THE CORPORATION OF THE
TOWNSHIP OF BONNECHERE VALLEY
REGULAR COUNCIL MEETING
AGENDA

Tuesday, January 13, 2026, 5:30 p.m.
COUNCIL CHAMBERS, MUNICIPAL BUILDING AND ZOOM CONFERENCING

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1. CALL TO ORDER
2. ADDITIONS/CONFIRMATION OF AGENDA
3. PECUNIARY INTEREST OR GENERAL NATURE THEREOF
4. INDIGENOUS ACKNOWLEDGEMENT
5. ADOPTION OF MINUTES
6. DELEGATES (10 min.)
7. REPORTS
8. CORRESPONDENCE

8.1 Correspondence "A"

1. AMO Policy December 15
2. AMO Watchfile December 18
3. AMO Policy December 19
4. AMO Policy December 23
5. AMO Watchfile January 8
6. EORN December 2025
7. EOWC December 2025 Newsletter
8. FCM December 16
9. ROMA December 23

8.2 Correspondence "B"

1. Library Board Resignation Notice
2. Barn Quilt Proposal
3. Call for Reform and Publication of the Ontario Sex Offender Registry
4. Resolution Steel and Softwood Lumber Support
5. Resolution - Elbows Up for Climate Action
6. Removal of HST GST from New Homes
7. Municipal Accountability Act

8.3 Correspondence "C"

9. NEW/UNFINISHED BUSINESS

9.1 OCIF Support Resolution

9.2 Resolution to authorize signing authorities for GICB agreement

9.3 Resolution to purchase Condenser / Comp Cooling Loop / IQ Controller

9.4 Resolution to purchase PHE /Brine Pump / Pre-Heat Tank

10. CLOSED SESSION

11. BY-LAWS

11.1 By-Law 2026-001 Being a By-Law to Permit Interim Borrowing

11.2 By-Law 2026-002 Being a By-Law to provide for interim tax levies

11.3 By-Law 2026-003 Being a By-Law to establish water and sewer rates and charges

11.4 By-Law 2026-004 Being a By Law authorizing a Site Plan Agreement with 1001234143 Ontario Inc.

11.5 By-Law 2026-005 Being a By-Law authorizing a recreation agreement with North Algona Wilberforce

11.6 By-Law 2026-006 Being a By-Law to confirm the proceedings of Council

12. ADJOURNMENT

THE CORPORATION OF
THE TOWNSHIP OF BONNECHERE VALLEY
MINUTES
COUNCIL MEETING
TUESDAY December 16, 2025, 5:30 P.M.
COUNCIL CHAMBERS, ZOOM CONFERENCING

PRESENT **Mayor Jennifer Murphy**
Deputy Mayor John Epps
Councillor Merv Buckwald
Councillor Tracey Sanderson
Councillor Meredith Caplan Jamieson
CAO/Clerk Annette Gilchrist
Treasurer/Deputy CAO Sandra Barr

REGRETS **None**

GALLERY **None**

INDIGENOUS ACKNOWLEDGEMENT

CALL TO ORDER – Mayor Jennifer Murphy called the meeting to order at 5:30 p.m.

ADDITIONS/CONFIRMATION OF AGENDA: None

25.175 MOVED BY John Epps
SECONDED BY Merv Buckwald

THAT: the agenda be accepted as presented."

Carried

PECUNIARY INTEREST OR GENERAL NATURE THEREOF

ADOPTION OF MINUTES

25.176 MOVED BY Meredith Caplan Jamieson
SECONDED BY Tracey Sanderson

THAT: The minutes of the Regular Council Meeting held on December 2, 2025 as presented be hereby adopted.

Carried

CORRESPONDENCE

Correspondence "A"

1. AMO Dec 5
2. AMO Dec 11
3. AMO Policy Nov 28
4. AMO Policy Dec 3
5. AMO Policy Dec 5
6. County-Construction-Update-December-2025
7. EOWC Dec 12
8. FCM Dec 2
9. FCM Dec 12
10. Renfrew County November 2025

Correspondence "B"

1. Site Ready Funding Criteria
2. Notification Letter - Streamlined EA Municipal Infrastructure
3. OPA Appeal Acknowledgement Letter
4. Ontario Pre Budget Consultation
5. Professional Activity (P.A) Day on Municipal Election Day School
6. Resolution 2025-382 regarding Ontario Community Infrastructure Fund

Correspondence "C"

1. Opposition to the Protect Ontario by Unleashing Our Economy Act 2025

25.177 MOVED BY Tracey Sanderson
SECONDED BY Merv Buckwald

WHEREAS direction has been given to staff;

NOW BE IT RESOLVED THAT: the correspondence be filed.

Carried

NEW/UNFINISHED BUSINESS

9.1 Cheque Register and Board Report

9.2 Notice of Motion Curbside Recycling - Non Profits

25.178 MOVED BY Meredith Caplan Jamieson
SECONDED BY John Epps

Whereas the Province of Ontario designated producers to be responsible for collecting recycling in the Province; and

Whereas non-profit organizations, including our local food banks, have been deemed ineligible for producer blue box collection effective January 1st, 2026; and

Whereas food insecurity is a local, provincial and federal issue; and

Whereas food banks need to receive grocery items that are delivered in cardboard boxes and cartons which generate copious amounts of recyclable material; and

Whereas food banks are volunteer and donation based with no revenue collected to pay for services such as removal of recyclable materials;

Now Therefore be it resolved that the Council of the Township of Bonnechere Valley strongly urge the Province to re-instate the eligibility for curbside blue box collection as of January 1st, 2026, for non-profit organizations, such as food banks; and

That this motion be forwarded to Premier Doug Ford, Minister of the Environment, Conservation and Parks, MPP Billy Denault, Association of Municipalities of Ontario, Rural Ontario Municipal Association and the Eastern Ontario Wardens' Caucus.

Carried

9.3 Resolution for Surplus Equipment

25.179 MOVED BY Tracey Sanderson
SECONDED BY Merv Buckwald

WHEREAS: the equipment described below is no longer necessary, useful or suitable for municipal purposes.

BE IT RESOLVED that the following is hereby declared surplus:

2007 Sterling Tandem Garbage Truck with McNielus Compactor, Model LT7501

2009 Chevrolet Extended Cab 4x4 Truck

AND FURTHER that staff are hereby authorized to do all acts necessary to dispose of the property in accordance with Part 5 Subsection 5 By-Law 2023-17.

Carried

9.4 Resolution Reconfirming Health and Safety Policy

25.180 MOVED BY Tracey Sanderson
SECONDED BY John Epps

THAT: Council approve the Township of Bonnechere Valley's Health and Safety Policy as presented.

Carried

9.5 Resolution to approve transfer from reserves

25.181 MOVED BY Meredith Caplan Jamieson
SECONDED BY Merv Buckwald

WHEREAS: The Council passed a resolution to purchase Citywide Assets & Maintenance on October 21, 2025;

Now therefore be it resolved that Council direct staff to allocate $47,347 from reserves to the purchase and implementation of this software.

Carried

9.6 Resolution to approve Water and Sewer Budget and Direct Staff to bring back rates

25.182 MOVED BY John Epps
SECONDED BY Tracey Sanderson

THAT the 2026 Water & Wastewater Budget be approved as presented;

AND THAT staff be directed to bring forward a by-law for Council consideration to approve and adopt the 2026 Water & Wastewater Rates.

Carried

CLOSED SESSION – NONE

BY-LAWS

25.183 MOVED BY Meredith Caplan Jamieson
SECONDED BY Tracey Sanderson
THAT:

By-Law 2025-068 Being a By-Law to authorize the execution of an MOU for Eganville Dog Park

By-Law 2025-069 Being a By-Law to confirm the proceedings of Council

BE READ A FIRST TIME, BE DEEMED READ A SECOND TIME, BE DEEMED READ A THIRD TIME AND PASSED.

Carried

ADJOURNMENT

25.184 MOVED BY Meredith Caplan Jamieson
SECONDED BY John Epps

THAT: This Council meeting be adjourned at 5:38 p.m.

Carried

Jennifer Murphy, Mayor

Annette Gilchrist, CAO/Clerk

Hon. Doug Ford
Premier of Ontario
VIA EMAIL:
premier@ontario.ca

Marit Stiles, MPP
Leader of the Official Opposition
VIA EMAIL:
mstiles-qp@ndp.on.ca

Township of Puslinch
7404 Wellington Road 34
Puslinch, ON N0B 2J0
www.puslinch.ca

November 28, 2025

Hon. Kinga Surma
Minister of Infrastructure
VIA EMAIL:
kinga.surma@pc.ola.org

Hon. Rob Flack
Minister of Municipal Affairs and Housing
VIA EMAIL:
rob.flack@pc.ola.org

RE: 6.17 Municipality of South Huron Council Resolution regarding Ontario Community Infrastructure Fund & 6.18 Township of Edwardsburgh Cardinal Council Resolution regarding Ontario Community Infrastructure Fund

Please be advised that Township of Puslinch Council, at its meeting held on November 19, 2025 considered the aforementioned topic and subsequent to discussion, the following was resolved:

Resolution No. 2025-382: Moved by Councillor Hurst and Seconded by Councillor Bailey

That the Consent Agenda item 6.17, 6.18 Township of Edwardsburgh Cardinal Council Resolution regarding Ontario Community Infrastructure Fund be received for information; and

That the Township of Puslinch Council supports the Township of Edwardsburgh Cardinal September 29, 2025 Resolution and the Municipality of South Huron Resolution of October 20, 2025 regarding Ontario Community Infrastructure Fund (OCIF); and

That this supporting resolution and originating correspondence be circulated to the Premier, Leader of the Official Opposition, Minister of Infrastructure, Minister of

Municipal Affairs and Housing, Minister of Finance, MPP Racinsky, ROMA, AMO, FCM, all Ontario municipalities.

CARRIED

As per the above resolution, please accept a copy of this correspondence for your information and consideration.

Sincerely,

Justine Brotherston
Municipal Clerk

CC: Minister of Finance, MPP Racinsky, ROMA, AMO, FCM, all Ontario municipalities.

CORPORATION OF THE MUNICIPALITY OF SOUTH HURON
322 Main Street South P.O. Box 759
Exeter Ontario
N0M 1S6
Phone: 519-235-0310 Fax: 519-235-3304
Toll Free: 1-877-204-0747
www.southhuron.ca

October 23, 2025

Via email: doug.fordco@pc.ola.org

Premier's Office
Room 281
Main Legislative Building, Queen's Park
Toronto, ON M7A 1A5

Dear Hon. Doug Ford,

Re: Ontario Community Infrastructure Fund

Please be advised that South Huron Council passed the following resolution at their October 20, 2025, Regular Council Meeting:

418-2025
Moved By: Aaron Neeb
Seconded by: Jim Dietrich

That South Huron Council supports the Township of Edwardsburgh Cardinal September 29, 2025, Resolution regarding Ontario Community Infrastructure Fund (OCIF); and

That this supporting resolution and originating correspondence be circulated to the Premier, Minister of Infrastructure, Minister of Municipal Affairs and Housing, Minister of Finance, MPP Thompson, AMO, OSUM, FCM, all Ontario municipalities.

Result: Carried

Please find attached the originating correspondence for your reference.

Respectfully,

Kendra Webster, Legislative & Licensing Coordinator
Municipality of South Huron
kwebster@southhuron.ca
519-235-0310 x. 232

Encl.

cc: Minister of Infrastructure Hon. Kinga Surma, kinga.surma@pc.ola.org; Minister of Municipal Affairs and Housing, Hon. Rob Flack, rob.flack@pc.ola.org; Minister of Finance, Hon. Peter Bethlenfalvy, peter.bethlenfalvy@pc.ola.org; MPP Lisa Thompson, lisa.thompson@pc.ola.org; AMO, resolutions@amo.on.ca; OSUM, osum@osum.ca; FCM, resolutions@fcm.ca; and all Ontario Municipalities

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EDWARDSBURGH CARDINAL

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P.O. Box 129,
18 Centre St.
Spencerville, Ontario
K0E 1X0

VIA EMAIL

Tuesday, October 14, 2025

The Honourable Doug Ford, Premier of Ontario
The Honourable Kinga Surma, Minister of Infrastructure
The Honourable Rob Flack, Minister of Municipal Affairs and Housing
The Honourable Francois-Phillipe Champagne, Minister of Finance
Association of Municipalities of Ontario (AMO)
Ontario Small Urban Municipalities (OSUM)
Federation of Canadian Municipalities (FCM)
The United Counites of Leeds and Grenville
All Upper- and Lower-Tier Municipalities in Ontario

Please be advised that at its Regular Council meeting held on Monday, September 29, 2025, the Council of the Township of Edwardsburgh Cardinal unanimously adopted the following resolution:

RESOLUTION: Ontario Community Infrastructure Fund (OCIF)

WHEREAS the Township of Edwardsburgh Cardinal acknowledges that municipal infrastructure—roads, bridges, water and wastewater systems—underpins public safety, economic vitality and quality of life in Ontario's rural and small urban communities;

WHEREAS the Ontario Community Infrastructure Fund (OCIF) was created in 2015 to assist small and rural municipalities facing infrastructure deficits that exceed their local revenue capacities;

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WHEREAS in 2022 the Government of Ontario committed to increase the annual OCIF envelope from $100 million to $400 million over a five-year term, with that commitment scheduled to expire at the end of fiscal 2026;

WHEREAS fixed funding levels amid rising labour, materials and climate resilience costs have eroded the purchasing power of the $400 million envelope, jeopardizing municipalities' ability to deliver and sustain essential services without incurring unsustainable debt;

WHEREAS predictable, multi-year funding indexed to real-world cost drivers is critical for municipalities to develop, finance and execute long-term asset management plans, reduce emergency repairs and leverage complementary federal and private infrastructure financing;

WHEREAS the Township of Edwardsburgh Cardinal requires a steadfast provincial partner to extend and enhance OCIF beyond 2026, ensuring infrastructure resilience, fiscal sustainability and equitable access for all small and rural municipalities;

NOW THEREFORE BE IT RESOLVED THAT

1. The Township of Edwardsburgh Cardinal calls upon the Government of Ontario to extend the annual OCIF envelope at not less than $400 million beyond its current five-year term ending in 2026, with no reductions in subsequent provincial budgets.

2. The Province be requested to index the total annual OCIF envelope—and each individual municipal allocation—to the Ontario Consumer Price Index (CPI), calculated on a calendar-year basis and disbursed in the first quarter of each fiscal year.

3. The Ministry of Infrastructure establish a new five-year OCIF funding framework that guarantees annual envelopes and allocation percentages by municipality, enabling long-term capital planning and stable cash-flow management.

4. The Province undertake a formal review of the OCIF allocation formula at least once every four years, incorporating current municipal asset management data, demographic projections, climate resilience metrics and rural equity considerations.

5. A dedicated contingency reserve equal to 5 percent of the annual OCIF envelope be created within the fund to address extraordinary cost escalations, emergency repairs or project overruns without reallocating core funding.

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6. The Ministry of Infrastructure publish an annual OCIF performance report—including program disbursements, allocation adjustments and reserve expenditures—in a transparent, publicly accessible online dashboard.

7. The Clerk of the Township of Edwardsburgh Cardinal forward this resolution to:

    - The Honourable Doug Ford, Premier of Ontario
    - The Honourable Kinga Surma, Minister of Infrastructure
    - The Honourable Rob Flack, Minister of Municipal Affairs and Housing
    - The Honourable Francois-Phillipe Champagne, Minister of Finance
    - Association of Municipalities of Ontario (AMO)
    - Ontario Small Urban Municipalities (OSUM)
    - Federation of Canadian Municipalities (FCM)
    - The United Counties of Leeds and Grenville
    - All upper- and lower-tier municipalities in Ontario

If you have any questions, please contact me at the email address below.

Sincerely,

[redacted]

Natalie Charette
Interim Clerk
clerk@twpec.ca

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THE CORPORATION OF THE
TOWNSHIP OF BONNECHERE VALLEY
BY-LAW NO. 2026-001

BEING A BY-LAW TO PERMIT INTERIM BORROWING AS NECESSARY FOR CURRENT EXPENDITURES UNTIL TAXES ARE COLLECTED

WHEREAS the Council of the Corporation may deem it necessary to borrow a sum up to **$4,873,477** dollars to meet, until the taxes are collected, the current expenditures of the Corporation for the year;

AND WHEREAS the total of amounts previously borrowed under Section 407 of the Municipal Act as amended from time to time, (the "Act"), that have not been repaid are **$0.00** dollars.

AND WHEREAS the amount of the estimated revenues (as defined and interpreted in the Act) of the Corporation as set out in the estimates adopted for the current year and not yet collected (or, if the same have not yet been adopted, the amount of the estimated revenues of the Corporation as set forth in the estimates adopted for the preceding year) 2025 is **$9,746,955** dollars.

AND WHEREAS the amount to be borrowed under this by-law and the amounts of borrowing that have not been repaid does not in the aggregate exceed from January 1st to September 30th of the year, 50% of the total and from October 1st to December 31st, 25% of the total of the estimated revenues of the Corporation as set out above.

BE IT THEREFORE ENACTED by the said Council as follows:

(1) The Mayor and the CAO/Clerk of the Corporation are hereby authorized on behalf of the Corporation to borrow from time to time, by way of promissory note or bankers' acceptance, from Bank of Montreal, a sum or sums not exceeding in the aggregate **$4,873,477** dollars. To meet, until the taxes are collected, the current expenditures of the Corporation for the year, including the amounts required for the purposes mentioned in subsection (1) of the said Section 407, as amended from time to time, and to give, on behalf of the Corporation, to the Bank a promissory note or notes, sealed with the corporate seal and signed by them for the moneys so borrowed, and such other documentation as may be requested by the Bank therefore, with interest at a rate not exceeding one and one half per centum above prime per annum, which may be paid in advance or otherwise.

(2) All sums borrowed from the said Bank, for any or all of the purposes mentioned in the said Section 407 as amended from time to time, shall, with interest thereon, be a charge upon the whole of the revenues of the Corporation for the current year and for all preceding years as and when such revenues are received.

(3) The CAO/Clerk is hereby authorized and directed to apply in payment of all sums borrowed pursuant to the authority of this By-law, as well as all the other sums borrowed in this year and any previous years, from the said Bank for any or all of the purposes mentioned in the said Section 407, as amended from time to time, together with interest thereon, all of the moneys hereafter collected or received on account or realized in respect of the taxes levied for the current year and preceding years and all of the

moneys collected or received from any other source, which may lawfully be applied for such purposes.

READ A FIRST & SECOND TIME THIS 13TH DAY OF JANUARY 2026

READ A THIRD TIME AND PASSED THIS 13TH DAY OF JANUARY 2026

_____	_____
Jennifer Murphy, Mayor	Annette Gilchrist, CAO/Clerk

THE CORPORATION OF THE
TOWNSHIP OF BONNECHERE VALLEY

BY-LAW NO. 2026-002

BEING A BY-LAW TO PROVIDE FOR INTERIM TAX LEVIES FOR THE YEAR 2026 FOR THE TOWNSHIP OF BONNECHERE VALLEY

BEING a by-law to provide for an interim tax levy on properties designated as residential, farmland, managed forest, pipeline, industrial and commercial and to provide for payment of taxes and penalty and interest of 1.25%

WHEREAS the Municipal Act, S. O. 2001, c.25, section 317 (1) (2) provides that a local municipality, before the adoption of estimates for the year under section 290, may pass a by-law levying amounts on the assessment of property in the local municipality rateable for local municipality purposes;

AND WHEREAS under section 317 (1) (2) the amount levied on a property shall not exceed the prescribed percentage or 50 per cent if no percentage is prescribed, of the total amount of taxes for municipal and school purposes levied on the property for the previous year.

NOW THEREFORE the Corporation of the Township of Bonnechere Valley enacts as follows:

1) **THAT** an interim levy of 50% of the total levy for each property for 2025 be applied;

2) **THAT** this interim first installment levy shall become due on the 31st of March 2026; and that the second installment shall be become due on May 29th 2026.

3) There shall be imposed on all taxes a penalty for non-payment or late payment of taxes in default of the installment dates set out below. The penalty shall be one and one quarter percent (1 1/4%) of the amount in default on the first day of default and on the first day of each calendar month during which the default continues.

READ A FIRST & SECOND TIME THIS 13TH DAY OF JANUARY 2026

READ A THIRD TIME AND PASSED THIS 13TH DAY OF JANUARY 2026

_____ _____

Jennifer Murphy, Mayor Annette Gilchrist, CAO/Clerk

THE CORPORATION OF THE
TOWNSHIP OF BONNECHERE VALLEY

BY-LAW NO. 2026-003

BEING A BY-LAW TO ESTABLISH WATER AND SEWAGE SYSTEM RATES AND CHARGES

WHEREAS, pursuant to the Municipal Act, 2001, S.O. 2001 c. 25, and the amendments thereto, a Municipality may pass by-laws to impose rates, fees or charges for services or activities;

AND WHEREAS, water and sewage system usage rates are established annually by by-law to produce sufficient revenue to meet the estimated budget required for operation, maintenance and renewal of the water and sewage systems;

AND WHEREAS, charges are established to meet the estimated cost of permits and services related to the water and sewage system;

NOW THEREFORE, the Municipal Council of the Corporation of the Township of Bonnechere Valley enacts as follows:

1. DEFINITIONS:
   - 1.1. **"Bleeder"** means a piece of tubing, piping or other device attached to a water system and allowed to run continuously during extreme cold weather to prevent freezing of the water in the system.
   - 1.2. **"Capital Cost Recovery"** means a set monthly charge to cover the capital costs associated with the water and sewage systems.
   - 1.3. **"Sewage Surcharge"** means a monthly charge based on a percentage of the water consumption charge including a capital cost recovery.
   - 1.4. **"Township"** means the Corporation of the Township of Bonnechere Valley.
   - 1.5. **"Multi-Unit buildings"** means a building that includes two or more self-contained places of residence or business. These places of residence or business do not include detached houses.

2. WATER AND SEWAGE USEAGE RATES:
   - 2.1. Water and Sewage: Except as set out in section 2.4, every owner of a property that is connected to the water and sewage systems shall pay for the use of the systems in accordance with the rate structure set out in Schedule "A" to this by-law.
   - 2.2. Bulk Water Rate: for water provided from a hydrant the rate structure will be as identified in Schedule "A".
   - 2.3. Water Line Bleeder: (December 1st to March 31st - as necessary depending on weather conditions) For only those premises that the Township has specifically authorized in writing and has installed a water line bleeder to prevent freezing of the incoming water service line. An account credit will be applied as identified in Schedule "A".
   - 2.4. The owners of multi-unit properties shall be charged a multi unit surcharge, per unit, as set out below for their use of the water and sewage systems, whether the unit is vacant or occupied. Eganville and Area Long Term Care Corporation also known as Fairfields shall be exempt from this multi-unit surcharge.

3. PERMITS:
   - 3.1. New or Replacement Water and/or Sewage Service Connection Permit Fees – Charge as per Schedule "B".

4. SERVICES:
   4.1. Special Meter Readings - Requested at the time of real estate closings, etc. – Charge as per Schedule "B".
   4.2. Water Service Curb Stop - Shutoff / Restoration of water service – Charge as per Schedule "B".
   4.3. Water Meter Removal and Reinstallation - Where the removal and reinstallation of a meter is required due to mechanical failure there is no charge. If the removal and reinstallation is required due to damage caused by the property owner a charge of time and materials will be applied to his/her account on the first billing after reinstallation.
   4.4. Sewer and Storm Water Service Line Maintenance - In the event of a sewer or storm water service line being blocked and if it appears that the blockage is situated on the portion of the line located on Township property and if the owner cannot correct the problem by conventional rodding methods from within the premises, then the Township will excavate to locate and repair the line and the owner will be responsible for all related cost incurred by the Township. A charge of time and materials will be applied to his/her account on the first billing after reinstatement of the service. If the Township determines that the blockage was a result of damage done by road construction or other reasons attributable to the operations of the Township then the Township will assume financial responsibility for the excavation and repair.

5. CHARGES FOR NEW WATER METERS
   5.1. The property owner shall purchase the required water meter from the Township and pay the actual cost plus a 10% administration fee.

6. PAYMENTS
   6.1. Accounts may be paid at the Municipal Office, 49 Bonnechere Street East, Eganville; the Bank of Montreal; the Northern Credit Union; or by mail to P.O. Box 100, Eganville, Ontario K0J 1T0; without service charge.
   6.2. Accounts shall be billed monthly, and shall be payable within fifteen (15) days.
   6.3. Overdue accounts shall be subject to a 1.25% interest charge per month applied to the outstanding balance.

7. EFFECTIVE DATE
   7.1. This by-law shall take full force and effect as of January 1, 2026.

8. REPEAL
   8.1. This by-law rescinds all previous Water and Sewage System Service Rates by-laws.

READ A FIRST & SECOND TIME THIS 13TH DAY OF JANUARY 2026

READ A THIRD TIME AND PASSED THIS 13TH DAY OF JANUARY 2026

_____ _____

Jennifer Murphy, Mayor Annette Gilchrist, CAO/Clerk

THE CORPORATION OF THE TOWNSHIP OF BONNECHERE VALLEY
SCHEDULE "A" TO BY-LAW 2026-003

The Water and Sewage System Rates and Charges set out in this Schedule shall come into force and effect on January 1st, 2026.

The standard rate structure is comprised of four elements:

1. Capital Cost Recovery – a set monthly charge to cover the capital costs associated with the water and sewage systems.
2. Water Usage – a variable monthly charge based on water consumption.
3. Sewage Surcharge – a monthly charge based on a percentage of the water consumption charge including a capital cost recovery.
4. Multi-Unit – a monthly charge per unit in addition to the standard rate.

TABLE 1 - STANDARD RATE STRUCTURE

Description	Charge / Rate
Monthly water consumption is measured in cubic metres (m^3)	
Water	
Capital Cost Recovery	Set charge of $24.45
Consumption less than or equal to 17 m^3	Minimum charge of $45.46
Consumption from 17.01 m^3 to 22.50 m^3	$3.13 per m^3
Consumption over 22.50 m^3	$3.74 per m^3
Sewage	
Sewage Surcharge including a $24.45 capital cost recovery	100% of total water charge
Multi-Unit	
Multi-Unit surcharge	Set charge of $26.05 per unit

Specific rate structures:

1. Water service only – monthly charge for water capital cost recovery and water usage as per Table 1.
2. Water service with no meter:
    a. Water and sewage service - a set monthly charge including water and sewage capital cost recovery.
    b. Water service only - a set monthly charge including water capital cost recovery.
3. Sewage service only – a set monthly charge including sewage capital cost recovery.
4. Bulk Water Taking – a per cubic meter charge for water provided from a hydrant.
5. Water Line Bleeder – a monthly account credit for authorized consumers and applies only if monthly water usage is greater than 17.00 m^3 and in extremely cold weather conditions.
6. Buildings – a set monthly charge if the water service is turned off.

TABLE 2 – SPECIFIC RATE STRUCTURE

Description	Charge / Rate
Water Service Only	As per Table 1.
Water Service with no meter: Water and Sewage service Water service only	 $139.82 per month $ 69.91 per month
Sewage Service Only	$ 69.91 per month
Bulk Water Taking: Customer within service area Customer outside of service area Plus Administration Fee	 $3.25 per m^3 $6.50 per m^3 $42.50
Water Line Bleeder	Monthly credit
Buildings – water turned off.	$48.90 per month

THE CORPORATION OF THE TOWNSHIP OF BONNECHERE VALLEY
SCHEDULE "B" TO BY-LAW 2026-003

The Water and Sewage System Rates and Charges set out in this Schedule shall come into force and effect on January 1st, 2026.

Description	Charge / Rate
Water and/or Sewage Service Connection Permit:	$250.00
Special Water Meter Reading:	$95.00
Water Service Curb Stop Shutoff: Restoration:	 $62.00 $62.00

THE CORPORATION OF
THE TOWNSHIP OF BONNECHERE VALLEY

BY-LAW NO. 2026-004

BEING A BY-LAW TO AUTHORIZE THE ENTERING INTO A SITE PLAN AGREEMENT BETWEEN 1001234143 Ontario Inc. AND THE CORPORATION OF THE TOWNSHIP OF BONNECHERE VALLEY

WHEREAS 1001234143 Ontario Inc. has applied to the Township for site plan Approval for Pt Lots 29 and 30 Concession 12 South Algona on Gorman Road;

AND WHEREAS the municipality has a Site Plan Control By-law, being By-Law 2007-48;

AND WHEREAS the municipality is authorized to enter into such agreements pursuant to Section 41 of the Planning Act R.S.O., 1990, c.P.13 as amended;

NOW THEREFORE the Council of the Corporation of the Township of Bonnechere Valley HEREBY ENACTS as follows:

1. The Mayor and Clerk are hereby authorized and directed to execute a Site Plan Agreement with Delcan Agriculture Inc., in the form attached hereto as Schedule "A" and Schedule "A" forms part of this By-law.

2. This By-law shall come into force and take effect on the date of its passing.

READ A FIRST & SECOND TIME THIS 13TH DAY OF JANAURY 2026

READ A THIRD TIME AND PASSED THIS 13TH DAY OF APRIL 2026

_____ _____

Jennifer Murphy, Mayor Annette Gilchrist, CAO

SITE PLAN AGREEMENT

THIS AGREEMENT made this, 2nd day of December, 2025.

BETWEEN:

1001234143 Ontario Inc.,

a corporation incorporated under the laws of the Province of Ontario,

(hereinafter referred to as the "Owner")

OF THE FIRST PART

– and –

The Corporation of the Township of Bonnechere Valley,

a municipal corporation in the County of Renfrew, Province of Ontario,

(hereinafter referred to as the "Municipality")

OF THE SECOND PART

WHEREAS:

The Owner represents that it is the registered owner of the lands and premises legally described in Schedule “A” attached hereto (hereinafter the “Subject Lands”);

The Owner has submitted a site plan and/or drawings (hereinafter the “Site Plan”) for development of the Subject Lands;

The Municipality has approved the Site Plan, subject to the Owner entering into this Agreement pursuant to Section 41 of the Planning Act, R.S.O. 1990, c. P.13, as amended;

The parties desire to set out the terms and conditions under which the Site Plan approval is granted and the development of the Subject Lands is to proceed.

NOW THEREFORE THIS AGREEMENT WITNESSETH THAT in consideration of the mutual covenants herein contained and other good and valuable consideration, the parties agree as follows:

1. Approval of Site Plan

The Municipality hereby approves the Site Plan submitted by the Owner, a copy of which is attached as Schedule “B”, subject to the terms and conditions contained herein.

2. Construction in Accordance with Plans

The Owner agrees:

(a) To develop and maintain the Subject Lands in accordance with the Site Plan and the provisions of this Agreement;

(b) That no deviation shall be made from the approved plans without the prior written consent of the Municipality;

(c) To obtain all necessary permits and approvals prior to commencing construction.

d) The Owner agrees that, prior to commencing any construction, alteration, or improvement to the boat launch located on the Subject Lands, the Owner shall obtain all required approvals, licenses, and/or work permits from the Ministry of Natural Resources, including any necessary authorizations under any applicable legislation.

e) The Owner agrees that, prior to commencing any construction on the Subject Lands, and specifically prior to construction of any structures or shoreline works, the Owner shall provide written confirmation, to the satisfaction of Renfrew Power Generation, that:
(i) all required shoreline setbacks applicable to the Subject Lands have been adhered to; and
(ii) all structures are designed and constructed at an elevation sufficient to protect against flooding, high-water conditions, and water level fluctuations.

f) The Owner agrees as follows:

(i) Septic Systems
The Owner shall provide proof, to the satisfaction of the Municipality, that each dwelling unit on the Subject Lands is equipped with a septic system having a minimum capacity of 800 gallons, installed and approved in accordance with all applicable legislation, regulations, and standards.

(ii) Stairs and Railings – Building Code Compliance
The Owner shall ensure that all stairs, landings, guards, and railings associated with each dwelling are constructed in full compliance with the requirements of the Ontario Building Code**,** to the satisfaction of the Chief Building Official (CBO)**.** Proof of compliance shall be submitted to the Municipality upon request or prior to occupancy, as determined by the CBO.

(iii) Entrance and Private Laneway Construction Standards
The Owner shall construct the entrance and private laneway serving the Subject Lands in accordance with the recommended standards of the Township's Public Works Department, including all requirements related to width, grade, drainage, sightlines, and load-bearing capacity.

