmental standards of the Township:
 - a. Requirement for an entrance permit for any new or relocated entrances;
 - b. Implementation of the recommendations of the Natural Heritage Site Assessment (Ecological Services, August 6, 2024);
 - c. Implementation of the recommendations of the Hydrogeological Assessment (BluMetric Environmental Inc., July 30, 2025);

- d. Requirement for a lot grading and drainage plan that implements the recommendations of the above reports, to be submitted at the building permit stage;
- e. Notice regarding what to do if karst features are encountered during construction/excavation of the site;
- f. Notice regarding compliance with the Endangered Species Act; and
- g. Notice regarding archeological resources and human remains.

Zoning

- 10. The applicant is required to apply for a minor variance to permit the severed parcel to have a minimum 60 metres of lot frontage and the retained parcel to have a minimum 60 metres lot frontage.
- 11. Where a violation of Zoning By-law No. 2003-75 is evident, the appropriate minor variance or rezoning be obtained to the satisfaction of the Township.

Recommendation for Minor Variance Application

It is recommended that the Committee of Adjustment receive comments from the public and, pending comments received, approve minor variance application PL-ZNA-2025-0076 for 3629 Quinn Road East such that the two severed parcels and the retained parcel from consent applications PL-BDJ-2025-0074 and PL-BDJ-2025-0075 are permitted to each have a minimum of 60m lot frontage.

Report Prepared By:

Christine Woods, RPP, MCIP, Manager of Planning



**TOWNSHIP OF SOUTH FRONTENAC
APPLICATION FOR MINOR VARIANCE
OR PERMISSION (s. 45(2))
Updated January 2025**

The Committee of Adjustment is a Committee of eight persons appointed by Township Council. The Committee is formed under Section 45 of the *Planning Act* R.S.O. 1990, Chapter P.13, to authorize a minor variance from a zoning by-law or permission under s. 45(2) to alter a legal non-conforming use.

The Committee may vary Zoning By-law provisions provided the Committee is of the opinion that the variance:

- Is desirable for the appropriate development or use of the land, building or structure
- Maintains the general intent and purpose of the Official Plan.
- Maintains the general intent and purpose of the Zoning By-law.
- Is minor in nature

The Committee may grant permission to enlarge or extend a structure or alter the use of the lands where any land, building or structure, on the day the by-law was passed, was lawfully used for a purpose prohibited by the by-law.

Application Requirements

1. It is required that one (1) copy of this application be filed with the Secretary-Treasurer of the Committee of Adjustment, together with the **sketch**, accompanied by a **non-refundable fee** in accordance with the chart below in cash, or by debit card, credit card or cheque made payable to the Township of South Frontenac.

Application Type:	Planning Application Fee:
1-3 Variances	\$1,249.00
4+ Variances	\$1,468.00
After building without a permit	\$2,241.00

2. It is required that a Fee be provided for the Township to review onsite sewage disposal and Conservation Authority (where applicable) when submitting an application (Separate **cheques**, payable to the applicable Conservation Authority, are to be submitted with the application).

Township of South Frontenac	\$463.00
<i>Minor Variance Only</i>	\$720.00
<i>Minor Variance WITH Performance Review</i>	\$1,183.00
<i>Minor Variance in combination with a new Class 2, 3, 4, or 5 sewage system other than a Class A system</i>	
Cataraqui Region Conservation Authority	\$445.00
Quinte Conservation Authority	\$450.00
Rideau Valley Conservation Authority	\$410.00

TOWNSHIP OF SOUTH FRONTENAC APPLICATION FOR MINOR VARIANCE
Planning Act, R.S.O. 1990, c. P.13 as amended

Please Note: These fees are for **consultation** on this application only; these agencies may require additional permit applications and fees prior to any construction.

3. PLEASE READ THIS ITEM CAREFULLY

Each applicant shall provide a sketch showing the dimensions of the subject land and of all abutting lands as outlined in Question 29 of the application. The sketch should be accurately dimensioned and scaled in either Imperial or Metric measures. This sketch, in conjunction with the Application Form, is the basis for the analysis of the Minor Variance Application by the Committee of Adjustment. It is strongly recommended that the applicant spend the necessary time to carefully and thoroughly assemble the data and transfer the data to the sketch. It is important that the sketch be drawn with accurate dimensions and measurements. Any application which does not include the above required information may not be accepted. In this regard, the applicant may wish to secure the assistance of a person who specializes in the drafting of such sketches. A guide to answering the application questions is attached.

4. Collection of Personal Information

Personal information requested herein is required under the *Planning Act*, 1990 as amended. This information will be used by the Committee of Adjustment/Land Division Committee for the purpose of reviewing the above referenced application, and may be made available to those boards, Commissions, Authorities, Agencies and Persons having an interest in this matter. Any questions regarding the collection of this information should be directed to the Secretary Treasurer of the Committee of Adjustment (P.O. Box 100, Sydenham, Ont., K0H 2T0, Phone 376-3027 ext.2224).

TOWNSHIP OF SOUTH FRONTENAC APPLICATION FOR MINOR VARIANCE
Planning Act, R.S.O. 1990, c. P.13 as amended

Date Received: _____

File No: _____

Pre-Consultation for this application Yes No

Planner: Christine Woods Date of pre-consultation: December 12th, 2022

1. Name of Owner(s): Robert Pittman

Full Mailing Address of Owner(s): 30 Arran Crescent, Woodbridge, ON L4L 1G5

Phone number of Owner(s): _____

Email Address of Owner(s): _____

2. If the applicant is **NOT** the owner of the subject land, the written authorization of the owner that the applicant is authorized to make the application, must accompany the application.

Name of Authorized Agent: Fotenn Consultants Inc. c/o Elysia Ackroyd

Full Mailing Address of Authorized Agent: 4 Cataraqui Street 315, Kingston, K7K 1Z7

Phone number of Authorized Agent: _____

Email Address of Authorized Agent: _____

Agent as named above is hereby authorized to act on behalf of the owners for purposes of processing this application for Minor Variance.


Signature(s) of Owner(s)

3. The description of the subject land:

District: Bedford Portland Loughborough Storrington

Concession Number: CON 3 Lot Number: 6

Street Number: 3629 Name of Road/Street: Quinn Road East

Reference Plan Number: 13R-7028 Part Number(s): _____

Roll Number: 102908001013900

TOWNSHIP OF SOUTH FRONTENAC APPLICATION FOR MINOR VARIANCE
Planning Act, R.S.O. 1990, c. P.13 as amended

4. The frontage(s), depth and area of the subject land.

Frontage (on water): N/A Frontage (on road/lane): +/- 191 metres

Depth: +/- 1,337 metres Area: +/- 93 acres, +/- 37.8 hectares

5. The current zoning of the subject land:

Rural (RU) zone

6. The nature and extent of the relief from the Zoning By-law:

A minor variance application is necessary to allow a reduced frontage for each of the retained and severed lots. Please refer to Planning Justification Letter in support of application.

7. The reason why the proposed use cannot comply with the provisions of the Zoning By-law:

Relief is requested to reduce the minimum frontage of each the severed and retained lots. The minimum frontage is proposed to be reduced from 76 metres to 64.6 metres for the retained lot, and 63.0 metres for both of the severed lots. This reduction in frontage is required to facilitate the consent, which will see a large, underutilized rural lot being developed in a manner which provides for two new lots and the potential to develop new single detached houses. Please refer to supporting planning justification letter.

8. Does the subject property front on a municipally maintained road? Yes No

OR a privately maintained road? Yes No

Name of Road/Lane:

Quinn Road East

9. **If access to the subject property is by water only**, please indicate the parking and docking facilities used or to be used and the approximate distance of these facilities from the subject land and the nearest public road.

N/A

10. What are the existing uses of the subject land?

Rural

11. Please indicate whether there are any **EXISTING** buildings or structures on the subject land. (I.e. residence, garage, shed, etc.)

Yes No

TOWNSHIP OF SOUTH FRONTENAC APPLICATION FOR MINOR VARIANCE
Planning Act, R.S.O. 1990, c. P.13 as amended

12. If the answer to item 11 is yes, for **EACH building or structure** indicate:

Type of Structure (E.g. residence)	(1) Single Detached Dwelling	(2) Garage	(3) Shed	(4)
Setback from Front Lot Line	+/- 213 m	+/- 230 m	+/- 233 m	
Setback from Rear Lot Line	+/- 1,108 m	+/- 1,097 m	+/- 1,095 m	
Setback from Side Lot Line	+/- 122 m (west) +/- 95 (east)	+/- 139 m (west) +/- 81 m (east)	+/- 158 m (west) +/- 67 m (east)	
Height of Building (Also indicate if it is one story or two story)	1 Storey	1 Storey	1 Storey	
Dimensions of Floor Area	unknown	unknown	Unknown	
Setback from High Water Mark (If applicable)	N/A	N/A	N/A	

13. The proposed uses of the subject land:

Rural residential

14. Are any building(s) or structure(s), or additions to existing building(s) or structure(s), **PROPOSED** to be built on the subject land?

