



## Planning Report

**To:** Township of Huron-Kinloss Council

**From:** Benito Russo, Planner

**Date:** June 12, 2023

**Re:** Zoning By-law Amendment Application - Z-2023-029 (Shelton)

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### Recommendation:

Subject to a review of submissions arising from the public meeting:

That Council approve Zoning By-law Amendment Z-2023-029 as attached and the necessary by-law be forwarded to Council for adoption.

### Summary:

The purpose of this application is for a Zoning By-law Amendment. If approved, this application will facilitate a Consent for the creation of a new +/- 786 square meter (m<sup>2</sup>) lot from a +/- 1,565 m<sup>2</sup> parcel. It is proposed that the Zoning By-law will be amended to permit:

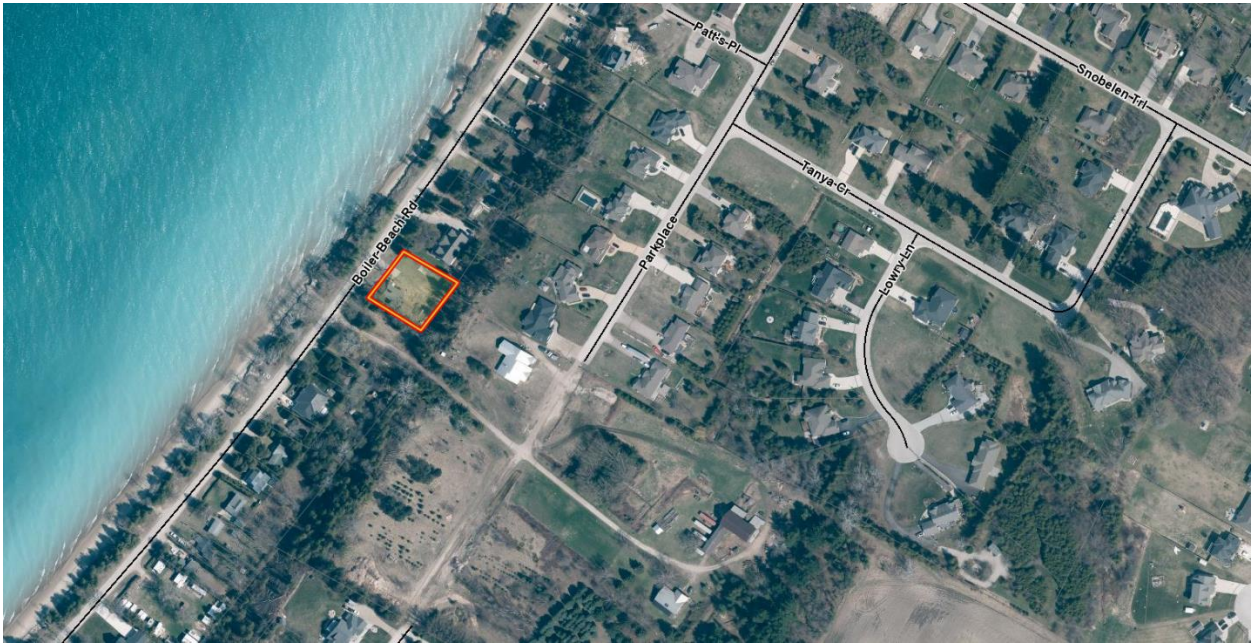
- i) A reduced lot area of 786 and 822 square meters, for both severed and retained lots respectively;
- ii) A reduced frontage of 19 meters, where 30 is required, for both the severed and retained lots;
- iii) a requirement for a tertiary septic system, for both the severed and retained lots; and,
- iv) a holding provision for areas containing high archaeological potential.

The Environmental Protection (EP) zone will remain unchanged.

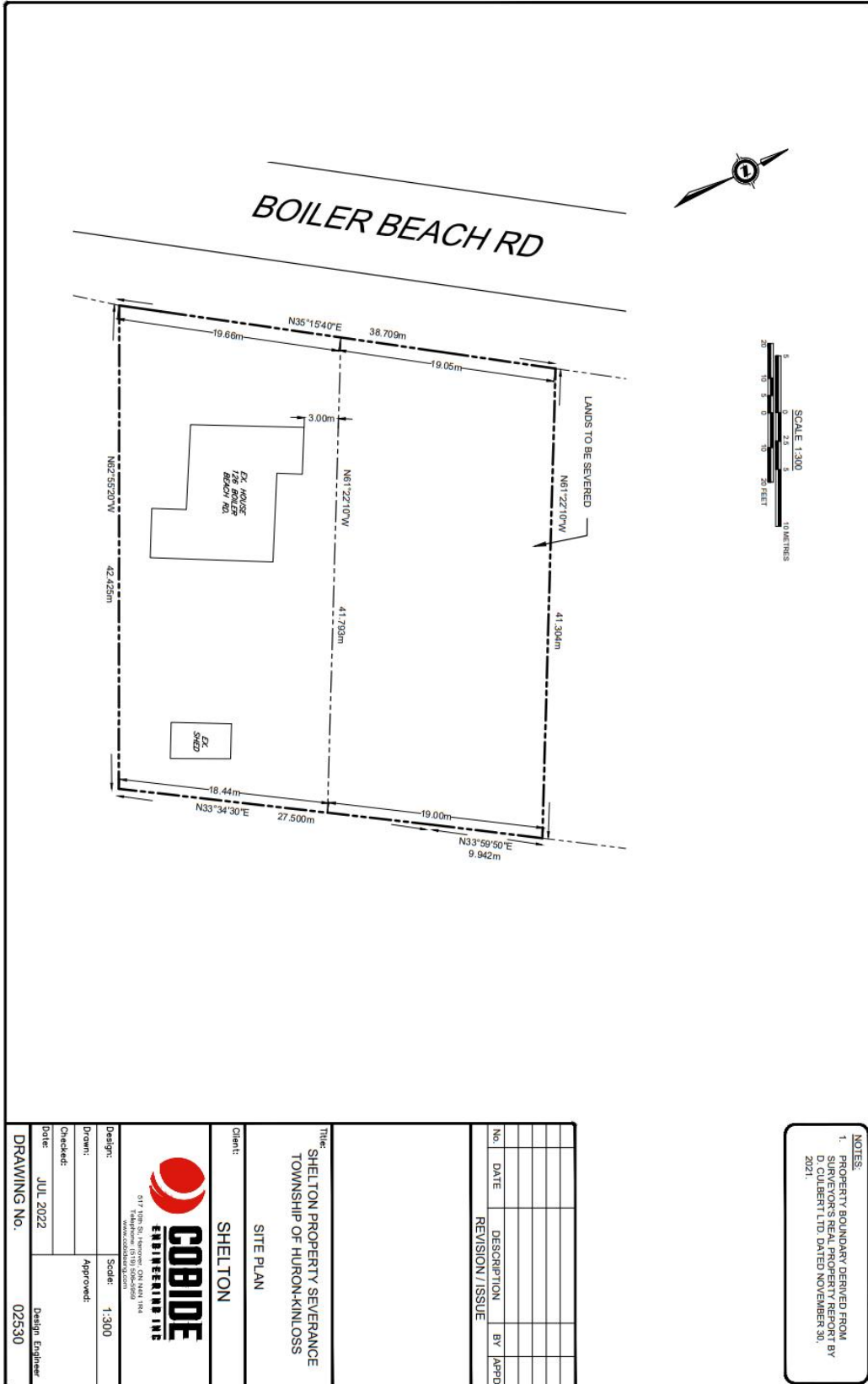
The related consent files (B-2023-028) will be considered by the County at a later date.