(iv) Entrance Permit and Civic Address Sign
Prior to the use of the entrance, the Owner shall submit a complete application to the Public Works Department for an Entrance Permit**,** and shall also apply for and obtain a civic address sign. The Owner shall install and maintain the civic address sign in accordance with municipal standards.

g) The Owner agrees to lodge with the Municipality a complete set of all final approved plans and documents referenced in Sections 2(a) through 2(f) of this Agreement, including all drawings, reports, permits, and approvals required therein. Such plans shall be submitted in both hard copy and digital format, unless otherwise directed by the Municipality, and shall be filed prior to the commencement of any construction on the Subject Lands.

h) The Owner covenants and agrees to fully implement, at its sole cost and expense, recommendations, mitigation measures, monitoring requirements, construction constraints, and best management practices contained in the Hydrogeological Report prepared for the Subject Lands and attached hereto as **Schedule "D"** (the "Hydrogeological Report").

3. Installation of Works and Services

The Owner shall, at its own expense, design, construct, and install all works and services including but not limited to grading, drainage, landscaping, driveways, parking areas, lighting, stormwater management facilities, and any other matters shown on the Site Plan.

4. Security

(a) N/A

5. Maintenance

The Owner agrees to maintain, at its sole expense, all facilities and works required under this Agreement in a proper state of repair and operation, including snow removal and landscaping upkeep.

6. Insurance and Indemnity

(a) The Owner shall obtain and maintain liability naming the Municipality as an additional insured;

(b) The Owner agrees to indemnify and hold harmless the Municipality from all claims, actions, or suits arising from the development of the Subject Lands.

7. Access

The Owner agrees to provide access to the Subject Lands for the purpose of inspection by municipal staff or their authorized agents to ensure compliance with this Agreement.

8. Default and Remedies

If the Owner fails to comply with any provision of this Agreement, the Municipality may, after giving reasonable notice, enter upon the Subject Lands and perform such works as are necessary to rectify the default, with all costs recoverable from the Owner as a charge against the lands pursuant to the Municipal Act, 2001.

9. Registration of Agreement

N/A

10. Schedules

The following Schedules form part of this Agreement:

Schedule “A” – Legal Description of the Subject Lands

Schedule “B” – Approved Site Plan Drawings

Schedule “C” – Site Plan Justification Report with Servicing Options Report

Schedule “D” – Hydrogeological Report

IN WITNESS WHEREOF the parties hereto have hereunto affixed their corporate seals attested by the hands of their proper officers in that behalf.

SIGNED, SEALED AND DELIVERED

1001234143 ONTARIO INC.

Per: 

Name: Chadwick Wilton

Title: President

I have authority to bind the Corporation.

THE CORPORATION OF THE TOWNSHIP OF BONNECHERE VALLEY

Per:

Mayor

Clerk

We have authority to bind the Municipality.

Schedule “A” – Legal Description of the Subject Lands

PT LT 29, CON 12, SOUTH ALGONA, PTS 2, 6 & 8, 49R16840; PT LT 30, CON 12, SOUTH ALGONA, PTS 9-16, 49R16840, EXCEPT PT LT 30, CON 12, SOUTH ALGONA, BEING PTS 2, 3, 4 & 5, 49R17126; PT LTS 29 & 30, CON 12, SOUTH ALGONA, PTS 1, 4 & 17, 49R16840;; SUBJECT TO AN EASEMENT AS IN R240505; SUBJECT TO AN EASEMENT IN GROSS OVER PART 5, 49R20523 AS IN RE320535; TOWNSHIP OF BONNECHERE VALLEY

Schedule “B” – Approved Site Plan Drawings

Schedule “C” – Site Plan Justification Report

Schedule “D” – Hydrogeological Report

SITE PLAN

0 50m 200m

Property Line

336.42m
33.95m
20.39m
43.91m
66.31m
48.88m
103.12m
42.62m
132.67m
127.19m
122.81m
41.55m
27.59m
32.99m
25.64m
17.05m
14.95m
18.21m
24.23m
37.86m
71.40m
46.91m
31.86m
136.45m
119.34m
34.82m
31.90m
20.60m
6.29m
23.84m
4.57m
31.00m
21.23m
22.14m
10.45m
40.09m
40.00m
70.00m
70.00m
6.00m
6.00m
215.14m
554.83m

Gorman Rd

Golden Lake

Driveway

Driveway

Well

Boat Launch

Dock

Septic Tank

Septic Field

Septic Field

Septic Tank

Proposed Geodesic Dome
9.14mx9.14m

N W E S

Parcel No. (APN) 473803603520640

ADDRESS: 0 Gorman Rd
Killlaloe, Ontario, K0J 2A0
Scale: 1:2000

THIS IS NOT A LEGAL SURVEY, NOR IS IT INTENDED TO BE OR REPLACE ONE

This work product represents only generalized locations of features, objects or boundaries and should not be relied upon as being legally authoritative for the precise location of any feature, object or boundary.

Date: December 2, 2025

Planning Justification Report

Final

Geodesic Dome Cottage Development
Gorman Road, Township of Bonnechere Valley

August 8, 2025

Jp2g Project # 25-7036A

Jp2g Consultants Inc.
ENGINEERS · PLANNERS · PROJECT MANAGERS

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Appendices

Author and Review Panel

Prepared by:

Kathryn Curry, MCIP, RPP
Junior Planner

Reviewed & Approved by:

Bryana Kenny, B. Sc. (Hons.)
Senior Biologist

1 Introduction

This report has been prepared to provide planning justification in support of an application for site plan approval on behalf of 1918413 Ontario Inc. (Chad Wilton), for property located along Gorman Road, of no civic address, within Part of Lots 29 & 30, Concession 12, geographic township of South Algona, now in the Township of Bonnechere Valley. The subject property contains no buildings and are primarily wooded with some open areas and a wetland; an intermittent watercourse, a hydro corridor and an existing trail are also located on the property. As the proposed tourist development is considered a commercial land use, site plan approval is required in order to permit the construction of three geodesic domes (yurts) for accommodation purposes.

This report includes a description of the subject lands and surrounding area, as well as an assessment of the application in accordance with the applicable provisions of the Provincial Planning Statement, 2024 (PPS), the County of Renfrew Official Plan and Township of Bonnechere Valley Zoning By-law No. 2022-042.

The following materials are attached in support of this Planning Justification Report:

- Map 1 – Site and Surrounding Land Use
- Map 2 – Excerpt of Schedule "A" to the County of Renfrew Official Plan;
- Map 3 – Excerpt of Schedule "A" to Township of Bonnechere Valley Zoning By-Law No. 2022-042; and
- Appendix A – Site Plan

2 Site and Surrounding Area

The subject property is located along Gorman Road, which is a year-round, municipally maintained road in the Township of Bonnechere Valley, with water frontage on Golden Lake. The property is approximately 18.32 hectares (45.26 acres) in size with road frontage of approximately 215 metres along Gorman Road and approximately 222 metres of water frontage on Golden Lake. The subject lands consist primarily of vacant woodlands, with some sporadic areas of fields and a wetland area near Gorman Road, as well as an intermittent watercourse as shown on **Map 1**. An exiting trail is located over the property which connects to Gorman Road, which is proposed to be used as the access for the proposed development. There is also a hydro corridor running through the middle of the property; the proposed development will be located outside of the hydro easement. The northern portion of the subject lands also contain a portion of the private road known as Nie Mar Lane, which services multiple residential properties along Golden Lake. The surrounding area consists of vacant woodlands, fields and wetlands as well as a number of seasonal residential uses and tourist commercial uses along Golden Lake. The Village of Killaloe is approximately 3.5 kilometres west of the subject lands.

The subject lands are designated as Rural and Environmental Protection on Schedule "A" to the County of Renfrew Official Plan, as illustrated on **Map 2**. The subject lands are zoned Tourist Commercial (TC), Limited Service Residential (LSR), and Environmental Protection (EP) on Schedule "A" to the Township of Bonnechere Valley Comprehensive Zoning By-law, as shown on **Map 3**.

3 Proposal

3.1 Proposal Overview

The subject lands are currently vacant, except for a hydro corridor which runs across the eastern portion of the property in a north-south direction. The proposal involves the establishment of a tourism/accommodation use in the form of serviced geodesic domes (yurts). The Site Plan, attached as **Appendix A**, illustrates the proposed tourism use which includes two 'geodesic dome' accommodations on raised platforms with all three accommodation buildings sharing a septic system and a well. Please note this report supports the creation of up to three dome accommodations. Should a third dome be added to the proposed development in the future, revision to this Report will not be required. The development is proposed to be located in the area between the hydro corridor and Golden Lake; the development will be setback a minimum of 30 metres from the water's edge. The proposed development will be limited to approximately 0.7 hectares (1.73 acres) of the property in order to minimize disturbance to the natural area.

The accommodations will be located in a linear fashion, along a proposed internal access road servicing the development. Each unit will be provided with a parking space beside the geodesic dome. The proposed access road will primarily use an existing trail that connects with Gorman Road in order to minimize vegetation disturbance/tree removal. The proposed development also includes the establishment of a private boat launch and dock. It's understood based on comments received as part of the County's Planning Response that the proper approvals will be required to be sought form the Ministry of Natural Resources regarding any in water works.

The development will be located entirely within the portion of the property zoned Tourist Commercial, for which a 'resort' use is listed as a permitted use. The development will be located greater than 30 metres from the EP zoned portion of the property and will also be located away from the LSR zoned area. The proposed geodesic domes will be located approximately 200 metres from the closest residential use.

4 Provincial Planning Statement, 2024 (PPS)

The Provincial Planning Statement (PPS), 2024 provides policy direction on matters of provincial interest related to land use planning and development. As a key part of Ontario's policy-led planning system, the Provincial Planning Statement sets the policy foundation for regulating the development and use of land province-wide, helping achieve the provincial goal of meeting the needs of a fast-growing province while enhancing the quality of life for all Ontarians.

4.1 Rural Areas in Municipalities (Section 2.5)

According to the PPS, rural areas are important to the economic success of the Province and our quality of life. Rural areas are a system of lands that may include rural settlement areas, rural lands, prime agricultural areas, natural heritage features and areas, and other resource areas.

Section 2.5.1 of the PPS states that healthy, integrated and viable rural areas should be supported by:

(a) building upon rural character, and leveraging rural amenities and assets;

(e) promoting diversification of the economic base and employment opportunities through goods and services, including value-added products and the sustainable management or use of resources;

(f) providing opportunities for sustainable and diversified tourism, including leveraging historical, cultural, and natural assets; and

(g) conserving biodiversity and considering the ecological benefits provided by nature.

The proposed development supports the diversification of the economic base, builds upon the rural character of the area and provides a unique tourism opportunity which supports an important Township asset in Golden Lake. The small footprint of the proposed development will have minimal disturbance on the surrounding natural features.

4.2 Rural Lands in Municipalities (Section 2.6)

The PPS defines rural lands as those "which are located outside settlement areas and which are outside prime agricultural areas". Rural lands located in municipalities are intended to be used for the management or use of resources, resource-based recreation, residential development where site conditions are appropriate, and other rural land uses. Development that can be sustained by rural service levels should be promoted (2.6.2). In this case, the proposed development constitutes resource-based recreation, with frontage and access to Golden Lake, and a Hydrogeological Study has been prepared by Jp2g Consultants which confirms that site conditions are suitable for the long-term provision of private sewage and water services.

Section 2.6.4 states that planning authorities should "support a diversified rural economy by protecting agricultural and other resource-related uses and directing non-related development to areas where it will minimize constraints on these uses". In this case, the proposed development is on non-agricultural and non-resource lands, and is located in an area with existing tourism commercial uses and seasonal residential uses.

4.3 Sewage, Water and Stormwater (Section 3.6)

Section 3.6 of the PPS sets out the servicing policies and the preferred servicing hierarchy. Full municipal sewage and water services are the preferred form of servicing for urban areas (Section 3.6.2). In areas where full municipal sewage and water services are not or cannot be provided, and where site conditions are suitable over the long term, communal services are the preferred means of servicing multi-unit/lot development (Section 3.6.3). Development may be serviced by individual on-site systems where the use of communal systems is not feasible and where site conditions are suitable over the long term (Section 3.6.4).

In this case, there are no municipal sewer and water services available in proximity to the subject lands and as only three geodesic domes are proposed, the sewage and water services would not meet the definition of communal servicing; communal services are defined as serving six or more lots or private residences. The proposed development will be serviced by private water and private septic system because it is neither practical nor feasible to consider the construction of municipal water and sewer services. A Hydrogeological Study has been prepared by Jp2g Consultants Inc. which confirms the suitability of the subject lands for private services. The proposed development is consistent with the sewage and water servicing provisions of the Provincial Planning Statement, provided the recommendations of the Hydrogeological Study are implemented.

5 County of Renfrew Official Plan

5.1 General Development Policies (Section 2.0)

5.1.1 Commercial, Industrial and Institutional Uses (2.2(4))

The proposed development will be a tourism commercial use and therefore the provisions of Section 2.2(4) must be addressed which states that: "The following shall apply to the establishment of any commercial, industrial or institutional use:"

(a) all new uses/buildings should have direct access to a public road (or a common element access) and be set back from adjacent road allowances a sufficient distance to permit vehicle parking and maneuvering clear of any road allowance;

The proposed development will be accessed via a private internal access road which will connect to Gorman Road, a year round maintained, municipally maintained road. The proposed development will provide sufficient vehicle parking and maneuverability outside any road allowance.

(b) adequate off-street vehicle loading and parking spaces shall be provided;

As shown on the site plan, one parking space will be provided per dome, as per the Zoning By-law requirement.

(c) access points to such parking and loading areas shall be limited in number and designed to minimize the danger to vehicular and pedestrian traffic;

In this case, there will be a single entrance to the proposed development from Gorman Road and each geodesic dome will have its own driveway off the internal access road. The traffic generated by the proposed development is anticipated to be minimal due to it being small in scale.

(d) buffering, including minimum separation distances, shall be provided in accordance with the relevant Section(s) of this Plan, to ensure that any negative impacts upon adjoining lands are mitigated;

The proposed development will be small in scale and will be set back from lot lines and Golden Lake, with the majority of the property remaining in its natural state. The existing vegetation on-site will act as a natural buffer to the adjacent land uses.

(e) no use shall be permitted which is an obnoxious trade, business or manufacture under the Health Protection and Promotion Act and the Environmental Protection Act or which is obnoxious by reason of the emission of odour, dust, smoke, noise or vibrations;

The proposed development will not constitute an obnoxious trade, business or manufacture.

(f) wherever possible, the use shall not be located on agricultural lands classified Class 1 to 3 under the Canada Land Inventory for Agriculture and should not negatively impact on any nearby farm operation;

The subject lands consist of Class 7 soils and are therefore not considered prime agricultural lands.

(g) *where appropriate, the proponent may be required, to prepare a servicing options report undertaken for the purpose of determining the preferred servicing alternative for the proposed development;*

A servicing options assessment has been included in Section 7 of this report.

(h) *if a private water supply is proposed, an adequate and potable water supply shall be available. It shall be the responsibility of the applicant to provide a report on the adequacy of the water supply, if required by the approval authority or any other agency;*

A Hydrogeological Study has been completed by Jp2g Consultants Inc., which confirms there is a sufficient source of potable water available and will be submitted as part of the application for site plan approval.

(i) *if a private water supply is proposed, soils shall be suitable or made suitable to support an individual waste disposal system subject to the approval of the authority having jurisdiction;*

A Hydrogeological Study has been completed by Jp2g Consultants Inc., which confirms the site is suitable to support an individual private waste disposal system and will be submitted as part of the application for site plan approval.

(j) *if a private water and/or a private sewage service is proposed, it shall be demonstrated that the site conditions are suitable for the long-term provision of such services with no negative impacts, in accordance with Section 2.2(12) of this Plan.*

Please refer to the Hydrogeological Study, prepared by Jp2g Consultants Inc., submitted under separate cover for a detailed analysis of the development in accordance with Section 2.2(12). The report concludes that the proposed development can be adequately serviced by private water and sewage services over the long term.

(k) *unless pre-zoned, all new commercial uses, institutional uses, and industrial uses shall require an amendment to a local zoning bylaw, or the removal of the Holding-h symbol in the local zoning bylaw. The removal of the Holding symbol from a local zoning by-law will be in accordance with Section 17.6 of this Plan or an approved local Official Plan;*

The subject lands are zoned Tourist Commercial (TC), which permits the proposed development. Site Plan Approval, for which this report is being prepared in support of, will be required prior to development.

(l) *Industrial Minimum Separation Distance and Influence Area*

Not applicable.

(m) *Large scale commercial developments shall be supported by a Market Impact Study when determined by the Local Municipality to be necessary.*

The proposed development is small in scale and a Market Impact Study is not required.

(n) *The design of new and re-developed buildings shall meet the requirements of the Accessibility for Ontarians with Disabilities Act (AODA).*

The proposed development will be consistent with Ontario Building Code and will meet the requirements of the AODA where possible.

5.1.2 Cultural Heritage and Archaeological Resources (2.2(6))

Section 2.2(6) provides policy guidance for cultural heritage and archaeological resources. Subsection 2.2(6)(5) sets out when an archaeological assessment is required for waterfront development. In this case, the proposed development will disturb less than 1.0 hectare of land and therefore an Archaeological Assessment is not required.

5.1.3 Natural Heritage (Section 2.2(8))

The natural heritage policies of the Official Plan are set out in Section 2.2(8) and provide general principles for protecting and enhancing natural heritage areas and features. In this case, a review of Schedule B – Map 4 of the County of Renfrew Official Plan indicates that there are no significant natural features within 120 metres of the subject lands. Additionally, as per the County's Planning Response, as the development is small in scale and will disturb less than 1.0 hectare of land, an Environmental Impact Study is not required.

5.1.4 Water Setback and Protection of Shoreline Integrity (Section 2.2(11))

In accordance with Section 2.2(11)(b), the disturbed area of the proposed development will be setback a minimum 30 metres from Golden Lake. As noted in the Planning Response, any work proposed in the water will require clearance from the Ministry of Natural Resources.

5.1.5 Servicing Policies (Section 2.2(12))

The servicing policies of the Official Plan are set out in Section 2.2(12) and largely reiterate the servicing hierarchy of the PPS, as described in Section 4 above. The servicing policies in Section 2.2(12)(a) iii. of the Official Plan contemplate that development may be serviced by individual on-site services where site conditions are suitable over the long-term with no negative impacts. Subsection (f) provides criteria for when a hydrogeological evaluation should be undertaken. A Hydrogeological Study, including a nitrate impact assessment, has been completed for the proposed development. It concludes that site conditions are suitable for the long-term provision of private water and septic services, provided the septic system and well for the proposed development are constructed in accordance with the recommendations of the study.

5.2 Rural Designation (Section 5.0)

The subject lands are designated Rural on Schedule "A" – Township of Bonnechere Valley Enlargement to the County of Renfrew Official Plan. Lands within the Rural designation comprise of lands which are not considered to be resource lands (i.e. not constituting agricultural land, mineral aggregate resource lands, wetlands, etc.). Permitted uses in the Rural designation include low density residential development as well as rural-related, appropriately located commercial, industrial, recreational and institutional uses.

5.2.1 Goals and Objectives (Section 5.2)

Section 5.2 sets out the goals and objectives of the Rural designation. Objective (4) is "to promote the tourism economy of the County by ensuring suitable lands are available to satisfy demands for tourism and tourism-related development". The proposed development will align with this objective as it is a tourism commercial development on lands ideally suited for tourism use as it is nearby other tourism uses and is located on Golden Lake. Additionally, the subject lands are already zoned for tourism commercial development.

5.2.2 Policies (Section 5.3)

5.2.2.1 Section 5.3(5)

Section 5.3(5) sets out the policy criteria for recreational or open spaces uses or tourism-related development for where these uses/developments are permitted and may be expanded, as follows:

a) *the impact on other recreational uses along a water body are considered;*

The proposed development is small in scale and will be setback a minimum of 30 metres from the waters edge and the impacts of the proposed development on other recreational uses in the area are anticipated to be negligible.

b) *the reasonably anticipated effects of development on rural and recreational characteristics and on natural features and functions are assessed in accordance with the terms of subsection 2.2(8) and 2.2(23) of this Plan, where appropriate, and are acceptable;*

The proposed development is small in scale, consisting of just three geodesic domes with a parking space each and will disturb less than 1.0 hectare of land. Additionally, based on a review of Schedule B – Map 4 to the Official Plan, there are no identified significant natural heritage features on the subject lands or within the surrounding area (120 metres). Per Section 2.2(8), as the development will disturb less than 1.0 hectare of land, the proposed development is considered small in scale and an Environmental Impact Study is not required. Additionally, the property is approximately 18.32 hectares and will remain otherwise mostly in its natural state. Should further development be proposed in the future, a site plan amendment would be required and additional studies could be required at that time.

c) *the aesthetic appearance of the proposed development is assessed and acceptable;*

The proposed development is located on a portion of the site which will be buffered from the adjacent properties, Golden Lake and Gorman Road through the existing natural vegetation on site. Additionally, the Tourist Commercial (TC) Zone has a minimum front, side and rear yard setback of 10.5 metres (34 feet) that the proposed development will need to be from the property lines and at least a 30 metre setback will be maintained along Golden Lake.

d) *the long-term suitability of the site for communal services or individual on-site systems to accommodate proposed uses is demonstrated through appropriate site servicing studies;*

A Hydrogeological Study has been prepared by Jp2g Consultants Inc., which confirms the site is suitable for the long-term provision of private on-site water and sewage systems. A Servicing Options Report has been included in this report which evaluates various methods of servicing for the proposed development in accordance with the local Municipal and Provincial servicing requirements.

e) *the long-term public costs of infrastructure, public services and public service facilities are assessed and are acceptable;*

The proposed development is small in scale and no adverse impacts on infrastructure, public services or public service facilities are anticipated. There is a number of existing residential and tourist commercial developments existing nearby to the subject lands. A Traffic Impact Study is not required to support the development due the small scale of the proposal.

f) *the land is rezoned to a separate classification in the local zoning by-law;*

The subject lands are currently zoned Tourist Commercial (TC) in the implementing Zoning By-law. Therefore, the subject lands do not need to be rezoned.

g) *the rezoning application should be accompanied by a site plan depicting all buildings, structures, works and facilities, landscaping and buffering proposed for the subject lands, as well as all natural features, including all watercourses, slopes, etc.;*

A site plan will be provided with the application for Site Plan Approval.

h) *the relevant policies of the General Policies for Development Section of this Plan are adhered to;*

The relevant policies of the General Development Policies of the Official Plan have been addressed above.

i) *development shall not negatively impact upon significant natural heritage features, such as significant wildlife habitat, and fish and fish habitat, through activities such as dredging or filling, the removal of shoreline vegetation or the construction of buildings and structures;*

The proposed development is not anticipated to have any negative impacts on significant wildlife habitat and fish and fish habitat due to the small scale of development and provided the recommendations in this report are properly implemented. A minimum water setback of 30 metres, with the exception of the boat launch and dock, will be maintained. The boat launch and dock will comply with the Shoreline Activity Area provisions (Section 3.27.4 f)) of the Township's Zoning By-law and any in water works will require the appropriate approvals from the Ministry of Natural Resources and/or the Department of Fisheries and Oceans (DFO).

Erosion and sediment control measures such as silt fencing is recommended to be erected along the downgradient edge of the work area during construction to minimize any potential run off into Golden Lake. It is important that fencing is properly dug-in to treat any surface water flow and is maintained as required, including removal of accumulated sediment. Erosion control measures are to be maintained until complete re-vegetation of disturbed areas is achieved.

The extent of exposed soils should be kept to a minimum at all times. Re-vegetation of exposed, non-developed areas is to be achieved as soon as possible and should only use locally appropriate native species.

Additional mitigation measures to minimize the potential for inputs of sediments and other contaminants into the Lake and the environment in general include proper maintenance on construction equipment with respect to refuelling, washing and fluid changes, and proper disposal of fluids, filters and other waste materials. None of this work should take place within 30 metres of any surface water features.

j) *Development shall satisfy the requirements of any relevant federal and provincial legislation, and regulations and policies made thereunder, e.g., the Canada Fisheries Act, the Federal Fish Habitat Policy, the Endangered Species Act, Public Lands Act, etc;*

Any in water works will require the appropriate approvals from the Ministry of Natural Resources. Federal and provincial legislation will be complied with, where applicable.

k) *the approval of a significant freehold residential development that is proposed in association with or as a part of a recreation and/or open space use and that requires full or communal services will require an amendment to this Plan; and*

Not applicable.

l) *residential uses associated with a recreational use are permitted provided that the development is consistent with the policies under subsection 5.3(3).*

An associated residential use is not anticipated at this time.

5.2.2.2 Section 5.3(6)

Section 5.3(6) sets out criteria for institutional, commercial (including highway-commercial) and industrial uses being permitted in the Rural designation. The following policies shall apply when considering the suitability of a site for commercial or industrial uses:

a) *new institutional, commercial and industrial uses or major expansions of existing ones shall occur by zoning by-law amendment, if required by the local zoning by-law and the requirements of subsection 2.2(4) shall be considered;*

The subject lands are currently zoned Tourist Commercial (TC), which permits the proposed development. The relevant provisions of the Zoning By-law will be complied with, as discussed further in Section 6.0 below.

b) *institutional, commercial and industrial uses in the Rural designation are designated as Site Plan Control areas; and*

An application for Site Plan Approval will be submitted. This Report has been prepared in support of that application.

c) *rural institutional, commercial or industrial uses shall be governed by the relevant General Development Policies of this Plan.*

The General Development Policies of the Official Plan Have been addressed above in Section 5.1.

5.3 Implementation & Interpretation (Section 17.0)

Section 17.0 outlines the measures available to enable the implementation of the objectives and policies of the Official Plan. Section 17.5 sets out the Site Plan Control policies of the County's Official Plan. As the proposed development is a commercial use, it is within the site plan control jurisdiction and this Report has been prepared in support of an application for site plan approval.

Section 17.17 sets out the recommended pre-consultation process and the complete application requirements. A general inquiry was submitted to the County of Renfrew for initial pre-consultation and to confirm the requirements in order to permit the proposed development. A Planning Response was provided on June 2, 2025 which outlined the need for an application for site plan approval as well as outlined the required supporting documentation. This Report, as well as the Hydrogeological Study, have been prepared in support of the application for site plan approval.

5.4 Summary

The proposal represents development that is in keeping with the vision and policy direction of the Official Plan. The built form and use are compatible with the surrounding seasonal residential uses and tourism commercial uses and no adverse impacts are expected as a result of the approval of the proposed development.

6 Township of Bonnechere Valley Zoning By-Law No. 2022-042

The subject lands are currently zoned Tourist Commercial (TC), Limited Service Residential (LSR), and Environmental Protection (EP) on Schedule "A" to the Township of Bonnechere Valley Comprehensive Zoning By-law No. 2022-042. An excerpt of Schedule A of the zoning by-law is attached to this report as **Map 3**. The proposed development will be wholly located within the portion of the site zoned Tourist Commercial (TC).

The Tourist Commercial (TC) zone permits a variety of tourist and tourism-related commercial uses. The proposed development is most similar to that of a 'resort', as defined by the Zoning By-law as "a tourist establishment catering to the vacationing public, designed as a destination-oriented operation and/or being within an area recognized as a destination for vacations, and providing meals and sleeping accommodations that may consist of lodge houses, guest rooms or cottages, but shall not include any other use defined herein." A resort is a permitted use in the TC Zone.

There are no defined parking space requirements for a 'resort', however as per 4.2.3, where the use is not listed in Table 4.2, parking space rate for a comparable land use will be applied. In this case, the closest comparable land use would be a 'campground' which requires 1 parking space per camping site. As illustrated on the site plan, one parking space will be provided per accommodation unit.

The proposed development will comply with all provisions of the TC Zone, as well as the relevant general provisions.

7 Servicing Options Assessment

Section 5.3(5)(d) of the County of Renfrew Official Plan requires that, as a condition to permitting a new or expanding commercial uses, "*the long-term suitability of the site for communal services or individual on-site systems to accommodate proposed uses is demonstrated through appropriate site servicing studies*". In this case, the proposed development is a commercial use and as such requires an assessment of the servicing options. The Provincial and Municipal policy framework with regard to site servicing are examined above in Sections 4 and 5.

Servicing Options Evaluation

The possible options for providing water and sewage services include full municipal services, communal servicing, partial services (i.e. municipal water and private septic system), and individual well and septic systems. The pros and cons of each of these servicing options are discussed and assessed below:

Full Municipal Services:

- Opting for full municipal services would eliminate the use of private septic and water systems thus minimizing impacts on groundwater resources.
- The proposed development is located more than 3.5 kilometres ('as the crow flies') from the closest point of access to municipal water and sewer services, which is in the neighbouring municipality of Killaloe, Hagarty and Richards.
- The Township of Killaloe, Hagarty and Richards would need to agree to extend services beyond the municipal boundary.
- The extension of sanitary sewers and municipal water to the proposed development is not feasible for the scale of the project.
- Full municipal services are not an option for the three proposed geodesic domes.

Communal Services:

- Communal servicing is defined in the PPS as servicing 6 or more units/lots; the proposed development only consists of three units and therefore would not count as communal servicing under the current planning framework.
- Development on communal sewage and water services, or on partial services, would involve significant capital costs and long-term maintenance and operation costs that would make this small-scale project unfeasible.
- Communal servicing would necessitate a higher density of development, which could result in a higher demand on groundwater resources.
- Development on communal sewage and water services would require municipal ownership and operation of these services or a responsibility agreement with the operator of a private communal system. A private communal servicing agreement would require the developer to establish a reserve fund. The reserve fund that could be an amount equal to the cost of replacing the communal service. This expense would make the project unfeasible.

Partial Services

- Section 3.6.5 of the PPS limits partial services to the replacement of services for existing development, within settlement areas to allow for infilling and minor rounding out of existing development on private services or within rural settlement areas where new development will be serviced by individual wells and municipal sewage services.
- Since there is no existing municipal water and sanitary services close by the site and the subject lands are not in a settlement area, partial servicing is not an option for the proposed development.

Individual Well and Septic Systems:

- A Hydrogeological Study prepared by Jp2g Consultants Inc. has documented acceptable conditions for the proposed development and the findings of the analysis are favourable for an individual well and septic system.
- The development of 3 geodesic domes on the subject lands would be compatible with the surrounding land uses and consistent with the character of development along Golden Lake.

Conclusion

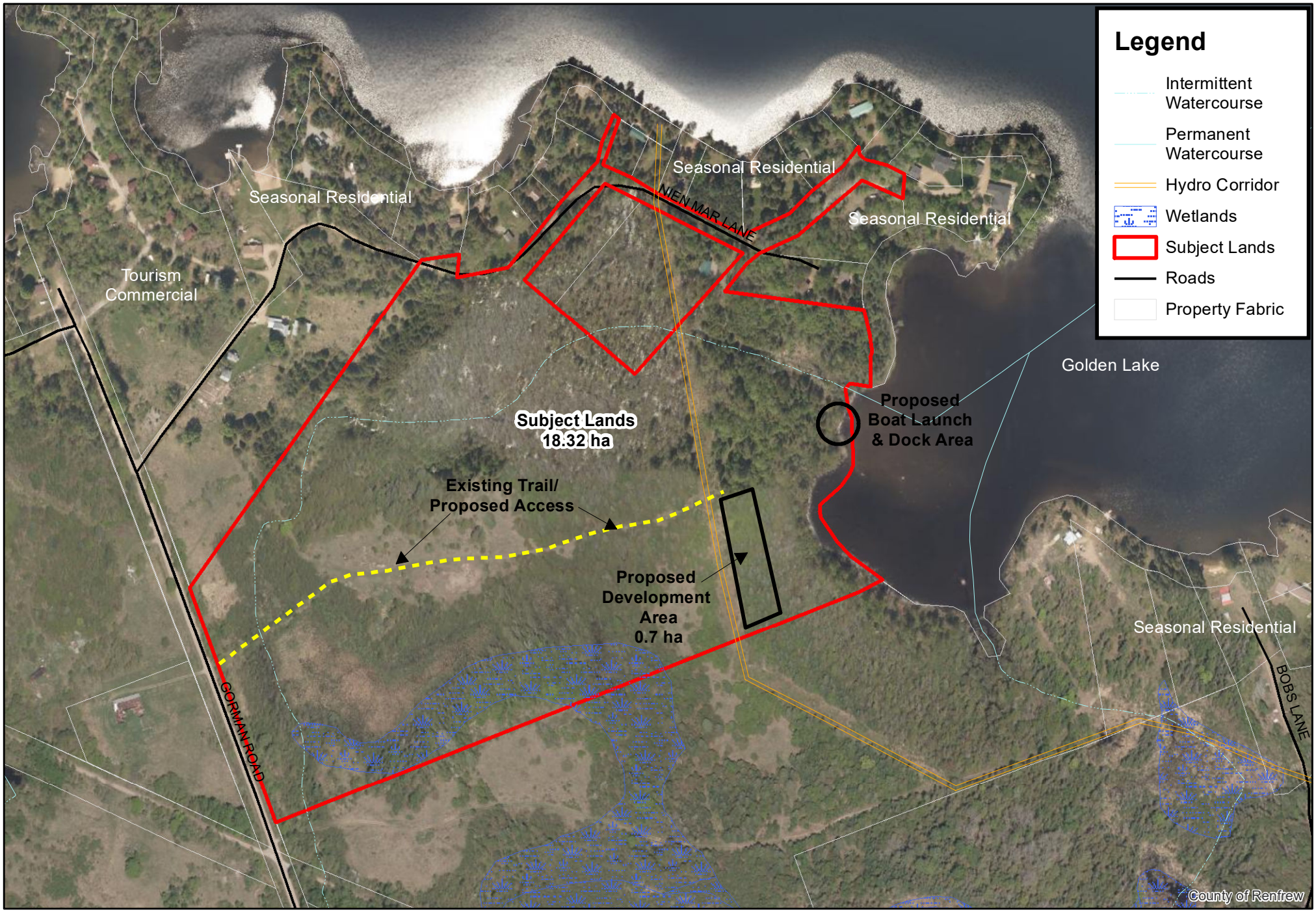
It is concluded that the proposed development with an individual private well and septic system is the most appropriate servicing option for the following reasons:

- The Hydrogeological Study supports the private well and septic system option.
- This servicing option is the most practical and economically viable servicing option as full municipal, communal services or partial services is not technically or economically feasible.
- This servicing option complies with the Rural policies of the Official Plan for the County of Renfrew and the servicing policies of the PPS.