Yes No

TOWNSHIP OF SOUTH FRONTENAC APPLICATION FOR MINOR VARIANCE
Planning Act, R.S.O. 1990, c. P.13 as amended

15. If the answer to item 14 is yes, for each proposed addition, building or structure indicate:

	(1)	(2)	(3)	(4)
Type of Structure (E.g. residence)				
Setback from Front Lot Line				
Setback from Rear Lot Line				
Setback from Side Lot Line				
Height of Building (Also indicate if it is one story or two story)				
Outside Dimensions of Building/Structure				
Setback from High Water Mark (If applicable)				

NOTES: 1) If the subject property is on waterfront, and on a private lane, the setback from the front lot line and the setback from the high water mark will be the same.

2) The dimensions required in this question relate to the **NEW CONSTRUCTION ONLY**, and **NOT** to the total size of the completed building.

16. Do your plans include any **DEMOLITION** of existing structures? Yes No

If yes, please provide details:

TOWNSHIP OF SOUTH FRONTENAC APPLICATION FOR MINOR VARIANCE
Planning Act, R.S.O. 1990, c. P.13 as amended

17. Do your plans include the **RAISING** of an existing structure? Yes No

If yes, please provide details:

18. What are the uses of the proposed development?

- | | | | |
|-----|--|------------------------------|--|
| (a) | Increase in number of bedrooms | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| (b) | Increase in plumbing fixtures | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| (c) | Increase in living space | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| (d) | Will the addition or structure encroach on the existing septic system? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |

19. The date the subject land was acquired by the current owner:

May 5th, 2021

20. The date the existing buildings and structures were constructed on the subject lands:

Unknown

21. The length of time that the existing uses of the subject land have continued:

Unknown

22. Indicate whether water is provided to the subject land by a publicly owned and operated piped water system, a privately owned and operated individual or communal well, a lake, or other water body, or other means:

Privately owned and operated individual well

23. Indicate whether sewage disposal is provided to the subject land by a publicly owned and operated sewage system, a privately owned and operated individual or communal septic system, a privy, or other means:

Privately owned and operated individual or communal septic system

24. Is storm drainage provided by sewers, ditches, swales or by other means?

Ditches, swales

TOWNSHIP OF SOUTH FRONTENAC APPLICATION FOR MINOR VARIANCE
Planning Act, R.S.O. 1990, c. P.13 as amended

25. Please indicate whether the subject land is subject of an application under the Planning Act for approval of a Plan of Subdivision or Consent.

Yes No

26. If the answer to question 25 is yes, please give the file number of the application and the status of the application.

Submitted with this application _____

27. If known, please indicate whether the subject land has ever been the subject of an application under Section 43 of the Planning Act (Minor Variance).

Yes No Unknown

28. If the answer to item 27 is yes, please give the file number of the application and the status of the application.

29. A **SKETCH** must be submitted showing the following:

- i) THE SKETCH **MUST** HAVE A NORTH ARROW AT THE TOP OF THE PAGE.
- ii) The boundaries and dimensions of the subject land including the location of any existing and proposed buildings.
- iii) The location of a reference point.....i.e. distance between the subject land and the nearest township lot line or landmark such as a bridge or railway crossing.
- iv) The location of all abutting (neighbours') lands.
- v) The approximate location of all natural and artificial features on the subject land and on the land that is adjacent to the subject land. Examples include buildings, railways, roads, watercourses, drainage ditches, river or stream banks, barns, wetlands, wooded areas, wells and septic tanks. Show distance of these features from the applicant's property lines.

****Note: **** The distances to on-site and abutting owners' wells, septic fields and barns, from the property to be varied, **IS REQUIRED** to be shown. The **SKETCH** is of significant importance and should be prepared as carefully, neatly and accurately as possible.

TOWNSHIP OF SOUTH FRONTENAC APPLICATION FOR MINOR VARIANCE
Planning Act, R.S.O. 1990, c. P.13 as amended

AGREEMENT TO INDEMNIFY

Attached to this application is a cheque payable to the Township of South Frontenac representing payment of the application fee.

The Owner/Applicant/Agent agrees that the information recorded in this Minor Variance Application Form is accurate. The Owner/Applicant/Agent agrees that representatives of the Township and, where applicable, the appropriate Conservation Authority, may enter onto the subject property for the purpose of determining the appropriateness of the site for the proposed development.

The Owner/Applicant/Agent agrees to reimburse and indemnify the municipality for all fees and expenses incurred by the municipality to process the application, including any fees and expenses attributable to proceedings before the Ontario Municipal Board or any court or other administrative tribunal if necessary to defend Council's decision to support the application.

Without limiting the foregoing, such fees and expenses shall include the fees and expenses of consultants, planners, engineers, lawyers and such other professional and technical advisors as the municipality may, in its absolute discretion acting reasonably, consider necessary or advisable to more properly process and support the application.

The Owner/Applicant/Agent further agrees to provide the municipality, upon request and in cases where an application has been appealed to the Ontario Land Tribunal, with a deposit (over and above the normal application fee), from which the municipality may, from time to time charge any fees and expenses incurred by the municipality in order to process the application. If such appeal expenses exceed the deposit, the Owner/Applicant shall pay the difference forthwith upon being billed by the municipality, with interest at the rate of 1.25% per month (15% per annum) on accounts overdue more than 30 days.

The Owner/Applicant/Agent further agrees that, until such requests have been complied with, the municipality will have no continuing obligation to process the application or attend or be represented at the Ontario Municipal Board or any court or other administrative proceeding in connection with the application:

CITY OF TORONTO, ONTARIO
DATED AT THE ~~TOWNSHIP OF SOUTH FRONTENAC~~ RR MC58

THIS 24TH DAY OF JUNE, 2025

I, ROBERT PITMAN OF VAUGHAN, ONTARIO
solemnly declare that all the statements contained in this application are true and I make this solemn declaration conscientiously believing it to be true and knowing that it is of the same force and effect as if made under the Oath Act and the Evidence Act.

[Redacted] Signature of Applicant or Authorized Agent

DECLARED before me at the TOWNSHIP OF SOUTH FRONTENAC (IN THE COUNTY OF FRONTENAC)

THIS 24TH DAY OF JUNE, 2025

RR
MC58

TOWNSHIP OF SOUTH FRONTENAC APPLICATION FOR MINOR VARIANCE
Planning Act, R.S.O. 1990, c. P.13 as amended

A Guide to Completing the Minor Variance Form

- 1) The names of **all** owners must appear in this section, even if they live in separate residences, and the address(es) should be the **full mailing address, complete with postal code**.
- 2) You may wish to appoint someone to act on your behalf during the variance process. If so, that person's name, address and phone number should appear here All owner's must sign the authorization.
- 3) Description of the Subject Land:
 - a. District: The Districts are the same as the former Townships. If you are not sure, check the roll number (the long number beginning with 1029) on your tax bill. If the numbers are 010, 020 or 030, your district is Bedford; if the numbers are 040-050, your district is Loughborough; if the numbers are 060 or 070, your district is Storrington; and if the numbers are 080, your district is Portland.
 - b. Concession and Lot Numbers: if you are not sure, check your tax bill
 - c. Street Number: Your civic address – if a civic number has not been assigned, leave this space blank.
 - d. Name of Road/Street: This question applies whether or not you are on a private lane or a public road.
 - e. Reference Plan No: If your property has been surveyed, it will have a plan number, and one or more parts on that plan. If your property has not been surveyed, leave this space blank.
 - f. Roll No: This is the number beginning with '1029' which appears on your tax bill. Please take time to look it up before submitting the application.
- 4) Frontage, depth, area, acres: All parts of this question must be completed.
- 5) Current zoning: You may not be aware of the zoning on your property and this can be determined when you come in for pre-consultation with planning staff.
- 6) Nature and Extent of Relief: This question is asking what you are asking to do that requires the variance – for example, it could be that you are asking to be 25 m rather than 30 m from the high water mark, or that you are asking to increase the height of a structure within 30 m of the high water mark, or that you are seeking a variance to construct an accessory building closer to the front lot line than the principal building.
- 7) Reason why you can't comply: In other words, why can you not meet the required setbacks. It could be, for example, because you are seeking a variance to add on to an existing structure that is already too close to the water, or that developing further from the water would be impossible because of a steep embankment.
- 8) Roads: Municipally maintained roads are looked after by the Township; private roads are lanes that residents maintain themselves (not private driveways, but lanes that provide access to your property and that are generally shared with others).