The subject property is located South of Kincardine, North of Concession Road 10, and on the East side of Boiler Beach Road. The subject property is surrounded by residential land uses, and natural areas including Lake Huron.

# Airphoto



# Site Plan - Entire Property



## Planning Analysis:

The following section provides an overview of the planning considerations that were factored into the staff recommendation for this application, including relevant agency comments (attached), and planning policy sections.

### Consents for Urban Areas

The Provincial Policy Statement and Bruce County Official Plan support the severance of lands in urban settings for infilling of residential land uses and consider this good planning. Consents in these areas contribute to the mix and availability of land for residential development. Lot creation in developed areas maximizes the use of existing township services that have been previously invested in and are readily available.

The subject Consent proposes the creation of a new +/- 786 square meter (m<sup>2</sup>) vacant lot from a +/- 1,565 m<sup>2</sup> parcel. The continued use of the proposed lots is for residential purposes.

The subject lands are designated as Secondary Urban Areas in the Bruce County Official Plan, and Lakeshore Residential and Environmental Protection in the Township of Huron-Kinloss Official Plan. Within the Bruce County Official Plan, severances in the urban settlement designations may be granted for applications where:

- i) The proposed lots are in keeping with the lot area, frontage and density pattern of the surrounding area, and;
- ii) The severance does not result in major service extensions to service the proposed lot.

The Township of Huron-Kinloss also contains several criteria for considering lot creation by Consent, among others, this includes:

- i) Safe and suitable access that fronts onto a public road maintained on a year round basis;
- ii) The site contains a suitable building envelope and can be appropriately serviced;
- iii) The division of land represents infilling in a Settlement Area and the proposed lots are compatible with the surrounding area; and
- iv) The division of land will result in a developable portion of the lot outside of the limits of the Environmental Protection designation or outside of a natural heritage feature and will not have a negative impact on the drainage patterns in the area.

The proposed Consent conforms to the Bruce County and Township of Huron-Kinloss Official Plan criteria for Consents in settlement areas.

## Lot Size and Septic Servicing

Within the Huron-Kinloss Official Plan where lot creation is proposed having an area of less than 1,850 square meters it shall be supported by a Nitrate Study. The purpose of a Nitrate Study is to ensure that no development proposal shall result in a nitrate concentration of more than 10mg/L of nitrate at each new property boundary.

A Sewage System Impact Assessment was submitted with the subject application and addressed the matters as prescribed in the *D-5-4 Technical Guideline for Individual On-Site Sewage Systems: Water Quality Impact Risk Assessment of the Ministry of Environment*. The proposed severed lot meets the policy requirements with a tertiary septic system. Any future development on both the severed and retained parcel will need to comply with Provincial criteria for nitrates, this may require updates to the existing septic services.

## Archaeological Potential

The subject lands are in close proximity to Lake Huron and currently contain an original schoolhouse that was converted to a residential use. As such, the entirety of the property has been identified to be within an area of high archaeological potential.

An archaeological assessment was originally submitted in support of the proposed application, however, due to the methodologies utilized during the assessment the report has been placed under review and a pending reassessment is planned.

Therefore, until the archaeological reassessment has occurred, a holding provision is recommended for the proposed lots to ensure that any future development will require an archaeological assessment completed by a qualified individual, and that the recommendations of the assessment, if any, would be implemented prior to development on those lands.

## Natural Heritage and Hazards

A small portion of the subject property is identified as being zoned Environmental Protection. At this time no physical development is occurring in these areas, and the proposed EP zone will remain unchanged.

## Required Zoning By-Law Amendments

An amendment to the Zoning By-law is required in order to facilitate the severance.

The proposed lands to be retained will be rezoned from Residential One (R1) to Residential One Special Holding (R1-25.173-H1) with the following provisions:

- Notwithstanding their 'R1' Zoning designation, those lands delineated as 'R1-25.173-H1' on Schedule 'A' to this By-law shall be used in accordance with the 'R1' Zone provisions contained in this By-law, excepting however, that:

- i) The minimum lot frontage shall be no less than 19 meters.
- ii) The minimum lot area shall be no less than 822 square meters.
- iii) Any buildings and structures existing as of June 12, 2023 which do not comply with the provisions of the By-law are hereby recognized as being in compliance with the zoning. All future buildings and structures, or additions to existing buildings and structures, shall comply with the provisions of the By-law;
- iv) In areas of high archeological potential, lot grading; excavation; and/or construction shall not be permitted unless the Holding (H) zone provision is removed; and,
- v) Development shall be serviced by an advanced tertiary sewage disposal system that achieves at least 50% nitrate removal and meets the specifications of the CAN/BNQ 3680-600 standard, as amended from time to time or by connection to a Municipal sewage disposal system.