8 Conclusions and Recommendations

The proposed application for site plan approval has been reviewed against the policies contained in the PPS and the County of Renfrew Official Plan and the standards in Township of Bonnechere Valley Zoning By-law No. 2022-042. It is concluded that the proposed application for site plan approval is consistent with the PPS and conforms to the Official Plan for the County of Renfrew. The proposed tourist commercial use is compatible with the existing surrounding seasonal residential and tourism commercial uses and there are no adverse impacts anticipated on any surrounding properties or on Golden Lake provided the setbacks and associated vegetated buffer areas are maintained from adjacent uses and natural features. It is concluded that the proposed development is considered to be good planning.

Map 1
Site and Surrounding Land Use



N

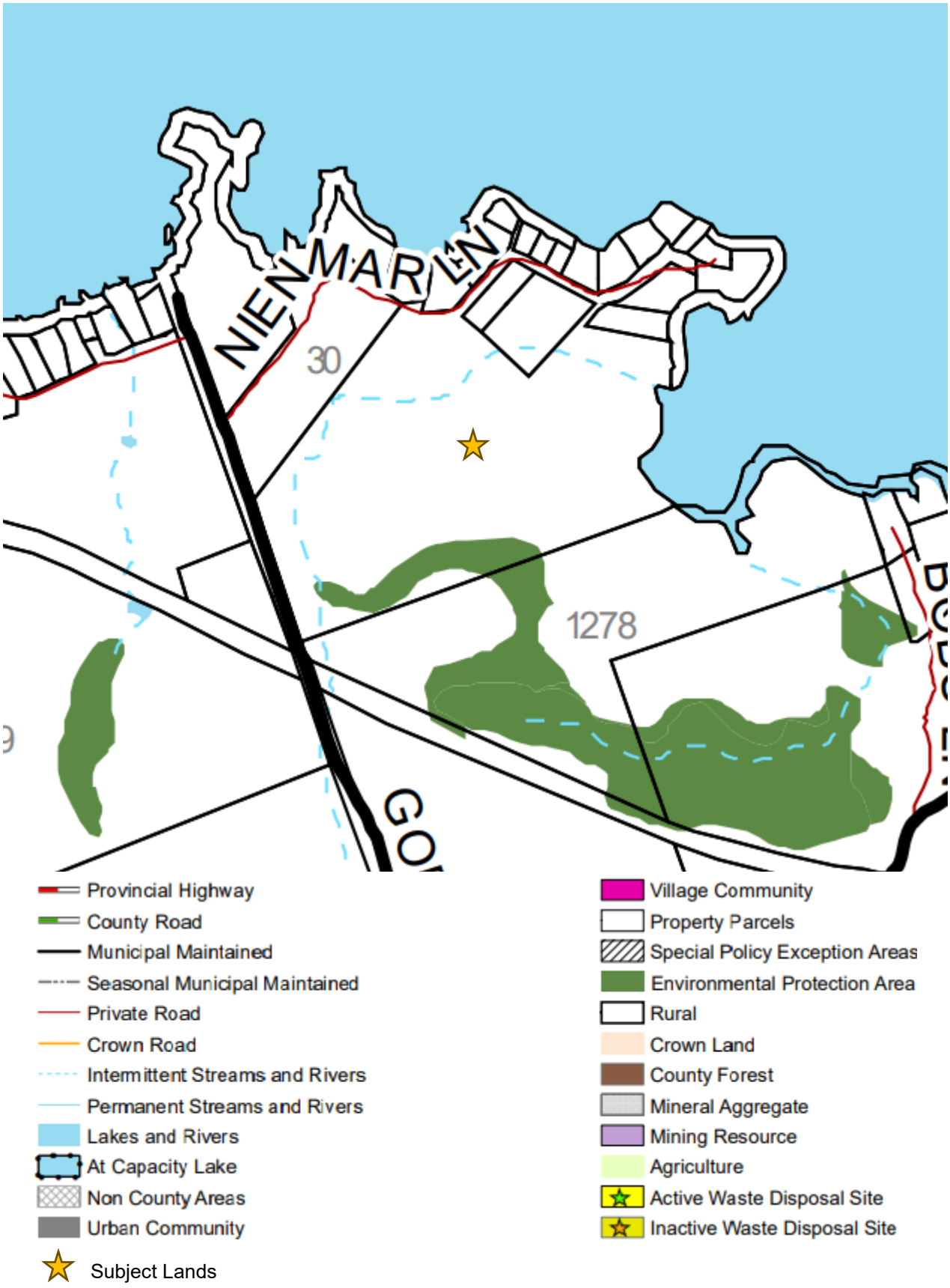
0 80 160 320 Meters

1:6,000

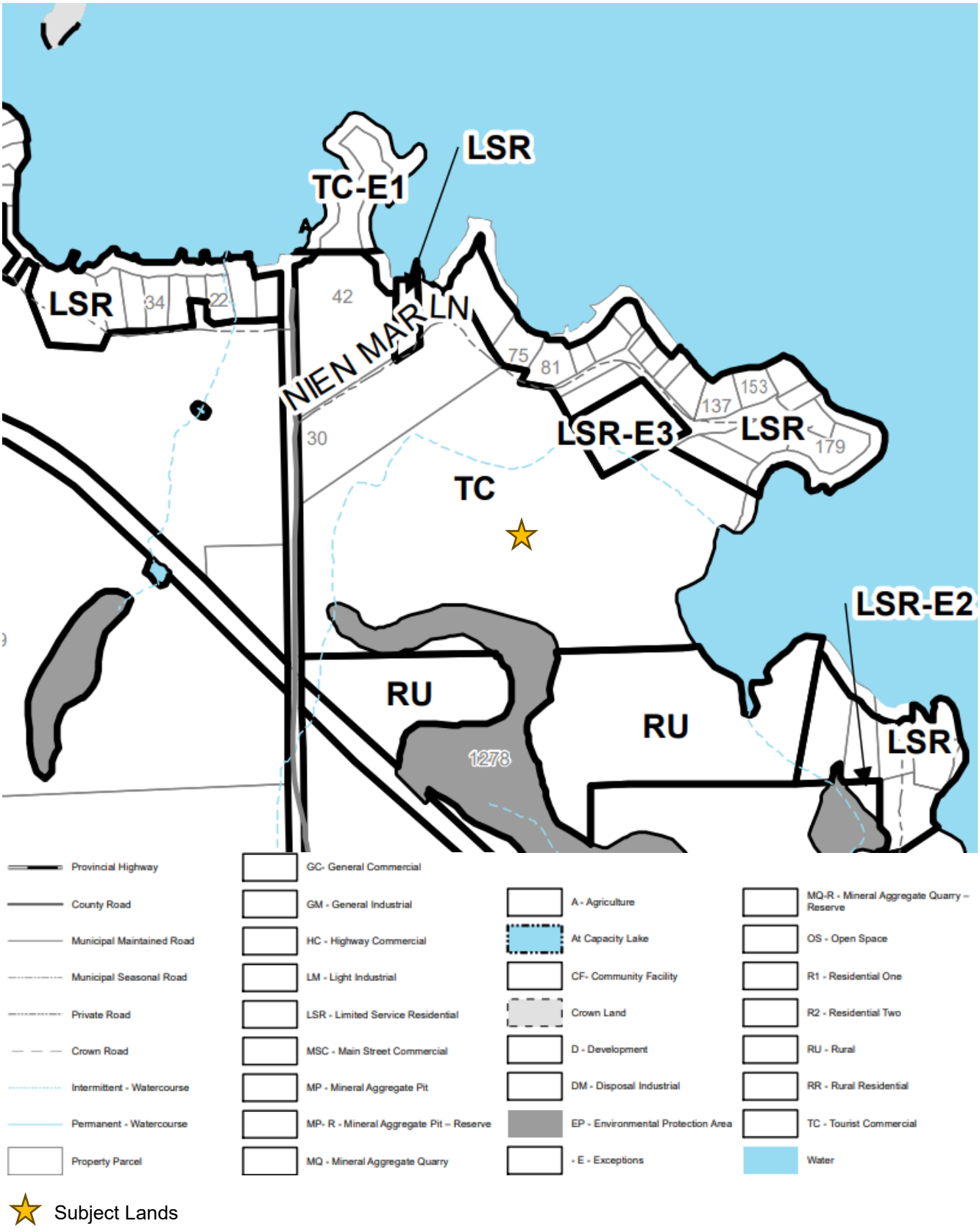
Site and Surrounding Land Use

Project No. 25-7036A
Prepared by: KC
Reviewed & Approved by: BK
Date: July 2025

Map 2
Excerpt of Schedule “A” to the County of Renfrew Official Plan


NIEMAR LN
30
1278
Provincial Highway
County Road
Municipal Maintained
Seasonal Municipal Maintained
Private Road
Crown Road
Intermittent Streams and Rivers
Permanent Streams and Rivers
Lakes and Rivers
At Capacity Lake
Non County Areas
Urban Community
Subject Lands
Village Community
Property Parcels
Special Policy Exception Areas
Environmental Protection Area
Rural
Crown Land
County Forest
Mineral Aggregate
Mining Resource
Agriculture
Active Waste Disposal Site
Inactive Waste Disposal Site

Map 3
Excerpt of Schedule “A” to the Township of Bonnechere Valley Zoning By-Law


LSR
TC-E1
LSR
34
22
42
NIEN MAR LN
75
81
153
137
LSR-E3
LSR
179
30
TC
LSR-E2
RU
RU
1278
LSR
Provincial Highway
County Road
Municipal Maintained Road
Municipal Seasonal Road
Private Road
Crown Road
Intermittent - Watercourse
Permanent - Watercourse
Property Parcel
GC- General Commercial
GM - General Industrial
HC - Highway Commercial
LM - Light Industrial
LSR - Limited Service Residential
MSC - Main Street Commercial
MP - Mineral Aggregate Pit
MP- R - Mineral Aggregate Pit – Reserve
MQ - Mineral Aggregate Quarry
A - Agriculture
At Capacity Lake
CF- Community Facility
Crown Land
D - Development
DM - Disposal Industrial
EP - Environmental Protection Area
- E - Exceptions
MQ-R - Mineral Aggregate Quarry – Reserve
OS - Open Space
R1 - Residential One
R2 - Residential Two
RU - Rural
RR - Rural Residential
TC - Tourist Commercial
Water
Subject Lands

Appendix A
Site Plan

SITE PLAN

0 50m 200m

Property Line

336.42m
33.95m
20.39m
43.91m
66.31m
48.88m
103.12m
42.62m
132.67m
127.19m
122.81m
41.55m
27.59m
32.99m
25.64m
17.05m
14.95m
18.21m
24.23m
37.86m
71.40m
46.91m
31.86m
136.45m
119.34m
34.82m
31.90m
20.60m
6.29m
23.84m
4.57m
31.00m
22.14m
21.23m
10.45m
40.09m
40.00m
70.00m
70.00m
6.00m
6.00m
215.14m
554.83m

Gorman Rd

Golden Lake

Driveway

Driveway

Well

Septic Field

Septic Tank

Boat Launch

Dock

Proposed Geodesic Dome
9.14mx9.14m

N W E S

Parcel No. (APN) 473803603520640

ADDRESS: 0 Gorman Rd
Killlaloe, Ontario, K0J 2A0
Scale: 1:2000

THIS IS NOT A LEGAL SURVEY, NOR IS IT INTENDED TO BE OR REPLACE ONE

This work product represents only generalized locations of features, objects or boundaries and should not be relied upon as being legally authoritative for the precise location of any feature, object or boundary.

Date: June 12, 2025

Hydrogeological Study

Final

Gorman Road Proposed Tourist Establishment
Part Lot 29 & 30, Concession 12, South Algona
Township of Bonnechere Valley, Ontario

July 24, 2025

Jp2g Project # 25-7036A

Jp2g Consultants Inc.
ENGINEERS · PLANNERS · PROJECT MANAGERS

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APPENDICES

1.0 INTRODUCTION

Jp2g Consultants Inc. (Jp2g) was retained by Chad Wilton to perform a Hydrogeological Study in support of a site plan application for the property located on Gorman Road Parcel #473803603520640. The subject property has a land area of approximately 18.32 ha (45.26 acres) and currently consists of vacant forested land. The subject property has not yet been assigned a municipal address and is located on Gorman Road south of Nien Mar Lane, in Part Lot 29 & 30, Concession 12, in the geographic Township of South Algona, which is now in the Township of Bonnechere Valley.

The proposed development is to construct three (3) geodesic domes for rental purposes, to be collectively serviced by one well and one septic system. There are presently no wells or septic systems located on the property. The remaining portion of the Site is to remain undeveloped at this time.

The subject property is hereafter referred to as the Site. The surrounding 500 m area is referred to as the Study Area. A Regional Site Map showing the location of the Site and Study Area is provided in **Figure 1**. A Local Site Map showing the Site and proposed development is provided in **Figure 2**. Also shown on **Figure 2** are the current property boundaries and surrounding addresses according to available Lot Fabric data.

The purpose of this hydrogeological study is to meet the requirements outlined in the County of Renfrew Official Plan, specifically those related to Commercial Servicing (Policy 2.2(4)(j)), Private Sewer and Water Servicing (Policies 2.2(12)(a)(iii) and (f)) and Long-term Suitability for Communal Services (Policy 5.3(5)(d)). Copies of the respective County Official Plan policies are provided in **Appendix A**.

Accordingly, the intent of this study is to demonstrate the presence of an adequate supply of potable water in terms of both quantity and quality for the proposed development, and that the Site is suitable for the installation of a new septic system and will not adversely affect the quality of the water supply. This report will also address the long-term suitability of the Site for communal services or individual on-Site systems to accommodate the proposed uses.

1.1 Objectives and Activities

The objective of the study is to assess the site's suitability for development based on individual private services (i.e., the presence of a potable water supply, both quality and quantity and the ability to adequately disperse effluent). The following work activities were completed:

- Completion of a desktop review of published geology maps;
- Review of surrounding land uses;
- Review of nearby water well records;
- Collection of groundwater quality samples from two (2) drilled water wells near the Site; and
- Report preparation.

2.0 SITE BACKGROUND INFORMATION

The study Site is located on Gorman Road in the Township of Bonnechere Valley. The land at the Site is currently designated as Rural on the County of Renfrew Official Plan Schedule "A" for the Township of Bonnechere Valley Enlargement. According to Bonnechere Valley Zoning By-law 2022-042 (accessed via Bonnechere Valley Zoning By-Law Web App) the Site is zoned as Tourist Commercial (TC). According to the County of Renfrew public GIS portal, land at the Site is mapped as Vacant, and land use within the surrounding Study Area is a mix of Farm use, Residential use, and Vacant land. The land cover at the Site consists of forested land.

The land area of the Site is approximately 18.32 ha (45.26 acres), contains no structures, and has approximately 212 m of street frontage on Gorman Road. The proposal is to develop less than 1 hectare of land for resort/tourism purposes, with the inclusion of three (3) geodesic domes sharing one well and septic system, a boat launch, and a floating dock. A Local Site Map showing the proposed locations of the geodesic domes, the communal well and the communal septic system is provided on **Figure 2.**

Natural surface water features near the Site are shown on **Figure 3**. Water features at the Site include Golden Lake to the north and east of the Site with waterfront along part of the eastern site boundary, a watercourse running through the western and northern portion of the property, and a portion of a provincially unevaluated wetland along the southern site boundary. The proposed dome, well, and septic areas are not within 50 m of any water features.

3.0 PHYSICAL SETTING

3.1 Local Physiography and Geology

Ontario Geological Survey mapping has been reviewed to assist in characterizing the physiography, surficial geology and bedrock geology at and around the Site.

A review of physiography mapping[1] indicates that the Site and surrounding area are mapped as being within the Algonquin Highlands physiographic region[1]. The Algonquin Highlands physiographic region is a rugged, elevated area of the Canadian Shield characterized by ancient Precambrian rock, thin soils, numerous lakes, and dense forests[1]. Physiographic landforms at the Site and surrounding Study Area are mapped as 'shallow till and rock ridges'[1]. Shallow tills and rock ridges are landforms where a thin layer of glacial till covers the landscape, exposing underlying bedrock ridges that create a rugged, uneven terrain[1].

A review of surficial geology mapping[2] indicates that the surficial geology at the Site and surrounding Study Area include Precambrian bedrock, bedrock-drift complex in Precambrian terrain, and glacial till. It would be expected to encounter till boulders and/or bedrock at shallow depths throughout the Site and Study Area.

A review of bedrock geology mapping[3] indicates that bedrock geology is Precambrian in age and consists of layered gneiss and migmatite. There are no other geologic units mapped at the Site, however there is a geologic fault line running approximately parallel to Gorman Road approximately 420 m west of the Site, beyond which the rock types shift to include felsic igneous rocks like granite and syenite along with various gneisses[3].

[1] Chapman, L.J. and Putnam, D.F. 1984. *The Physiography of Southern Ontario, Third Edition*. Ontario Geological Survey, Ontario Ministry of Natural Resources.
[2] Ontario Geological Survey. 2010. *Surficial Geology of Southern Ontario*. Ontario Geological Survey, Miscellaneous Release—Data 128-REV.
[3] Ontario Geological Survey 2011. *1:250 000 Scale Bedrock Geology of Ontario*. Ontario Geological Survey, Miscellaneous Release—Data 126-Revision 1.

3.2 Local Hydrogeology and Well Records

Information from the Ministry of Environment, Conservation and Parks (MECP) Water Well Information System (WWIS)[4] has been used to prepare a conceptual model of the geologic and hydrogeologic conditions anticipated to be present at the Site. A search of the MECP's Well Record database conducted within a 500 m radius around the Site returned a total of 12 records. The well search has excluded well records that are not for water supply wells (e.g. monitoring wells, test holes) and has excluded well records indicated in the WWIS to have unreliable location data. A summary of the water well records within 500 m of the Site is provided in **Table 3-1**, and information from the records regarding the initial pumping tests performed during their installation is summarized in **Table 3-2**. The locations of the well records are shown on **Figure 3** and copies of each well record are provided in **Appendix B**.

Table 3-1: Summary of Water Well Records within 500 m

Well ID (Tag #)	Distance and Direction from Site	Well Use	Date of Completion	Overburden Description (mbgs)	Bedrock Description (mbgs)	Found Water At (mbgs)
5510977	308 m NW	Domestic	1992-08-24	0.0 - 0.3: SAND	0.3 - 30.8: GRANITE	12.2
5510978	276 m NW	Domestic	1992-08-24	0.0 - 6.1: SAND	6.1 - 15.5: GRANITE	12.5
5516492 (A042285)	174 m E	Domestic	2006-08-16	0.0 - 0.9: SAND, STONES	0.9 - 42.7: GRANITE	38.1
7106594 (A070358)	352 m S	Domestic	2008-06-18	0.0 - 1.5: TOPSOIL, SAND, GRAVEL	1.5 - 48.8: GRANITE	45.7
***7112058 (A073517)**	266 m NW	Domestic	2008-08-08	0.0 - 2.1: SAND, HARDPAN	2.1 - 54.9: GRANITE	17.4; 46.3
7112059 (A073516)	230 m NW	Abandoned	2008-08-08	0.0 - 5.5: CLAY, TILL, SAND	5.5 - 91.4: GRANITE	Not specified
7125229 (A076340)	55 m NW	Domestic	2009-07-09	0.0 - 2.7: TOPSOIL, GRAVEL, SAND	2.7 - 24.4: GRANITE	20.7; 21.3
7127288 (A086504)	352 m NW	Domestic	2009-08-13	0.0 - 0.6: SAND, TOPSOIL, STONES	0.6 - 48.8: GRANITE	42.7
***7203262 (A132532)**	333 m NW	Public / Commercial	2013-06-18	0.0 - 1.2: SAND	1.2 - 87.2: GRANITE	30.5
7255883 (A167071)	18 m E	Domestic	2016-01-14	0.0 - 3.7: SAND, BOULDERS 3.7 - 5.2: BOULDERS	5.2 - 68.6: GRANITE	54.9; 64
7339461 (A231443)	106 m NW	Domestic	2019-08-13	0.0 - 1.8: SAND, STONES	1.8 - 48.8: GRANITE	47.2
7396085 (A304759)	126 m NW	Domestic	2021-08-31	0.0 - 0.9: SAND	0.9 - 32.0: GRANITE	19.8; 21.3

Notes: mbgs - metres below ground surface

* - Well sampled in this study

Table 3-2: Summary of Pumping Test Information from Water Well Records within 500 m

Well ID (Tag #)	Distance and Direction from Site	Well Depth (mbgs)	Static Water Level (mbgs)	Pump Depth (mbgs)	Pumping Test Pumping Rate (L/min)	Pump Test Duration (hrs)	Total Drawdown (m)	Recommended Pumping Rate
5510977	308 m NW	30.8	3.7	Unknown	7.6 L/min	0.00	26.8	15.1 L/min
5510978	276 m NW	15.5	2.1	Unknown	45.4 L/min	1.00	13.1	37.9 L/min
5516492 (A042285)	174 m E	42.7	4.1	21.3	36.4 L/min	1.00	4.5 (26%)	45.5 L/min
7106594 (A070358)	352 m S	48.8	7.8	45.7	37.9 L/min	1.00	1.9 (5%)	37.9 L/min

[4] Ministry of the Environment, Conservation and Parks. 2025. *Water Well Information System.* Mapping tool; Powered by Land Information Ontario. Ontario, Canada.

Well ID (Tag #)	Distance and Direction from Site	Well Depth (mbgs)	Static Water Level (mbgs)	Pump Depth (mbgs)	Pumping Test Pumping Rate (L/min)	Pump Test Duration (hrs)	Total Drawdown (m)	Recommended Pumping Rate
***7112058 (A073517)**	266 m NW	54.9	3.6	54.9	37.9 L/min	1.17	15.9 (31%)	30.3 L/min
7112059 (A073516)	230 m NW	91.4	3.1	91.4	15.1 L/min	1.50	82.5 (93%)	15.1 L/min
7125229 (A076340)	55 m NW	24.4	0.6	21.3	37.9 L/min	1.00	5.5 (27%)	37.9 L/min
7127288 (A086504)	352 m NW	48.8	9.1	45.7	37.9 L/min	1.00	1.3 (4%)	37.9 L/min
***7203262 (A132532)**	333 m NW	87.2	1.8	61.0	30.3 L/min	1.00	19.4 (33%)	37.9 L/min
7255883 (A167071)	18 m E	68.6	5.2	61.0	18.9 L/min	1.00	41.3 (74%)	26.5 L/min
7339461 (A231443)	106 m NW	48.8	1.9	45.7	45.4 L/min	1.00	23.1 (53%)	37.9 L/min
7396085 (A304759)	126 m NW	32	3.8	25.9	45.4 L/min	1.00	5.2 (24%)	37.9 L/min

Notes: mbgs - metres below ground surface
L/min - Litres per minute
* - Well sampled in this study

The usage of the 12 wells includes 10 for domestic water supply, one (1) for public or commercial water supply, and one (1) is indicated as being abandoned. The 11 water supply wells vary in completion date from 1992 to 2021 and are expected to be in use as there is no municipal water servicing in the area. The abandoned well 7112059 (Tag A073516) was installed on the same date as an adjacent well 7112058 (Tag A073517) and it is possible that the driller mixed up the two well records, considering that the second well would have been drilled after the first one failed to produce water. Jp2g personnel found during a site visit that the well tagged as A073516 is in service and services a whole community, while the well at the location of Tag A073517 was not in service.

Based on the water well records, the depth to bedrock within the Study Area varied from 0.6 to 6.1 meters below ground surface (mbgs). The well records in the area all suggest that the bedrock consists of Precambrian granite. The well records indicate that water was first encountered at depths between 12 and 55 mbgs. The well records indicate recommended pumping rates from 15.1 to 45.5 L/min.

4.0 GROUNDWATER SUPPLY

The following sections provide a discussion on the available quantity and quality of the groundwater at and around the Site. The assessment of groundwater quantity is based on information provided in the MECP's water well records (**Section 3.2**) and two (2) homeowner interviews, and the assessment of groundwater quality is based on groundwater sampling results for two (2) residential water supply wells where the interviews were conducted.

On July 9, 2025, two (2) water supply wells were sampled. The wells were located at 1376 Gorman Road which is adjacent northwest of Site were sampled, and the locations of the sampled wells are shown on **Figure 3**. The wells sampled were tagged as A073516 (Well ID 7112059) and A132532 (Well ID 7203262). As mentioned in **Section 3.2**, the well record for A073516 indicates abandonment and the wells tagged as A073516 (Well ID 7112059) and A073517 (Well ID 7112058) were likely mixed up by the driller. This is assumed to be the case, and therefore the wells surveyed and sampled are understood to be Well 7112058 (Tag A073517) and Well 7203262 (Tag A132532), hereafter referred to as the South Well and the North Well, respectively.

Both well records indicate completion in granite bedrock. The South Well currently services a waterfront cottage resort, and the North Well currently services a communal building for 14 occupants. The groundwater quantity and groundwater quality of residential wells surveyed and sampled are expected to be representative of what would be encountered at the Site. The residential well survey questionnaires are provided in **Appendix C**.

4.1 Groundwater Quantity

According to the MECP's Procedure D-5-5[5], the expectation is that a well suitable for domestic purposes be able to yield at least 18.75 L/min. The 18.75 L/min comes from Procedure D-5-5's requirements that: (i) the peak demand is to be assumed at 3.75 L/min per person, (ii) the minimum number of persons is the number of bedrooms plus one (1), and (iii) the minimum number of bedrooms is four (4). The three (3) geodesic domes are each one-bedroom units and therefore the 18.75 L/min requirement is considered applicable to this Site.

Based on review of the pumping test data and recommended pumping rates in **Table 3-2**, the wells in the surrounding area were rated with recommended pumping rates ranging from 15.1 to 45.5 L/min, and only 2 of 12 wells were below the 18.75 L/min requirement. During the residential well survey, the owner of the two wells indicated that neither has ever had any problem producing adequate yield to the areas that they service. According to the well records, the recommended pumping rates of the South Well and the North Well were 30.3 L/min and 37.9 L/min, respectively. Thus, it is expected that a new well drilled for the proposed development will be able to produce sufficient yield of groundwater for the three (3) geodesic domes.

4.2 Groundwater Quality

To assess the groundwater quality, raw water samples were collected from two neighbouring drilled wells as shown on **Figure 3**. The samples were collected by a Jp2g field technician. The samples were each collected from a faucet which bypasses any water treatment systems, and the taps were run prior to sampling to ensure collection of a fresh representative sample. Prior to sample collection, the faucet sampled was disinfected. Field parameters were recorded during sampling including temperature, pH, conductivity, turbidity, apparent colour and free residual chlorine.

All samples were collected wearing nitrile gloves and were collected directly into laboratory-provided sample bottles which were then stored on ice in coolers. The samples were submitted under Chain-of-Custody protocols to Eurofins Environment Testing Canada (Eurofins). Eurofins, located at 8-146 Colonnade Road in Ottawa, Ontario is a Canadian laboratory accredited and licensed by the Canadian Association for Laboratory Accreditation (CALA).

Field parameters measured during sampling included temperature, pH, conductivity, apparent colour, turbidity, total chlorine, and free residual chlorine. Temperature, pH, and conductivity were measured using a Hanna Instruments (HI) 98129 pH/Conductivity/TDS Tester, apparent colour was measured using a HI 97727 Color of Water Portable Photometer, turbidity was measured using a Hach 2100P Portable Turbidimeter, and total chlorine and free residual chlorine were measured using a HI 97711 Free and Total Chlorine Portable Photometer.

[5] Ontario Ministry of the Environment. (1996). *Procedure D-5-5, Technical Guideline for Private Wells: Water Supply Assessment*. Available at <https://www.ontario.ca/page/d-5-5-private-wells-water-supply-assessment>.

The collected groundwater samples were submitted for analysis of an inorganic and bacteriological suite of parameters consistent with parameters listed in the Ministry's *Procedure D-5-5 Technical Guideline For Private Wells: Water Supply Assessment*. The groundwater quality results were compared against the Ontario Drinking Water Standards, Objectives and Guidelines (ODWSOG) to identify any exceedances of its health-related maximum acceptable concentrations (MAC), aesthetic objectives (AO) and operational guidelines (OG)[6].

A table summarizing the water quality results is presented in **Table 4-1** and the laboratory Certificates of Analysis are provided in **Appendix D**.

Table 4-1: Groundwater Quality Results for Sampled Wells

Parameters	ODWSOG		Sample Location:	South Well at 1376 Gorman Road	North Well at 1376 Gorman Road
			Well ID:	7112058 (A073517)	7203262 (A132532)
			Lab Report No.:	1773842	1773841
			Sample Name:	3516	2532
			Date/Time:	2025-07-09	2025-07-09
	MAC	AO/OG	Units	11:15 AM	10:15 AM
Laboratory Parameters					
Potassium, K^+	-	-	mg/L	3	4
Calcium, Ca^{2+}	-	250	mg/L	93	100
Sodium, Na^+	20	200	mg/L	**43**	13
Magnesium, Mg^{2+}	-	-	mg/L	38	38
Iron, Fe	-	0.3 (10)	mg/L	0.27	0.11
Manganese, Mn	-	0.05 (1)	mg/L	0.12	0.09
Fluoride, F^-	1.5/2.4	-	mg/L	0.31	0.22
Chloride, Cl^-	-	250	mg/L	20	42
Sulphate, SO_4^{2-}	-	500	mg/L	90	46
Sulphide, S^{2-}	-	0.05	mg/L	<0.01	<0.01
Nitrate, NO_3^-	10	-	mg/L as N	<0.10	<0.10
Nitrite, NO_2^-	1	1	mg/L as N	<0.10	<0.10
Ammonia, NH_3	-	-	mg/L	0.201	0.111
Total Kjeldahl Nitrogen, TKN	-	-	mg/L as N	0.43	0.39
Phenols	-	-	mg/L	<0.001	<0.001
Tannin & Lignin	-	-	mg/L	<0.1	<0.1
Dissolved Organic Carbon, DOC	-	5	mg/L as C	3.6	2.4
pH	-	6.5 - 8.5	pH units	8.09	7.92
Alkalinity	-	30 - 500	mg/L as $CaCO_3$	339	314
Conductivity	-	-	µS/cm	825	756
Hardness	-	80-100	mg/L as $CaCO_3$	389	406
Total Dissolved Solids, TDS	-	500	mg/L	536	491
True Colour	-	5 (7)	TCU	4	2
Turbidity	-	5	NTU	1.9	0.9
Total Coliforms	0	-	cfu/100mL	0	0
Fecal Coliforms	0	-	cfu/100mL	0	0
Escherichia Coli	-	-	cfu/100mL	0	0

[6] Ontario Ministry of the Environment. (2006). *Technical Support Document for Ontario Drinking Water Standards, Objectives and Guidelines*. PIBS 4449e01.