TOWNSHIP OF SOUTH FRONTENAC APPLICATION FOR MINOR VARIANCE
Planning Act, R.S.O. 1990, c. P.13 as amended

- 9) Parking and Docking: This question is only relevant if you can only access your property by water.
- 10) Existing Uses: e.g. residential, retail business, vacant recreational land
- 11) Buildings: If there are **ANY** buildings or structures on the property now, the answer to this question is “yes”.
- 12) Description of buildings and structures: You must complete all sections of this question for each structure on your property. **If there is a deck on your dwelling, please describe it separately from the residence.**
- 13) Proposed Uses: Generally, the answer to this question will be the same as the answer to #10, but if, for example, the land is currently vacant, and you are planning to construct a dwelling, then the use to be described in section 10 would be “vacant recreational land”, and the use described in section 13 would be “residential”
- 14) Proposed structures: If you are planning to build **ANYTHING** on the property, the answer to this question is “yes” – This includes additions, decks, garages, septic systems.
- 15) Description of new construction: **ALL** proposed new development must be described here. If you are proposing to construct an addition to a dwelling, and to add a deck, please show this information in separate columns.
- 16) **Demolition: All demolition requires a permit from the building department.** In some instances, a proposed addition or increase in height cannot be accomplished without the removal of existing walls. If this is not made clear to the Committee at the beginning of the process, you may find that, although you are granted permission to add on to your residence, you can't actually do it because you have not made it clear that there is demolition involved.
- 17) Raising of Structure: In other words, are you proposing to raise the building in order to construct a basement under it.
- 18) Uses of Development: Please answer each part of this question. An increase in living space would include anything with walls – e.g. a screened porch would involve an increase in living space.
- 19) Date land acquired: When did you take possession of the property?
- 20) Date of existing buildings: If you are not sure, provide your best estimate.
- 21) Length of existing uses: For example, has the land been used for residential purposes for 30 years, or 18 months?
- 22) Water supply: in most cases the answer will be private well, but some waterfront properties take their water from a lake.

TOWNSHIP OF SOUTH FRONTENAC APPLICATION FOR MINOR VARIANCE
Planning Act, R.S.O. 1990, c. P.13 as amended

- 23) Septic: in most cases the answer will be private sewage system, but there may be some privies.
- 24) Drainage: Are there specific ditches that have been constructed to deal with drainage; is there natural drainage, etc.?
- 25) Application for consent: Is there currently an application for consent (severance) being proposed for the property?
- 26) If yes: If there is a current application for severance or subdivision on the property, please indicate the file number. (Staff can help provide this information)
- 27) Minor variance: Has there ever been a minor variance granted on the property? If you are long-time owner of the property, you will probably be aware of any other special permission granted for a variance to the zoning by-law. If you are a new owner, the seller will probably have made you aware of this.
- 28) If yes: If there has been a previous variance granted on the property, please indicate the application number if known, and what the details of the variance were.
- 29) **SKETCH: We cannot stress enough the importance of a detailed, accurate, and complete sketch. You do not necessarily need to contract with a professional to draw the sketch, but sketches that are not drawn to scale, do not show dimensions and distances, or are not drawn neatly (PLEASE USE A RULER), will not be accepted.**
- 30) **Agreement to Indemnify:** Must be signed in front of a commissioner of oaths – you may have this done before submitting the application, or sign the application in front of staff who can sign as commissioners. All owners must sign the application, or it can be signed by an agent if one has been appointed.

3629 QUINN ROAD EAST, SOUTH FRONTENAC

CONSENT + MINOR VARIANCE

1

August 19, 2025

Kate Kaestner

Planning Clerk/Secretary-Treasurer, Committee of Adjustment
Planning Department
Township of South Frontenac

Via Email: kkaestner@southfrontenac.net

**RE: 3629 Quinn Road East, South Frontenac
Applications for Consent and Minor Variance
Planning Justification Report**

Dear Ms. Kaestner,

Fotenn Planning + Design was retained by Robert Pittman ("the applicant") to prepare applications for consent and minor variance at 3629 Quinn Road East. Applications were submitted on July 14, 2025 and a response was provided on July 16, 2025. The applications were scheduled for the August 14, 2025 Committee of Adjustment meeting but were deferred at the request of the applicant to reevaluate the lot configuration in response to comments made by the Cataraqui Region Conservation Authority (CRCA), and other site considerations. This letter is submitted in support of the revised applications. The applications are now proposed to be heard on the September 11, 2025 Committee of Adjustment agenda. The technical studies submitted in support of the application remain relevant and applicable.

Revised Proposal

The revised application continues to propose consent to create two new rural residential lots fronting Quinn Road East, though now with reduced lot sizes. In this new proposal, each severed lot has been reduced from approximately 1.5 ha to 0.82 ha. The retained lands have been increased from approximately 35.89 ha to 36.37 ha. The application for minor variance to permit the reduced frontages for single detached residential uses in the Rural (RU) zone remains the same. The proposed frontage of the retained lot is 64.6 metres, while the proposed frontage for each of the severed lots is 63 metres, whereas a minimum frontage of 76 metres is required. The intention of this reduction is to preserve the tillable agricultural field located north of the proposed severances, and to eliminate the need for potential watercourse crossings, as recommended by CRCA through their July 31st comments. In these comments, staff recommended that an alternative lot configuration be considered where the rear lot line follows the watercourse to avoid the need for future watercourse crossings. The revised plan now proposes that the rear lot lines of the severed lots align with the northern extent of the 30 metre setback of the watercourse, thereby minimizing opportunity for crossing, as no development is permitted in this 30 metre setback.

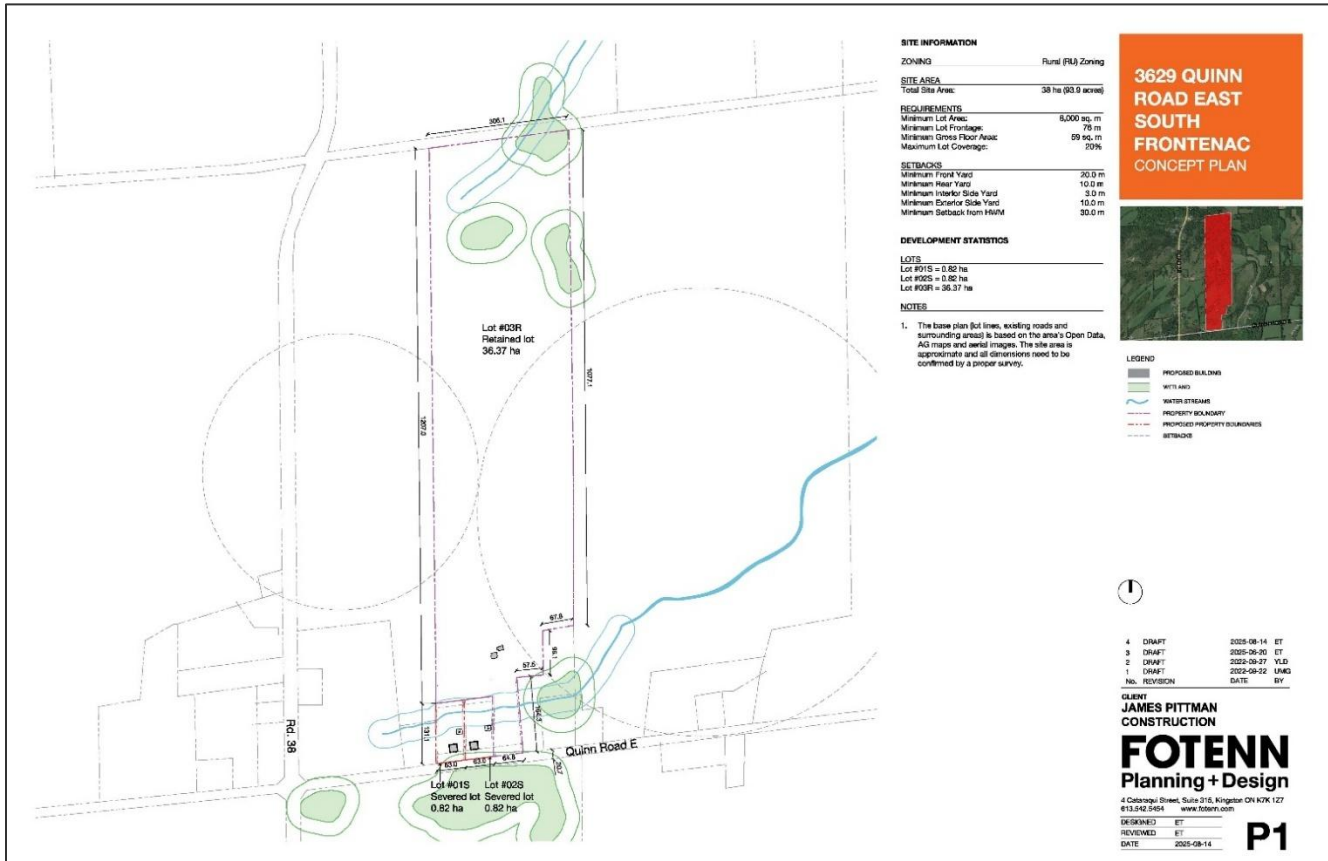


Figure 1: Revised Concept Plan (Source: Fotenn Planning + Design)