The proposed lands to be retained will be rezoned from Residential One (R1) to Residential One Special Holding (R1-25.176-H1) with the following provisions:

- Notwithstanding their 'R1' Zoning designation, those lands delineated as 'R1-25.176-H1' on Schedule 'A' to this By-law shall be used in accordance with the 'R1' Zone provisions contained in this By-law, excepting however, that:
  - i) The minimum lot frontage shall be no less than 19 meters.
  - ii) The minimum lot area shall be no less than 786 square meters.
  - iii) Any buildings and structures existing as of June 12, 2023 which do not comply with the provisions of the By-law are hereby recognized as being in compliance with the zoning. All future buildings and structures, or additions to existing buildings and structures, shall comply with the provisions of the By-law;
  - iv) In areas of high archeological potential, lot grading; excavation; and/or construction shall not be permitted unless the Holding (H) zone provision is removed; and,
  - v) Development shall be serviced by an advanced tertiary sewage disposal system that achieves at least 50% nitrate removal and meets the specifications of the CAN/BNQ 3680-600 standard, as amended from time to time or by connection to a Municipal sewage disposal system.

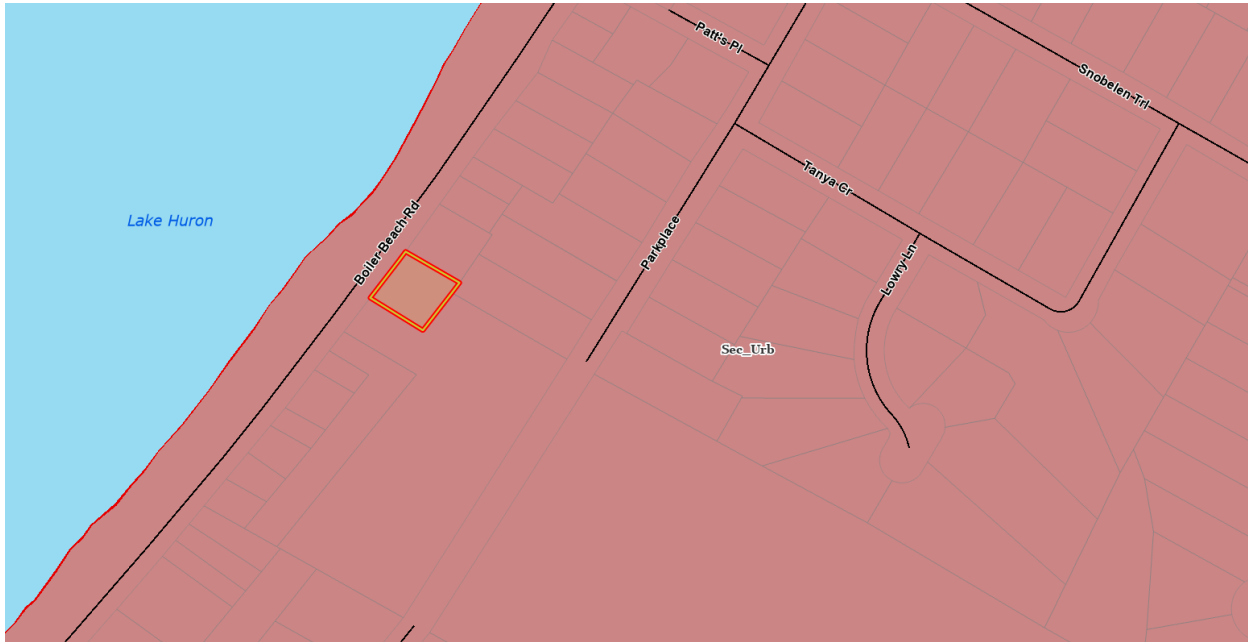
The EP - Environmental Protection zone will remain unchanged.

## Appendices

- County Official Plan Map
- Local Official Plan Map
- Local Zoning Map
- Agency Comments
- Public Comments
- Planning Brief - Cobide Engineering dated March 2023

- Sewage System Impact Assessment - Cobide Engineering dated February 2023
- Public Notice

### County Official Plan Map (Designated Secondary Urban Communities)



### Local Official Plan Map (Designated Lakeshore Residential, EP - Environmental Protection)



## Local Zoning Map (Zoned Residential One 'R1', EP - Environmental Protection)



### Agency Comments

The Corporation of the Township of Huron-Kinloss:

- 1) Development Charges & Parkland fees will be required.
- 2) An entrance permit will be required for the retained parcel.
- 3) The Severed parcel will require a new water service.
- 4) There is no well abandonment on file for this property.

BM Ross and Associates: No objection. An Application for Permit to Construct or Demolish and associated fee will be required prior the installation of the advanced treatment units on both lots. Full comments provided below.

Historic Saugeen Métis: No objection or opposition.

Hydro One: No comments or concerns at this time.

Saugeen Ojibway Nation: The submitted archaeological assessment has been reviewed and there are significant issues. It is recommended that the assessment be subject to specialized review, or a reassessment occur. The Saugeen Ojibway Nation is satisfied that until a reassessment occurs the proposed archaeological holding provision is sufficient to protect any potential archaeological resources.

Saugeen Valley Conservation Authority: The applications are acceptable to SVCA staff. Full comment provided below.



Source Water Risk Management Office: No concerns with the proposed application. The subject property is located within zone 2 of the Kincardine Intake Protection Zone (IPZ-2), as identified in the Saugeen, Grey Sauble, Northern Bruce Peninsula Source Protection Plan (SPP). There are no binding SPP policies or restrictions related to residential properties in this zone; a Notice under section 59 of the Clean Water Act is not required for this application.

Public Comments: No comments have been received at the time of this report's submission.

**B. M. ROSS AND ASSOCIATES LIMITED**  
**Engineers and Planners**  
62 North Street, Goderich, ON N7A 2T4  
p. (519) 524-2641  
[www.bmross.net](http://www.bmross.net)

File No. 11187

**(EMAILED)**

June 1, 2023

County of Bruce  
Planning and Development  
30 Park Street  
P.O. Box 848  
Walkerton, ON N0G 2V0

To whom it may concern:

**Re: File: B-2023-028, Z-2023-209**  
**126 Boiler Beach Road**  
**JMKD Holdings Inc.**  
**Township of Huron-Kinloss**  
**(Geographic Township of Huron)**

We received the above mentioned "Request for Agency Comment" on May 11, 2023. As the Township of Huron-Kinloss' agent for administration of the Ontario Building Code (OBC), Part 8, Sewage Systems we appreciate the opportunity to comment on this application.