Parameters	ODWSOG		Sample Location:	South Well at 1376 Gorman Road	North Well at 1376 Gorman Road
			Well ID:	7112058 (A073517)	7203262 (A132532)
			Lab Report No.:	1773842	1773841
			Sample Name:	3516	2532
			Date/Time:	2025-07-09 11:15 AM	2025-07-09 10:15 AM
	MAC	AO/OG	Units		
Field Parameters					
Temperature, T	-	15	°C	12.3	16.3
pH	-	-	pH units	7.49	7.65
Conductivity	-	-	µS/cm	870	910
Apparent Colour	-	5 (7)	TCU	15	20
Turbidity	-	5	NTU	0.45	2.97
Free Residual Chlorine	-	-	mg/L as Cl	0.00	0.00
Total Chlorine	-	-	mg/L as Cl	0.00	0.00

Notes: ODWSOG – Ontario Drinking Water Quality Standards, Objectives and Guidelines (2006)
MAC – Maximum Acceptable Concentration
AO/OG – Aesthetic Objective/Operational Guideline
(#) – Maximum concentration considered reasonably treatable
RED – Exceedance of the ODWSOG
BOLD – Exceedance of ODWSOG health-related MAC

At the South Well (Well 7112058), the owner informed that they do drink the water and that the water is odourless and colourless and has acceptable taste, hardness and iron. Treatment systems in place included a chlorination unit. The chlorination unit could not be bypassed and so it was turned off and the water was let to run for 20 minutes prior to collecting a sample from the pressure tank faucet.

At the North Well (Well 7203262), the owner informed that they do drink the water and that the water is colourless, has acceptable taste and odour, and has poor hardness and iron. Treatment systems in place included a chlorination unit. The chlorination unit was bypassed by collecting the sample from the pressure tank faucet.

Exceedances were detected when comparing the groundwater quality results to the ODWSOG.

ODWSOG health-related MAC exceedances were identified for one (1) parameter: sodium.

- **Sodium:** An exceedance of the health-related MAC of 20 mg/L for sodium[6] was found at the South Well with a sodium concentration of 43 mg/L. Sodium concentration at the North Well was 13 mg/L, which is acceptable. The concentrations encountered do not exceed the AO of 200 mg/L for sodium[6]. A sodium concentration above 20 mg/L is a health concern to people on sodium-reduced diets[5][6]. Sodium above 200 mg/L imparts a salty taste and is not considered reasonably treatable by Procedure D-5-5[5].

ODWSOG AO and OG exceedances were identified for five (5) parameters: manganese, hardness, total dissolved solids (TDS), temperature, and apparent colour.

- **Manganese:** Exceedances of the AO of 0.05 mg/L for manganese[6] were detected at both wells, with manganese concentrations ranging from 0.09 to 0.12 mg/L. It is likely that the manganese encountered is associated with suspended solids, and manganese is expected to be treatable using a sediment filter. A sediment filter is recommended.

- **Hardness:** Exceedances of the OG range of 80 to 100 mg/L as $CaCO_3$[6] were found at both wells, with hardness levels ranging from 389 to 406 mg/L as $CaCO_3$. Hardness can be treated with a water softener to reduce scaling effects. Softened waters are generally unfit for consumption due to high sodium, and it is recommended that an unsoftened water line be used for drinking and culinary purposes[6]. A water softener is recommended.

- **Total Dissolved Solids:** An exceedance of the AO of 500 mg/L for TDS[6] was detected at the South Well with a TDS concentration of 536 mg/L. The TDS concentration at the North Well was 491 mg/L, which is acceptable. TDS exceedances can cause corrosion or encrustation of metal fixtures or appliances and can impart poor taste to drinking water[6]. TDS at these levels are often related to suspended solids and are expected to be treatable using a sediment filter. A sediment filter is recommended.
- **Temperature:** An exceedance of the AO of 15°C for temperature[6] was detected at the North Well with a temperature of 16.3°C. Temperature at the South Well was measured to be 12.3°C, which is ideal as it is less than 15°C. The AO for temperature was set primarily to enhance taste, low temperature is a requirement for water to be considered of acceptable quality[6].
- **Apparent Colour:** Apparent Colour was measured during sampling to be 15 TCU at the South Well and 20 TCU at the North Well. The AO for colour is <5 TCU[6] and the D-5-5 treatability limit is 7 TCU[5]. The laboratory measurements of True Colour, which is lab-filtered, 4 TCU at the South Well and 2 TCU at the North Well, which suggests that filtration would be an effective means of removing the colour from the water. A sediment filter is recommended.

The following information is provided in the Technical Support Document for the ODWSOG regarding exceedances of sodium, manganese, hardness, TDS, temperature, and colour[6]:

- **Sodium:** "The aesthetic objective for sodium in drinking water is 200 mg/L at which it can be detected by a salty taste. Sodium is not toxic. Consumption of sodium in excess of 10 grams per day by normal adults does not result in any apparent adverse health effects. In addition, the average intake of sodium from water is only a small fraction of that consumed in a normal diet. A maximum acceptable concentration for sodium in drinking water has, therefore, not been specified. Persons suffering from hypertension or congestive heart disease may require a sodium-restricted diet, in which case, the intake of sodium from drinking water could become significant. It is therefore recommended that the measurement of sodium levels be included in routine monitoring programs of water supplies. The local Medical Officer of Health should be notified when the sodium concentration exceeds 20 mg/L, so that this information may be passed on to local physicians.

  Softening using a domestic water softener increases the sodium level in drinking water and may contribute a significant percentage to the daily sodium intake for a consumer on a sodium restricted diet. It is recommended that a separate unsoftened supply be retained for cooking and drinking purposes."
- **Manganese:** "The colour related aesthetic objective for manganese in drinking water is 0.05 mg/L. Like iron, manganese is objectionable in water supplies because it stains laundry and fixtures black, and at excessive concentrations causes undesirable tastes in beverages. Manganese is present in some ground waters because of chemically reducing underground conditions coupled with presence of manganese mineral deposits. Manganese is also occasionally present, seasonally, in surface waters when anaerobic decay processes in sediments is occurring."
- **Hardness:** "The operational guideline for hardness in drinking water is set at between 80 and 100 mg/L as calcium carbonate. This value is set to aid in water source selection where a choice exists. Hardness is caused by dissolved calcium and magnesium, and is expressed as the equivalent quantity of calcium carbonate. On heating, hard water has a tendency to form scale deposits and can form excessive scum with regular soaps. However, certain detergents are largely unaffected by hardness. Conversely, soft water may result in accelerated corrosion of water pipes. Hardness levels between 80 and 100 mg/L as calcium carbonate (CaCO3) are considered to provide an acceptable balance between corrosion and incrustation. Water supplies with a hardness greater than 200 mg/L are considered poor but tolerable. Hardness in excess of 500 mg/L in drinking water is unacceptable for most domestic purposes."
- **Total Dissolved Solids:** "The aesthetic objective for total dissolved solids in drinking water is 500 mg/L. The term "total dissolved solids" (TDS) refers mainly to 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 highly mineralized water. The palatability of drinking water with a TDS level less than 500 mg/L is generally considered to be good."
- **Temperature:** "An aesthetic objective is set for maximum water temperature to aid in selection of the best water source or the best placement for a water intake. It is desirable that the temperature of drinking water should not exceed 15°C because the palatability of water is enhanced by its coolness. Low water temperatures offer a number of other benefits. A temperature below 15°C will tend to reduce the growth of nuisance organisms and hence minimize associated taste, colour, odour and corrosion problems. In summer and fall, water temperatures may increase in the distributed water due to the warming of the soil and/or as a result of higher temperatures in the source water. Low temperature facilitates maintenance of a free chlorine residual by reducing the rates of decay of the chlorine. Low water temperature is not necessary to produce water of an acceptable quality."

- **Colour:** "The aesthetic objective for colour in drinking water is 5 TCU (True Colour Units). Water can have a faint yellow/brown colour which is often caused by organic materials created by the decay of vegetation. Sometimes colour may be contributed to by iron and manganese compounds produced by processes occurring in natural sediments or in aquifers. The presence of organic materials is the main cause of disinfection by-products when water is treated with chlorine."

Based on the water quality results from the residential well surveys, it has been demonstrated that drilled water wells in the area can produce water of acceptable quality. It is expected that sodium values may exceed the health-related MAC, in which case the sodium level should be disclosed to visitors in case they are on sodium-restricted diets. AO and OG exceedances were found for manganese, hardness, total dissolved solids (TDS), temperature, and apparent colour. For treating hardness, a water softener is recommended, and any water faucets used for culinary or drinking purposes should come from an unsoftened line. For treating manganese, TDS, and apparent colour, a sediment filter is recommended. Temperature is not a requirement, and taste can be improved by cooling water before consumption. From this, it is anticipated that a future drilled well at the Site would be able to produce water of acceptable quality for the proposed development.

While the results favour development, it is noted that the granite bedrock aquifer consists of Canadian Shield, which is known to have variable water quality depending on the fracture network, and there is no guarantee that water of suitable quality will be produced. A water treatment specialist can be retained in the event of concerns with water quality from a future drilled well.

Assessments of the Langelier Saturation Index (LSI) and Ryznar Stability Index (RSI) were completed to assess the conditions of the groundwater, and whether the water would have a tendency to form buildups of calcium or magnesium (i.e. scaling), and or to assess whether the water would be corrosive to plumbing and fixtures. At both wells, the LSI estimates ranged from +0.40 to +0.63 indicating that conditions can vary from 'slightly scale forming and corrosive' to 'scale forming but noncorrosive', and the RSI estimates ranged from 6.7 to 6.4 indicating conditions of 'light scale or corrosion'. Therefore, some scale-forming from hardness should be expected, and it is not expected to be necessary to use corrosion-resistant plumbing and fixtures. The LSI and RSI calculations are provided in **Appendix E**.

5.0 GROUNDWATER IMPACT ASSESSMENT

The methodology for the water quality impact assessment is described in the MECP's *Procedure D-5-4 Technical Guideline For Individual On-site Sewage Systems: Water Quality Impact Assessment*[7]. The intent of the assessment is to ensure that the effluent discharge from the proposed septic system will not significantly impact off-site properties. The guideline describes nitrate as being the critical contaminant of concern and the ODWSOG health-related MAC of 10 mg/L as the indicator of groundwater impact.

The assessment involves a three-step process, and typically, the need to advance to the next step depends on the conditions that are defined in the previous step. The three steps are:

1. *Lot Size Consideration* for lots greater than 10,000 m^2;
2. *System Isolation Consideration* for evaluating the relationship between the septic systems and the potable groundwater supply; and
3. *Contaminant Attenuation Consideration* which considers the contaminant loading to the groundwater.

[7] Ontario Ministry of the Environment. (1996). *Procedure D-5-4, Individual On-Site Sewage Systems: Water Quality Impact Risk Assessment*. Available at < https://www.ontario.ca/page/d-5-4-individual-site-sewage-systems-water-quality-impact-risk-assessment>.

Step 1 – Lot Size Consideration

The lot size is larger than 1.0 ha, but the proposed area for development is less than 1.0 ha, therefore *Lot Size Consideration* is not applicable.

Step 2 – System Isolation Consideration

The local geology consists of sand over bedrock, and there is not a clay layer separating the ground surface from the bedrock aquifer, therefore *System Isolation Consideration* is not applicable.

Step 3 – Contaminant Attenuation Consideration

We have provided a predictive nitrate-nitrogen attenuation model to determine if sufficient attenuation of nitrate-nitrogen could be achieved on the Study Property. The Thornthwaite Water Balance method, in conjunction with local climatic data available from Environment Canada Climate Normals[8] was used to estimate the net potential infiltration for the proposed study property provided in **Appendix F**.

The nitrate concentrations at the site boundaries were calculated based on the following:

- Property size of 18.32 hectares, with a development area of roughly 0.5 hectares.
- Climate station data from Petawawa, Ontario, with climate normal from 1991 to 2020.
- Site hydrology includes hilly land (>10 m topographic variability per km), woodland land cover, and open sandy loam soil material.
- A background nitrate value of 0 mg/L has been assumed for shallow groundwater and for contributions from water consumption. This assumption is based on the nitrate concentrations of <0.1 reported for samples collected from the South Well and North Well at 1376 Gorman Road, respectively.
- Assumption that a conventional septic system will be used which has a sewage nitrate-nitrogen concentration of 40 mg/L.
- Assumption of septic black water effluent of 1000 L/day per septic system. The requirement is to use the greater number of either 1000 L/day or 1/3 of the total septic demand estimated according to the Ontario Building Code. The total septic demand has estimated in **Appendix G** to be 2975 L/day; 1000 L/day is greater than 1/3 of the total septic demand, so 1000 L/day has been used.
- The assessment has assumed 1 septic system will support all of the three (3) geodesic domes.

A document describing the proposed septic system design provided by the Client is included **Appendix G**, along with our estimation of total septic demand based on the information in that document.

The nitrate dilution assessment for the full site has resulted in a nitrate value of 0.3 mg/L at the property boundary with one (1) septic system producing septic black water effluent flows of 1000 L/day at nitrate concentrations of 40 mg/L (i.e. conventional septic systems). This estimate is less than the 10 mg/L required and accordingly it is concluded that there are no anticipated long-term impacts of the septic system to the groundwater supply of the surrounding area.

[8] Environment and Climate Change Canada. (2025). *Petawawa Ontario Weather Station: Canadian Climate Normals 1991-2020 Station Data*. Accessed from < https://climate.weather.gc.ca/climate_normals/results_1991_2020_e.html?searchType=stnProx&txtRadius=50&selCity=&selPark=&txtCentralLatDeg=&txtCentralLatMin=0&txtCentralLatSec=0&txtCentralLongDeg=&txtCentralLongMin=0&txtCentralLongSec=0&optProxType=decimal&txtLatDecDeg=45.6408&txtLongDecDeg=-77.10007&stnID=193000000&dispBack=0>.

It is understood that the minimum setback from surface water features for construction of septic systems is 15 m based on Ontario Building Code (Tables 8.2.1.6 A and B), and 30 m for various official plans and zoning policies. Based on the current site plans provided by the client, the septic system will be approximately 60 m from the shoreline of Golden Lake, which is the nearest surface water feature. This distance is suitable for attenuation, and therefore there are no anticipated impacts to the lake or surface water features. The surface water features and the proposed development are shown on **Figure 2**.

As there are no anticipated impacts to groundwater or surface water from the installation of a septic system, it is determined that the site can accommodate the proposed development.

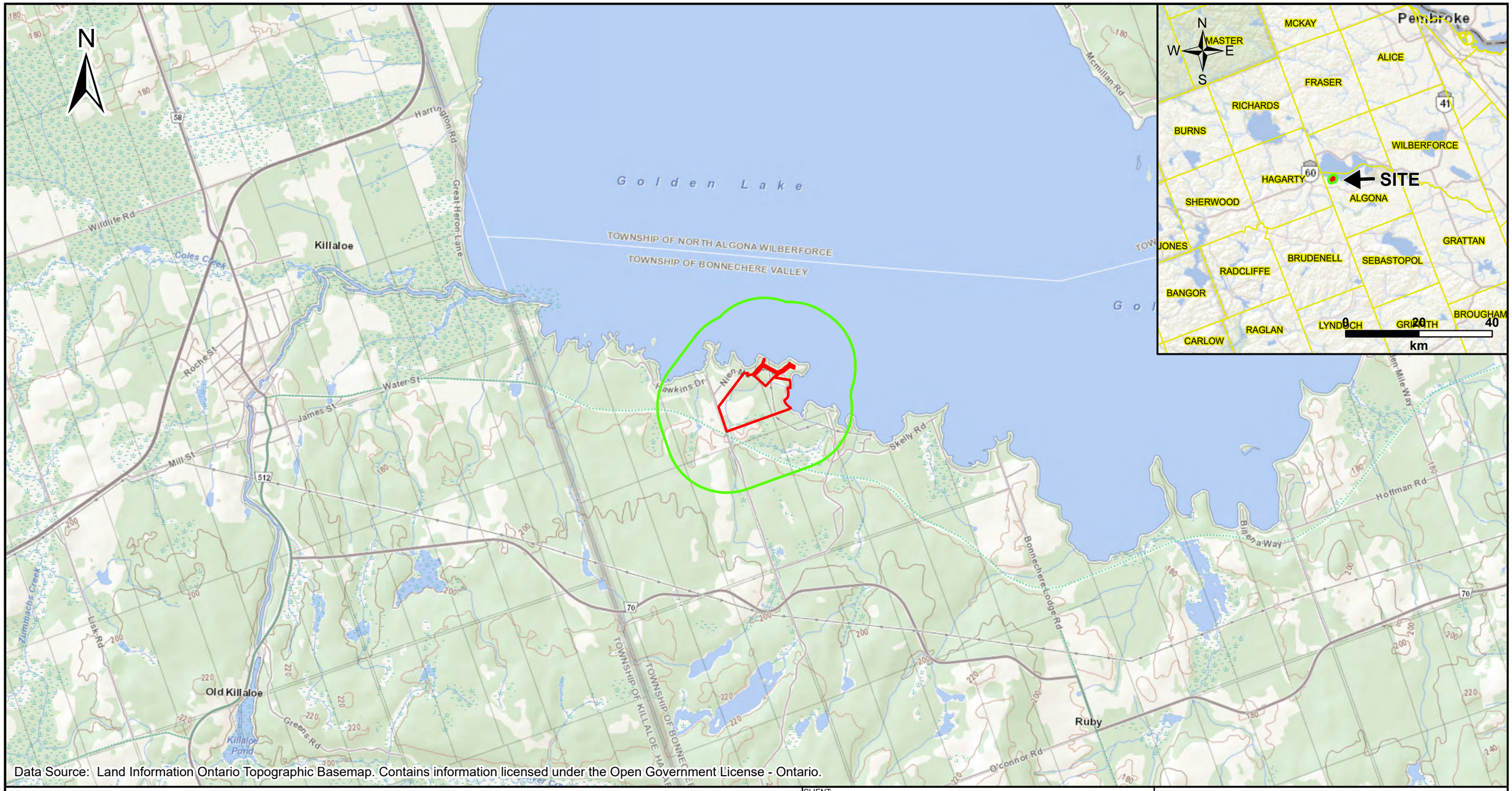
6.0 CONCLUSIONS

- The Site is located on Gorman Road in the Township of Bonnechere Valley, Renfrew County, Ontario.
- The total property area is approximately 18.32 hectares and it is proposed to develop an area of approximately 0.5 hectares to include three (3) geodesic domes for use as a tourist establishment. It is proposed for the 3 domes to share one well and one septic system.
- Based on a review of water well records in the surrounding area and on residential well survey results, the bedrock at the Site is expected to be water bearing and has been demonstrated to produce sufficient yield to satisfy the water quantity requirements of Procedure D-5-5 for the proposed development.
- Water quality samples were collected from two (2) wells near the Site located at 1376 Gorman Road:
    - South Well, Well ID 7112058 (A073517) - completed in granite to 54.9 m depth
    - North Well, Well ID 7203262 (A132532) - completed in granite to 87.2 m depth
- The groundwater quality samples collected are assumed to be representative of what will be encountered in a new drilled well at the Site, and the results were compared to the Ontario Drinking Water Standards, Objectives and Guidelines (ODWSOG) to identify exceedances of any health-related maximum acceptable concentrations (MACs), aesthetic objectives (AOs) and operational guidelines (OGs). The results indicated no health-related MAC exceedances apart from sodium levels that are high for sodium-reduced diets. AO and OG exceedances were identified for manganese, hardness, total dissolved solids, hardness, temperature, and apparent colour. Hardness can be treated with a water softener. Total dissolved solids, manganese, and apparent colour are each expected to be treatable using a sediment filter. It is recommend that a water softener and sediment filter be installed for the proposed well. Only unsoftened water lines should be used for drinking and culinary purposes. Sodium levels above 20 mg/L could be encountered and it is recommended to disclose this information to future residents who may be on sodium-reduced diets and inform the medical officer of health so that they can inform local physicians.
- Based on our assessments of groundwater quantity and quality in comparison to MECP Procedure D-5-5 requirements, the Site is expected to be able to produce a drilled well that can produce an adequate and potable groundwater supply to support the proposed development.
- Based on the application of MECP Procedure D-5-4 Contaminant Attenuation Consideration, the Site area is sufficient to attenuate the septic impacts generated by the proposed development.

7.0 RECOMMENDATIONS

- Any new wells should be drilled into the bedrock and cased and grouted to a minimum of 6 m below ground surface in accordance with O.Reg. 903. Any new wells should be regularly inspected and maintained according to the Best Management Practices (BMP) guidance documentation for wells. Any new wells should each be developed to a sediment free state to reduce groundwater turbidity to acceptable levels prior to connection to a residence plumping system.
- Install a water softener and sediment filter for use with the proposed drilled well. The water softener is recommended to treat hardness, and the sediment filter is recommended to treat manganese, total dissolved solids, and apparent colour. An unsoftened water line is required for any faucets intended for drinking or culinary purposes. Maintenance of any treatment systems will be the responsibility of the owner.
- Disclose the sodium concentration if it is found to exceed 20 mg/L. A sodium concentration above 20 mg/L in drinking water is a health concern for individuals on low-sodium diets.
- New sewage disposal systems need to be designed and installed in accordance with the Ontario Building Code and local building authority requirements.
- Inspect yearly the on-site wastewater system and incorporate appropriate system management programs to minimize the risk of failure and impact to the groundwater.
- Implement best management practices such as regular pumping of the septic system, cursory inspection of break-out, and consideration as to what materials are being discharged to the septic system.

Figures



Data Source: Land Information Ontario Topographic Basemap. Contains information licensed under the Open Government License - Ontario.

LEGEND:

- Property Boundary (Site)
- 500 m Buffer (Study Area)

CLIENT: **CHAD WILTON**

REPORT: **HYDROGEOLOGICAL STUDY**

GORMAN ROAD PROPOSED TOURIST ESTABLISHMENT
PART LOT 29 & 30, CONCESSION 12, SOUTH ALGONA
TOWNSHIP OF BONNECHERE VALLEY, ONTARIO

FIGURE TITLE: **REGIONAL SITE MAP**

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JP2G REF NO.:	DRAWN:	REVIEWED/APPROVED:
25-7036A	SM	KM/SM
DATE:	SCALE:	DRAWING NO.:
JULY 2025	1:30,000	FIGURE 1

LEGEND:

- Property Boundary (Site)
- Driveway
- Proposed Geodesic Dome Locations
- Proposed Septic System
- Proposed Drilled Well
- Road
- Watercourse
- Wetland (Unevaluated)
- Waterbody

0 45 90 180
Meters

Datum and Projection: NAD83 UTM Zone 18N

CLIENT: **CHAD WILTON**

REPORT: **HYDROGEOLOGICAL STUDY**

GORMAN ROAD PROPOSED TOURIST ESTABLISHMENT
PART LOT 29 & 30, CONCESSION 12, SOUTH ALGONA
TOWNSHIP OF BONNECHERE VALLEY, ONTARIO

FIGURE TITLE: **LOCAL SITE MAP**

Jp2g Consultants Inc.
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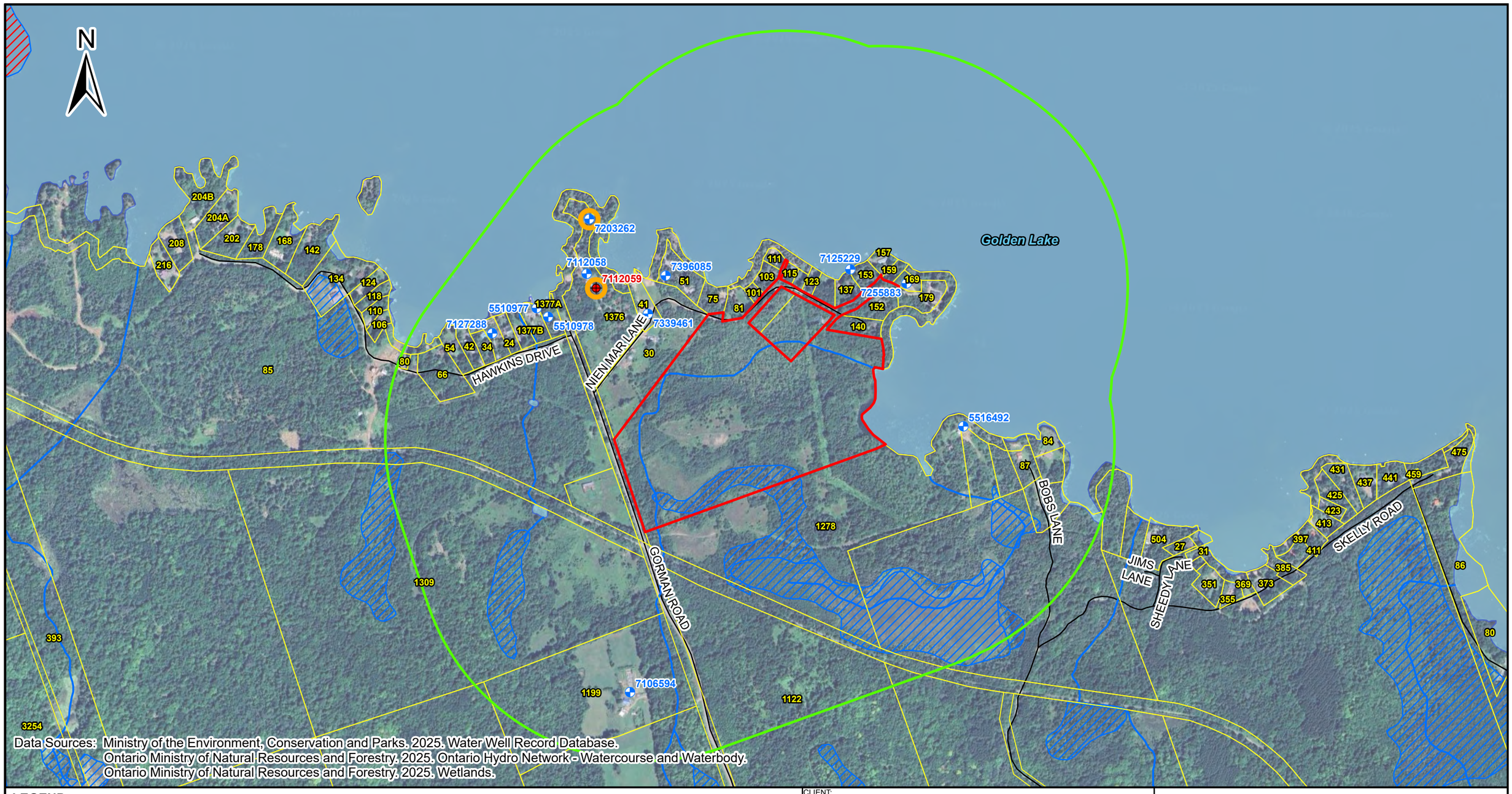
JP2G REF NO.:	DRAWN:	REVIEWED/APPROVED:
25-7036A	SM	KM/SM
DATE:	SCALE:	DRAWING NO.:
JULY 2025	1:3,500	FIGURE 2



Data Sources: Ministry of the Environment, Conservation and Parks. 2025. Water Well Record Database.
Ontario Ministry of Natural Resources and Forestry. 2025. Ontario Hydro Network - Watercourse and Waterbody.
Ontario Ministry of Natural Resources and Forestry. 2025. Wetlands.

LEGEND:

- Property Boundary (Site)
- 500 m Buffer (Study Area)
- Road
- MECP Water Supply Well
- Abandoned Well Record
- Groundwater Sample Location
- County of Renfrew Property Lines
- Waterbody
- Watercourse
- Wetland (Unevaluated)
- Wetland (Provincially Significant)

0 100 200 400
Meters

Datum and Projection: NAD83 UTM Zone 18N

CLIENT: **CHAD WILTON**

REPORT: **HYDROGEOLOGICAL STUDY**

GORMAN ROAD PROPOSED TOURIST ESTABLISHMENT
PART LOT 29 & 30, CONCESSION 12, SOUTH ALGONA
TOWNSHIP OF BONNECHERE VALLEY, ONTARIO

FIGURE TITLE: **MECP WATER WELL RECORDS**

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JP2G REF NO.:	DRAWN:	REVIEWED/APPROVED:
25-7036A	SM	KM/SM
DATE:	SCALE:	DRAWING NO.:
JULY 2025	1:8,000	FIGURE 3

Appendix A

Official Plan Policies

Sewage Treatment Facility Capacity	**Separation Distance**
= or < 500 m3/day	100 metres
> 500 m3/day or <25,000 m3/day	Minimum 100 metres Recommended 150 metres
> 25,000 m3/day	Greater than 150 metres Site specific Assessment
Waste stabilization ponds/lagoons	Site Specific Assessment Between 100 and 400 metres

(Section 2.2) (4) **Commercial, Industrial and Institutional Uses**

The following provisions shall apply to the establishment of any commercial, industrial or institutional use:

(a) all new uses/buildings should have direct access to a public road (or a common element access) and be set back from adjacent road allowances a sufficient distance to permit vehicle parking and maneuvering clear of any road allowance;

(b) adequate off-street vehicle loading and parking spaces shall be provided;

(c) access points to such parking and loading areas shall be limited in number and designed to minimize the danger to vehicular and pedestrian traffic;

(d) buffering, including minimum separation distances, shall be provided in accordance with the relevant Section(s) of this Plan, to ensure that any negative impacts upon adjoining lands are mitigated;

(e) no use shall be permitted which is an obnoxious trade, business or manufacture under the Health Protection and Promotion Act and the Environmental Protection Act or which is obnoxious by reason of the emission of odour, dust, smoke, noise or vibrations;

(f) wherever possible, the use shall not be located on agricultural lands classified Class 1 to 3 under the Canada Land Inventory for Agriculture and should not negatively impact on any nearby farm operation;

(g) where appropriate, the proponent may be required, to prepare a servicing options report undertaken for the purpose of determining the preferred servicing alternative for the proposed development;

(h) if a private water supply is proposed, an adequate and potable water supply shall be available. It shall be the responsibility of the

applicant to provide a report on the adequacy of the water supply, if required by the approval authority or any other agency;

(i) if a private water supply is proposed, soils shall be suitable or made suitable to support an individual waste disposal system subject to the approval of the authority having jurisdiction;

(j) if a private water and/or a private sewage service is proposed, it shall be demonstrated that the site conditions are suitable for the long-term provision of such services with no negative impacts, in accordance with Section 2.2(12) of this Plan.

(k) unless pre-zoned, all new commercial uses, institutional uses, and industrial uses shall require an amendment to a local zoning by-law, or the removal of the Holding-h symbol in the local zoning by-law. The removal of the Holding symbol from a local zoning by-law will be in accordance with Section 17.6 of this Plan or an approved local Official Plan;

(l) Industrial Minimum Separation Distance and Influence Area

(1) In accordance with the Ministry of Environment and Climate Change Guideline D-6, the minimum separation distances from industrial uses are outlined below. The minimum distance separations may be increased or decreased in accordance with the D-6 Guideline. This guideline does not apply to pits and quarries which are subject to site-specific studies.

i. Class I – 20 metres

A place of business for a small scale, self contained plant or building which produces/stores a product which is contained in a package and has low probability of fugitive emissions. Outputs are infrequent, and could be point source or fugitive emissions for any of the following: noise, odour, dust and/or vibration. There are daytime operations only, with infrequent movement of products and/or heavy trucks and no outside storage.

ii. Class II – 70 metres

A place of business for medium scale processing and manufacturing with outdoor storage or wastes or materials (i.e. it has an open process) and/or there are periodic outputs of minor annoyance. There are occasional outputs of either point source or fugitive emissions for any of the following: noise, odour, dust and/or vibration, and low probability of fugitive emissions. Shift operations are permitted and there is frequent movement of products and/or heavy trucks during daytime hours.

sediments and the destruction of fish habitat. Any such dredging or filling shall require the prior approval of the Ministry of Natural Resources and Forestry and the Federal Department of Fisheries and Oceans.

(i) Temporary Uses and Structures adjacent to Inland Lakes

Temporary uses such as the seasonal use of recreational vehicles on lots adjacent to inland lakes can negatively impact lake water quality and pose a risk to public health and safety. Local municipalities are encouraged to develop measures to address temporary uses and structures (such as recreational vehicles) on lots adjacent to lakes, with the objective of protecting, improving, or restoring the quality of lake water, and protecting human health.

(Section 2.2) (12) Servicing Policies

(a) In accordance with the Provincial Policy Statement, development should be serviced in consideration of the following preferred hierarchy of services:

i. full municipal sewage and water services are the preferred form of servicing for urban areas. In areas serviced by full municipal sewage and water services, development will be permitted only if sufficient uncommitted reserve water and sewage plant capacity will be available to accommodate it;
ii. private communal services are the preferred means of servicing development in areas where full municipal sewage and water services are not or cannot be provided and where site conditions are suitable over the long term with no negative impacts as defined in subsection (f) below;
iii. development may be serviced by individual on-site systems where the use of communal systems is not feasible and where site conditions are suitable over the long term with no negative impacts. In settlement areas, these services may only be used for infilling and minor rounding out of existing development; and
iv. partial services shall only be permitted in the following circumstances:
    a. Where they are necessary to address failed individual on-site sewage services and individual on-site water services in existing development; and
    b. Within settlement areas, to allow for minor infilling and rounding out of existing development on partial services provided that:
        1. The development is within the reserve sewage system capacity and reserve water system capacity; and
        2. Site conditions are suitable for the long-term provision of such services with no negative impacts.