The technical studies submitted in support of the July 14, 2025 applications remain valid. The Minimum Distance Separation (MDS) Study continues to apply as the relative location of proposed building envelopes and nearby livestock facilities has not changed, and the proximity of the severed lots to the MDS influence areas are now reduced as a result of the lot reconfiguration. The Scoped Natural Heritage Site Assessment (NHA) remains applicable, as the revised lot configuration strengthens the original recommendations by aligning lot lines with the tributary and avoiding potential crossings, while maintaining a 30 metre buffer from development. Similarly, the Hydrogeological Assessment and Terrain Analysis continues to demonstrate that the proposed lots can be safely and sustainably serviced by private well and septic systems; the modest reduction in lot size from 1.5 ha to 0.82 ha should not affect groundwater supply, quality, or the feasibility of recommended setbacks. Collectively, these studies confirm that the revised proposal remains technically supportable and consistent with good planning.

The revised application continues to satisfy the four tests of minor variance under Section 45(1) of the *Planning Act*. The general intent and purpose of the Official Plan is maintained as the proposal still represents limited rural residential lot creation that is compatible with surrounding uses, appropriately serviced, and protects against potential impacts on the watercourse. The general intent and purpose of the zoning by-law is upheld, as the Rural (RU) Zone supports large rural lots with private servicing. While frontage relief remains necessary, all lots exceed the minimum lot area and continue to provide sufficient space for dwellings, septic systems, wells, and setbacks. The variance remains minor in nature, as the reduction in frontage does not affect lot functionality, servicing, or compatibility with the established lot fabric. The variance is still desirable for the appropriate development of the land, as it enables the efficient creation of rural residential lots on existing road frontage while preserving rural and natural features, ensuring that the lots are both functional and sustainable.

Conclusion

The revised consent and minor variance applications at 3629 Quinn Road East addresses technical comments and enhances the protection of rural and natural features. The application will allow a form of appropriate rural residential development on the site which will complement the existing character of the area.

The minor variance application continues to maintain the intent and purpose of the OP and zoning by-law, is minor in nature, and desirable for the appropriate development of the site in question. It is our opinion that the proposed applications for consent and minor variance remain appropriate for the site and represent good land use planning. Should you have any questions or comments, please do not hesitate to contact us at 613.542.5454.

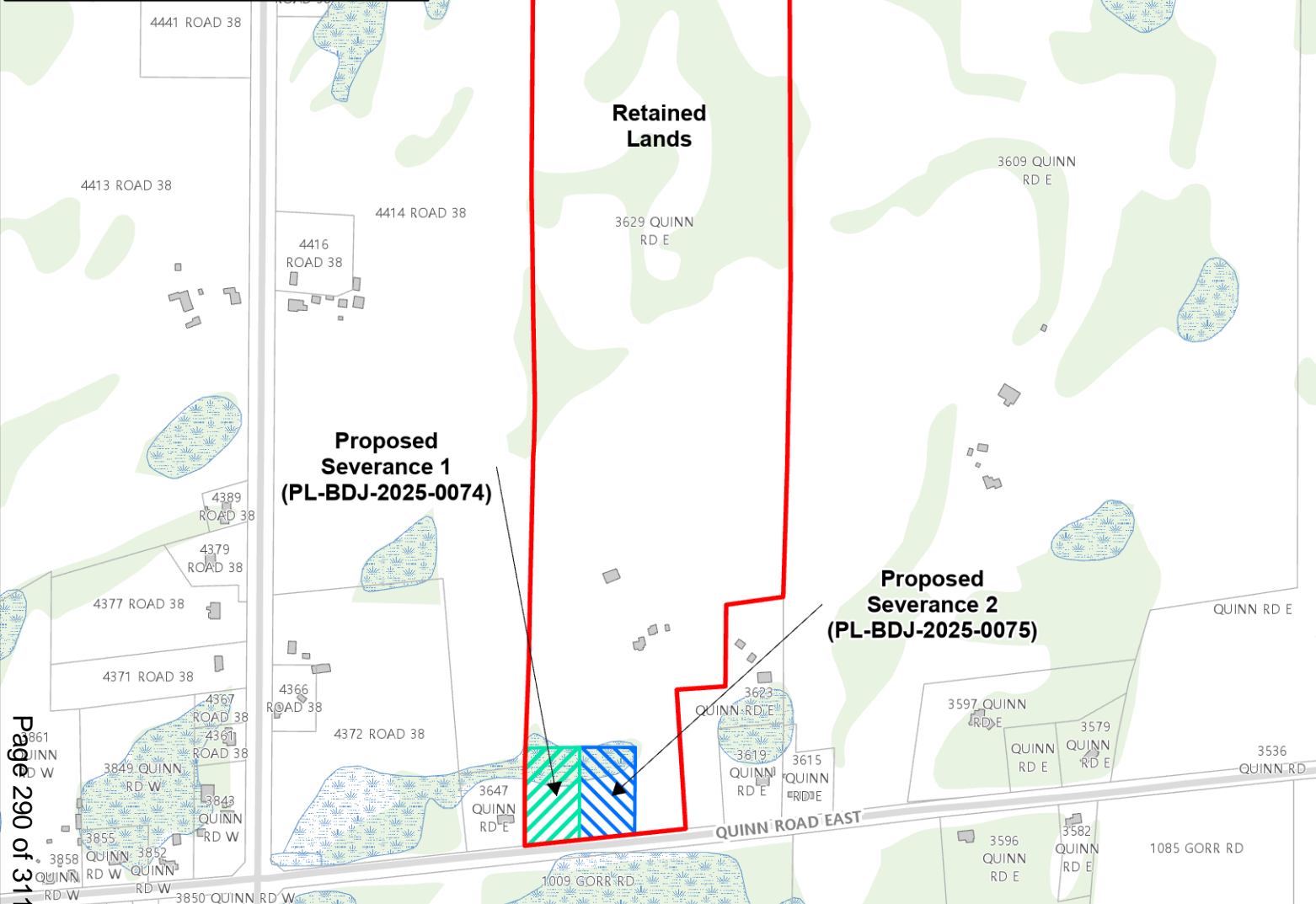
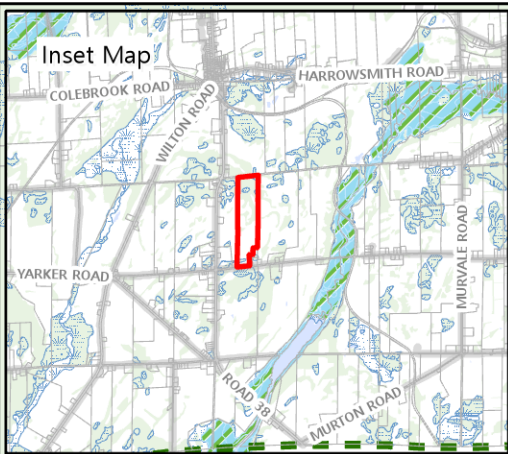
Respectfully submitted,



Elysia Ackroyd, MCIP RPP
Senior Planner
Fotenn Planning + Design



Tara McInnes
Planner
Fotenn Planning + Design













SOUTH FRONTENAC

PL-BDJ-2025-0074
 PL-BDJ-2025-0075
 PL-ZNA-2025-0076

(PITTMAN)
 3629 QUINN ROAD EAST

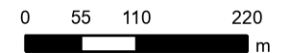
Legend

-  Subject Lands
-  Proposed Severance (Lot 1)
-  Proposed Severance (Lot 2)
-  Wetland
-  Wooded Area
-  Lake Trout Lake - At Capacity
-  Lake Trout Lake - Not at Capacity
-  Non-Lake Trout Lake - At Capacity
-  Waterbody
-  Township Boundary
-  Road

Produced by the County of Frontenac under license with the Ontario Ministry of Natural Resources © King's Printer for Ontario, 2025.