The application proposes a consent to create an approximately 786 m<sup>2</sup> parcel from a 1,565m<sup>2</sup> parcel. The proposal requires a zoning bylaw amendment to permit the reduced lot area and reduced frontage. It will also require a tertiary septic system for both the retained and severed lots.

The application has been reviewed by OBC Part 8 Inspector Dave Bell (BCIN# 34600). In reviewing the Sewage Suitability Report, we note the design effluent volume is 1,000 L/day. This value is less than the design flow for a 2-bedroom dwelling. However, we agree that advanced treatment units will be required for both lots.

An *Application for Permit to Construct or Demolish* and associated fee will be required prior the installation of the advanced treatment units on both lots. We have no objections to this proposal.

Yours very truly

B. M. ROSS AND ASSOCIATES LIMITED

Per 

Lisa J. Courtney, M.Sc. R.P.P, M.C.I.P  
Environmental Planner

SENT ELECTRONICALLY ONLY: [BRusso@brucecounty.on.ca](mailto:BRusso@brucecounty.on.ca) and [bcplwa@brucecounty.on.ca](mailto:bcplwa@brucecounty.on.ca)

June 2, 2023

County of Bruce Planning & Development Department  
30 Park Street  
Walkerton, Ontario N0G 2V0

ATTENTION: Benito Russo, Planner

Dear Mr. Russo,

RE: Z-2023-009 and B-2023-028 (Shelton)  
126 Boiler Beach Road  
Part Lot 52 Part Lot 53 Concession A, Part 1 to 2 Plan 3R924  
Roll No: 410716000901800  
Geographic Township of Huron  
Township of Huron-Kinloss

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Saugeen Valley Conservation Authority (SVCA) staff has reviewed the above-noted application as per our delegated responsibility from the Province to represent provincial interests regarding natural hazards identified in Section 3.1 of the Provincial Policy Statement (PPS, 2020) and as a regulatory authority under Ontario Regulation 169/06 (SVCA's Development, Interference with Wetlands, and Alterations to Shorelines and Watercourses Regulation). SVCA staff has also provided comments as per our Memorandum of Agreement (MOA) with the County of Bruce (or other MOA) representing natural hazards and water resources. The applications has also been reviewed through our role as a public body under the Planning Act as per our CA Member approved Environmental Planning and Regulations Policies Manual, amended October 16, 2018.

## **Purpose**

The purpose of this application is for a Consent for the creation of a new +/- 786 square meter (m<sup>2</sup>) lot from a +/- 1,565 m<sup>2</sup> parcel. To facilitate the proposed lot creation, the Zoning By-law will be amended to permit a reduced lot area, a reduced frontage, and a requirement for a tertiary septic system for both the retained and severed lands. A holding is also proposed for areas containing high archaeological potential.

## **Background**

As part of the pre-submission consultation process for the current proposal, the owners contacted the SVCA on May 25, 2021. SVCA staff conducted a site inspection to the property on June 29, 2021, and

provided written comments to the owners dated July 9, 2021 (a copy attached for reference). SVCA found the proposal to be acceptable.

## **Recommendation**

The applications are acceptable to SVCA staff.

## **Delegated Responsibility and Advisory Comments**

SVCA staff has reviewed the applications through our delegated responsibility from the Province to represent provincial interests regarding natural hazards identified in Section 3.1 of the Provincial Policy Statement (PPS, 2020). We have also reviewed the applications through our responsibilities as a service provider to the County of Bruce in that we provide expert advice and technical clearance on *Planning Act* applications with regards to natural hazards, water resources as set out in the PPS, 2020, County Official Plan (OP) and/or local official plans. Comments below only include features/technical requirements affecting the property.

### **Natural Hazards**

The natural hazard features affecting the property include Lake Huron and its related flood and erosion hazards including the dynamic beach (db) and the shoreline slope/bluff hazard. As the Boiler Beach roadway crosses through the db, the db limit just touches the west property line. The other natural hazard is the glacial shoreline bluff/slope along the east property line. The east property line is approximately parallel with the toe/bottom of the slope/bluff. It is SVCA staff's opinion that the Environmental Protection (EP) designation as shown on Schedule A to the Huron-Kinloss Official Plan (OP) generally coincides with SVCA Hazard Lands as mapped by the SVCA. It is the opinion of SVCA staff that the Environmental Protection (EP) zone as shown in the Huron-Kinloss Zoning By-law 2018-98 should be updated as part of these applications to mirror the EP designation and to better reflect SVCA mapping.

### **Provincial Policy Statement – Section 3.1**

Section 3.1 of the PPS, 2020 states, in part, that development shall generally be directed to areas outside of hazardous lands, and hazardous sites. It is the opinion of SVCA staff that the applications are is consistent with Section 3.1.1 of the PPS, 2020.

### **County of Bruce OP and Huron-Kinloss OP Policies**

It is the opinion of SVCA staff that the applications comply with the natural hazard policies of the Bruce County OP and the Huron-Kinloss OP.

### **Drinking Water Source Protection**

The subject property appears to SVCA staff to not be located within an area that is subject to the local Drinking Water Source Protection Plan. To confirm, please contact the Huron-Kinloss Risk Management Officials.

### **Statutory Comments**

SVCA staff has reviewed the applications as per our responsibilities as a regulatory authority under Ontario Regulation 169/06 (SVCA's Development, Interference with Wetlands, and Alterations to Shorelines and Watercourses Regulation). This regulation, made under Section 28 of the *Conservation*

*Authorities Act*, enables SVCA to regulate development in or adjacent to river or stream valleys, Great Lakes and inland lake shorelines, watercourses, hazardous lands and wetlands. Subject to the CA Act, development taking place on or adjacent to these lands may require permission from SVCA to confirm that the control of flooding, erosion, dynamic beaches, pollution or the conservation of land are not affected. SVCA also regulates the alteration to or interference in any way with a watercourse or wetland.