(b) Developers are responsible for the cost of installing all services in new developments and will be required to contribute to the costs of trunk mains and of lighting for access roads. Servicing easements shall be provided, as necessary, and developers should provide for these when preparing plans.

(c) Private Communal Sewage Services means a sewage work within the meaning of Section 1 of the Ontario Water Resources Act that services six or more lots or private residences and is not owned by a municipality.

Private Communal Water Services means a non-municipal drinking-water system within the meaning of Section 2 of the Safe Drinking Water Act that services six or more lots or private residences.

The establishment of communal services may require a Municipal Responsibility Agreement. A Municipal Responsibility Agreement, where required by MECP, is between the local municipality and the service owner. The agreement requires the municipality to take ownership of a system in the event of default.

This policy is an enabling policy to allow the municipality to consider development that may require a Municipal Responsibility Agreement. This policy does not obligate a Municipality to enter into a Municipal Responsibility Agreement with a developer or to approve development that may trigger the need for a Municipal Responsibility Agreement.

The municipality may, at its discretion, require securities, adequate in form and content and to the satisfaction of the municipality before development triggering the need for a Municipal Responsibility Agreement is permitted to proceed.

(d) In support of a Planning Act application that would permit development on privately owned and operated individual or communal septic systems and more than 4500 litres of effluent would be produced per day as a result of the development being completed, a servicing options report and a hydrogeological report shall be required to be submitted with the application.

(e) Ministry of Environment and Climate Change approval is required for large sub-surface sewage systems with a design capacity of greater than 10,000 litres per day. MECP's Guideline B7 – Reasonable Use applies in relation to the assessment of off-site impacts to bordering properties.

(f) In regards to Section 2.2(12)(a) negative impact means degradation to the quality and quantity of water, sensitive water features and sensitive groundwater features, and their related hydrologic functions, due to single, multiple, or successive development or site alteration activities. A hydrogeological evaluation may be required to be submitted in support of planning applications based on certain criteria. The hydrogeological evaluation shall include confirmation of a suitable potable source of water for both quality (in accordance with the Ontario Drinking Water Quality Standards) and quantity and the evaluation will include confirmation that the site is suitable for the installation of a septic system. The evaluation shall include a nitrate impact calculation.

Criteria when a hydrogeological evaluation should be undertaken:

i. The proposed severed/retained lot size is less than approximately 1 hectare (2.5 acres); or
ii. The proposed severed/retained lot is within an area of known poor water quality or quantity; or
iii. The proposed severed/retained lot is within an area serviced by well and septic where the density of surrounding lots (within 200 metres) is higher than 1 dwelling per hectare; or
iv. The proposed use of the lot is industrial or commercial.

The submitted hydrogeological evaluation may be subject to peer review at the discretion of the approval authority and at the cost of the applicant/proponent.

(g) The MOE Ontario Drinking Water Quality Standards (ODWQS) establishes the provincial standards for the quality of drinking water for both health and aesthetic values. In certain situations water treatment may be required in order for the source water to meet the provincial drinking standards. Only whole home treatment systems (as opposed to single-tap) are permitted. Reverse Osmosis (RO) units will not be accepted as a suitable individual private water treatment system. (This policy is not intended to limit the use of reverse osmosis systems in existing homes that may need additional water treatment.)

(h) Approval of new lots shall include sufficient off-site reserve sewage system capacity for treatment of hauled sewage (septage), which shall include the treatment or disposal (land application) of hauled sewage at MECP approved sites.

(i) Lot creation will only be permitted if there is confirmation of sufficient reserve sewage system capacity and reserve water

system capacity within municipal sewage services and municipal water services or private communal sewage services and private communal water services. The determination of sufficient reserve sewage system capacity shall include capacity at MECP approved sites for hauled sewage from private communal sewage services and individual on-site sewage services.

(j) All municipal drinking water systems are required to obtain an approval under the Safe Drinking Water Act. Written consent of a municipality is required for non-municipal systems that will serve six or more private residences or for an existing system that is extended to service a major residential development. A municipality may require financial assurance as a condition of consent.

(13) Nutrient Management

Nutrients are materials such as manure, commercial fertilizers, biosolids generated by municipal sewage treatment, septage, and pulp and paper sludge that are applied to land for the purpose of improving the growing of agricultural crops. The safe and effective management of land-applied materials containing nutrients safeguards the environment and protects surface and ground water sources.

Land application of manure, biosolids and septage is regulated by the Province in accordance with the Nutrient Management Act and the Environmental Protection Act. Land application of manure, bio-solids and septage will follow the requirements of the above noted legislation, and the regulations made under those Acts. See subsection (18) for additional policies regarding hauled septage disposal sites.

(14) Public and Institutional Uses

(a) Public uses may include educational, institutional, administrative, cultural and recreational uses which are public in nature and are owned and/or operated by a public authority to fulfill its role in providing for the health, education, welfare and convenience of the residents of the County.

(b) Public uses shall be permitted within all land use designations except the Agriculture and Environmental Protection designations under the Plan subject to certain conditions:

i. the site design and the design of the buildings and structures must be in keeping with the character of the surrounding area and the use will not detract from the primary function of the area; and
ii. off-street parking shall be adequately provided.

(Section 2.2) (5) Recreational or open space uses (such as golf courses, ski trails, whitewater rafting) or tourism-related development such as theme parks are permitted and may be expanded, provided the following criteria are met:

(a) the impact on other recreational uses along a water body are considered;

(b) the reasonably anticipated effects of development on rural and recreational characteristics and on natural features and functions are assessed in accordance with the terms of subsection 2.2(8) and 2.2(23) of this Plan, where appropriate, and are acceptable;

(c) the aesthetic appearance of the proposed development is assessed and acceptable;

(d) the long-term suitability of the site for communal services or individual on-site systems to accommodate proposed uses is demonstrated through appropriate site servicing studies;

(e) the long-term public costs of infrastructure, public services and public service facilities are assessed and are acceptable;

(f) the land is rezoned to a separate classification in the local zoning by-law;

(g) the rezoning application should be accompanied by a site plan depicting all buildings, structures, works and facilities, landscaping and buffering proposed for the subject lands, as well as all natural features, including all watercourses, slopes, etc.;

(h) the relevant policies of the General Policies for Development Section of this Plan are adhered to;

(i) development shall not negatively impact upon significant natural heritage features, such as significant wildlife habitat, and fish and fish habitat, through activities such as dredging or filling, the removal of shoreline vegetation or the construction of buildings and structures;

(j) development shall satisfy the requirements of any relevant federal and provincial legislation, and regulations and policies made thereunder, e.g., the Canada Fisheries Act, the Federal Fish Habitat Policy, the Endangered Species Act, Public Lands Act, etc;

(k) the approval of a significant freehold residential development that is proposed in association with or as a part of a recreation and/or

Appendix B

Water Well Records

Water Well Records

Wednesday, July 9, 2025
3:29:14 PM

TOWNSHIP CON L	UTM	DATE CN	CASING DIA	WATER	PUMP TEST	WELL US	SCREEN	WELL	FORMATION
GRATTAN TOWNSHIP 11 031	18 315243 5046701 W	2008/06 3651	6.25	UT 0150	26/32/10/1:	DO		7106594 (Z92871) A070358	BRWN LOAM SAND GRVL 0005 GREY GRNT 0100 BLCK GRNT 0160
SOUTH ALGONA TOWNSHI CON 12 029	18 315847 5047595 W	2015/10 6923	6.25	UT 0180 UT 0210	17/152/5/1:0	DO		7255883 (Z213771) A167071	BRWN SAND BLDR 0012 BRWN BLDR GRNT 0017 GREY GRNT LYRD 0225
SOUTH ALGONA TOWNSHI CON 12 029	18 315724 5047625 W	2009/05 3651	6.25	UT 0068 UT 0070	2/20/10/1:0	DO		7125229 (Z88626) A076340	BRWN LOAM GRVL SAND 0009 GREY GRNT 0080
SOUTH ALGONA TOWNSHI CON 12 030	18 315321 5047612 W	2021/06 6923	6.25	UT 0065 UT 0070	12/30/12/1:	DO		7396085 (Z346115) A304759	BRWN SAND 0003 GREY GRNT 0105
SOUTH ALGONA TOWNSHI CON 12 030	18 315282 5047528 W	2019/05 6923	6.25	UT 0155	6/82/12/1:0	DO		7339461 (Z292234) A231443	BRWN SAND STNS 0006 RED GRNT LYRD 0160
SOUTH ALGONA TOWNSHI CON 12 030	18 315154 5047735 W	2013/06 6923	6.25	UT 0100	6/69/8/1:0	PS CO		7203262 (Z160265) A132532	BRWN SAND 0004 GREY GRNT FCRD 0007 GREY GRNT LYRD 0286
SOUTH ALGONA TOWNSHI CON 12 030	18 315148 5047616 W	2008/08 3611	6.25 6	UT 0057 UT 0152	12/64/10/1:10	DO		7112058 (Z87039) A073517	GREY SAND HPAN 0007 RED GRNT 0057 GREY FCRD 0058 GREY GRNT 0180
SOUTH ALGONA TOWNSHI CON 12 031	18 314942 5047486 W	2009/07 3651	6.25	UT 0140	30/34/10/1:	DO		7127288 (Z103298) A086504	BRWN SAND LOAM STNS 0002 BLCK GRNT 0160
SOUTH ALGONA TOWNSHI CON 12 031	18 315064 5047522 W	1992/07 3611	6 6	FR 0041	7/50/12/1:0	DO		5510978 (102953)	BRWN SAND FILL 0005 GREY SAND 0020 RED GRNT 0040 RED GRNT 0042 GREY GRNT 0051
SOUTH ALGONA TOWNSHI CON 12 032	18 315039 5047541 W	1992/07 3611	6 6	FR 0040	12/100/2/0:0	DO		5510977 (102952)	BRWN SAND 0001 GREY GRNT 0035 RED GRNT 0040 BLCK GRNT SHST 0053 RED GRNT 0058 GREY GRNT 0075 RED GRNT 0101
SOUTH ALGONA TOWNSHI CON 29 030	18 315971 5047282 W	2006/07 3651	6.26	FR 0125	13/28/8/1:	DO		5516492 (Z47289) A042285	BRWN SAND STNS 0003 BLCK GRNT 0042 GREY GRNT LTCL 0140

Notes:
UTM: UTM in Zone, Easting, Northing and Datum is NAD83; L: UTM estimated from Centroid of Lot; W: UTM not from Lot Centroid
DATE CNTR: Date Work Completedand Well Contractor Licence Number
CASING DIA: .Casing diameter in inches
WATER: Unit of Depth in Fee. See Table 4 for Meaning of Code
PUMP TEST: Static Water Level in Feet / Water Level After Pumping in Feet / Pump Test Rate in GPM / Pump Test Duration in Hour : Minutes
WELL USE: See Table 3 for Meaning of Code
SCREEN: Screen Depth and Length in feet
WELL: WEL (AUDIT #) Well Tag . A: Abandonment; P: Partial Data Entry Only

1. Core Material and Descriptive t

Code	Description	Code	Description	Code	Description	Code	Description	Code	Description
BLDR	BOULDERS	FCRD	FRACTURED	IRFM	IRON FORMATION	PORS	POROUS	SOFT	SOFT
BSLT	BASALT	FGRD	FINE-GRAINED	LIMY	LIMY	PRDG	PREVIOUSLY DUG	SPST	SOAPSTONE
CGRD	COARSE-GRAINED	FGVL	FINE GRAVEL	LMSN	LIMESTONE	PRDR	PREV. DRILLED	STKY	STICKY
CGVL	COARSE GRAVEL	FILL	FILL	LOAM	TOPSOIL	QRTZ	QUARTZITE	STNS	STONES
CHRT	CHERT	FLDS	FELDSPAR	LOOS	LOOSE	QSND	QUICKSAND	STNY	STONEY
CLAY	CLAY	FLNT	FLINT	LTCL	LIGHT-COLOURED	QTZ	QUARTZ	THIK	THICK
CLN	CLEAN	FOSS	FOSILIFEROUS	LYRD	LAYERED	ROCK	ROCK	THIN	THIN
CLYY	CLAYEY	FSND	FINE SAND	MARL	MARL	SAND	SAND	TILL	TILL
CMTD	CEMENTED	GNIS	GNEISS	MGRD	MEDIUM-GRAINED	SHLE	SHALE	UNKN	UNKNOWN TYPE
CONG	CONGLOMERATE	GRNT	GRANITE	MGVL	MEDIUM GRAVEL	SHLY	SHALY	VERY	VERY
CRYS	CRYSTALLINE	GRSN	GREENSTONE	MRBL	MARBLE	SHRP	SHARP	WBRG	WATER-BEARING
CSND	COARSE SAND	GRVL	GRAVEL	MSND	MEDIUM SAND	SHST	SCHIST	WDFR	WOOD FRAGMENTS
DKCL	DARK-COLOURED	GRWK	GREYWACKE	MUCK	MUCK	SILT	SILT	WTHD	WEATHERED
DLMT	DOLOMITE	GVLY	GRAVELLY	OBDN	OVERBURDEN	SLTE	SLATE		
DNSE	DENSE	GYPS	GYPSUM	PCKD	PACKED	SLTY	SILTY		
DRTY	DIRTY	HARD	HARD	PEAT	PEAT	SNDS	SANDSTONE		
DRY	DRY	HPAN	HARDPAN	PGVL	PEA GRAVEL	SNDY	SANDYOAPSTONE		

2. Core Color

Code	Description
WHIT	WHITE
GREY	GREY
BLUE	BLUE
GREN	GREEN
YLLW	YELLOW
BRWN	BROWN
RED	RED
BLCK	BLACK
BLGY	BLUE-GREY

3. Well Use

Code	Description	Code	Description
DO	Domestic	OT	Other
ST	Livestock	TH	Test Hole
IR	Irrigation	DE	Dewatering
IN	Industrial	MO	Monitoring
CO	Commercial	MT	Monitoring TestHole
MN	Municipal		
PS	Public		
AC	Cooling And A/C		
NU	Not Used		

4. Water Detail

Code	Description	Code	Description
FR	Fresh	GS	Gas
SA	Salty	IR	Iron
SU	Sulphur		
MN	Mineral		
UK	Unknown		

Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

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

11 — 5510977 — MUNICIP 55033 — CON. CON 12

COUNTY OR DISTRICT: [redacted] — TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: ALGOMA — CON. BLOCK, TRACT, SURVEY, ETC.: 12 — LOT: 32

[redacted] 1844 Lorraine Ave. Hawk Ont. K1H-628

DATE COMPLETED: DAY 16 MO 7 YR 92

ELEVATION — BASIN CODE

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	TO
BRN	SAND			0	1
GRY	GRANITE		AVERAGE	1	35
RED, GRY	"		"	35	40
BLK	MICA SCHIST		FAST AVERAGE	40	53
RED, GRY	GRANITE		AVERAGE	53	58
DRK GRY	"		"	58	75
RED	"		"	75	101

31 — 32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
40	1 ☐ FRESH 2 ☑ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	TO
6 1/4	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC	188	0	20
6"	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC	-	20	101
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC			

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 FROM	TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)
0	20	PORTLAND

71 PUMPING TEST

PUMPING TEST METHOD: 1 ☐ PUMP AIR 2 ☐ BAILER — PUMPING RATE: 2 GPM — DURATION OF PUMPING: HOURS MINS

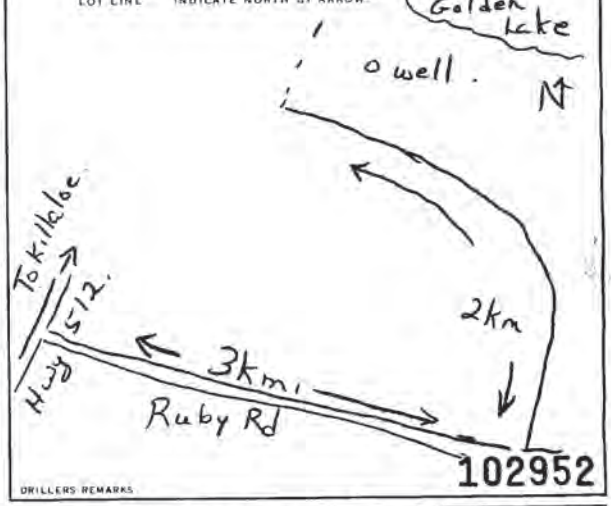
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING: 1 ☐ PUMPING 2 ☑ RECOVERY — 15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
12 FEET	100 FEET	76 FEET	52 FEET	30 FEET	15 FEET

IF FLOWING, GIVE RATE: — GPM — PUMP INTAKE SET AT: 100 FEET — WATER AT END OF TEST: 1 ☑ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE: ☐ SHALLOW ☑ DEEP — RECOMMENDED PUMP SETTING: 95 FEET — RECOMMENDED PUMPING RATE: 4 GPM

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



102952

DRILLERS REMARKS

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 ☐ DEWATERING

WATER USE

1 ☑ DOMESTIC 2 ☐ STOCK 3 ☐ IRRIGATION 4 ☐ INDUSTRIAL ☐ OTHER 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 ☐ DIGGING ☐ OTHER

CONTRACTOR

NAME OF WELL CONTRACTOR: EARL V. MARQUARDT & SON INC — WELL CONTRACTOR'S LICENCE NUMBER: 3611

ADDRESS: RR#1 Box 86 PALMER RAPIDS ONT. K0J-2E0

NAME OF WELL TECHNICIAN: TERRY MARQUARDT — WELL TECHNICIAN'S LICENCE NUMBER: T0062

SIGNATURE OF TECHNICIAN/CONTRACTOR: Terry Marquardt — SUBMISSION DATE: DAY 15 MO 08 YR 92

OFFICE USE ONLY

DATA SOURCE — CONTRACTOR: 3611 — DATE RECEIVED: AUG 24 1992

DATE OF INSPECTION — INSPECTOR

REMARKS

MINISTRY OF THE ENVIRONMENT COPY

FORM NO. 0506 (11/86) FORM 9

Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

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

11 — 5510978 — MUNICIP 55033 — CON COK 12

COUNTY OR DISTRICT: [redacted]
TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: ALGOMA
CON, BLOCK, TRACT, SURVEY, ETC: 12
LOT: 31-32
533 GINIVA ST ST CATHARINES ONT L2N-2H7
DATE COMPLETED: DAY 15 MO 7 YR 92

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
BRN	SAND		FILL	0	5
GRY	SAND		FIRM	5	20
RED, GRY	GRANITE		AVERAGE	20	40
RED	"		"	40	42
GRY, RED	"		"	42	51

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
41	1 ☒ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
6 1/4	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC	188	0	205
6 1/16	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE 5 ☐ PLASTIC		20.5	51

SCREEN

SIZE 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 FROM	TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)
5	20	PORTLAND.

71 PUMPING TEST

PUMPING TEST METHOD: 1 ☐ PUMP AIR 2 ☐ BAILER
PUMPING RATE: 12 GPM — DURATION OF PUMPING: 1 HOURS ___ MINS
STATIC LEVEL: 7 FEET
WATER LEVEL END OF PUMPING: 50 FEET
WATER LEVELS DURING: 1 ☐ PUMPING 2 ☒ RECOVERY

15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
7 FEET	7 FEET	7 FEET	7 FEET

IF FLOWING GIVE RATE: ___ GPM
PUMP INTAKE SET AT: 50 FEET
WATER AT END OF TEST: 1 ☒ CLEAR 2 ☐ CLOUDY
RECOMMENDED PUMP TYPE: ☒ SHALLOW ☐ DEEP
RECOMMENDED PUMP SETTING: 35 FEET
RECOMMENDED PUMPING RATE: 10 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; ☐ DEWATERING

WATER USE

1 ☒ DOMESTIC; 2 ☐ STOCK; 3 ☐ IRRIGATION; 4 ☐ INDUSTRIAL; 5 ☐ COMMERCIAL; 6 ☐ MUNICIPAL; 7 ☐ PUBLIC SUPPLY; 8 ☐ COOLING OR AIR CONDITIONING; ☐ OTHER; 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; ☐ DIGGING; ☐ OTHER

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW

DRILLERS REMARKS:

CONTRACTOR

NAME OF WELL CONTRACTOR: EARL V. MARQUARDT & SON INC
WELL CONTRACTOR'S LICENCE NUMBER: 3611
ADDRESS: RR#1 Box 86 PALMER RAPIDS ONT K0J-2E0
NAME OF WELL TECHNICIAN: TERRY MARQUARDT
WELL TECHNICIAN'S LICENCE NUMBER: T0062
SIGNATURE OF TECHNICIAN/CONTRACTOR: Terry Marquardt
SUBMISSION DATE: DAY 15 MO 08 YR 92

OFFICE USE ONLY

DATA SOURCE — CONTRACTOR: 3611 — DATE RECEIVED: AUG 24 1992
DATE OF INSPECTION — INSPECTOR
REMARKS

MINISTRY OF THE ENVIRONMENT COPY

FORM NO. 0506 (11/86) FORM 9

Ontario Ministry of the Environment

Well T... A 042285 mber below)
A042285

Well Record
Regulation 903 Ontario Water Resources Act

page 1 of 1

Instructions for Completing Form

- For use in the **Province of Ontario** only. This document is a permanent **legal** document. Please retain for future reference.
- All Sections **must** be completed in full to avoid delays in processing. Further instructions and explanations are available on the back of this form.
- Questions regarding completing this application can be directed to the Water Well Management Coordinator at 416-235-6203.
- **All metre measurements shall be reported to 1/10th of a metre.**
- Please print clearly in blue or black ink only.

Ministry Use Only
MUN | CON | LOT

Well Owner's Information and Location of Well Information

[redacted]

Renfrew
RR#/Street Number/Name
1278 Gorman Rd.

Bonnechere Valley
City/Town/Village

pt 30, Con 11/pt 29&30
Site/Compartment/Block/Tract etc Con 12

GPS Reading NAD 83 | Zone 18 | Easting 315971 | Northing 5047282

Unit Make/Model: Garmin/Etrex

Mode of Operation: ☐ Undifferentiated ☒ Averaged ☐ Differentiated, specify

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Depth To
brown	sand	stones		0	0.9
black	granite		white seams	0.9	12.8
lt grey/red	granite			12.8	42.7

Hole Diameter

Depth From	Depth To	Diameter Centimetres
0	6.1	25.4
6.1	42.7	15.4

Water Record

Water found at Metres	Kind of Water		
38.1 m	☒ Fresh	☐ Sulphur	☐ Gas ☐ Salty ☐ Minerals ☐ Other:
___ m	☐ Fresh	☐ Sulphur	☐ Gas ☐ Salty ☐ Minerals ☐ Other:
___ m	☐ Fresh	☐ Sulphur	☐ Gas ☐ Salty ☐ Minerals ☐ Other:

After test of well yield, water was
☒ Clear and sediment free ☐ Other, specify

Chlorinated ☒ Yes ☐ No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Depth To
Casing				
15.9	☒ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	.48	0	6.1
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
Screen				
Outside diam	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	Slot No.		
No Casing or Screen				
	☒ Open hole		6.1	42.7

Test of Well Yield

Pumping test method: pump

	Draw Down Time min	Draw Down Water Level Metres	Recovery Time min	Recovery Water Level Metres
Pump intake set at - (metres) 21.3	Static Level	4.1		
Pumping rate - (litres/min) 36.4	1	4.9	1	7.6
Duration of pumping 1 hrs + ___ min	2	5.4	2	7.2
Final water level end of pumping 8.6 metres	3	5.8	3	6.9
Recommended pump type. ☐ Shallow ☒ Deep	4	6.0	4	6.6
Recommended pump depth. 30.5 metres	5	6.3	5	6.4
Recommended pump rate. 45.5 (litres/min)	10	6.9	10	5.8
	15	7.5	15	5.4
If flowing give rate - (litres/min)	20	7.7	20	5.2
	25	7.9	25	5.1
If pumping discontinued, give reason.	30	8.1	30	4.9
	40	8.4	40	4.7
	50	8.6	50	4.6
	60	8.6	60	4.5

Plugging and Sealing Record

☒ Annular space ☐ Abandonment

Depth set at - Metres From	Depth set at - Metres To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
0	6.1	Cement	4 bags

Method of Construction

☐ Cable Tool ☒ Rotary (air) ☐ Diamond ☐ Digging
☐ Rotary (conventional) ☐ Air percussion ☐ Jetting ☐ Other
☐ Rotary (reverse) ☐ Boring ☐ Driving

Water Use

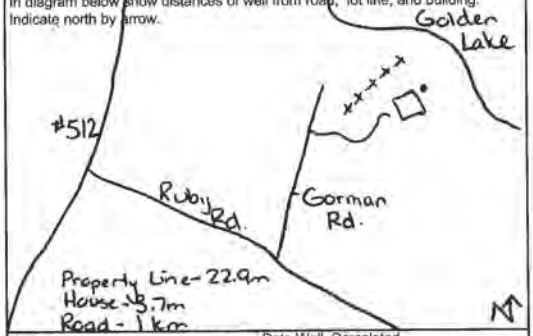
☒ Domestic ☐ Industrial ☐ Public Supply ☐ Other
☐ Stock ☐ Commercial ☐ Not used
☐ Irrigation ☐ Municipal ☐ Cooling & air conditioning

Final Status of Well

☒ Water Supply ☐ Recharge well ☐ Unfinished ☐ Abandoned, (Other)
☐ Observation well ☐ Abandoned, insufficient supply ☐ Dewatering
☐ Test Hole ☐ Abandoned, poor quality ☐ Replacement well

Location of Well

In diagram below show distances of well from road, lot line, and building. Indicate north by arrow.



Well Contractor/Technician Information

Name of Well Contractor: Bernard Marquardt & son Ltd.
Well Contractor's Licence No.: 3651
Business Address (street name, number, city etc.): Box 91, RR#1, Palmer Rapids, ON K0J 2E0
Name of Well Technician (last name, first name): Marquardt, Brad
Well Technician's Licence No.: T-2781
Signature of Technician/Contractor: [signature]
Date Submitted: 2006 08 22

Audit No. Z 47289
Was the well owner's information package delivered? ☒ Yes ☐ No
Date Well Completed: 2006 07 26
Date Delivered: 2006 07 26

Ministry Use Only

Data Source
Contractor: 3651
Date Received: AUG 16 2006
Date of Inspection
Remarks
Well Record Number

05082 (09/03) Contractor's Copy ☐ Ministry's Copy ☒ Well Owner's Copy ☐

Cette formule est disponible en français

Ontario — Ministry of the Environment

Measurements recorded in: ☐ Metric ☒ Imperial

Well Tag No. *(Place Sticker and/or Print Below)* A 070358

Well Record

Regulation 903 Ontario Water Resources Act

[redacted]

Address of Well Location (Street Number/Name)	Township	Lot	Concession
Gorman Rd.	Bonnechere Valley	pt 31	11
County/District/Municipality	**City/Town/Village**	**Province**	**Postal Code**
Renfrew		Ontario	
UTM Coordinates Zone / Easting / Northing	**Municipal Plan and Sublot Number**	**Other**	
NAD 8 3 1 8 3 1 5 2 4 3 5 0 4 6 7 0 1			

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	Depth (m/ft) To
dk brown	soil	sand, gravel		0	5
grey/red	granite			5	100
black	granite			100	160

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m^3/ft^3)
0	20	Cement	4 bags

Method of Construction

☐ Cable Tool ☐ Diamond
☒ Rotary (Conventional) ☐ Jetting
☐ Rotary (Reverse) ☐ Driving
☐ Boring ☐ Digging
☐ Air percussion
☐ Other, specify

Well Use

☐ Public ☐ Commercial ☐ Not used
☒ Domestic ☐ Municipal ☐ Dewatering
☐ Livestock ☐ Test Hole ☐ Monitoring
☐ Irrigation ☐ Cooling & Air Conditioning
☐ 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) From	Depth (m/ft) To
6 ¼	Steel	.188	0	20

Construction Record - Screen

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

Status of Well

☒ Water Supply
☐ Replacement Well
☐ Test Hole
☐ Recharge Well
☐ Dewatering Well
☐ Observation and/or Monitoring Hole
☐ Alteration (Construction)
☐ Abandoned, Insufficient Supply
☐ Abandoned, Poor Water Quality
☐ Abandoned, other, specify
☐ Other, specify

Water Details

Water found at Depth (m/ft)	Gas	Kind of Water	Other, specify
150'	☐	☐ Fresh ☒ Untested	
	☐	☐ Fresh ☐ Untested	
	☐	☐ Fresh ☐ Untested	

Hole Diameter

Depth (m/ft) From	To	Diameter (cm/in)
0	20	10"
20	160	6 1/8"

Results of Well Yield Testing

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

If pumping discontinued, give reason:

Pump intake set at (m/ft): 150'

Pumping rate (l/min / GPM): 10 gpm

Duration of pumping: 1 hrs + ____ min

Final water level end of pumping (m/ft): 31'9

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

Recommended pump depth (m/ft): 150'

Recommended pump rate (l/min / GPM): 10 gpm

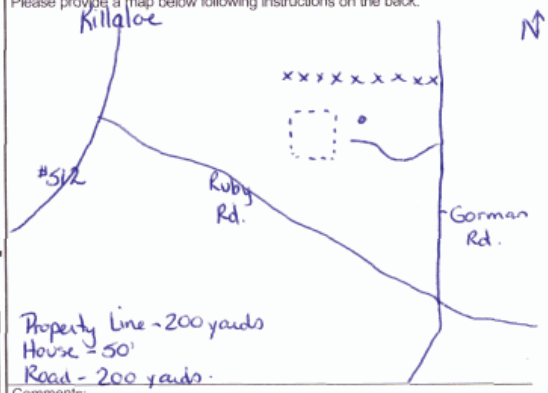
Well production (l/min / GPM): 10 gpm

Disinfected? ☒ Yes ☐ No

Draw Down Time (min)	Draw Down Water Level (m/ft)	Recovery Time (min)	Recovery Water Level (m/ft)
Static Level	25'8		
1	28'5	1	29'0
2	29'0	2	28'7
3	29'2	3	28'6
4	29'3	4	28'5
5	29'5	5	28'4
10	30'2	10	28'0
15	30'7	15	27'7
20	31'0	20	27'5
25	31'3	25	27'4
30	31'6	30	27'4
40	31'8	40	27'3
50	31'8	50	27'3
60	31'9	60	27'3

Map of Well Location

Please provide a map below following instructions on the back.