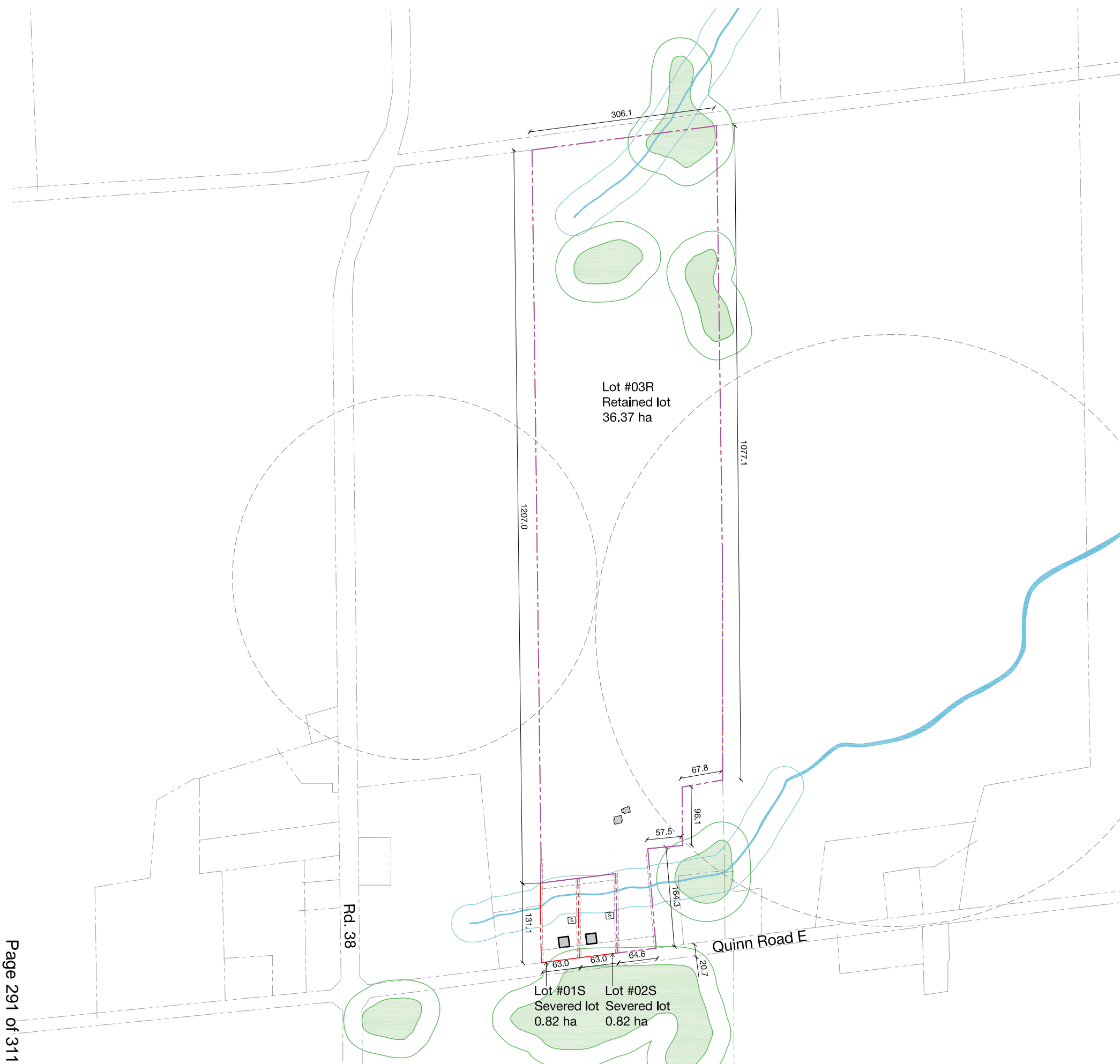
While the County makes every effort to insure that the information presented is accurate for the intended uses of this map, there is an inherent error in all mapping products, and accuracy of the mapping cannot be guaranteed for all possible uses. This map displays basic topographic features only.

Scale: 1:7,500



UTM Zone 18 NAD 83

Date: 26/08/2025



SITE INFORMATION

ZONING Rural (RU) Zoning

SITE AREA
Total Site Area: 38 ha (93.9 acres)

REQUIREMENTS
 Minimum Lot Area: 8,000 sq. m
 Minimum Lot Frontage: 76 m
 Minimum Gross Floor Area: 59 sq. m
 Maximum Lot Coverage: 20%

SETBACKS
 Minimum Front Yard 20.0 m
 Minimum Rear Yard 10.0 m
 Minimum Interior Side Yard 3.0 m
 Minimum Exterior Side Yard 10.0 m
 Minimum Setback from HWM 30.0 m

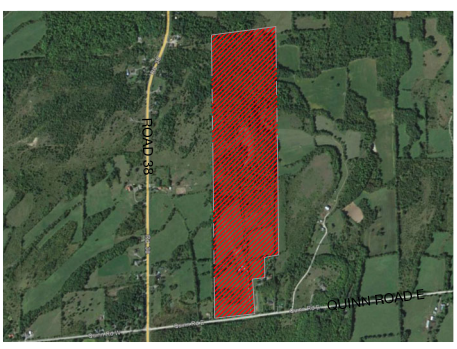
DEVELOPMENT STATISTICS

LOTS
 Lot #01S = 0.82 ha
 Lot #02S = 0.82 ha
 Lot #03R = 36.37 ha

NOTES

1. The base plan (lot lines, existing roads and surrounding areas) is based on the area's Open Data, AG maps and aerial images. The site area is approximate and all dimensions need to be confirmed by a proper survey.

3629 QUINN ROAD EAST SOUTH FRONTENAC CONCEPT PLAN



LEGEND

	PROPOSED BUILDING
	WETLAND
	WATER STREAMS
	PROPERTY BOUNDARY
	PROPOSED PROPERTY BOUNDARIES
	SETBACKS



4	DRAFT	2025-08-14	ET
3	DRAFT	2025-06-20	ET
2	DRAFT	2022-09-27	YLD
1	DRAFT	2022-09-22	UMG
No.	REVISION	DATE	BY

CLIENT
JAMES PITTMAN CONSTRUCTION
FOTENN Planning + Design
 4 Cataraqui Street, Suite 315, Kingston ON K7K 1Z7
 613.542.5454 www.fotenn.com

DESIGNED	ET
REVIEWED	ET
DATE	2025-08-14

P1

July 31, 2025

File: SEV/FRS/172/2025
SEV/FRS/173/2025
MV/FRS/174/2025

Sent by E-mail

Christine Woods
Manager of Planning
Development Services
Township of South Frontenac
P.O. Box 100
Sydenham, Ontario
K0H 2T0

Dear Ms. Woods:

**Re: Consent Applications PL-BDJ-2025-0074 and PL-BDJ-2025-0075 (Lot Creation) & Minor Variance Application PL-ZNA-2025-0076
3629 Quinn Rd East; Township of South Frontenac
Waterbody: unnamed tributary of Millhaven Creek & unevaluated wetlands**

Staff of the Cataraqi Region Conservation Authority (CRCA) have reviewed the above-noted applications for consent and minor variance. The applications involve the severance of two 1.0 ha parcels of vacant land from an existing 37.8 ha rural property for the purpose of creating two new building lots. Future residential development is planned for the 35.8 ha retained parcel. A minor variance is necessary to permit reduced lot frontages for each lot.

Discussion

CRCA's scope of review with respect to this application is the avoidance of natural hazards (e.g. flooding and erosion) associated with the unnamed watercourses and wetlands on the subject property and protection of the hydrologic function of wetlands. We offer the following comments for the Committee of Adjustment's consideration, based on our role as a commenting agency responsible for natural hazards on *Planning Act* applications, and as administrator of Ontario Regulation 41/24: *Prohibited Activities, Exemptions and Permits*.

Natural Hazards / Ontario Regulation 41/24

Surface Water Features

Cataraqi Conservation, through implementation of Ontario Regulation 41/24: *Prohibited Activities, Exemptions and Permits* requires development (building and structures) and site alteration (excavation, grading, placement of fill) to be located outside of natural hazard areas and set back a minimum of 30 m from surface water features including watercourses (creeks, streams) and

wetlands. The intent is to protect development from potential flooding and erosion hazards and to preserve the hydrologic function of these features.

Unnamed Tributary of Millhaven Creek

The subject lands are within a drainage catchment the flows east into Millhaven Creek. There is a watercourse that runs across the southern portion of the subject lands approximately 98 m back from Quinn Road. The watercourse is a regulated feature and as such a 30 m setback is applied. The survey sketch provided shows that there are building envelopes on the severed and retained lands outside of the required 30 m setback from the watercourse. However, the proposed lot configuration results in the severed lots being divided by the watercourse.