The eastern part of the property is within the SVCA Approximate Screening Area associated with Ontario Regulation 169/06. As such, development and/or site alteration within the SVCA Approximate Screening Area may require permission from SVCA, prior to carrying out the work. For the property, the SVCA Approximate Screening Area includes the slope/bluffs well as an offset distance of 15 metres outwards from the toe/bottom of the slope/bluff.

“Development” as defined under the *Conservation Authorities Act* means:

- a) *the construction, reconstruction, erection or placing of a building or structure of any kind;*
- b) *any change to a building or structure that would have the effect of altering the use or potential use of the building or structure, increasing the size of the building or structure or increasing the number of dwelling units in the building or structure;*
- c) *site grading; or,*
- d) *the temporary or permanent placing, dumping or removal of any material, originating on the site or elsewhere.*

And;

“Alteration” as per Section 5 of Ontario Regulation 169/06 generally includes the straightening, diverting or interference in any way with a river, creek, stream or watercourse, or the changing or interfering in any way with a wetland.

To determine where the SVCA Approximate Screening Area is located associated with our Regulation on the properties, please refer to the SVCA’s online mapping program, available via the SVCA’s website at <http://eprweb.svca.on.ca>, alternatively, please see the attached SVCA map that was provided to the landowner in 2021.

### **SVCA Permission for Development or Alteration**

Development or alteration including construction, reconstruction, conversion, grading, filling or excavation, within the SVCA Approximate Screening Area may require permission (SVCA Permit) prior to the works commencing, depending where future development may occur, the SVCA should be contacted to determine if SVCA review/permit would be required.

### **Summary**

SVCA staff has reviewed the applications in accordance with our MOA with the County of Bruce, and as per our mandated responsibilities for natural hazard management, including our regulatory role under the *Conservation Authorities Act*.

The applications are acceptable to SVCA staff.

Given the above comments, it is the opinion of the SVCA staff that:

- 1) Consistency with Section 3.1, Natural Hazard policies of the PPS, 2020 has been demonstrated;  
and
- 2) Consistency with local planning policies for natural hazards has been demonstrated.

Please inform the SVCA of any decision made by the Township of Huron-Kinloss and/or the County of Bruce with regard to these applications. We respectfully request to receive a copy of the decisions and notices of any appeals filed. Should you have any questions, please contact this office.

Sincerely,



Michael Oberle

Environmental Planning Coordinator

Saugeen Conservation

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Enclosure: SVAC comments

cc: Jennifer White, Clerk, Township of Huron-Kinloss (via email)

Larry Allison, SVCA member representing the Township of Huron-Kinloss (via email)

## Planning Brief

To: B. Russo, Planner

From: D. Kieffer, MCIP, RPP, Senior Development Planner

On behalf of our clients, Jolene Shelton and Chris Knoop, COBIDE Engineering Inc. is pleased to submit this Planning Brief in support of the Zoning By-law Amendment and Consent applications for the property located at 126 Boiler Beach Road, Huron-Kinloss (hereinafter called the subject lands).

This Planning Brief serves analyze the land use planning merits of the applications and determine the appropriateness of the proposed uses. The request will be analyzed within the context of the surrounding community and the relevant planning documents, including the Provincial Policy Statement, the Bruce County Official Plan, the Township of Huron-Kinloss Official Plan and the Township of Huron-Kinloss Comprehensive Zoning By-law.

### Site Context:

The subject lands' legal description are Part Lots 52 & 53, Concession A, RP3R924 Part 1 to 2, geographical Township of Huron, Township of Huron-Kinloss. Presently, they are host to one residential dwelling- a converted former schoolhouse situated on the southern portion of the lot. The lands front Boiler Beach Road and to the west of the road is Lake Huron.

### Planning Context:

The subject lands are designated 'Secondary Urban Communities' in the Bruce County Official Plan, 'Lakeshore Residential' and a small portion as 'Environmental Protection'. The lands are zoned 'Residential One (R1)' and a small portion as 'Environmental Protection (EP)'.

The subject lands are considered to have high archaeological potential due to their proximity to Lake Huron. As such, an Archaeological Assessment was completed on the lands, with no artifacts recovered. This assessment has been submitted in support of this application.

### Development Concept:

The proposal includes a Zoning By-law Amendment and a Consent to create a new residential lot on the northern presently vacant portion of the lot.

The development proposes partial services, connecting to water and providing a tertiary septic system.

To implement the development, a Zoning By-law Amendment would permit a reduced minimum lot size, reduced lot frontage and require the proposed tertiary septic system.

### Lot Size

Section 3.6.4 of the Huron-Kinloss Official Plan states

*“minimum lot sizes for partially serviced lots shall be set out in the Township’s Comprehensive Zoning By-law and shall be a minimum of 1,850 square metres. A consent, including minor boundary adjustments, that propose a smaller minimum lot size may be approved without amendment to this Plan provided a Study prepared by a qualified professional, as approved by the County, is submitted in support of the consent. The Study shall evaluate the impact of the existing and/or proposed sewage disposal system(s) on groundwater quality by determining the nitrate nitrogen (NO<sub>3</sub>-N) concentration in the groundwater at the proposed lot lines for the severed and retained lots. Where the Study determines that the concentration of nitrate nitrogen (NO<sub>3</sub>-N) in the groundwater will be 10 milligrams per litre (10 mg/L) or greater at the proposed lot lines for the severed, retained or enlarged lots the consent shall not be permitted.”*

The lot size requirement is predicated on conventional sewage treatment system and ensuring there is ample room for infiltration of the effluent and room for a replacement system if necessary. As stated in the policy above, this size is permitted to be varied without an amendment to the Plan when supplied with evidence that the lot can meet the required nitrate levels at property line(s).