Comments:

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
Bernard Marquardt & Son Ltd.	3651
Business Address (Street Number/Name)	**Municipality**
18 Crescent Dr., RR#1	Palmer Rapids
Province	**Postal Code** / **Business E-mail Address**
ON	K0J2E0 bmarquardt@fyrelytte.net
Bus. Telephone No. (inc. area code)	**Name of Well Technician (Last Name, First Name)**
6137582238	Marquardt, Brad
Well Technician's Licence No.	**Signature of Technician and/or Contractor** / **Date Submitted**
2781	Bernard Marquardt

Well owner's information package delivered	Date Package Delivered	Date Work Completed
☐ Yes ☒ No		2008/06/05

Ministry Use Only

Audit No. Z 92871

Received JUN 18 2008

Ontario Ministry of the Environment

Measurements recorded in: ☐ Metric ☒ Imperial

Well T... (Below) **A 073517**

Well Record

Regulation 903 Ontario Water Resources Act

Page ____ of ____

[redacted]

Address of Well Location (Street Number/Name): 42 NIEN MAR LANE

Township: SOUTH ALGONA | 30 | 12

County/District/Municipality: RENFREW

City/Town/Village:

Province: Ontario

Postal Code: K0J2A0

UTM Coordinates: Zone | Easting | Northing

NAD 83 18 315148 5047616

Municipal Plan and Sublot Number:

Other:

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	Depth (m/ft) To
GREY, BROWN	SAND.		HARD PAN	0	7
RED, GREY	GRANITE		MEDIUM	7	57
GREY, RED	SEAM,		BRITTLE BROKEN	57	58
GREY	GRANITE			58	180

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
0	20	Bentonite grout	10

Method of Construction

☐ Cable Tool ☐ Diamond
☐ Rotary (Conventional) ☐ Jetting
☐ Rotary (Reverse) ☐ Driving
☐ Boring ☐ Digging
☒ Air percussion
☐ Other, specify

Well Use

☐ Public ☐ Commercial ☐ Not used
☒ Domestic ☐ Municipal ☐ Dewatering
☐ Livestock ☐ Test Hole ☐ Monitoring
☐ Irrigation ☐ Cooling & Air Conditioning
☐ 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) From	Depth (m/ft) To
6 1/4	steel	.188	+2	20
6			20	

Construction Record - Screen

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

Status of Well

☒ Water Supply
☐ Replacement Well
☐ Test Hole
☐ Recharge Well
☐ Dewatering Well
☐ Observation and/or Monitoring Hole
☐ Alteration (Construction)
☐ Abandoned, Insufficient Supply
☐ Abandoned, Poor Water Quality
☐ Abandoned, other, specify
☐ Other, specify

Water Details

Water found at Depth	Kind of Water	Hole Depth From	Hole Depth To	Hole Diameter (cm/in)
57 (m/ft) ☐ Gas ☐ Other, specify	☐ Fresh ☒ Untested	0	20	10
152 (m/ft) ☐ Gas ☐ Other, specify	☐ Fresh ☒ Untested	20	180	6
(m/ft) ☐ Gas ☐ Other, specify	☐ Fresh ☐ Untested			

Results of Well Yield Testing

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

If pumping discontinued, give reason: —

Pump intake set at (m/ft): 180

Pumping rate (l/min / GPM): 10

Duration of pumping: 1 hrs + 10 min

Final water level end of pumping (m/ft): 64.1

If flowing give rate (l/min / GPM): —

Recommended pump depth (m/ft): 175

Recommended pump rate (l/min / GPM): 8

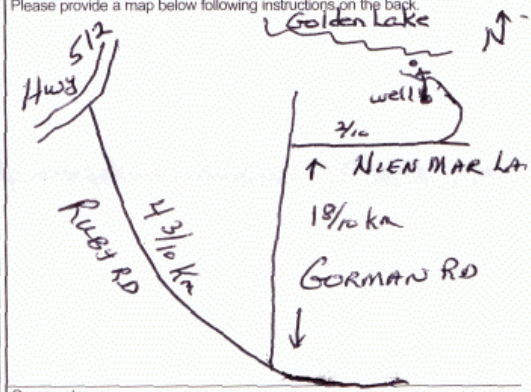
Well production (l/min / GPM): AIR 6

Disinfected? ☒ Yes ☐ No

	Draw Down Time (min)	Draw Down Water Level (m/ft)	Recovery Time (min)	Recovery Water Level (m/ft)
Static Level	11.8		62.6	
1	18.2	1	59.0	
2	22.6	2	55.9	
3	26.4	3	52.6	
4	29.6	4	49.9	
5	32.4	5	47.2	
10	42.2	10	37.2	
15	48.6	15	30.6	
20	53.2	20	26.0	
25	56.8	25	22.9	
30	59.4	30	20.5	
40	60.6	40	17.3	
50	61.8	50	15.8	
60	63.0	60	14.7	

Map of Well Location

Please provide a map below following instructions on the back.



Comments:

Well Contractor and Well Technician Information

Business Name of Well Contractor: EARL V. MARQUARDT & SON INC

Well Contractor's Licence No.: 3611

Business Address (Street Number/Name): RR1, 6442 Palmer Road

Municipality: Palmer Rapids

Province: ON

Postal Code: K0J2E0

Business E-mail Address: —

Bus. Telephone No. (inc. area code): 6137582200

Name of Well Technician (Last Name, First Name): MARQUARDT TERRY

Well Technician's Licence No.: T62

Signature of Technician and/or Contractor: Terry Marquardt

Date Submitted: 2008 08 18

Well owner's information package delivered: ☒ Yes ☐ No

Date Package Delivered: 2008 08 08

Date Work Completed: 2008 08 08

Ministry Use Only

Audit No. Z 87039

SEP 26 2008

Received

0506E (12/2007)

Ontario — Ministry of the Environment

Measurements recorded in: ☐ Metric ☒ Imperial

Well [illegible] nt Below) **A 073516**

Well Record

Regulation 903 Ontario Water Resources Act

Page ____ of ____

[redacted]

42 NIEN MAR LANE

Township: SOUTH ALGONA — 30 — 12

County/District/Municipality: RENFREW

City/Town/Village:

Province: Ontario — Postal Code: K0J2A0

UTM Coordinates: NAD 83 — Zone 18 — Easting 315169 — Northing 5047584

Municipal Plan and Sublot Number:

Other:

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
BROWN, GREY	CLAY, TILL	SAND	WET	0	18
RED GREY	GRANITE		MEDIUM	18	62
GREY	"		"	62	158
GREY, RED	"		"	158	164
GREY	"		"	164	198
PINK RED	"		"	198	200
RED, GRY	"		"	200	300

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
0	20	Bentonite Slurry	10

Method of Construction

☐ Cable Tool ☐ Diamond
☐ Rotary (Conventional) ☐ Jetting
☐ Rotary (Reverse) ☐ Driving
☐ Boring ☐ Digging
☒ Air percussion
☐ Other, specify X-DRILL

Well Use

☐ Public ☐ Commercial ☐ Not used
☒ Domestic ☐ Municipal ☐ Dewatering
☐ Livestock ☐ Test Hole ☐ Monitoring
☐ Irrigation ☐ Cooling & Air Conditioning
☐ 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) From	To
6 1/4	steel	.188	0	20
6	open hole	-	20	300

Construction Record - Screen

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

Status of Well

☐ Water Supply
☐ Replacement Well
☐ Test Hole
☐ Recharge Well
☐ Dewatering Well
☐ Observation and/or Monitoring Hole
☐ Alteration (Construction)
☒ Abandoned, Insufficient Supply
☐ Abandoned, Poor Water Quality
☐ Abandoned, other, specify
☐ Other, specify

Water Details

Water found at Depth (m/ft)	Kind of Water: ☐ Fresh ☒ Untested ☐ Gas ☐ Other, specify	Hole Diameter Depth From	To	Diameter (cm/in)
fractured		0	20	10
Water found at Depth (m/ft)	Kind of Water: ☐ Fresh ☐ Untested ☐ Gas ☐ Other, specify	20	300	6
Water found at Depth (m/ft)	Kind of Water: ☐ Fresh ☐ Untested ☐ Gas ☐ Other, specify			

Results of Well Yield Testing

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

If pumping discontinued, give reason: —

Pump intake set at (m/ft): 300

Pumping rate (l/min / GPM): 4

Duration of pumping: 1 hrs + 30 min

Final water level end of pumping (m/ft): 281

If flowing give rate (l/min-/ GPM): —

Recommended pump depth (m/ft): 295

Recommended pump rate (l/min / GPM): 4

Well production (l/min / GPM): 3/4

Disinfected? ☒ Yes ☐ No

Draw Down Time (min)	Water Level (m/ft)	Recovery Time (min)	Water Level (m/ft)
Static Level	10,2		278.0
1	14,3	1	277.2
2	18,4	2	276.6
3	22.7	3	276.0
4	25,9	4	275.4
5	29.4	5	274.8
10	46,2	10	271.6
15	64.2	15	268.5
20	81,4	20	265.4
25	90,0	25	262.3
30	105,9	30	259.2
40	133.2	40	253.2
50	160.4	50	247.2
60	187.6	60	241.0

Map of Well Location

Please provide a map below following instructions on the back.

Comments:

Well Contractor and Well Technician Information

Business Name of Well Contractor: EARL V. MARQUARDT & SON INC
Well Contractor's Licence No.: 3611

Business Address (Street Number/Name): RR1, 6442 Palmer Road
Municipality: Palmer Rapids

Province: ON — Postal Code: K0J2E0 — Business E-mail Address: —

Bus. Telephone No. (inc. area code): 6137582313
Name of Well Technician (Last Name, First Name): MARQUARDT TERRY

Well Technician's Licence No.: T62
Signature of Technician and/or Contractor: Terry Marquardt
Date Submitted: 2008/08/10

Well owner's information package delivered: ☒ Yes ☐ No
Date Package Delivered: 2008/08/08
Date Work Completed: 2008/08/08

Ministry Use Only
Audit No. Z 87040
Received SEP 26 2008

0506E (12/2007)

Ministry's Copy

Ontario — Ministry of the Environment

Measurements recorded in: ☐ Metric ☒ Imperial

Well Tag No. (Sticker) **A076340**

Well Record

Regulation 903 Ontario Water Resources Act

Well Owner's Information

First Name	Last Name / Organization	E-mail Address	☐ Well Constructed
[redacted]			

County/District/Municipality	City/Town/Village	Province	Postal Code
Renfrew		Ontario	

UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
NAD	18	315724	5047635		

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	Depth (m/ft) To
brown	soil	gravel, sand		0	9
lt grey-red	granite			9	80

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m^3/ft^3)
0	20	Cement	5 bags

Method of Construction

☐ Cable Tool ☐ Diamond
☒ Rotary (Conventional) ☐ Jetting
☐ Rotary (Reverse) ☐ Driving
☐ Boring ☐ Digging
☐ Air percussion
☐ Other, specify

Well Use

☐ Public ☐ Commercial ☐ Not used
☒ Domestic ☐ Municipal ☐ Dewatering
☐ Livestock ☐ Test Hole ☐ Monitoring
☐ Irrigation ☐ Cooling & Air Conditioning
☐ 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) From	Depth (m/ft) To
6¼	Steel	.188	+2	20

Construction Record - Screen

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

Status of Well

☒ Water Supply
☐ Replacement Well
☐ Test Hole
☐ Recharge Well
☐ Dewatering Well
☐ Observation and/or Monitoring Hole
☐ Alteration (Construction)
☐ Abandoned, Insufficient Supply
☐ Abandoned, Poor Water Quality
☐ Abandoned, other, specify
☐ Other, specify

Water Details

Water found at Depth	Kind of Water	Hole Diameter Depth (m/ft) From	Depth (m/ft) To	Diameter (cm/in)
68' (m/ft) ☐ Gas	☐ Fresh ☒ Untested ☐ Other, specify			
Water found at Depth 70' (m/ft) ☐ Gas	Kind of Water: ☐ Fresh ☒ Untested ☐ Other, specify	0	20	10"
Water found at Depth (m/ft) ☐ Gas	Kind of Water: ☐ Fresh ☐ Untested ☐ Other, specify	20	80	6"

Results of Well Yield Testing

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

If pumping discontinued, give reason:

Pump intake set at (m/ft): 70'

Pumping rate (l/min / GPM): 10 gpm

Duration of pumping: 1 hrs + ____ min

Final water level end of pumping (m/ft): 20'

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

Recommended pump depth (m/ft): 70'

Recommended pump rate (l/min / GPM): 10 gpm

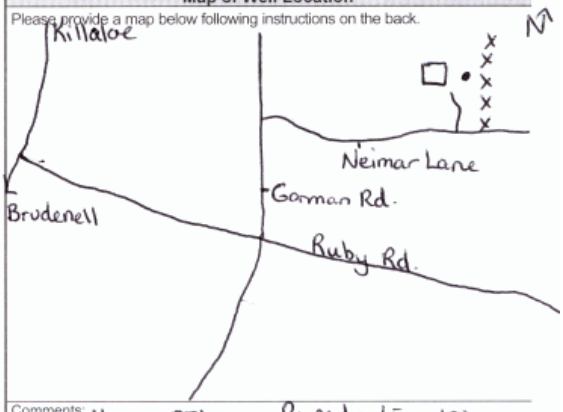
Well production (l/min / GPM): 10 gpm

Disinfected? ☒ Yes ☐ No

Draw Down Time (min)	Draw Down Water Level (m/ft)	Recovery Time (min)	Recovery Water Level (m/ft)
Static Level	2'		
1	4'	1	15'
2	6'	2	11'
3	8'	3	8'
4	9'	4	5'
5	10'	5	3'
10	14'	10	2'
15	17'	15	2'
20	19'	20	2'
25	20'	25	2'
30	20'	30	2'
40	20'	40	2'
50	20'	50	2'
60	20'	60	2'

Map of Well Location

Please provide a map below following instructions on the back.



Comments: House -37' Property Line-10' Road - 185'

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
Bernard Marquardt & Son Ltd.	3651

Business Address (Street Number/Name)	Municipality
18 Crescent Dr., RR#1	Palmer Rapids

Province	Postal Code	Business E-mail Address
ON	K0J2E0	bmarquardt@fyrelytte.net

Bus. Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)
6137582238	Marquardt, Brad

Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted
2781	Brad Marquardt	2009 06 25

Well owner's information package delivered	Date Package Delivered	Date Work Completed
☐ Yes ☒ No		2009 05 25

Ministry Use Only

Audit No. Z 88626

Received JUL 09 2009

0506E (12/2007)

Ministry's Copy

Ontario Ministry of the Environment

Measurements recorded in: ☐ Metric ☒ Imperial

Well Tag No. (Below) **A 086504**

Well Record

Regulation 903 Ontario Water Resources Act

[redacted]

Well Location

Address of Well Location (Street Number/Name)	Township	Lot	Concession
30 Hawkins Dr.	Bonnechere Valley	pt 31	12

County/District/Municipality	City/Town/Village	Province	Postal Code
Renfrew		Ontario	

UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
NAD 83	18	314942	5047486		

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	Depth (m/ft) To
brown	sand/soil	stones		0	2
black	granite	red/grey seams		2	160

Annular Space

Depth Set at (m/ft) From	Depth Set at (m/ft) To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
0	20	Cement	4 bags

Method of Construction

☐ Cable Tool ☐ Diamond
☒ Rotary (Conventional) ☐ Jetting
☐ Rotary (Reverse) ☐ Driving
☐ Boring ☐ Digging
☐ Air percussion
☐ Other, specify

Well Use

☐ Public ☐ Commercial ☐ Not used
☒ Domestic ☐ Municipal ☐ Dewatering
☐ Livestock ☐ Test Hole ☐ Monitoring
☐ Irrigation ☐ Cooling & Air Conditioning
☐ 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) From	Depth (m/ft) To
6¼	Steel	.188	+2	20

Construction Record - Screen

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

Status of Well

☒ Water Supply
☐ Replacement Well
☐ Test Hole
☐ Recharge Well
☐ Dewatering Well
☐ Observation and/or Monitoring Hole
☐ Alteration (Construction)
☐ Abandoned, Insufficient Supply
☐ Abandoned, Poor Water Quality
☐ Abandoned, other, specify
☐ Other, specify

Water Details

Water found at Depth	Kind of Water	Hole Diameter Depth From	Hole Diameter Depth To	Hole Diameter (cm/in)
140' (m/ft) ☐ Gas	☐ Fresh ☒ Untested ☐ Other, specify	0	20	10"
(m/ft) ☐ Gas	☐ Fresh ☐ Untested ☐ Other, specify	20	160	6"
(m/ft) ☐ Gas	☐ Fresh ☐ Untested ☐ Other, specify			

Results of Well Yield Testing

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

If pumping discontinued, give reason:

Pump intake set at (m/ft): 150'

Pumping rate (l/min / GPM): 10 gpm

Duration of pumping: 1 hrs + ____ min

Final water level end of pumping (m/ft): 34'

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

Recommended pump depth (m/ft): 100'

Recommended pump rate (l/min / GPM): 10 gpm

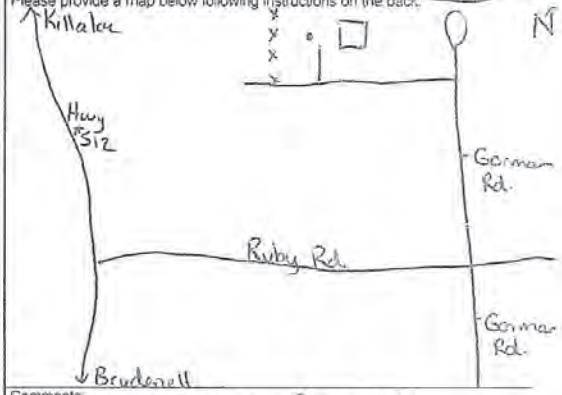
Well production (l/min / GPM): 10+ gpm

Disinfected? ☒ Yes ☐ No

Draw Down Time (min)	Draw Down Water Level (m/ft)	Recovery Time (min)	Recovery Water Level (m/ft)
Static Level	30'		
1	30'7	1	30'5
2	31'2	2	30'
3	31'5	3	30'
4	31'8	4	30'
5	32'	5	30'
10	33'3	10	30'
15	33'6	15	30'
20	33'8	20	30'
25	33'9	25	30'
30	34'	30	30'
40	34'	40	30'
50	34'	50	30'
60	34'	60	30'

Map of Well Location: Golden Lake

Please provide a map below following instructions on the back.



Comments: Property Line - 30' Road - 175' House - 34'

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
Bernard Marquardt & Son Ltd.	3651

Business Address (Street Number/Name)	Municipality
18 Crescent Dr., RR#1	Palmer Rapids

Province	Postal Code	Business E-mail Address
ON	K0J2E0	bmarquardt@fyrelytte.net

Bus. Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)
6137582238	Marquardt, Brad

Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Package Delivered
2781	Wayne B. Marquardt	2009 07 30

Well owner's information package delivered: ☐ Yes ☒ No

Date Work Completed: 2009 07 27

Ministry Use Only

Audit No. Z 103298

Received AUG 13 2009

0506E (12/2007) Ministry's Copy

Ontario Ministry of the Environment

Well Tag#: A132532 (below)

A132532

Well Record

Regulation 903 Ontario Water Resources Act

Page ____ of ____

Measurements recorded in: ☐ Metric ☒ Imperial

Well Owner's Information

First Name	Last Name / Organization	E-mail Address	Well Constructed by Well Owner
Goldenville Waterfront Cottage Resort		info@golake.ca	☐

Mailing Address (Street Number/Name)	Municipality	Province	Postal Code	Telephone No. (inc. area code)
42 Nien Mar Lane	Killaloe	ON	K0J2A0	8888562781

Well Location

Address of Well Location (Street Number/Name)	Township	Lot	Concession
42 Nien Mar Lane	South Algona	30	12

County/District/Municipality	City/Town/Village	Province	Postal Code
Renfrew	Killaloe	Ontario	K0J2A0

UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
NAD 83	18	315154	5047735		

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
Brown	Sand			0	4
Grey	Broken Granite		Fractured	4	7
Grey	Granite	Red + White Layers		7	286

Annular Space

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

Results of Well Yield Testing

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

If pumping discontinued, give reason:

Pump intake set at (m/ft): 200 Feet

Pumping rate (l/min / GPM): 8 GPM

Duration of pumping: 1 hrs + 0 min

Final water level end of pumping (m/ft): 69.4 Feet

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

Recommended pump depth (m/ft): 210 Feet

Recommended pump rate (l/min / GPM): 10 GPM

Well production (l/min / GPM): 10 GPM

Disinfected? ☒ Yes ☐ No

Draw Down Time (min)	Water Level (m/ft)	Recovery Time (min)	Water Level (m/ft)
Static Level	6		
1	8.3	1	63.2
2	10.1	2	57.1
3	11.9	3	51.3
4	12.9	4	47.1
5	14.2	5	42.2
10	20.3	10	38.2
15	26.4	15	33
20	34.6	20	29.8
25	38.9	25	27.7
30	43.6	30	24.8
40	52.2	40	23.3
50	61	50	21.8
60	69.4	60	20.3

Method of Construction

☐ Cable Tool ☐ Diamond ☐ Rotary (Conventional) ☐ Jetting ☐ Rotary (Reverse) ☐ Driving ☐ Boring ☐ Digging ☒ Air percussion ☐ Other, specify

Well Use

☒ Public ☒ Commercial ☐ Not used ☐ Domestic ☐ Municipal ☐ Dewatering ☐ Livestock ☐ Test Hole ☐ Monitoring ☐ Irrigation ☐ Cooling & Air Conditioning ☐ 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) From	To
6 1/4	Steel	.188	0	20

Status of Well

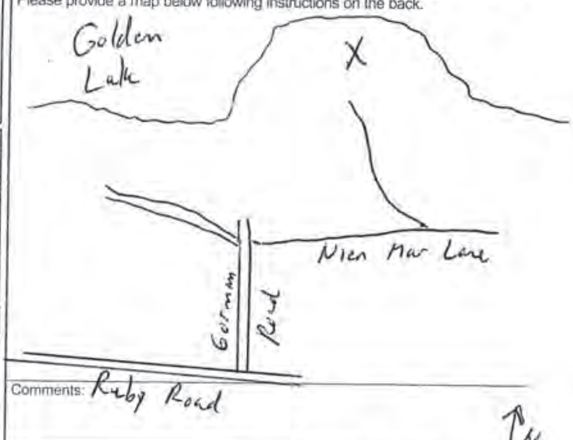
☒ Water Supply ☐ Replacement Well ☐ Test Hole ☐ Recharge Well ☐ Dewatering Well ☐ Observation and/or Monitoring Hole ☐ Alteration (Construction) ☐ Abandoned, Insufficient Supply ☐ Abandoned, Poor Water Quality ☐ Abandoned, other, specify ☐ Other, specify

Construction Record - Screen

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

Map of Well Location

Please provide a map below following instructions on the back.



Comments: Ruby Road

Water Details

Water found at Depth 100 (m/ft) Kind of Water: ☐ Fresh ☒ Untested ☐ Gas ☐ Other, specify

Water found at Depth (m/ft) Kind of Water: ☐ Fresh ☐ Untested ☐ Gas ☐ Other, specify

Water found at Depth (m/ft) Kind of Water: ☐ Fresh ☐ Untested ☐ Gas ☐ Other, specify

Hole Diameter

Depth (m/ft) From	To	Diameter (cm/in)
20	285	6
285	286	5

Well Contractor and Well Technician Information

Business Name of Well Contractor: MacKinnon Well Drilling Ltd

Well Contractor's Licence No.: 6923

Business Address (Street Number/Name): 2497 B Line Road

Municipality: Pembroke

Province: Ont

Postal Code: K8A6W8

Business E-mail Address: info@mackinnondrilling.com

Bus. Telephone No. (inc. area code): 6137324923

Name of Well Technician (Last Name, First Name): Ashick, Darren

Well Technician's Licence No.: 3024

Signature of Technician and/or Contractor: [signature]

Date Submitted:

Well owner's information package delivered: ☒ Yes ☐ No

Date Package Delivered: 20120601

Date Work Completed: 20130602

Ministry Use Only

Audit No. Z160265

JUN 18 2013

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Ministry's Copy

Ontario — Ministry of the Environment and Climate Change

Measurements recorded in: ☐ Metric ☒ Imperial

Tag #: A167071 (If Below)

A167071

Well Record

Regulation 903 Ontario Water Resources Act

Page ____ of ____

[redacted]

Address of Well Location (Street Number/Name)	Township	Lot	Concession
169 [redacted] NienMar Lane	South Algona	29	12

County/District/Municipality	City/Town/Village	Province	Postal Code
Renfrew	Killaloe	Ontario	K0J2A0

UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
NAD 83	18	315847	5047595		

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	Depth (m/ft) To
Brown	Sand	Boulders		0	12
Brown	Boulders	Broken Granite		12	17
Grey	Granite	Red Layers		17	225

Annular Space

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

Method of Construction

☐ Cable Tool ☐ Diamond
☐ Rotary (Conventional) ☐ Jetting
☐ Rotary (Reverse) ☐ Driving
☐ Boring ☐ Digging
☒ Air percussion
☐ Other, specify

Well Use

☐ Public ☐ Commercial ☐ Not used
☒ Domestic ☐ Municipal ☐ Dewatering
☐ Livestock ☐ Test Hole ☐ Monitoring
☐ Irrigation ☐ Cooling & Air Conditioning
☐ 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) From	Depth (m/ft) To
6 1/4	Steel	.188	+2	20
	XS DT DRIVE SHOE			

Construction Record - Screen

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

Status of Well

☒ Water Supply
☐ Replacement Well
☐ Test Hole
☐ Recharge Well
☐ Dewatering Well
☐ Observation and/or Monitoring Hole
☐ Alteration (Construction)
☐ Abandoned, Insufficient Supply
☐ Abandoned, Poor Water Quality
☐ Abandoned, other, specify
☐ Other, specify

Water Details

Water found at Depth	Kind of Water	Other, specify
180 (m/ft) ☐ Gas	☐ Fresh ☒ Untested	
210 (m/ft) ☐ Gas	☐ Fresh ☒ Untested	
(m/ft) ☐ Gas	☐ Fresh ☐ Untested	

Hole Diameter

Depth (m/ft) From	Depth (m/ft) To	Diameter (cm/in)
20	225	5 7/8

Results of Well Yield Testing

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

If pumping discontinued, give reason:

Pump intake set at (m/ft): 200 Feet

Pumping rate (l/min / GPM): 5 GPM

Duration of pumping: 1 hrs + 0 min

Final water level end of pumping (m/ft): 152.5 Feet

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

Recommended pump depth (m/ft): 200 Feet

Recommended pump rate (l/min / GPM): 7 GPM

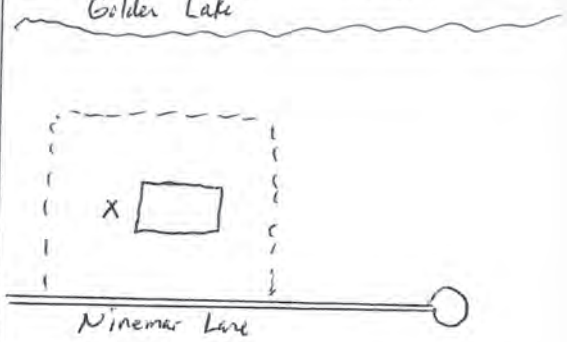
Well production (l/min / GPM): 3 GPM

Disinfected? ☒ Yes ☐ No

Draw Down Time (min)	Draw Down Water Level (m/ft)	Recovery Time (min)	Recovery Water Level (m/ft)
Static Level	17.2		
1	14.1	1	152.4
2	17.1	2	151.6
3	20.3	3	150.9
4	23.9	4	149.1
5	27.4	5	148.2
10	44.3	10	142.4
15	60	15	132.1
20	75.4	20	122.4
25	90.3	25	120.4
30	104.7	30	120.1
40	128.4	40	118.4
50	143.8	50	117.3
60	152.5	60	117.1

Map of Well Location

Please provide a map below following instructions on the back.



Comments:

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
MacKinnon Well Drilling Ltd	6923

Business Address (Street Number/Name)	Municipality
2497 B-Line Rd	Pembroke

Province	Postal Code	Business E-mail Address
ONT	K8A6W8	info@mackinondrilling.com

Bus. Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)
6137324923	Ashick, Darren

Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted
3024	Ken MacKinnon	2016/01/07

Well owner's information package delivered	Date Package Delivered	Date Work Completed
☒ Yes	2015/08/25	2015/10/22

Ministry Use Only

Audit No: Z 213771

JAN 14 2016

0506E (2014/11)

Ministry's Copy

Ontario — Ministry of the Environment and Climate Change

Measurements recorded in: ☐ Metric ☑ Imperial

Well Tag#: A 231443 (low)

A 231443

Well Record

Regulation 903 Ontario Water Resources Act

Page of

[redacted]

Address of Well Location (Street Number/Name)	Township	Lot	Concession
Nien Mar Lane	South Algona	30	12

County/District/Municipality	City/Town/Village	Province	Postal Code
Renfrew	Killaloe	Ontario	K0J2A0

UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
NAD 83	18	315282	5047528		

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	Depth (m/ft) To
Brown	Sand	Stones		0	6
Red	Granite	Grey Layers		6	160

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
0	20	Bentonite Slurry	15 ft 3

Method of Construction

☐ Cable Tool ☐ Diamond
☐ Rotary (Conventional) ☐ Jetting
☐ Rotary (Reverse) ☐ Driving
☐ Boring ☐ Digging
☑ Air percussion
☐ Other, specify

Well Use

☐ Public ☐ Commercial ☐ Not used
☒ Domestic ☐ Municipal ☐ Dewatering
☐ Livestock ☐ Test Hole ☐ Monitoring
☐ Irrigation ☐ Cooling & Air Conditioning
☐ 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) From	Depth (m/ft) To
6¼	Steel	.188	+3	20

Construction Record - Screen

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

Status of Well

☑ Water Supply
☐ Replacement Well
☐ Test Hole
☐ Recharge Well
☐ Dewatering Well
☐ Observation and/or Monitoring Hole
☐ Alteration (Construction)
☐ Abandoned, Insufficient Supply
☐ Abandoned, Poor Water Quality
☐ Abandoned, other, specify
☐ Other, specify

Water Details

Water found at Depth	Kind of Water	Hole Diameter Depth From	Depth To	Diameter (cm/in)
155 (m/ft) ☐ Gas	☐ Fresh ☑ Untested ☐ Other, specify	20	160	6
(m/ft) ☐ Gas	☐ Fresh ☐ Untested ☐ Other, specify			
(m/ft) ☐ Gas	☐ Fresh ☐ Untested ☐ Other, specify			

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
0	20	Bentonite Slurry	15 ft 3

Results of Well Yield Testing

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

If pumping discontinued, give reason:

Pump intake set at (m/ft): 150 Feet

Pumping rate (l/min / GPM): 12 GPM

Duration of pumping: 1 hrs + 0 min

Final water level end of pumping (m/ft): 81.9 Feet

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

Recommended pump depth (m/ft): 100 Feet

Recommended pump rate (l/min / GPM): 10 GPM

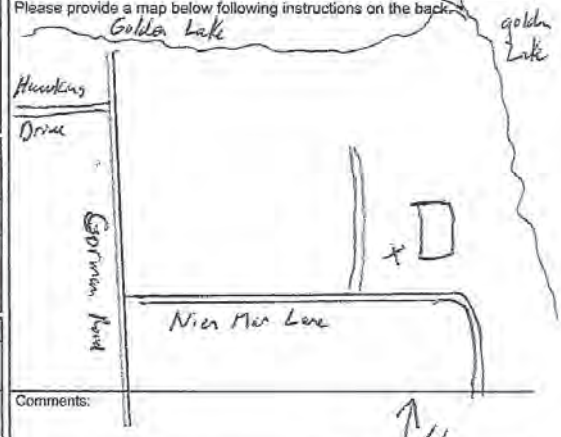
Well production (l/min / GPM): 12 + 6 PM

Disinfected? ☒ Yes ☐ No

Draw Down Time (min)	Draw Down Water Level (m/ft)	Recovery Time (min)	Recovery Water Level (m/ft)
Static Level	6.1		
1	9.6	1	73.8
2	14.9	2	67.8
3	19.3	3	62.5
4	23.6	4	58
5	27.8	5	53.8
10	42.6	10	39.4
15	43.6	15	30.2
20	53.5	20	23.8
25	62	25	20.2
30	67.7	30	18.4
40	75.2	40	14.8
50	79.2	50	12.7
60	81.9	60	9.6

Map of Well Location

Please provide a map below following instructions on the back.