Staff note that it may not be feasible to access the northern portion of the severed lots since this would require a crossing of the watercourse, which may not be permitted by CRCA. As such, staff recommend that an alternative lot configuration be considered where the rear lot line follows the watercourse to avoid the need for future watercourse crossings.

Unevaluated Wetlands

Mapping identified pockets of unevaluated wetlands on the subject lands, generally in the area in and around of the watercourse. Staff are accepting of the findings of the Natural Heritage Site Assessment which confirms the presence of riparian vegetation in the watercourse channel but notes that the area is not large enough to be considered a distinct community. Based on this, CRCA have no concerns related to the hydrologic function of wetlands on the subject lands.

Staff recommend that native vegetation (trees, shrubs, native plants) within 30 metres of watercourse on the subject lands be kept in place, to help stabilize soils and protect the hydrologic function of the surface water features in the long-term.

Karst Topography

The subject lands have been identified on provincial OGS Mapping as having inferred karst. Karst is a type of unstable bedrock that is relatively common in the Cataraqui Region area and is considered a natural hazard under the 2024 Provincial Planning Statement and Ontario Regulation 41/024. As with other natural hazards, there is risk of damage to buildings, property and human safety when development is located within or near unstable bedrock. Accordingly, CRCA's regulation directs development away from these areas and features.

CRCA staff have reviewed available information (e.g. aerial imagery, soils and geology mapping, topographic info.) and completed a site inspection of the subject lands. Based on our preliminary findings, we did not encounter evidence of karst in the area of the future development envelopes (generally within 50 m of Quinn Road).

Should karst features (e.g. fissures, crevices, sinkholes, etc.) be encountered on the subject lands during construction/excavation of the site, the applicant will need to contact CRCA staff to determine appropriate actions which would include additional assessment by a qualified professional to determine the extent and risks associated with karst at the property.

Recommendation

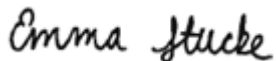
Staff have **no objection** to approval of PL-BDJ-2025-0074, PL-BDJ-2025-0075 and PL-ZNA-2025-0076 based on our review of natural hazards and have identified considerations above in **bold**.

Ontario Regulation 41/24

Please note that portions of the subject lands within 30 m of the watercourse are subject to Ontario Regulation 41/24: *Prohibited Activities, Exemptions and Permits* (formerly O. Reg. 148/06). The purpose of the regulation is to ensure that proposed changes (e.g. development and site alteration) to a property are not affected by natural hazards, such as flooding and erosion, and that the changes do not put other properties at greater risk from these hazards and to ensure the protection of wetlands. **Current and future landowners are advised to contact CRCA before considering any work within 30 metres of the watercourse on the subject lands.**

Please inform this office of any decision made by the Committee with regard to these applications. If you have any questions, please contact the undersigned at 613-546-4228 ext. 239, or by e-mail at estucke@crca.ca

Sincerely,



Emma Stucke, RPP, MCIP
Resource Planner

cc. Robert Pittman, applicant, by email
Elysia Ackroyd, agent, by email

From: [Emma Stucke](#)
To: [Christine Woods](#)
Cc: [Kate Kaestner](#)
Subject: RE: Notices of Deferral: Pittman Applications (3629 Quinn Road East)
Date: August 26, 2025 9:42:49 AM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)
[image006.png](#)
[image007.png](#)
[image008.png](#)

Hi Christine,

Thanks for providing this. Overall, I see the proposed revisions as an improvement compared to the last concept and continue to have no objections to the severance.

Sincerely,
Emma

Emma Stucke MCIP, RPP (she/her)
Resource Planner
Phone: (613) 546-4228 ext. 239

From: Christine Woods <cwoods@southfrontenac.net>
Sent: August 26, 2025 9:06 AM
To: Emma Stucke <EStucke@crca.ca>
Cc: Kate Kaestner <kkaestner@southfrontenac.net>
Subject: RE: Notices of Deferral: Pittman Applications (3629 Quinn Road East)

Emma,

We received the attached revised plan, which will go to Committee of Adjustment on September 11th. Please let me know if you have any comment on the revised plan.

Sincerely,

Christine Woods RPP, MCIP
Manager of Planning
Development Services

p: +613-376-3027

e: cwoods@southfrontenac.net

a: 4432 George St., Box 100
Sydenham, ON K0H 2T0

Temporary office: 3910 Battersea Road, Sunbury
www.southfrontenac.net



South Frontenac is a welcoming and thriving rural community

 Please consider the environment before printing this email

From: Emma Stucke <ESTucke@crca.ca>
Sent: August 25, 2025 4:50 PM
To: Kate Kaestner <kkaestner@southfrontenac.net>
Cc: Christine Woods <cwoods@southfrontenac.net>
Subject: RE: Notices of Deferral: Pittman Applications (3629 Quinn Road East)

Hi Kate,

Thanks for passing on the notices of deferral. I'm following up to see if you need any further info from me with respect to my comment letter.

Let me know!

Thanks,
Emma

Emma Stucke MCIP, RPP (she/her)
Resource Planner
Phone: (613) 546-4228 ext. 239

From: Kate Kaestner <kkaestner@southfrontenac.net>
Sent: August 18, 2025 3:04 PM
To: Emma Stucke <ESTucke@crca.ca>
Subject: Notices of Deferral: Pittman Applications (3629 Quinn Road East)

Good afternoon Emma,

Please find attached Notices of Deferral for the Pittman applications at 3629 Quinn Road East).

Kind regards,

Kate



Kate Kaestner
Planning Clerk
Development Services Department
Township of South Frontenac

p: +613-376-3027

e: kkaestner@southfrontenac.net

a: Box 100, Sydenham, ON, K0H 2T0

o: 3910 Battersea Road, Sunbury, ON

www.southfrontenac.net



South Frontenac is a welcoming and thriving rural community



Please consider the environment before printing this email

Report from Public Services

Application Number: _____

Applicant's Name: _____

Concession: _____ **Lot:** _____ **District:** _____

Road: _____

Road Maintenance: Year-round Seasonal

Sight Lines: Are there adequate sight lines for the entrance? Yes No

If no, what changes would be required to improve sight lines?

Road Conditions:

1. Are there any special drainage/ditching concerns related to creation of new lot(s)?

Yes No

If yes, what action is the applicant required to take?

2. Is the overall road condition adequate to serve increased development/traffic?

Yes No

If no, please explain, and indicate if there are any measures that could be taken to correct the inadequacies.

Road Widening Required?

Yes No To be determined by an Ontario Land Surveyor

Any specific requirement?

Approved by the Public Services?

Yes Yes, with conditions No

If yes, with conditions, please describe conditions below.

Evan Bancroft
Signature on behalf of Public Services

Date

Township of South Frontenac Staff Report



To: Committee of Adjustment

Prepared by: Development Services Department

Meeting Date: September 11, 2025

Subject: Revised Consent Applications PL-BDJ-2025-0074 and 0075, Minor Variance Application PL-ZNA-20250076, Pittman (Fotenn), 3629 Quinn Road East, Portland District

Summary

The consent applications are for the creation of two rural residential lots. The minor variance application is to allow the severed and retained parcels to have less than the required lot frontage. The Committee of Adjustment is being asked to make a decision on the consent applications in conjunction with the minor variance application. This report recommends approval of the three applications.

Background

The subject property is located south of Harrowsmith, east of Road 38 and on the north side of Quinn Road East. It runs north to an unopened road allowance. The northern two thirds of the property is forest and old farm fields. The southern portion of the property is generally level. It contains agricultural fields and is developed with a single detached dwelling, a detached garage and a shed. A watercourse bisects the property approximately 100m north of Quinn Road East.

The neighbourhood has a mix of rural residential properties and agricultural properties.

The subject lands are in the Rural designation in the Township of South Frontenac Official Plan. The lands are zoned Rural (RU) in Zoning By-law No. 2003-75, as amended.

The Committee of Adjustment held a public hearing for the subject applications in August 2025. The Committee granted the applicant's request to defer making decisions until they had an opportunity to revisit the proposed lot layouts in consideration for Cataraqui Conservation's comments.

Revised applications PL-BDJ-2025-0074 and PL-BDJ-2025-0075 are for the creation of two vacant residential lots on Quinn Road East. Both lots would be 0.8ha (2 acres) in size with 63m frontage. The depth of the lots was reduced preserve the tillable agricultural field to the north, and to eliminate the need for potential watercourse crossings, as recommended by Cataraqui Conservation. The rear lot lines would align with the northern extent of the 30m setback from the watercourse. The retained lands (3629 Quinn Road East) would be 36.3ha (89.6 acres) in size with 64m frontage.