A Sewage System Impact Assessment (SSIA) was completed by Stephen Cobean, P.Eng and is submitted in support of this application. This Assessment confirms that sewage effluent loading calculations indicate that the creation of the new residential lot and servicing it with a conventional Class 4 on-site sewage system will result in a nitrate concentration of **18.54 mg/L** and servicing the retained parcel with a conventional Class 4 on-site sewage system will result in a nitrate concentration of **18.37 mg/L** in the shallow groundwater flowing off-site. These concentration levels are above the MECP’s requirement of 10 mg/l required at the down gradient property boundary.

A tertiary treatment system that can reduce the sewage effluent concentration to at least 20 mg/L will result in a nitrate concentration at the downstream property line of **9.3 mg/L** for the severed lot and **9.24 mg/L** for the retained parcel.

Therefore, the reduced lot size for both the severed and retained is permitted with tertiary treatment systems. To meet the MECP’s 10mg/L nitrate concentration at the downstream property boundary, an on-site tertiary sewage system that is certified under CAN/BNQ 3680-600 with the ability to provide denitrification of the sewage effluent to at least **21.47mg/L** for the severed lot and **21.66mg/L** for the retained parcel is required to be installed.

Given the findings of the SSIA, it is proposed that both the severed and retained are serviced with tertiary treatment systems.



## Lot Frontage:

A site-specific provision is requested to permit a reduced lot frontage from the required to 30 metres to 19 metres. A 19 m frontage is adequate to facilitate access to the lands and is large enough to accommodate a safe driveway access. Further, it is consistent with several established frontages on Boiler Beach Road in the immediate vicinity to both the North and South.

## New Lots Created by Consents General Criteria

The preferred means of lot creation in the Settlement Areas is by plan of subdivision or condominium. Consents shall only be granted:

1. When the scale of development proposed or the total potential of the property would not require a plan of subdivision; and
2. In determining whether a Plan of Subdivision under the Planning Act is necessary, consideration shall be given to the necessity of major service extensions to properly service the development. In instances where major service extensions are not required to properly service a development, development by consent may be considered.

Due to the fact that just one lot is proposed, no servicing main extensions are proposed (a connection to water is proposed) and both the severed and retained have frontage on a municipally-maintained road, the development is at a scale that is appropriate for a consent to be considered.

Criteria	Proposed
The severed and retained lots front on a public road or a condominium road that is maintained on a year-round basis and is adequate for the proposed use;	Both the severed and retained lots front onto Boiler Beach Road, a municipally-maintained road.
Safe and suitable access is available, which meets municipal, County or Provincial transportation objectives, standards and policies for safety and access;	Safe access appears to be available to both the severed and retained lots.
The site contains a suitable building envelope and can be appropriately serviced with appropriate water services, sewage services, stormwater services, schools, fire protection, and garbage/recycling services to the satisfaction of the appropriate approval authorities;	The proposed building envelope is sufficient for the construction of a residential dwelling.
All parcels shall comply with the provisions of the Zoning By-law. Zoning compliance shall be a condition of the approval of all new lots created by consent;	In addition to the Consent, an Application for a Zoning By-law Amendment has been submitted to ensure compliance with the Zoning By-law.
The development will not have a negative impact on the drainage patterns in the area;	Negative impacts are not anticipated on drainage.
The division of land represents orderly and	Future development of the lands is not

efficient use of land, and its approval would not hinder future development of the retained lands;	anticipated as the surrounding area is significantly built-out.
The division of land represents infilling in a Settlement Area and the proposed lots are compatible with the surrounding area;	The proposed lot is compatible with the surrounding area. Several lots in the area have smaller frontages and smaller lot sizes than what is being proposed.
The proposed development meets the requirements outlined in Section 51(24) of the Planning Act;	Section 51(24) is considered satisfied by this development.
The division of land will result in a developable portion of the lot outside of the limits of the Environmental Protection designation or outside of a natural heritage feature. Lot creation may be permitted adjacent to a natural heritage feature subject to the results of an Environmental Impact Study;	The majority of the proposed new lot is located in the Residential One (R1) zone, and therefore, a building envelope is available.
The division of land is not located entirely in a floodplain, the dynamic beach or any other physical constraint as determined by the Township or the appropriate Conservation Authority;	The proposed lot is regulated by the Conservation Authority, but is not located in the flood plain.
The proposed development demonstrates compatibility between the proposed land uses and existing land uses;	The existing and proposed uses are Residential and the proposed single-detached dwelling is a built-form that fits into the area.
The severance should not lead to the creation of an undersized, irregularly shaped lot which is unsuited for the existing or proposed use;	The lot has access to the road, is rectangular in shape and is appropriate for the proposed use and area.

**Conclusions:**

It is my professional opinion that the applications for a Zoning By-Law Amendment and a Consent on the subject lands represent good land use planning.

Thank you for the consideration of this application, please contact the undersigned with any questions.

Kind regards,

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**COBIDE Engineering Inc.**



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Dana Kieffer, M.Sc. (Planning), MCIP, RPP  
Senior Development Planner,  
COBIDE Engineering Inc.  
519-506-5959 ext. 106  
dkieffer@cobideeng.com

# SEWAGE SYSTEM IMPACT ASSESSMENT

SHELTON PROPERTY

PART LOTS 52 & 53, PART 1 AND 2, CON A

TOWNSHIP OF HURON-KINLOSS

COUNTY OF BRUCE

FEBRUARY 2023

COBIDE Engineering Inc  
517 10<sup>th</sup> Street  
Hanover, ON N4N 1R4  
TEL: 519-506-5959  
[www.cobideeng.com](http://www.cobideeng.com)