Comments:

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
MacKinnon Well Drilling Ltd.	6923

Business Address (Street Number/Name)	Municipality
2497 B-Line Rd.	Pembroke

Province	Postal Code	Business E-mail Address
ON	K8A6W8	experts@mackinnonwater.com

Bus. Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)
613 732 4923	Linner, Dean

Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted
T669	[signature] MacKinnon	[illegible]

Well owner's information package delivered: ☒ Yes ☐ No

Date Package Delivered: 2019 05 24

Date Work Completed: 2019 05 28

Ministry Use Only

Audit No. Z292234

AUG 13 2019

Received

0506E (2014/11)

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Ontario — Ministry of the Environment, Conservation and Parks

Measurements recorded in: ☐ Metric ☐ Imperial

Well T Tag#:A304759 elow)

A304759

Well Record

Regulation 903 Ontario Water Resources Act

Page ____ of ____

[redacted]

Address of Well Location (Street Number/Name)	Township	Lot	Concession
Nein Mar Lane	South Algona	30	12
County/District/Municipality	**City/Town/Village**	**Province**	**Postal Code**
Renfrew	Killaloe	Ontario	K0J 2A0
UTM Coordinates NAD 83 Zone 18 Easting 315321 Northing 5047612	**Municipal Plan and Sublot Number**	**Other**	

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	Depth (m/ft) To
Brown	Sand			0	3
Grey	Granite			3	105

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
0	20	Bentonite Slurry	8 ft³

Method of Construction

☐ Cable Tool ☐ Diamond ☐ Rotary (Conventional) ☐ Jetting ☐ Rotary (Reverse) ☐ Driving ☐ Boring ☐ Digging ☒ Air percussion ☐ Other, specify ____

Well Use

☐ Public ☐ Commercial ☐ Not used ☒ Domestic ☐ Municipal ☐ Dewatering ☐ Livestock ☐ Test Hole ☐ Monitoring ☐ Irrigation ☐ Cooling & Air Conditioning ☐ 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) From	To
6¼	Steel	.188	+2	20

Construction Record - Screen

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

Status of Well

☒ Water Supply ☐ Replacement Well ☐ Test Hole ☐ Recharge Well ☐ Dewatering Well ☐ Observation and/or Monitoring Hole ☐ Alteration (Construction) ☐ Abandoned, Insufficient Supply ☐ Abandoned, Poor Water Quality ☐ Abandoned, other, specify ____ ☐ Other, specify ____

Water Details

Water found at Depth	Kind of Water	Hole Diameter Depth (m/ft) From	To	Diameter (cm/in)
65 (m/ft) ☐ Gas	☐ Fresh ☒ Untested ☐ Other, specify ____	20	105	5 15/16
70 (m/ft) ☐ Gas	☐ Fresh ☒ Untested ☐ Other, specify ____			
(m/ft) ☐ Gas	☐ Fresh ☐ Untested ☐ Other, specify ____			

Results of Well Yield Testing

After test of well yield, water was: ☒ Clear and sand free ☐ Other, specify ____

If pumping discontinued, give reason: ____

Pump intake set at (m/ft): 85 Feet

Pumping rate (l/min / GPM): 12 GPM

Duration of pumping: 1 hrs + 0 min

Final water level end of pumping (m/ft): 29.5 Feet

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

Recommended pump depth (m/ft): 75 Feet

Recommended pump rate (l/min/GPM): 10 GPM

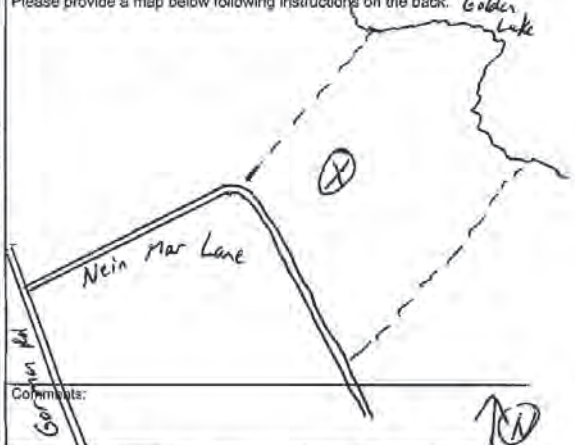
Well production (l/min/GPM): 12 + GPM

Disinfected? ☒ Yes ☐ No

Draw Down Time (min)	Draw Down Water Level (m/ft)	Recovery Time (min)	Recovery Water Level (m/ft)
Static Level	12.4		
1	16.1	1	26.1
2	17.7	2	24.1
3	19	3	22.5
4	20.1	4	21.4
5	21	5	20.7
10	23.7	10	18
15	25.4	15	16.5
20	26.4	20	15.6
25	27.2	25	14.7
30	27.8	30	13.9
40	28.6	40	12.6
50	29.1	50	12.4
60	29.5	60	

Map of Well Location

Please provide a map below following instructions on the back.



Comments: ____

Well Contractor and Well Technician Information

Business Name of Well Contractor: MacKinnon Well Drilling Ltd — Well Contractor's Licence No.: 6923

Business Address (Street Number/Name): 2497 B-Line Rd. — Municipality: Pembroke

Province: ON — Postal Code: K8A6W8 — Business E-mail Address: experts@mackinnonwater.com

Bus. Telephone No. (inc. area code): 6137324923 — Name of Well Technician (Last Name, First Name): Montgomery, Justin

Well Technician's Licence No.: 3357 — Signature of Technician and/or Contractor: [signature] — Date Submitted: ____

Well owner's information package delivered: ☒ Yes — Date Package Delivered: 2021/06/02

Date Work Completed: 2021/06/02

Ministry Use Only

Audit No.: Z346115

AUG 31 2021

Received

0506E (2020/06)

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Appendix C

Residential Well Survey Questionnaires

QUESTIONNAIRE

South Well

Well Tag:	A073516 (A073517)
UTM Coordinates – Zone:	18N
Easting:	315169
Northing:	5047584
Email:	[redacted]
Date:	July 9, 2025
Time:	11:15 Am
Interviewer:	Perry Larochelle
Project #	25-70136A

PROPERTY INFORMATION

Name of Owner: [redacted]

Name of Occupant (if other than owner)

Address: ~~42 Hiemar Lane South Algonquin~~ 1376 Gorman Rd. Killaloe Ontario K0J 2A0

Mailing Address if Different:

Phone No. (Cell)	Phone No. (Other)	No. of Occupants:
[redacted]		
How Long at Present Address:		

Type of Dwelling ☐ Single Family ☐ Commercial ☑ Multiple Unit ☐ Institutional

Type of Business: Waterfront Cottage Resort

Basement: ☐ Yes ☑ No

WATER SUPPLY

Type of Well ☑ Drilled Well ☐ Dug Well ☐ Municipal ☐ Other

Is the Well Casing Pressure Grouted? ☑ Yes ☐ No

No. of Homes Served by Well: 180'

Well:	Total Depth: 300'	Diameter: 6 1/4"	Age: 14 years	Depth of Water:

Pump Type:	☐ Submersible	☐ Jet	☐ Piston
Type of Well Casing: Steel	☑ Above Ground Surface	☐ Buried Inside a Well Pit	☐ Buried, but not in a Well Pit

The accurate location of the well is: ☑ Known ☐ Unknown

Do you have a copy of the MOE Water Well Record? ☑ Yes ☐ No

Well Water Treatment

Chlorination	☑ Yes ☐ No
Softener	☐ Yes ☑ No
Filter	☐ Yes ☑ No
Other:	

ATTACH A COPY OF WATER WELL RECORD, IF POSSIBLE

WATER QUALITY			
Do you drink the water? ☑ Yes ☐ No	If no, since when:	Why?	
Have you ever run out of water? ☐ Yes ☑ No			
Have you Ever had Your Well Deepened or Cleaned, or had a New Well Constructed? ☐ Yes ☑ No			
If so, why?			
Quality: Taste	☐ Excellent	☑ Acceptable	☐ Poor
Odour	☑ Excellent	☐ Acceptable	☐ Poor
Colour	☑ Excellent	☐ Acceptable	☐ Poor
Hardness	☐ Excellent	☑ Acceptable	☐ Poor
Iron	☐ Excellent	☑ Acceptable	☐ Poor
Comments:			
Has Your Water Quality Been Tested Previously? ☑ Yes ☐ No			
If yes, for what?	☑ bacteriological When?	☐ chemical analyses When?	☐ Other When?
ATTACH COPY OF ANY PREVIOUS CHEMICAL AND/OR BACTERIOLOGICAL ANALYSIS RESULTS ON THE WELL WATER, IF APPLICABLE			

WATER QUANTITY	
Does your well supply enough water for your use? ☑ Yes ☐ No	
If No, is this the case: ☐ All the time ☐ Some of the time ☐ Seasonally ☐ Other	
Use: Domestic ☑ Yes ☐ No	No. of Persons Using Water from Well:
Livestock ☐ Yes ☐ No	Lawn Watering ☐ Yes ☑ No
Other Uses:	Daily Usage (if known):

WATER SAMPLING INFORMATION		
Appearance ☑ Clear ☐ Cloudy		Odor ☐ Yes ☑ No
Field Measured Parameters		
Temperature °C = 12.3	PH = 7.49	Conductivity us/cm = 870
Turbidity NTU = 0.45	Chlorine Free mg/L = Ø	Chlorine Total mg/L = Ø
Apparent Colour PCU = 15		
Other Comments: Turned off Chlorinator & let water run for 20 minutes prior to Sampling		
Water Sample Collected: ☑ Yes ☐ No		If no, why?
Location where samples collected: ☐ Kitchen Sink ☐ Hose Bib ☑ Pressure Tank ☐ Other		
Sample Water By-Pass Any Treatment Unit ☑ Yes ☐ No		
Type of Samples Submitted for Analysis ☑ Bacteria ☑ Chemical		

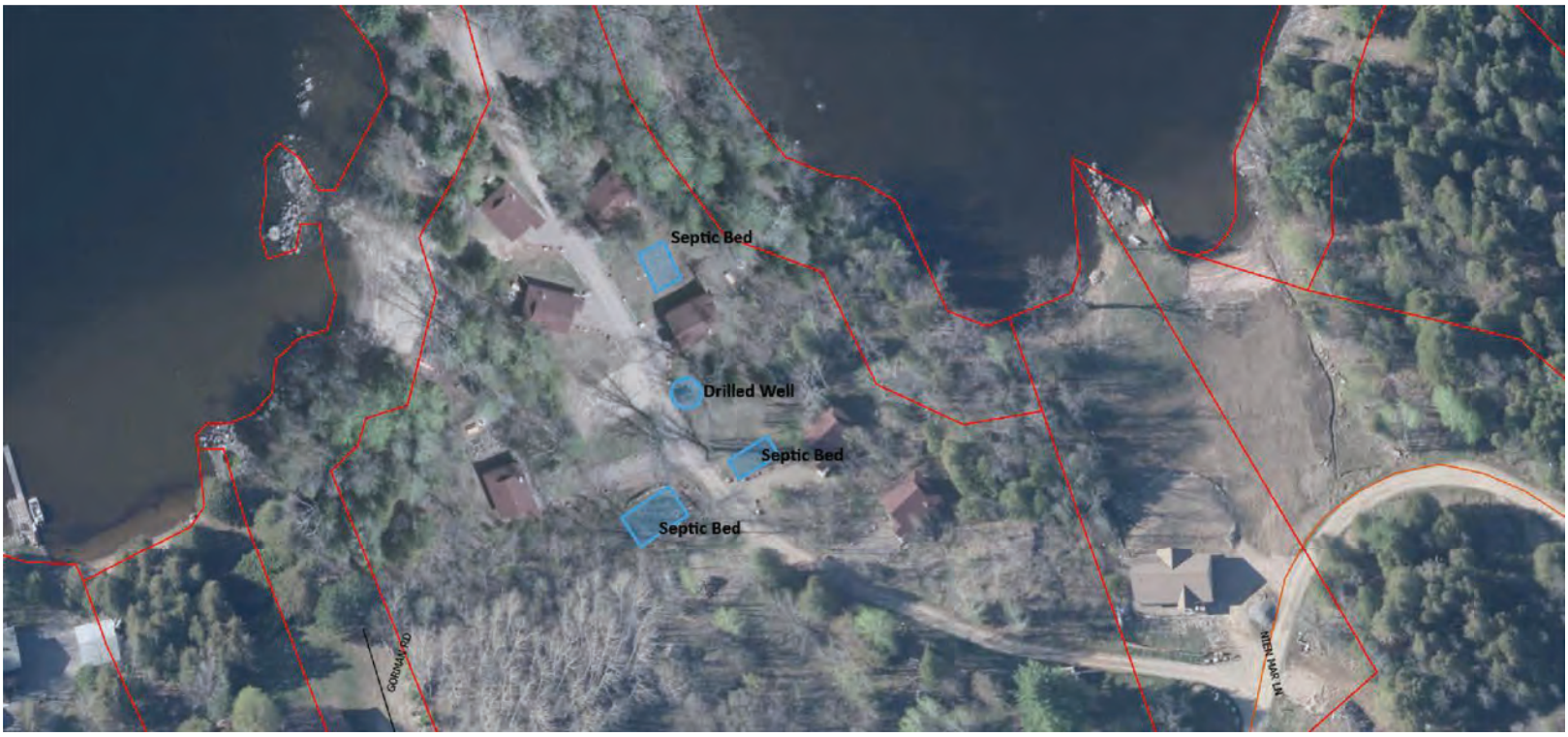
SEWAGE SYSTEM INFORMATION		
Type of Sewage System	☐ Septic Tank and Raised Bed	☐ Partially Raised Bed
☐ Septic Tank and Inground Leaching Bed	☐ Holding Tank	☐ Other:
If Septic Tank and Leaching Bed		
Number of Chambers ☐ One ☑ Two ☐ Unknown		
Type of Septic Tank: ☐ Steel ☑ Concrete ☐ Plastic		
What is the Length of Distribution Pipe:		
If Holding Tank		
What is the Capacity?	When was the Last Time the Tank was Pumped Out?	
If Other, Provide Description: Several Septic Systems on Property		
What is the Age of the Sewage System?		
What is the Approximate Distance Between the Well and the Sewage System? > 50'		
Was the System Approved by the Health Unit or the MOE? ☑ Yes ☐ No		
Have there been any Problems with the Sewage System? ☐ Yes ☑ No		
Comment:		

Multimeter Used to Record Field Parameter ID # 0974 Verification of Calibration ☑ Yes ☐ No
Turbidity Meter Used for Field Recording ID# 0110 Verification of Calibration ☑ Yes ☐ No
Colour of Water Photometer Used for Field Recording ID# 0961 Verification of Calibration ☑ Yes ☐ No
Free & Total Chlorine Photometer Used for Field Recording ID# 0940 Verification of Calibration ☑ Yes ☐ No

Technician Signature [signature] Date: July 9, 2025

3

PROPERTY SKETCH



QUESTIONNAIRE

North Well

Well Tag:	A132532
UTM Coordinates – Zone:	18 N
Easting:	315154
Northing:	5047735
Email:	[redacted]
Date:	July 9, 2025
Time:	10:15 Am
Interviewer:	Perry Larochelle
Project #	

PROPERTY INFORMATION

Name of Owner: [redacted]

Name of Occupant (if other than owner)

Address: ~~42 Aberdeen Lane~~ (1376 German Road)
Killaloe, Ontario K0J 2A0

Mailing Address if Different:

Phone No. (Cell) [redacted]	Phone No. (Other)	No. of Occupants: 14
How Long at Present Address: 5 year		

Type of Dwelling ☐ Single Family ☐ Commercial ☑ Multiple Unit ☐ Institutional

Type of Business: Waterfront Cottage Resort

Basement: ☐ Yes ☑ No

WATER SUPPLY

Type of Well ☑ Drilled Well ☐ Dug Well ☐ Municipal ☐ Other

Is the Well Casing Pressure Grouted? ☑ Yes ☐ No

No. of Homes Served by Well: ~~7~~ 10 + 1 Communal Building

Well:	Total Depth: 236	Diameter: 6"	Age: 13 years	Depth of Water:

Pump Type:	☑ Submersible	☐ Jet	☐ Piston
Type of Well Casing: Steel	☑ Above Ground Surface	☐ Buried Inside a Well Pit	☐ Buried, but not in a Well Pit

The accurate location of the well is: ☑ Known ☐ Unknown

Do you have a copy of the MOE Water Well Record? ☑ Yes ☐ No

Well Water Treatment

Chlorination	☑ Yes ☐ No
Softener	☐ Yes ☑ No
Filter	☐ Yes ☑ No
Other:	

ATTACH A COPY OF WATER WELL RECORD, IF POSSIBLE

1

WATER QUALITY			
Do you drink the water?	☑ Yes ☐ No	If no, since when:	Why?
Have you ever run out of water?	☐ Yes ☑ No		
Have you Ever had Your Well Deepened or Cleaned, or had a New Well Constructed? ☐ Yes ☑ No			
If so, why?			
Quality: Taste	☐ Excellent	☑ Acceptable	☐ Poor
Odour	☐ Excellent	☑ Acceptable	☐ Poor
Colour	☑ Excellent	☐ Acceptable	☐ Poor
Hardness	☐ Excellent	☐ Acceptable	☑ Poor
Iron	☐ Excellent	☐ Acceptable	☑ Poor
Comments:			
Has Your Water Quality Been Tested Previously? ☑ Yes ☐ No			
If yes, for what?	☑ bacteriological When?	☐ chemical analyses When?	☐ Other When?
ATTACH COPY OF ANY PREVIOUS CHEMICAL AND/OR BACTERIOLOGICAL ANALYSIS RESULTS ON THE WELL WATER, IF APPLICABLE			

WATER QUANTITY	
Does your well supply enough water for your use? ☑ Yes ☐ No	
If No, is this the case: ☐ All the time ☐ Some of the time ☐ Seasonally ☐ Other	
Use: Domestic ☑ Yes ☐ No	No. of Persons Using Water from Well: 14
Livestock ☐ Yes ☐ No	Lawn Watering ☐ Yes ☑ No
Other Uses:	Daily Usage (if known):

WATER SAMPLING INFORMATION		
Appearance ☑ Clear ☐ Cloudy		Odor ☐ Yes ☑ No
Field Measured Parameters		
Temperature °C = 16.3	PH = 7.65	Conductivity us/cm = 910
Turbidity NTU = 2.97	Chlorine Free mg/L = 0	Chlorine Total mg/L = 0
Apparent Colour PCU = 20		
Other Comments:		
Water Sample Collected: ☑ Yes ☐ No		If no, why?
Location where samples collected: ☐ Kitchen Sink ☐ Hose Bib ☑ Pressure Tank ☐ Other		
Sample Water By-Pass Any Treatment Unit ☑ Yes ☐ No		
Type of Samples Submitted for Analysis ☑ Bacteria ☑ Chemical		

SEWAGE SYSTEM INFORMATION		
Type of Sewage System	☐ Septic Tank and Raised Bed	☐ Partially Raised Bed
☑ Septic Tank and Inground Leaching Bed	☐ Holding Tank	☐ Other:
If Septic Tank and Leaching Bed		
Number of Chambers ☐ One ☑ Two ☐ Unknown		
Type of Septic Tank: ☐ Steel ☑ Concrete ☐ Plastic		
What is the Length of Distribution Pipe: unknown		
If Holding Tank		
What is the Capacity? unknown	When was the Last Time the Tank was Pumped Out? Tank is pumped Annualy	
If Other, Provide Description Tank & bed services communal Kitchen, washrooms & laundy		
What is the Age of the Sewage System? 2006 - 19 years		
What is the Approximate Distance Between the Well and the Sewage System? >50' (45m)		
Was the System Approved by the Health Unit or the MOE? ☑ Yes ☐ No		
Have there been any Problems with the Sewage System? ☐ Yes ☑ No		
Comment:		

Multimeter Used to Record Field Parameter ID # 0974 Verification of Calibration ☑ Yes ☐ No
Turbidity Meter Used for Field Recording ID# 0110 Verification of Calibration ☑ Yes ☐ No
Colour of Water Photometer Used for Field Recording ID# 0961 Verification of Calibration ☑ Yes ☐ No
Free & Total Chlorine Photometer Used for Field Recording ID# 0940 Verification of Calibration ☑ Yes ☐ No

Technician Signature A Marshall Date: July 9 2025

PROPERTY SKETCH

Appendix D

Laboratory Results

Certificate of Analysis

eurofins | Environment Testing

Client: Jp2g Consultants Inc.
12 International Dr.
Pembroke, ON
K8A 6W5
Attention: Mr. Perry Larochelle
PO#:
Invoice to: Jp2g Consultants Inc. (Pembroke)

Report Number: 3017867
Date Submitted: 2025-07-10
Date Reported: 2025-07-17
Project: Wilton - Job No. 25-7036A
COC #: 233870

Dear Perry Larochelle:

Please find attached the analytical results for your samples. If you have any questions regarding this report, please do not hesitate to call (613-727-5692).

Report Comments:

APPROVAL: Patrick Jacques 2025.07.17 16:12:10 -04'00'

Patrick Jacques, Chemist

All analysis is completed at Eurofins Environment Testing Canada Inc. (Ottawa, Ontario) unless otherwise indicated.

Eurofins Environment Testing Canada Inc. (Ottawa, Ontario) is accredited by CALA, Canadian Association for Laboratory Accreditation to ISO/IEC 17025 for tests which appear on the scope of accreditation. The scope is available at: https://directory.cala.ca/.

Eurofins Environment Testing Canada Inc. (Ottawa, Ontario) is licensed by the Ontario Ministry of the Environment, Conservation, and Parks (MECP) for specific tests in drinking water (license #2318). A copy of the license is available upon request.

Eurofins Environment Testing Canada Inc. (Ottawa, Ontario) is accredited by the Ontario Ministry of Agriculture, Food, and Rural Affairs for specific tests in agricultural soils.

Please note: Field data, where presented on the report, has been provided by the client and is presented for informational purposes only. Guideline values listed on this report are provided for ease of use (informational purposes) only. Eurofins recommends consulting the official provincial or federal guideline as required. Unless otherwise stated, measurement uncertainty is not taken into account when determining guideline or regulatory exceedances.

Eurofins_multisample(L)45.rpt

Certificate of Analysis

eurofins | Environment Testing

Client: Jp2g Consultants Inc.
12 International Dr.
Pembroke, ON
K8A 6W5
Attention: Mr. Perry Larochelle
PO#:
Invoice to: Jp2g Consultants Inc. (Pembroke)

Report Number: 3017867
Date Submitted: 2025-07-10
Date Reported: 2025-07-17
Project: Wilton - Job No. 25-7036A
COC #: 233870

Group	Analyte	MRL	Units	Guideline	Lab I.D. / Sample Matrix / Sample Type / Sampling Date / Sample I.D.	
					1773841 GW 2025-07-09 2532	1773842 GW 2025-07-09 3516
Anions	Cl	1	mg/L	AO 250	20	42
	F	0.10	mg/L	MAC 1.5	0.31	0.22
	N-NO2	0.10	mg/L	MAC 1.0	<0.10	<0.10
	N-NO3	0.10	mg/L	MAC 10.0	<0.10	<0.10
	SO4	1	mg/L	AO 500	90	46
General Chemistry	Alkalinity as CaCO3	5	mg/L	OG 30-500	339	314
	Colour (True)	2	TCU		4	2
	Conductivity	5	uS/cm		825	756
	DOC	0.5	mg/L	AO 5	3.6	2.4
	pH	1.00		6.5-8.5	8.09	7.92
	Phenols	0.001	mg/L		<0.001	<0.001
	S2-	0.01	mg/L	AO 0.05	<0.01	<0.01
	Tannin & Lignin	0.1	mg/L		<0.1	<0.1
	TDS (COND - CALC)	1	mg/L	AO 500	536*	491
	Turbidity	0.1	NTU	AO 5	1.9	0.9
Hardness	Hardness as CaCO3	1	mg/L	OG 80-100	389*	406*
Indices/Calc	Ion Balance	0.01			1.05	1.04
Metals	Ca	1	mg/L		93	100
	Fe	0.03	mg/L	AO 0.3	0.27	0.11
	K	1	mg/L		3	4
	Mg	1	mg/L		38	38
	Mn	0.01	mg/L	AO 0.05	0.12*	0.09*
	Na	1	mg/L	AO 200	43	13
Microbiology	Escherichia Coli	0	ct/100mL	MAC 0	0	0
	Faecal Coliforms	0	ct/100mL		0	0

Guideline = ODWSOG *** = Guideline Exceedence**

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

Results relate only to the parameters tested on the samples submitted.
Methods references and/or additional QA/QC information available on request.

Certificate of Analysis

eurofins | Environment Testing

Client: Jp2g Consultants Inc.
12 International Dr.
Pembroke, ON
K8A 6W5
Attention: Mr. Perry Larochelle
PO#:
Invoice to: Jp2g Consultants Inc. (Pembroke)

Report Number: 3017867
Date Submitted: 2025-07-10
Date Reported: 2025-07-17
Project: Wilton - Job No. 25-7036A
COC #: 233870

Group	Analyte	MRL	Units	Guideline	Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D.	1773841 GW 2025-07-09 2532	1773842 GW 2025-07-09 3516
Microbiology	Total Coliforms	0	ct/100mL	MAC 0		0	0
Nutrients	N-NH3	0.020	mg/L			0.201	0.111
	Total Kjeldahl Nitrogen	0.100	mg/L			0.430	0.390

Guideline = ODWSOG *** = Guideline Exceedence**

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K8A 6W5
Attention: Mr. Perry Larochelle
PO#:
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Report Number: 3017867
Date Submitted: 2025-07-10
Date Reported: 2025-07-17
Project: Wilton - Job No. 25-7036A
COC #: 233870

QC Summary

Analyte	Blank	QC % Rec	QC Limits
Run No 478219 **Analysis/Extraction Date** 2025-07-11 **Analyst** L V **Method** AMBCOLM1			
Escherichia Coli			
Faecal Coliforms			
Total Coliforms			
Run No 478239 **Analysis/Extraction Date** 2025-07-11 **Analyst** SKH **Method** EPA 350.1			
N-NH3	<0.020 mg/L	101	80-120
Run No 478261 **Analysis/Extraction Date** 2025-07-11 **Analyst** SAH **Method** C SM2130B			
Turbidity	<0.1 NTU	97	70-130
Run No 478276 **Analysis/Extraction Date** 2025-07-11 **Analyst** AaN **Method** EPA 200.8			
Iron	<0.03 mg/L	102	80-120
Manganese	<0.01 mg/L	105	80-120
Run No 478278 **Analysis/Extraction Date** 2025-07-11 **Analyst** SuM **Method** EPA 351.2			
Total Kjeldahl Nitrogen	<0.100 mg/L	109	70-130

Guideline = ODWSOG *** = Guideline Exceedence**

Results relate only to the parameters tested on the samples submitted.
Methods references and/or additional QA/QC information available on request.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

Client: Jp2g Consultants Inc.
12 International Dr.
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K8A 6W5
Attention: Mr. Perry Larochelle
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Invoice to: Jp2g Consultants Inc. (Pembroke)

Report Number: 3017867
Date Submitted: 2025-07-10
Date Reported: 2025-07-17
Project: Wilton - Job No. 25-7036A
COC #: 233870

QC Summary

Analyte	Blank	QC % Rec	QC Limits
Run No 478377 **Analysis/Extraction Date** 2025-07-14 **Analyst** IP **Method** SM5530D/EPA420.2			
Phenols	<0.001 mg/L	96	50-120
Run No 478379 **Analysis/Extraction Date** 2025-07-15 **Analyst** IP **Method** SM 4110			
Chloride	<1 mg/L	100	90-110
N-NO2	<0.10 mg/L	101	90-110
N-NO3	<0.10 mg/L	106	90-110
SO4	<1 mg/L	95	90-110
Run No 478382 **Analysis/Extraction Date** 2025-07-15 **Analyst** MiV **Method** C SM2120C			
Colour (True)	<2 TCU	89	75-115
Run No 478383 **Analysis/Extraction Date** 2025-07-14 **Analyst** MiV **Method** SM 5310B			
DOC	<0.5 mg/L	95	80-120
Run No 478391 **Analysis/Extraction Date** 2025-07-15 **Analyst** Z S **Method** M SM3120B-3500C			
Calcium	<1 mg/L	101	90-110
Potassium	<1 mg/L	107	87-113

Guideline = ODWSOG *** = Guideline Exceedence**

Results relate only to the parameters tested on the samples submitted.
Methods references and/or additional QA/QC information available on request.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

Certificate of Analysis

Client: Jp2g Consultants Inc.
12 International Dr.
Pembroke, ON
K8A 6W5
Attention: Mr. Perry Larochelle
PO#:
Invoice to: Jp2g Consultants Inc. (Pembroke)

Report Number: 3017867
Date Submitted: 2025-07-10
Date Reported: 2025-07-17
Project: Wilton - Job No. 25-7036A
COC #: 233870

QC Summary

Analyte	Blank	QC % Rec	QC Limits
Magnesium	<1 mg/L	97	76-124
Sodium	<1 mg/L	106	82-118
Run No 478477 **Analysis/Extraction Date** 2025-07-16 **Analyst** MiV **Method** C SM4500-S2-D			
S2-	<0.01 mg/L	81	80-120
Run No 478481 **Analysis/Extraction Date** 2025-07-16 **Analyst** MiV **Method** C SM5550B			
Tannin & Lignin	<0.1 mg/L	90	80-120
Run No 478489 **Analysis/Extraction Date** 2025-07-16 **Analyst** AsA **Method** SM2320,2510,4500H/F			
Alkalinity (CaCO3)	<5 mg/L	97	90-110
Conductivity	<5 uS/cm	100	90-110
F	<0.10 mg/L	96	90-110
pH		92	90-110
Run No 478521 **Analysis/Extraction Date** 2025-07-17 **Analyst** AET **Method** C SM2340B			
Hardness as CaCO3			
Ion Balance			
TDS (COND - CALC)			

Guideline = ODWSOG *** = Guideline Exceedence**

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

Results relate only to the parameters tested on the samples submitted.
Methods references and/or additional QA/QC information available on request.

eurofins 233870

STANDARD CHAIN-OF-CUSTODY

146 Colonnade Road, Unit #8, Ottawa, ON, K2E 7Y1 - Phone: 613-727-5692, Fax: 613-727-5222

3017867

CLIENT INFORMATION

Company: Jp2g
Contact: Perry Larochelle
Address: 12 International Drive, Pembroke
Telephone:
Cell: 613-281-0253
Email: #1: perry.larochelle@jp2g.com
Email: #2: samuel.morton@jp2g.com
Project: Wilton - Job No. 25-7036A
Quote #: 192767

INVOICE INFORMATION (SAME AS CLIENT INFORMATION: YES ☐ NO ☐)

Company: Jp2g
Contact: Accounts Payable
Email: #1: accountspayable@jp2g.com
Address:
Email: #2: perry.larochelle@jp2g.com
Telephone:
PO #:

TURN-AROUND TIME (Business Days)

☐ 1 Day* (100%) ☐ 2 Day** (50%) ☐ 3-5 Days (25%) ☑ 5-7 Days (Standard)

Please contact Lab in advance to determine rush availability. *For results reported after rush due date, surcharges will apply: before 12:00 - 100%, after 12:00 - 50%. **For results reported after rush due date, surcharges will apply: before 12:00 - 50%, after 12:00 - 25%.

TCLP, SPLP, PFAS, and NP/NPE the rush surcharges are 100% (3 day) and 50% (4 day). For farm soils the rush surcharge is 100% (3-5 days). Regular TAT is 10 days.

REGULATION/GUIDELINE REQUIRED

☐ Sanitary Sewer, City:
☐ Storm Sewer, City:
☑ ODWSOG (Use DW COC if samples are for human consumption)
☐ PWQO
☐ O.Reg. 347 (TCLP)
☐ Other:

☐ O. Reg. 153/04
Table # ___, Coarse / Fine, Surface / subsurface
Type: Com-Ind / Res-Park / Agri / GW / All Other / Sediment
The sample results from this submission will form part of a formal Record of Site Condition (RSC) under O.Reg. 153/04. Analysis of full parameter list only Yes ☐ No ☐

☐ O. Reg 406 Excess Soils
Table # ___ Full depth/Strat/Ceiling/mSPLP Leachate
Type: Com-Ind /Res-Park /Agri/All Other
Category: Surface /Subsurface

The optimal temperature conditions during transport is 4 - 10°C. Sample(s) cannot be frozen, unless otherwise indicated or agreed upon with the Laboratory. This COC must not be used for drinking water samples. The COC must be complete upon submission of the samples, there will be a $25 surcharge if required information is missing (required fields are shaded in grey).

Occasionally, situations arise in which Eurofins Environment Testing Canada (Ottawa) is unable to process a sample after receipt. By signing this chain-of-custody form, the client agrees that Eurofins Environment Testing Canada (Ottawa) may subcontract samples to a laboratory that is similarly accredited. This subcontracted laboratory will perform the same analysis using the same or similar methodology. Agreements made in advance to subcontract to a specific laboratory will be honored.