Minor variance application PL-ZNA-2025-0076 is requesting reduced frontages for the severed and retained parcels because the RU zone requires 76m frontage.

Supporting Documents

A **Planning Justification Report** (Fotenn Planning + Design, July 3, 2025) was submitted in support of the applications. The report assessed the appropriateness of the proposal in the context of the surrounding area as well as its conformity with the applicable policy and regulatory framework. It included a minimum distance separation study for livestock facilities. Fotenn submitted a subsequent letter (August 19, 2025) in support of the revised consent applications, indicating that they address technical comments and enhance the protection of rural and natural features.

A **Natural Heritage Site Assessment** (Ecological Services, August 6, 2024) was submitted in support of the applications. This study was required to confirm the existence of a mapped wetland along the watercourse, and to define its boundary, on the severed parcels. The study determined that there was no wetland on the severed parcels. The consultant evaluated the watercourse, riparian area, and woodland on the severed and retained parcels. They also reviewed the area for species at risk habitat and significant wildlife habitat.

The Natural Heritage Site Assessment included the following recommendations:

1. Development should be setback a minimum of 30m from the watercourse,
2. The land within 30m of the watercourse should not be clearcut and should remain vegetated to provide a buffer, and
3. No tree removal should be undertaken between April 1 and September 30 to protect nesting birds and prevent harm to roosting bats.

A **Hydrogeological Assessment** (BluMetric Environmental Inc., April 3, 2025, updated July 30, 2025) was submitted in support of the applications. This study was required because the severed parcels would have less than the required 76m frontage, and would be functionally smaller than the minimum 0.8ha lot size required due to the location of the watercourse.

A dug well was constructed on each of the severed parcels. The consultant conducted 6-hour pumping tests on the wells, water level monitoring, water quality analyses and interference assessment.

The study concluded that an adequate supply of potable water is available for a typical single detached dwelling on each new lot and that soil conditions are suitable for the installation of sewage systems. The report included the following recommendations:

1. Water treatment including pre-filtration and ultraviolet sterilization, as well as an under-the-counter reverse osmosis system for individuals with sodium restricted diets,
2. Regular testing of treated water for bacteriological parameters,
3. Any proposed septic system design should be supported by a lot-specific assessment meeting local septic approval requirements, and

4. The setback distance between a future raised Class 4 sewage system and dug wells on the proposed lots should be at least 45m as a precautionary measure due to the hydrogeological sensitive nature of the site.

The Hydrogeological Assessment was reviewed by Malroz Engineering Inc. on behalf of the Township. They agreed with the consultant's recommendations.

Department and Agency Comments

Public Services reported on July 22, 2025, that there are adequate entrance sight lines for both the severed parcels and the retained parcel. Road widening is to be determined by an Ontario Land Surveyor. A 20-metre right-of-way is required on Quinn Road East. Any shortfall of the right-of-way as measured 10 metres from the centreline of the road shall be dedicated to the Township. Public Services had no comment on the proposed reduced lot frontages.

Cataraqui Conservation staff indicated in a letter dated July 31, 2025, that they have no objection to the applications. They recommended the applicant consider an alternative lot configuration where the rear lot lines would follow the watercourse to avoid the need for future watercourse crossings, because crossings may not be permitted by CRCA under O. Reg. 41/24. They also recommended that native vegetation (trees, shrubs, native plants) within 30 metres of watercourse on the subject lands be kept in place, to help stabilize soils and protect the hydrologic function of the surface water features in the long-term. Finally, they noted that should karst features (e.g. fissures, crevices, sinkholes, etc.) be encountered on the subject lands during construction/excavation of the site, the owner will need to contact CRCA staff to determine appropriate actions which would include additional assessment by a qualified professional to determine the extent and risks associated with karst at the property. On August 26, 2025, they noted the proposed revisions are an improvement compared to the last concept. They continue to have no objections to the applications.

Public Comments

No comments were received from the public at the time this report was written.

Planning Analysis

The consent applications need to be assessed against the applicable policies of the Provincial Planning Statement 2024 (PPS), County of Frontenac Official Plan, and Township of South Frontenac Official Plan, as well as the provisions of Zoning By-law No. 2003-75. The minor variance application needs to be assessed against the four tests of a minor variance outlined in Section 45(1) of the Planning Act.

Minimum Distance Separation for Livestock Facilities

In conformity with the PPS, the Township Official Plan requires all division of land for non-farm uses to comply with the Minimum Distance Separation Formulae I (MDS I) (section 7.1(I)). The Township Zoning By-law also requires residential development to comply with MDS I.

The subject lands are in a rural and agricultural area where there are several existing livestock facilities. The Planning Justification Report (Fotenn Planning + Design, July 3, 2025) evaluated these livestock facilities against The Minimum Distance Separation (MDS) Document (OMAFRA Publication 853). MDS setbacks were calculated for barns at 4372 Road 38 and at 3609 Quinn Road East. It was determined that the severed parcels would conform to the applicable minimum distance separation policies.

Rural Residential Uses

The PPS allows residential lot creation on Rural lands where site conditions are suitable for the provision of appropriate sewage and water services. The County Official Plan and the Township Official Plan also permit residential development in the Rural designation.

Section 5.7.4 of the Township Official Plan indicates that a maximum of three rural residential lots may be created by consent from a landholding provided that the new lots meet the General Consent Policies, as well as all other applicable policies. The subject property is eligible for severances under Section 5.7.4. There have been no previous severances from the lot existing on the day of adoption of the Township Official Plan.

Section 5.7.4 requires the frontage, size and shape of any lot created for rural residential purposes through the severance approval process to be appropriate for the proposed use and to conform to the provisions of the zoning by-law.

The severed parcels would be a minimum of 0.8ha in size, which is the minimum lot area required in the Rural designation and the RU zone for a residential lot. The parcels would be rectangular-shaped.

The severed parcels would have approximately 63m frontage and the retained parcel would have 64.6m frontage on Quinn Road East. These frontages would be less than the minimum 76m lot frontage required in the Rural designation and the RU zone. Section 5.7.4(ii)(a) of the Official Plan allows the municipality to consider reductions to this requirement provided the overall intent of the Official Plan is maintained. The minor variance application requests 60m lot frontages.

The minimum 76m lot frontage is intended to allow for a separation between driveways and to improve traffic safety. Public Services noted that the severed parcels and retained parcel would each have adequate sight lines for an entrance.

Minimum lot frontages are also required to ensure a development pattern that is reasonably consistent in nature and to avoid an overdeveloped appearance. Existing lots along this part of Quinn Road East have frontages ranging from 40m to 70m, so the proposed reduced lot frontages would be consistent with the existing lot fabric of the neighbourhood.

Finally, minimum lot frontages help ensure a reasonable separation between uses. Separation between wells and sewage systems is especially important for protecting groundwater in hydrogeological sensitive areas.

A hydrogeological assessment and terrain analysis was required in support of the applications because the proposed lots would have less than the required 76m frontage, and would be functionally smaller than the minimum 0.8ha lot size required due to the

location of the watercourse (i.e. development would logically need to occur on the land between the watercourse and the road).

The Hydrogeological Assessment (BluMetric Environmental Inc., April 3, 2025, updated July 30, 2025) concluded that an adequate supply of potable water is available for a typical single detached dwelling on each new lot and that soil conditions are suitable for the installation of a sewage system. Figure 4 of the report is a conceptual lot development plan that illustrates how a well, a sewage system and a house can fit on each of the severed parcels with consideration for the recommended 45m separation distance between the wells and sewage systems. The development could also achieve the required 30m setback from the watercourse and other applicable zone provisions.

Staff are satisfied that the proposed reduced frontages would not compromise the functionality, accessibility or rural character of the severed parcels. It would also not impact the continued use of the retained parcel, 150m north of the road.

Special Development Requirements

Staff recommend that a development agreement be a condition of the consent approvals. The development agreement would be used to notify potential purchasers and future owners about special requirements that will apply to development of the severed parcels.

Specifically, to make them aware of the Natural Heritage Site Assessment and the Hydrogeological Assessment and the recommendations that must be implemented. The agreement would also make them aware that they will need to have lot grading and drainage plans prepared that implement the recommendations of these reports.

Cataraqui Conservation noted that the subject lands are in an area of inferred karst. The development agreement would make people aware of this potential, and provide direction on what to do if karst features are encountered during construction/excavation of the site.

Conclusion

The consent applications meet the criteria outlined in section 51(24) of the Planning Act, do not require a plan of subdivision for the proper and orderly development of the municipality, are consistent with the PPS, and conform to the County and Township Official Plans. The severed parcels and retained parcel will comply with the Zoning By-law subject to the requested minor variance for lot frontage.