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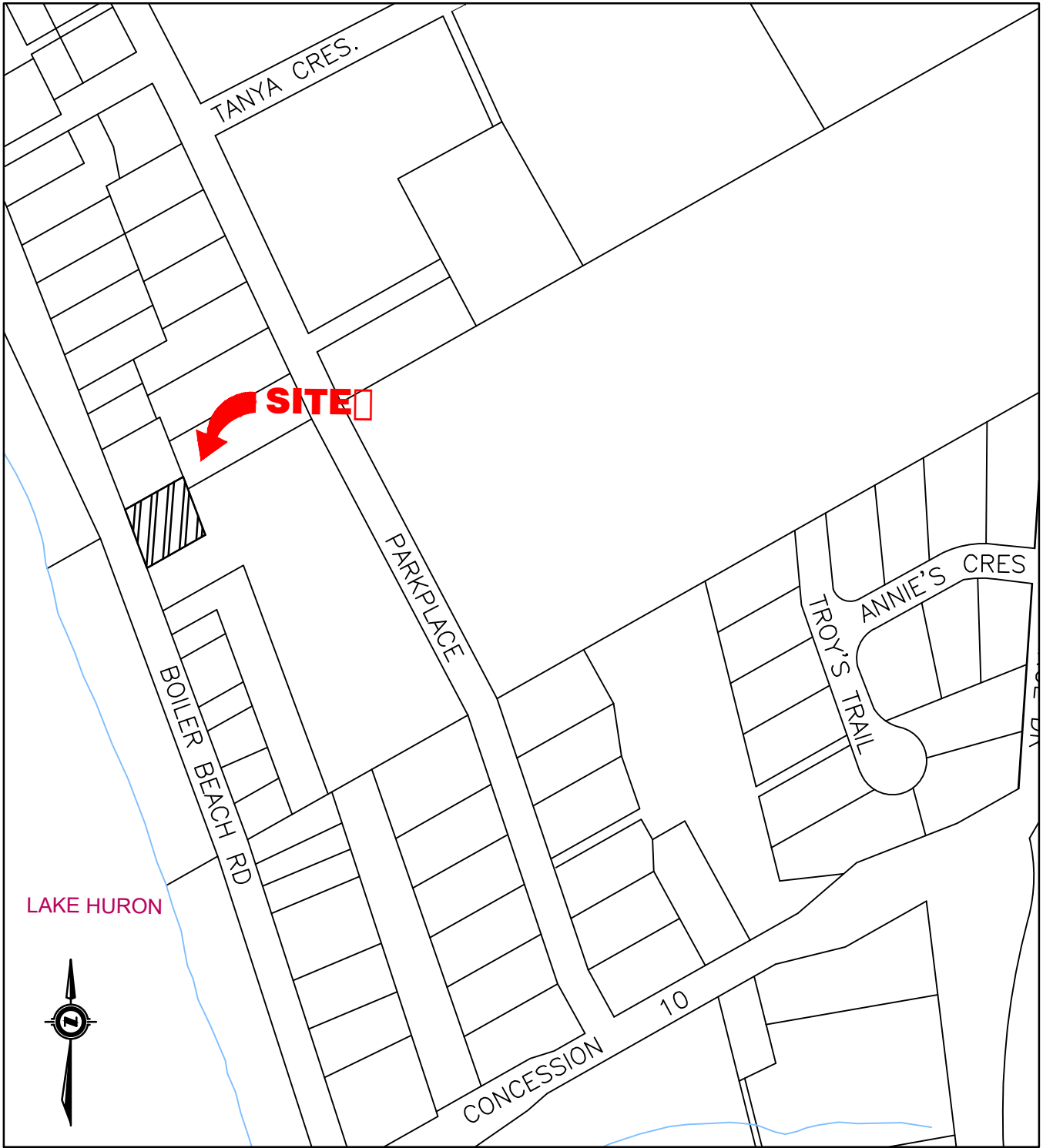
# 1. INTRODUCTION

Cobide Engineering Inc. was retained by Ms. Jolene Shelton to complete a sewage system impact assessment for a parcel of land that is proposed to be severed. The parcel of land is located on Part Lots 52 & 53, Part 1 and 2, Concession A, in the former Township of Huron in the Township of Huron-Kinloss. The civic address for the existing lot is 126 Boiler Beach Road.

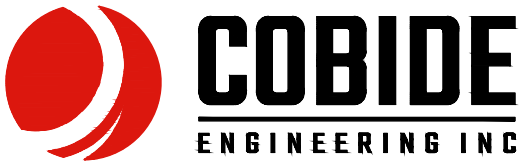
Figure 1 shows the regional location of the property. Figure 2 shows the site plan of the subject property and provides details of the lot to be severed including size and location of the existing dwelling.

The specific objectives of the assessment are as follows:

1. Review and document the current geological and hydrogeological condition of the site;
2. Assess whether conventional on-site sewage servicing will be capable of achieving groundwater nitrate concentrations of 10 mg/L or less at the downgradient property boundary;
3. Recommend potential mitigation measures to be employed at the site to address identified impacts to the hydrogeological system as a result of the lot severance, particularly to groundwater quality and quantity.



SCALE 1:3500



517 10th STREET, Hanover, Ontario N4N 1R4  
 Telephone: (519) 506-5959  
 www.cobideeng.com

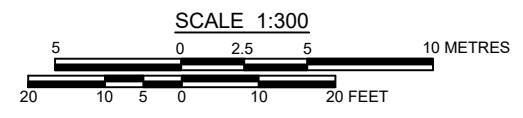
Client/Project  
 SHELTON SEWAGE SYSTEM IMPACT STUDY  
 PART LOTS 52 & 53, CON A  
 TOWNSHIP OF HURON-KINLOSS  
 COUNTY OF BRUCE

Figure No.