Sample Details

Field Filtered -->

Sample ID	Date/Time Collected	Sample Matrix	# of Containers	PHC F1 - F4	BTEX	VOCs	PAHs	PCBs	Metals + Inorganics	Metals only	Jp2g - Subdiv Supply - NB Cl	E. Coli	Faecal Coliform	Total Coliforms	RN# (Lab Use Only)
2532	July 9.2025 10:15AM	GW	7								✓	✓	✓	✓	A73841
3516	" " " 11:15AM	"	"								✓	✓	✓	✓	42

(O.Reg.153/04 parameters: PHC F1 - F4, BTEX, VOCs, PAHs, PCBs, Metals + Inorganics, Metals only)

	PRINT NAME	LOCATION	SIGN	DATE/TIME	TEMP (°C)
Sampled By:	Perry Larochelle		[signature]	July 9.2025	
Relinquished By:	" "		[signature]	July 10.2025	
Received By:					
Received By:	S.S.ku	OTT	[signature]	JUL/10/25 1315	12

COMMENTS:

FOR INTERNAL LAB USE ONLY

CUSTODY SEAL: ☐ YES ☑ NO Ice packs submit ☑ Yes ☐ No

Appendix E

Langelier Saturation Index and Ryznar Stability Index

Langelier Saturation Index and Ryznar Stability Index Calculations

		South Well at 1376 Gorman Road	North Well at 1376 Gorman Road
Analyzed Parameters			
TDS (mg/L)		536	491
Hardness (mg/L as $CaCO_3$)		389	406
Alkalinity (mg/L as $CaCO_3$)		339	314
Field pH (pH units)		7.49	7.65
Field Temperature, T (°C)		12.3	16.3
Calculation Variables			
A	$A = (Log_{10}(TDS) - 1) / 10$	0.17	0.17
B	$B = -13.12 * Log_{10}(T + 273) + 34.55$	2.34	2.26
C	$C = Log_{10}(Hardness) - 0.4$	2.19	2.21
D	$D = Log_{10}(Alkalinity)$	2.53	2.50
pH_s	$pH_s = (9.3 + A + B) - (C + D)$	7.09	7.02
Langelier Saturation Index, LSI			
LSI	$LSI = pH - pH_s$	**0.40**	**0.63**
Indication of LSI		Slightly scale forming and corrosive	Scale forming but non corrosive
Ryznar Stability Index, RSI			
RSI	$RSI = (2 * pH_s) - pH$	**6.7**	**6.4**
Indication of RSI		Light Scale or Corrosion	Light Scale or Corrosion

Langelier Saturation Index, LSI

-2.0 ≤ LSI < -0.5	Serious corrosion
-0.5 ≤ LSI < 0.0	Slightly corrosive but non-scale formin
LSI = 0.0	Balanced but pitting corrosion possible
0.0 < LSI ≤ 0.5	Slightly scale forming and corrosive
0.5 < LSI ≤ 2.0	Scale forming but non corrosive

Ryznar Stability Index, RSI

4.0 ≤ RSI < 5.0	Heavy Scale
5.0 ≤ RSI < 6.0	Light Scale
6.0 ≤ RSI < 7.0	Light Scale or Corrosion
7.0 ≤ RSI < 7.5	Corrosion Significant
7.5 ≤ RSI < 9.0	Heavy Corrosion
9.0 ≤ RSI	Corrosion is Intolerable

References:

Langelier, W.F. (1936). The Analytical Control of Anticorrosion Water Treatment. *Journal of American Water Works Association:* **28**, 1500.
Carrier Air Conditioning Company (1965). *Handbook of Air Conditioning System Design*. New York, McGraw-Hill Books.
Rafferty, K. (1999). *Scaling in geothermal heat pump systems*. U.S. Department of Energy.
Metcalf & Eddy Inc. (2003). *Wastewater Engineering: Treatment and Reuse*. McGraw-Hill Science/Engineering/Math. ISBN-10 0070418780.

Appendix F

Nitrate Dilution Calculation

Evapotranspiration and Available Moisture Calculations

Month	Climate Data		Thornthwaite Potential Evapotranspiration			
	Monthly Mean Temperature, T_m (°C)	Monthly Total Precipitation (mm)	Monthly Heat Index, I_a	16 x (10 x T_m / I_a) ^ a	Latitude Adjustment, N/360	Potential Evapotranspiration, PET (mm)
January	-11.9	68.1	0.00	0.0	0.8	0.0
February	-10.2	51.0	0.00	0.0	0.9	0.0
March	-3.7	57.7	0.00	0.0	1.0	0.0
April	4.5	79.0	0.85	22.2	1.1	24.9
May	12	84.8	3.76	60.3	1.2	74.7
June	17	96.1	6.38	85.8	1.3	112.0
July	19.3	89.1	7.73	97.7	1.3	125.0
August	18.4	90.3	7.19	93.0	1.2	109.8
September	14	83.4	4.75	70.5	1.1	74.0
October	7.5	83.1	1.85	37.4	0.9	34.2
November	0.3	77.2	0.01	1.4	0.8	1.2
December	-7.3	71.8	0.00	0.0	0.7	0.0
Total Annual (mm):		**931.6**				**555.8**
Total Av. Moisture (mm):		**375.8**				

Σ[Monthly Heat Indices], I_a:	**32.53**
Empirical Coefficient, a:	**1.0159**
Latitude:	**45°N**

****Inputs in blue**

NITRATE DILUTION FOR SEPTIC SYSTEM DESIGN

Full Site Area - Conventional Septic System

Climate Data

Precipitation	931.6	mm/year	Climate data transferred from Evapotranspiration and Available Moisture Spreadsheet
Evapotranspiration	555.8	mm/year	
Potential Infiltration	375.8	mm/year	

Site Hydrology

Total Site Area	**183,200**	m^2		
Site Development Area	**5,000**	m^2		
Infiltration Reduction Factor	0.7		**Table Entry**	**Manual Entry**
- Topography Component	**Hilly Land, 28 < Savg < 47 m/km**		0.1	
- Soil Component	**Open Sandy Loam**		0.4	
- Cover Component	**Woodland**		0.2	
Net Potential Infiltration	0.26	m/year		
Rainfall Infiltration Rate	48,188,031	L/year	Background Dilusion Potential of the Entire Site	

Hydraulics and Chemistry

Shallow GW Nitrate Concentration	**0.00**	mg/L	Loading from background nitrate if source of nitrate remains
Proportion of Site to Remain As-Is	97%		
Background Nitrate Loading	0	mg/year	
Effluent Nitrate Concentration	**40.00**	mg/L	Loading from One Septic System used for 3 Geodesic Domes
Water Supply Nitrate Concentration	**0.00**	mg/L	
Total Effluent Nitrate Concentration	40.00	mg/L	
Wastewater Flow Rate	**1000**	L/day/system	
	365,000	L/year/system	
Septic System Nitrate Loading	14,600,000	mg/year/system	
Calculation Method	**Calculate the concentration at the property edge**		
Max. allowable nitrate loading at property boundary		**0.3 mg/L**	Maximum allowable number of septic systems at the site or the concentration at the property boundary with a known number of septic systems
Number of Septic Systems		**1**	
Total Nitrate Loading from all onsite Septic Systems		14,600,000	
		mg/L	
Max. Number of Septic Systems		--	

**Inputs in blue

Appendix G

Septic System Design (Provided by Client) and Estimated Total Daily Septic Flow

Septic Requirements (Two Domes)

(Remember this size could handle 4 domes)

Dome Sq Ft – 531 sq ft

1 Bedroom – 750 L

Fixtures – 6

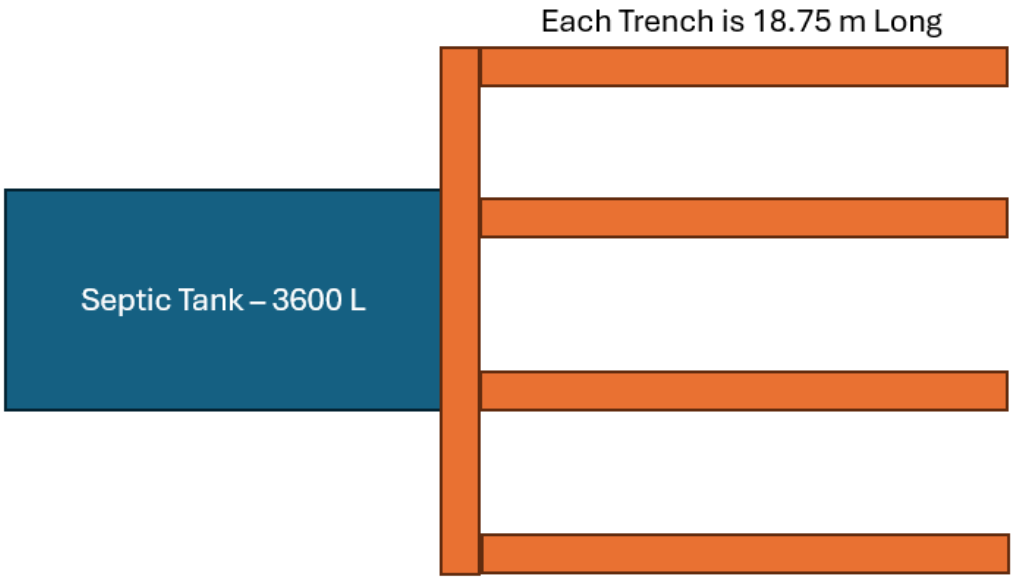
- Kitchen Sink
- Dishwasher
- Toilet
- Sink
- Shower
- Washer

Required Per Dome – 750 L

Total Needed – 1500 L (Minimum 3600 L)

Total Tank Needed – 3600 L

Bed Size – 1500 L x 10 = 15,000/200 = 75 Meters Of Total Trench Length (4 x 18.75 m lengths)



Estimation of Total Daily Septic Flow

The base rate for a 1-bedroom dwelling is 750 L/day according to Ontario Building Code (OBC) Table 8.2.1.3.A. With 3 domes, the base rate is 2250 L/day.

The OBC specifies that if the total fixture count exceeds 20, then 50 L per additional fixture unit (FU) will need to be added to the bedroom base rate. If the total living area is greater than 200 m2, then the additional portion is to result in an added 10 L/day per 10 m2, rounding up. The amount to be added is to be whichever of the fixtures amount or living area amount is greater.

A breakdown of the fixture types and their respective FUs are provided in the following table:

Fixtures	Fixture Units per Dome (FU)	Fixture Units for 3 Domes (FU)
Kitchen Sink	1.5	4.5
Dishwasher	1.0	3.0
Toilet	4.0	12.0
Sink	1.5	4.5
Shower	2.0	6.0
Washer	1.5	4.5
Total	**11.5**	**34.5**

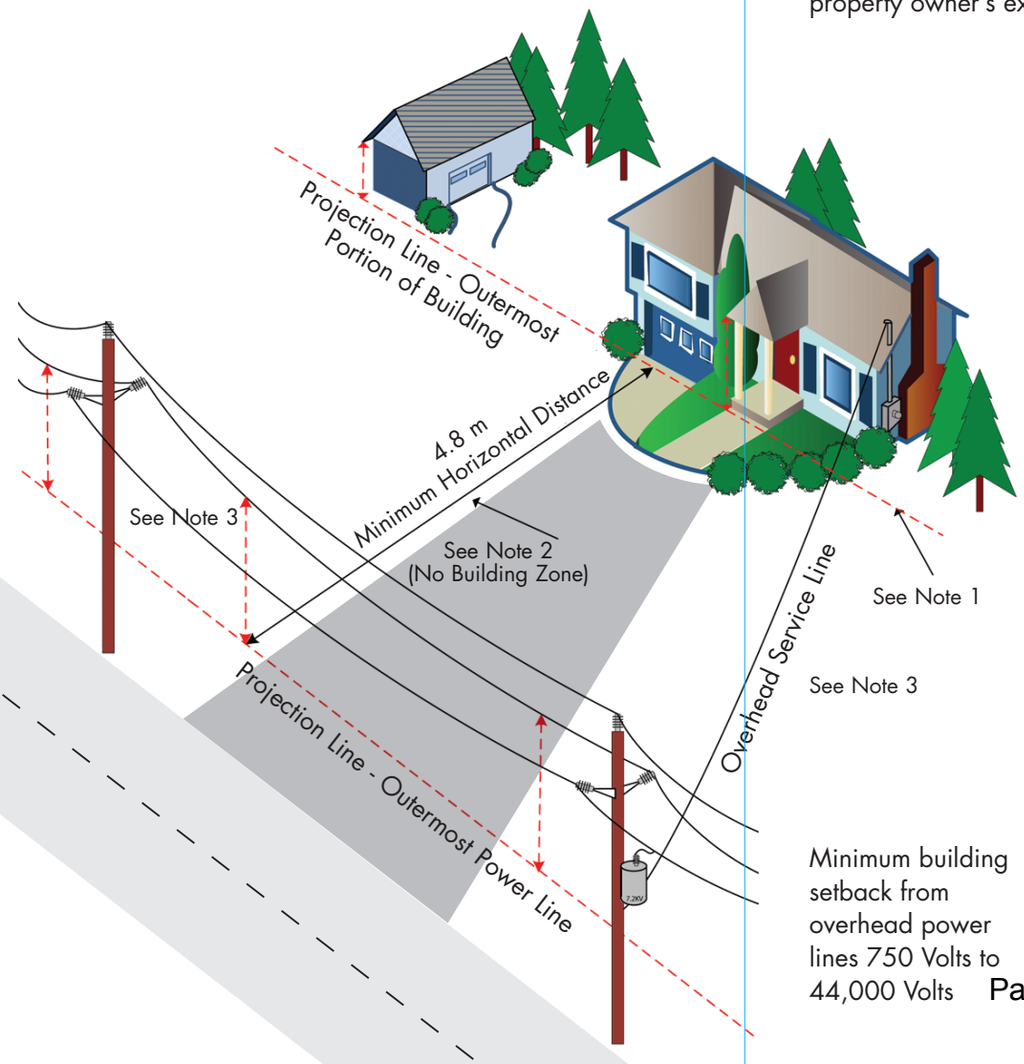
The total number of fixture units per dome is 11.5 FU, and the total number for all three domes is 34.5 FU. This total is 14.5 FU greater than 20, which results in an addition of 725 L/day.

The living area is approximately 49.3 m^2 per dome, and 148 m^2 for all four domes. This is less than 200 m^2 therefore there is no added flow for living area. Because this value is less than the amount from the fixtures, no further addition is needed.

Combining the base rate of 2250 L/day with the fixtures amount of 725 L/day brings the Total Daily Septic Flow to **2975 L/day**.

PLANNING TO BUILD ON YOUR PROPERTY?

The diagram below represents the minimum building setback from overhead power lines.



Minimum building setback from overhead power lines 750 Volts to 44,000 Volts

BUILDING PLANS

When submitting building plans to your local municipality for approval, be sure to:

- Include in your drawings any overhead power lines on or in immediate proximity to the property
- Clearly indicate any existing and/or proposed buildings, overhangs, septic systems, swimming pools, antennas, flag poles, or any other permanent above ground structures within the required setback of the power lines

Failure to comply with required setbacks can pose public safety risks and could result in the relocation of any buildings, structures or power lines at the property owner's expense.

Notes

1. The minimum horizontal distance is measured from the projection line of the outermost power line, to the projection line of the outermost portion of any building including a roof overhang, balcony, deck, or fire escape.
2. To ensure compliance with all applicable standards and regulations, a minimum horizontal distance (setback) of 4.8m is required.
3. No building is permitted under a power line or overhead service line. Overhead service lines attached to a building are exempt from the minimum horizontal clearance requirements.

EASEMENTS

An easement is a legal right acquired from property owners which allows Hydro One to construct, operate, access and maintain its facilities on lands it does not own. Easements can be registered or unregistered, which equally grant Hydro One rights to use the property. Unregistered easements will not appear on the title of your property, however you can find out if one exists on your land by visiting HydroOne.com/Easements

An easement contains restrictions to uses such as, but not limited to, the construction of a building or the storage of materials.

SETBACKS

A setback is the horizontal allowable distance that any building or structure, including balconies and overhangs, must maintain from a Hydro One overhead power line. Everyone must comply with setback requirements.

To ensure compliance with all applicable standards and regulations, a minimum 4.8m setback is required. This takes into account the maximum distance a power line might swing on a windy day.

SETBACKS FROM UNDERGROUND AND PAD-MOUNTED TRANSFORMERS

If power lines are located underground, you may notice a green pad-mounted transformer box. You must comply with setback requirements to ensure public safety and accessibility by Hydro One personnel.

To view a detailed image with required setbacks for pad-mounted transformers, visit HydroOne.com/SafeBuilding

CONDITIONAL SITE PLAN APPROVAL

Applicant:	**Chadwick Wilton (1001234143 Ontario Inc.)**	**Date of Decision:**	**November 26, 2025**
File No.:	**SPA2538.1**	**Date of Notice:**	**November 26, 2025**
Municipality:	**Bonnechere Valley**		
Location:	**Pt. Lots 29 & 30, Con. 12 (Gorman Road)**		

This approval applies to a Site Plan application submitted by Chadwick Wilton (1001234143 Ontario Inc.) for a proposed cottage rental business at the above noted location, that includes a Site Plan dated June 12, 2025, showing:

- 2 Geodesic dome cottages on elevated platforms
- Well and septic system
- 2 Designated parking spaces
- An all-season access road
- A floating dock
- A boat launch ramp

The subject lands are designated as Rural in the County of Renfrew Official Plan, which permits a variety of uses, including low density residential, commercial, recreational, resource-based recreational, and conservation uses. The property is zoned as Tourist Commercial, also which permits a wide range of uses, including a tourist establishment, a resort, and passive recreational uses.

The Township of Bonnechere Valley conditions for final site plan approval for 1001234143 Ontario Inc. at the property described as Part of Lots 29 & 30, Concession 12, located on Gorman Road, File No. SPA2538.1, are listed below. It is the applicant's responsibility to fulfil the conditions of site plan approval and to ensure that the required clearance letters are forwarded by the appropriate agencies to the Municipality of Bonnechere Valley quoting the file number.

No.	Conditions

1. That prior to final approval, the Owner updates the Site Plan to:

    a) Show two septic systems, one servicing each geodesic dome.

2. That prior to final approval, the Owner agrees to enter into a Site Plan Agreement with the Township of Bonnechere Valley. The owner agrees to satisfy all terms, conditions and obligations, financial and otherwise, of the Municipality, at the Owner's sole expense, for the site works identified in the following plans and submissions, in accordance with the Municipality's specifications and standards, all to the satisfaction of the Municipality:

    a) Site Plan, dated June 12, 2025
    b) Geodome Residential Space, Preliminary Building Plans (5 views), received October 17, 2025
    c) Planning Justification Report, Jp2g Consultants Inc., August 8, 2025
    d) Hydrogeological Study, Jp2g Consultants Inc., July 24, 2025
    e) Planning to Build on Your Property, Hydro One Information Pamphlet, received September 15, 2025

3. The site plan agreement is to include clauses whereby the Owner agrees to obtain a Ministry of Natural

Resources work permit for the boat launch.

4. The site plan agreement is to include clauses whereby the Owner shall provide, to the satisfaction of Renfrew Power Generation:

    a) Confirmation that the necessary shoreline setbacks are adhered too.

    b) Confirmation that buildings are built at an elevation to best protect from high water.

5. The site plan agreement is to include clauses whereby the Owner shall provide, to the satisfaction of the Municipality:

    a) That 800 gallon septic tanks, stairs, and railings be installed in accordance with the Ontario Building Code and to the satisfaction of the Chief Building Official.

    b) The entrance and private laneway be built to the recommended standard required by the Public Works Department.

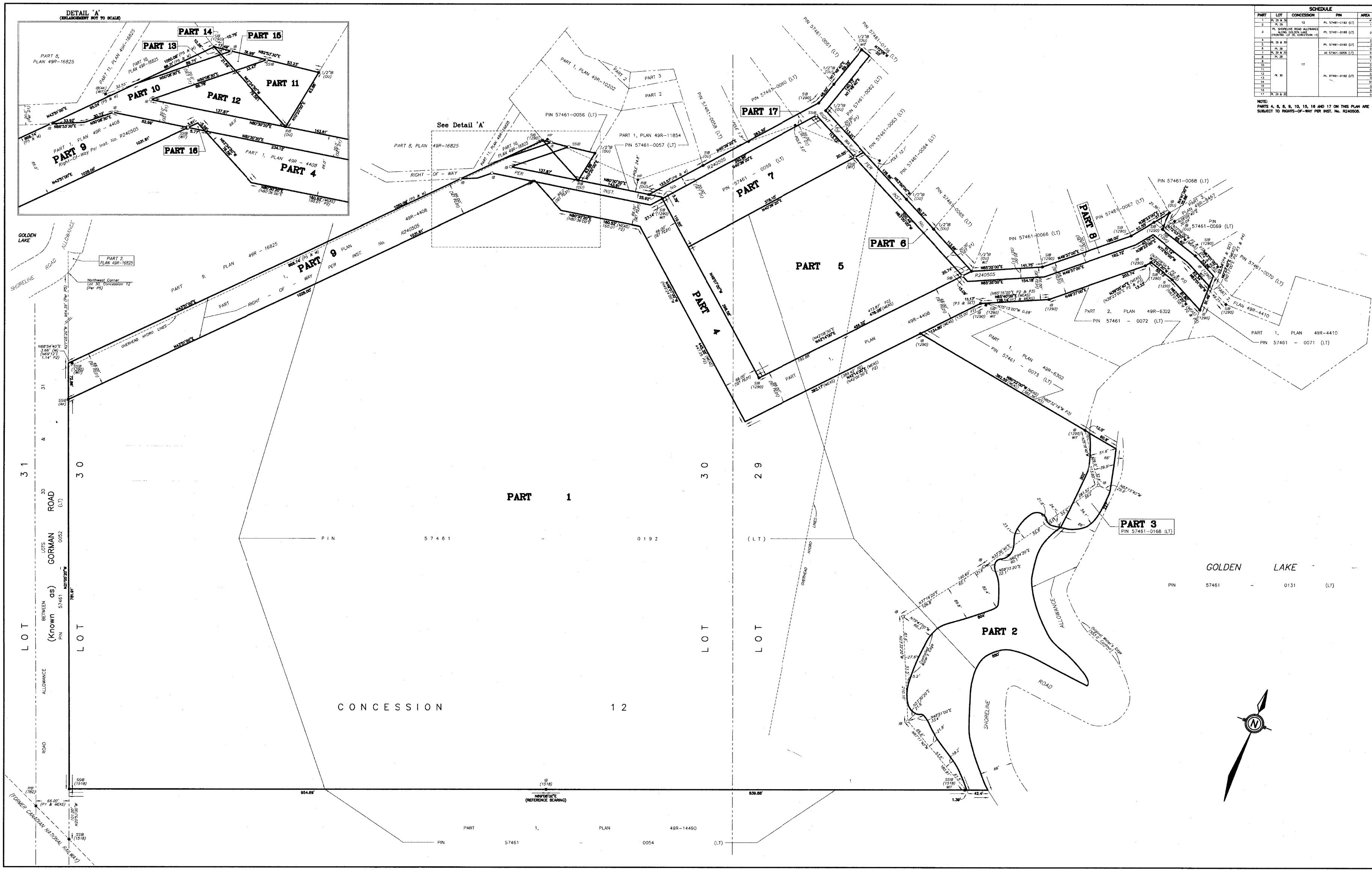
    c) An entrance permit and civic address sign application shall be submitted to the Public Works Department, if not already completed.

6. That the site plan agreement, to be registered title to the subject lands, contains clauses that require:

    a) The Owner to lodge with the Municipality a copy of all final approved plans and information identified in Item No. 2 a) to e), inclusive, above.

Bruce Howarth, Manager of Planning Services

X:\Planning\Data\MUNICIPAL\Bonnechere Valley\Site Plan Control\2025\SPA2538.1 1001234143 Ontario Inc\5 Approval\Conditional Approval.docx



SCHEDULE				
PART	LOT	CONCESSION	PIN	AREA (AC)
1	Pt. 29 & 30	12	Pt. 57461-0192 (LT)	41.21
2	Pt. 29			1.33
3	Pt. SHORELINE ROAD ALLOWANCE ALONG GOLDEN LAKE (FRONTING LOT 30, CONCESSION 12)		Pt. 57461-0168 (LT)	0.24
4	Pt. 29 & 30	12	Pt. 57461-0192 (LT)	2.14
5				2.91
6	Pt. 29			0.15
7	Pt. 29 & 30		All 57461-0059 (LT)	0.92
8	Pt. 29		Pt. 57461-0192 (LT)	0.28
9	Pt. 30			1.46
10				0.22
11				0.06
12				0.07
13				0.01
14				51 ft²
15				0.01
16				8 ft²
17	Pt. 29 & 30			0.29

NOTE:
PARTS 4, 6, 8, 9, 10, 15, 16 AND 17 ON THIS PLAN ARE SUBJECT TO RIGHTS-OF-WAY PER INST. No. R240505.

PLAN 49R- 16840

RECEIVED AND DEPOSITED
Nov. 19, 2008
(date)
L. deBruyn
LAND REGISTRAR FOR THE LAND TITLES DIVISION OF RENFREW (NO. 49)

I REQUIRE THIS PLAN TO BE DEPOSITED UNDER THE LAND TITLES ACT
DATE: NOVEMBER 19, 2008.
ADAM KASPRZAK

PLAN OF SURVEY
OF PART OF
LOTS 29 & 30, CONCESSION 12
AND PART OF
SHORELINE ROAD ALLOWANCE ALONG GOLDEN LAKE
(FRONTING LOT 29, CONCESSION 12)
GEOGRAPHIC TOWNSHIP OF SOUTH ALGONA
TOWNSHIP OF BONNECHERE VALLEY
COUNTY OF RENFREW
SCALE: 1 INCH = 60 FEET
50 40 30 20 10 0 25 50 75 100 125 FEET
ADAM KASPRZAK SURVEYING LTD.

BEARING NOTE:
BEARINGS ARE ASTRONOMIC AND ARE REFERRED TO THE NORTHWESTERLY LIMIT OF PART 1, SHOWN ON PLAN 49R-14490, HAVING A BEARING OF N69°08'00"E.

DISTANCE NOTE:
DISTANCES SHOWN ON THIS PLAN ARE IN FEET AND CAN BE CONVERTED TO METRES BY MULTIPLYING BY 0.3048.

WATER'S EDGE NOTE:
DISTANCES SHOWN ON THIS PLAN TO THE WATER'S EDGE ARE PERPENDICULAR TO THEIR RESPECTIVE TRAVERSE LINES UNLESS NOTED OTHERWISE.

ELEVATION NOTE:
ELEVATIONS SHOWN HEREON ARE GEODETIC AND ARE REFERRED TO MTO BENCH MARK No. 808284 HAVING AN ELEVATION OF 564.88'.

ORIGINAL WATER'S EDGE NOTE:
CONTOUR OF ELEVATION 553.0' (G.S.C. DATUM) AS SHOWN ON THIS PLAN HAS BEEN ESTABLISHED BY SURVEY AS THE BEST AVAILABLE EVIDENCE OF THE WATER'S EDGE OF GOLDEN LAKE EXISTING AT THE TIME OF THE ORIGINAL SURVEY OF SOUTH ALGONA TOWNSHIP.

SURVEYOR'S CERTIFICATE
I CERTIFY THAT:
1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT, THE SURVEYORS ACT, THE LAND TITLES ACT AND THE REGULATIONS MADE UNDER THEM.
2. THE SURVEY WAS COMPLETED ON OCTOBER 31, 2008.

DATE: NOVEMBER 19, 2008.
ADAM KASPRZAK
ONTARIO LAND SURVEYOR

LEGEND
- IB – IRON BAR
- SIB – STANDARD IRON BAR
- SSIB – SHORT STANDARD IRON BAR
- ■ – MONUMENT FOUND
- □ – MONUMENT SET
- RIB – ROUND IRON BAR
- –x–x– – FENCE
- (WIT) – WITNESS
- (OU) – ORIGIN UNKNOWN
- (782) – A. C. BOURNE, O.L.S.
- (1038) – ALAN J. SIMPSON, O.L.S.
- (1290) – D. W. PATTERSON, O.L.S.
- (1518) – W. J. SIMPSON, O.L.S.
- (P1) – TOWNSHIP PLAN
- (P2) – PLAN 49R-4408
- (P3) – PLAN 49R-6302
- (P4) – PLAN 49R-4410
- (P5) – PLAN 49R-16825
- (P6) – PLAN 49R-11854
- (D1) – INST. No. R240505

ADAM KASPRZAK SURVEYING LTD.
ONTARIO LAND SURVEYORS
432 PEMBROKE ST. W., P.O. BOX 492
PEMBROKE ONTARIO K8A 6X7
PHONE (613) 735-0764

SCALE: 1" = 60' | REF: 08-5027-2C
FILE NO.

THE CORPORATION OF
THE TOWNSHIP OF BONNECHERE VALLEY

BY-LAW NO. 2026-005

BEING A BY-LAW TO AUTHORIZE THE MAYOR AND CAO TO EXECUTE AN AGREEMENT BETWEEN THE CORPORATION OF THE TOWNSHIP OF BONNECHERE VALLEY AND THE CORPORATION OF THE TOWNSHIP OF NORTH ALGONA WILBERFORCE TO ALLOW ACCESS TO THE PROGRAMS AND FACILITIES OF THE TOWNSHIP OF BONNNECHERE VALLEY

WHEREAS the Township of Bonnechere Valley has agreed to grant permission to the residents of the Township of North Algona Wilberforce to use all the programs and facilities of the Township of Bonnechere Valley in the same manner and on the same conditions as residents of the Township of Bonnechere Valley.

AND WHEREAS the Council of the Corporation of the Township of North Algona Wilberforce has agreed to pay to the Township of Bonnechere Valley, a fee based on our current cost formula to be indexed going forward.

NOW THEREFORE the Corporation of the Township of Bonnechere Valley enacts as follows:

That the Mayor and CAO be, and they are hereby authorized to execute the agreement attached hereto and to affix thereto the Corporate Seal.

That the said agreement shall form part of this By-Law.

This agreement shall come into force and take effect upon the date of the final passing thereof.

READ A FIRST & SECOND TIME THIS 13TH DAY OF JANUARY 2026

READ A FIRST & SECOND TIME THIS 13TH DAY OF JANUARY 2026

_____ _____

Jennifer Murphy, Mayor Annette Gilchrist, CAO

AGREEMENT

Made this 16th day of December 2025

BETWEEN

The Corporation of the Township of North Algona Wilberforce

AND

The Corporation of the Township of Bonnechere Valley

WHEREAS the Township of Bonnechere Valley is the owner of recreational parks and facilities located within the Township of Bonnechere Valley;

AND WHEREAS the Township of North Algona Wilberforce wishes its residents to have access to the programs and facilities of the Township of Bonnechere Valley;

AND WHEREAS the Township of Bonnechere Valley is prepared to grant such permission to the residents of the Township North Algona Wilberforce;

THEREFORE the parties hereto agree as follows:

1. Residents of the Township of North Algona Wilberforce shall be permitted to participate in activities and programs and to use all the facilities of the Township of Bonnechere Valleys recreational facilities in the same manner and on the same conditions as residents of the Township of Bonnechere Valley.
2. At the end of each year the Township of Bonnechere Valley shall submit a list of Township of North Algona Wilberforce users of recreational facilities in Bonnechere Valley Township as outlined in paragraph 1.
3. At the beginning of each year the Township of Bonnechere Valley shall submit an invoice to the Township of North Algona Wilberforce outlining the cost of providing recreation services for the coming year.
4. The costs shall be $20,000.00 per year beginning in 2023 and have a 2% increase each year thereafter.
    a. 2026 - $21,225.00
    b. 2027 - $21,650.00
    c. 2028 - $22,100.00
5. This agreement shall be for a period of three (3) years commencing January 1, 2026.
6. Either party may terminate this agreement at the end of each calendar year upon the giving of sixty (60) days' notice in writing to the other party at its Municipal Office.
7. This agreement may be amended by the parties to the agreement, by mutual agreement at any time after commencement.
8. **IN WITNESS WHEREOF** the Parties hereto have hereunder set their hand and the corporate seal on the date written above

Signed and Sealed and delivered
In the Presence of

The Corporation of the Township of North Algona Wilberforce

Witness — pp Mayor

Witness — CAO/Clerk

The Corporation of the Township of Bonnechere Valley

Witness — Mayor Jennifer Murphy

Witness — CAO/Clerk Treasurer Annette Gilchrist

THE CORPORATION OF
THE TOWNSHIP OF BONNECHERE VALLEY

BY-LAW NO. 2026-006

BEING A BY-LAW TO CONFIRM
THE PROCEEDINGS OF COUNCIL

WHEREAS Section 5(1) of the Municipal Act 2001, Chapter 25 and amendments thereto provides that the powers of a municipal corporation are to be exercised by its council;

AND WHEREAS Section 5(3) of the Municipal Act 2001 Chapter 25 and amendments thereto provides that the powers of every council shall be exercised by by-law;

AND WHEREAS it is deemed necessary and expedient that the proceedings and actions of the Council of the Corporation of the Township of Bonnechere Valley be confirmed and adopted by by-law, for the regular meeting held on:

January 13 2025

THEREFORE, the Council of the Corporation of the Township of Bonnechere Valley enacts as follows:

1. THAT the action of the Council of the Corporation of the Township of Bonnechere Valley in respect to each recommendation contained in the reports of the Committees and in respect to each motion, resolution and other action passed and taken by the Council at its said regular meeting, is hereby adopted, ratified and confirmed as if all such proceedings were expressly embodied in this by-law.

2. The Mayor or in her absence, the Presiding Officer of the Council and the proper officials of the Municipality are hereby authorized and directed to do all things necessary to give effect to the said action or to obtain approvals where required.

3. The Mayor or in his/her absence the Presiding Officer and the Clerk or in his/her absence the other designated signing officer, are hereby directed to execute all documents required by Statute to be executed by them, as may be necessary in that behalf and to affix the Corporate Seal of the Municipality to all such documents.

4. THAT in the event any provision or provisions of this by-law be deemed illegal or not enforceable, it or they shall be considered separate and severable from the by-law, and its remaining provisions shall remain in force and be binding as though the said provision or provisions had never been included.

READ A FIRST & SECOND TIME THIS 13TH DAY OF JANUARY 2026

READ A THIRD TIME AND PASSED THIS 13TH DAY OF JANUARY 2026

_____ _____

Jennifer Murphy, Mayor Annette Gilchrist, CAO/Clerk