It is the opinion of Planning staff that the proposed 60m lot frontages meet the four tests for a minor variance – the variances maintain the general intent and purpose of the Official Plan and Zoning By-law, they are desirable for the appropriate development of the lands, and they are minor in nature.

Notice/Consultation

Notice of the Statutory Public Hearings was given pursuant to the requirements of the Planning Act, at least 14 days in advance of the Public Hearings in August and in September. This included notice given:

- by mail to every owner of land within 60 metres of the subject lands

- by posting notice signs on the subject lands
- by e-mail to prescribed persons and public bodies

Recommendation for Consent Applications

It is recommended that the Committee of Adjustment receive comments from the public and, pending comments received, approve revised applications PL-BDJ-2025-0074 and PL-BDJ-2025-0075, each for consent to sever one new rural residential lot from 3629 Quinn Road East, Part of Lot 6, Concession 3, District of Portland, Township of South Frontenac, subject to the following conditions:

Expiry Period

1. Conditions imposed must be met within two years of the date of Notice of Decision, as required by Section 53(41) of the *Planning Act*, RSO 1990, as amended. If conditions are not fulfilled as prescribed within two years, the application shall be deemed to be refused. Provided the conditions are fulfilled within two years, the application is valid for two years from the date of Certificate of Official issuance. The deed must be registered within two years of the issuance of the Certificate of Official.

Severed Lands

2. The lands to be severed shall be for the creation of one new residential lot a minimum of 0.8 hectare in area with a minimum of 60 metres of frontage on Quinn Road East. The lot area, frontage and configuration of the proposed severed lot shall be consistent with application sketch.

Survey/Reference Plan or Registerable Description

3. An acceptable reference plan or legal description of the severed lands in duplicate [Registry Act, s.81, Land Titles Act, s. 150], the deed or instrument conveying the severed lands, and the Certificate of Official shall be submitted to the Secretary-Treasurer for review and consent endorsement within a period of two years [Planning Act, s. 53(41)] after the date that "Notice of Decision" is given [Planning Act, ss. 53(17) and 53(24)].
4. The Ontario Land Surveyor or the applicant shall submit the draft Reference Plan, including an area calculation and noting frontage along the road, electronically or in paper form for review and approval by planning staff prior to depositing the Reference Plan with the Land Registry Office. The Ontario Land Surveyor shall also confirm that the retained parcel has a minimum 60m lot frontage on Quinn Road East.

Road Allowance Widening

5. The Ontario Land Surveyor who prepares the reference plan referred to in Condition #3 and #4 shall also determine by survey the width of Quinn Road East to be 20m. If such a width is less than 20m, the owner shall dedicate to the Township land along the frontage of the severed lands in the following manner as required:

- a. The land to be dedicated shall be the width required to provide 10m from the centre of the existing travelled road;
- b. The land to be dedicated shall be described as a separate part on a Reference Plan of Survey to be prepared and deposited at the Owner's expense and filed with the Secretary-Treasurer prior to the issuance of the Certificate of Official;
- c. The Transfer/Deed from the Owner for the land to be dedicated shall be engrossed in the of "The Corporation of the Township of South Frontenac", and shall include the following attached to the Transfer/Deed as a Schedule:

The Transferor hereby transfers the lands to the municipality for the purpose of widening the adjacent highway pursuant to Section 31(6) of the Municipal Act, 2001, Chapter 25, as amended.
- d. The Transfer/Deed for the land to be dedicated shall be registered by the Owner at the Owner's expense;
- e. The duplicate registered Transfer/Deed for the land to be dedicated together with a letter of opinion of a solicitor qualified to practice law in the Province of Ontario addressed to the Secretary-Treasurer confirming that the municipality acquired good and marketable title to the land free and clear of all liens and encumbrances shall be delivered to the Secretary-Treasurer prior to the issuance of the Certificate of Official.

Municipal Requirements

6. Payment of the balance of any outstanding taxes and local improvement charges shall be made to the Township Treasurer. This includes all taxes levied as of the date of the issuance of the Certificate of Official. It also includes any hydrogeological assessment peer review fee if it is greater than the collected deposit.
7. The Township of South Frontenac shall receive 5% of the value of the severed parcel, in lieu of parkland [Planning Act, s. 51(1), By-law 2023-104].
8. In the event that there are abandoned wells located on the severed parcel or the retained property, the wells shall be sealed in accordance with the requirements of the Ministry of the Environment, Conservation and Parks and that this work shall be accomplished prior to the issuance of the Certificate of Official.
9. The applicant shall enter into a Development Agreement with the Township to be registered on title to the severed parcel to address the following matters and environmental standards of the Township:
 - a. Requirement for an entrance permit for any new or relocated entrances;
 - b. Implementation of the recommendations of the Natural Heritage Site Assessment (Ecological Services, August 6, 2024);
 - c. Implementation of the recommendations of the Hydrogeological Assessment (BluMetric Environmental Inc., July 30, 2025);

- d. Requirement for a lot grading and drainage plan that implements the recommendations of the above reports, to be submitted at the building permit stage;
- e. Notice regarding what to do if karst features are encountered during construction/excavation of the site;
- f. Notice regarding compliance with the Endangered Species Act; and
- g. Notice regarding archeological resources and human remains.

Zoning

- 10. The applicant is required to apply for a minor variance to permit the severed parcel to have a minimum 60 metres of lot frontage and the retained parcel to have a minimum 60 metres lot frontage.
- 11. Where a violation of Zoning By-law No. 2003-75 is evident, the appropriate minor variance or rezoning be obtained to the satisfaction of the Township.

Recommendation for Minor Variance Application

It is recommended that the Committee of Adjustment receive comments from the public and, pending comments received, approve minor variance application PL-ZNA-2025-0076 for 3629 Quinn Road East such that the two severed parcels and the retained parcel from consent applications PL-BDJ-2025-0074 and PL-BDJ-2025-0075 are permitted to each have a minimum of 60m lot frontage.

Report Prepared By:

Christine Woods, RPP, MCIP, Manager of Planning

To: Committee of Adjustment
From: Kate Kaestner, Planning Clerk
Report Date: September 11, 2025
Subject: Decisions on Delegated Consents, August to September 2025

Summary

This report summarizes the Consent applications that have been approved by Brad Wright, Director of Development Services, between August 15, 2025 and September 11, 2025.

Background

The authority to grant undisputed consents is delegated to the Director of Development Services under By-law 2020-27. This report lists the applications which met the criteria for being undisputed consents and have received provisional consent approval.

Discussion

a) PL-BDJ-2025-0072 – Portland District

Approved on August 18, 2025

The application is for a 1.15 acre lot addition to be conveyed from 4671 Bellrock Road to adjacent lands at 4657 Bellrock Road. The proposal will increase the size of 4657 Bellrock Road to 3.28 acres, while leaving retained lands of approximately 47.85 acres.

b) PL-BDJ-2025-0073 – Storrington District

Approved on September 04, 2025

The application is for a 0.5 acre lot addition to be conveyed from 3195 Sunbury Road to lands at 3740 Battersea Road. The proposal will increase the size of 3740 Battersea Road to 1.15 acres, while leaving retained lands of approximately 83.9 acres.

c) PL-BDJ-2025-0084 – Portland District

Approved on September 04, 2025

The application is for the creation of one new residential lot, from lands municipally addressed as 2106 Bracken Road. The severed parcel will be approximately 8 acres in area with 266 metres frontage on both Wallace Road and Bracken Road. The retained lands will be approximately 108 acres in area with 1340m frontage on Bracken Road and 270m broken frontage on Yarker Road

d) PL-BDJ-2025-0042 & PL-BDJ-2025-0043 – Loughborough District

Approved on September 05, 2025

Consent to create two vacant residential lots from lands at 3977 Sydenham Road. The severed parcels would be 0.9ha in size with 149m frontage on Railton Road. The retained parcel would be 1.1ha in size with frontage on Sydenham Road and Railton Road. It would continue to accommodate the existing church use, its parking, and its water and sewage services.

e) PL-BDJ-2025-0042 – Storrington District

Approved on September 08, 2025

Consent to create one new rural residential lot from property at 2078 Sunbury Road. The severed parcel would be approximately 6 acres in area with approximately 147m frontage on Sunbury Road and approximately 50 metres frontage on Dog Lake. The retained parcel would be 7.6 acres in area with approximately 144m frontage on both Sunbury Road and Dog Lake.

Appendix A – Mapping of application(s)

Report Prepared By:

Kate Kaestner, Planning Clerk

Report Approved By:

Christine Woods, Manager of Planning

APPENDIX A