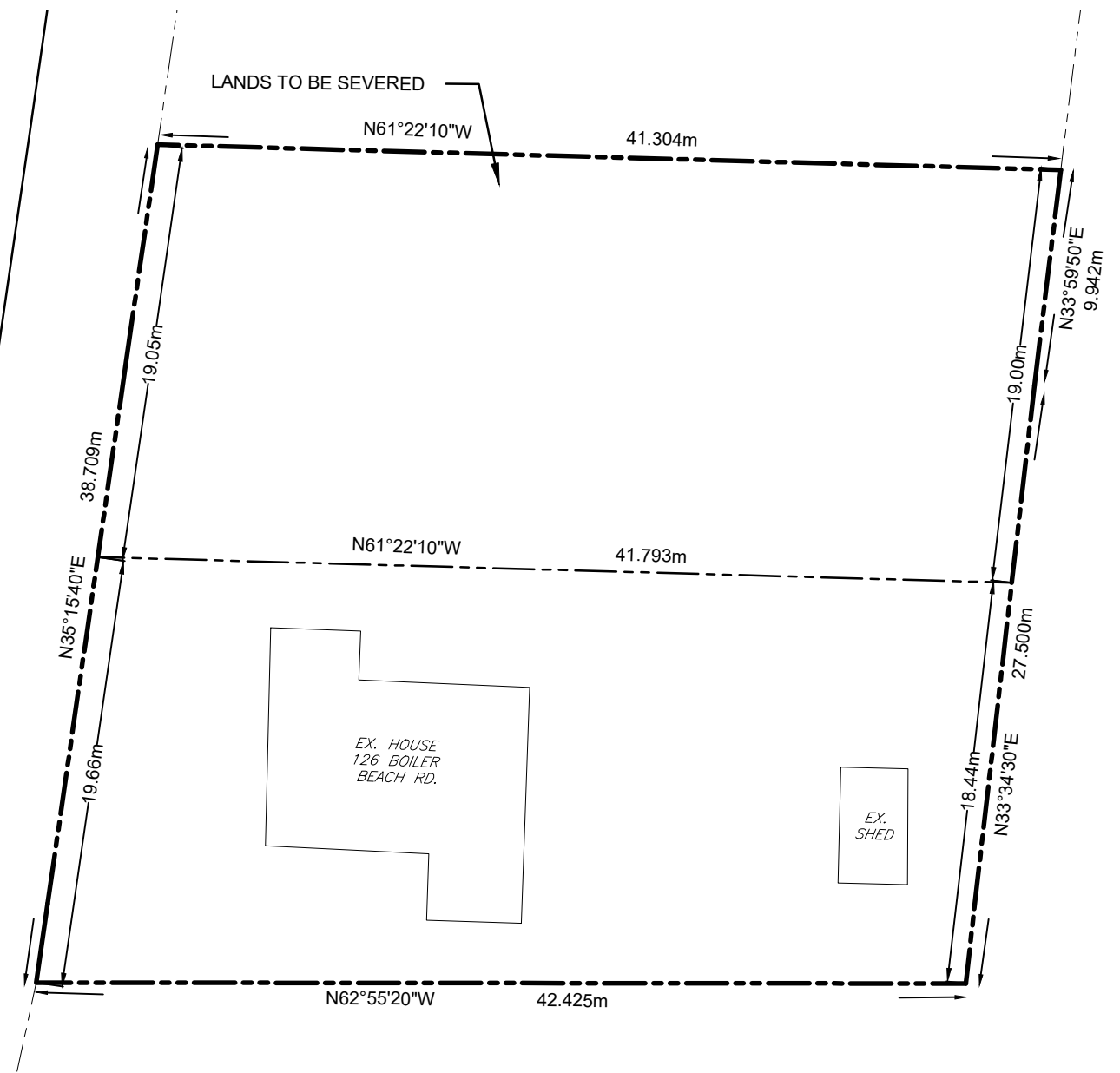
1

Title

**SITE LOCATION MAP**



**BOILER BEACH RD**



**NOTES:**  
 1. PROPERTY BOUNDARY DERIVED FROM SURVEYOR'S REAL PROPERTY REPORT BY D. CULBERT LTD. DATED NOVEMBER 30, 2021.

No.	DATE	DESCRIPTION	BY	APPD
REVISION / ISSUE				

Title:  
**SHELTON PROPERTY SEVERANCE  
 TOWNSHIP OF HURON-KINLOSS**

**SITE PLAN**

Client:  
**SHELTON**



Design:	Scale: 1:300
Drawn:	Approved:
Checked:	
Date: JUL 2022	Design Engineer

**DRAWING No. 02530**



## 2. SITE SETTINGS

### 2.1 GENERAL SITE DESCRIPTION

The subject property is located east of the Lake Huron shoreline. The property is approximately 0.158 ha. in area and is bounded on the east, north, and south sides by single detached residential dwellings and on the west side by the Lake Huron shoreline.

The site is located within the Huron Fringe physiographic region (Chapman and Putman, 1984). This region represents a narrow strip of land that runs approximately 320 km along the shores of Lake Huron from Sarnia to Tobermory and consists of wave cut terraces, beaches, gravel bars and sand dunes that were formed by glacial Lake Algonquin and Lake Nipissing. The Huron Slope physiographic region abuts the Huron Fringe area to the east and is characterized predominantly by clayey till plain.

The topography of the site is gently sloped from east to west towards Lake Huron.

The proposed portion of the property to be severed is currently not developed. One (1) existing residential dwelling is located in the southwest corner of the property and is to be retained after the severance is completed. The residential dwelling is currently serviced with municipal water and a conventional Class 4 on-site sewage system.

### 2.2 PROPOSED DEVELOPMENT

The subject property to be severed is 0.079 ha. in area. The retained parcel will be approximately 0.080 ha. and will consist of the existing residential dwelling.

The retained parcel will remain being serviced with municipal water and an on-site sewage system and front onto Boiler Beach Road. The new parcel will also be serviced with municipal water and an on-site sewage system and will also remain fronting onto Boiler Beach Road.

## 3. EXISTING CONDITIONS

### 3.1 OVERBURDEN GEOLOGY

The Soil Survey of Bruce County categorizes the soils on the property as Brookston Clay Loam which comprises of heavy textured limestone and shale till deposits containing dark grey to black clay loam or siltloam over very mottled, poorly defined lower horizons. The Ontario Geological Survey's Quaternary Geology mapping identifies these soils as Glaciolacustrine deposits containing sand, gravelly sand and gravel (nearshore and beach deposits).

Overburden geology can play a key role in determining the susceptibility of the underlying bedrock aquifer to impacts from human activities. For example, residential wells intersecting a relatively thick unit of silt and clay are generally less susceptible to human activity than wells that intersect a thin unit of more permeable sands and gravel.

Based on a review of available well records from the Ministry of Environment Conservation and Parks (MECP), the overburden soils from three (3) nearby wells generally consist of a layer of topsoil ranging in thickness from 0.0 m to 1.22 m overlying a layer of sand ranging in thickness from 1.52 m to 3.66 m overlying a layer of clay (mix of sandy, stoney, and soft clay) ranging in thickness from 24.69 m to 44.5 m overlying a layer of sandy hardpan ranging in thickness from 10.36 m to 21.95 m overlying bedrock.

A copy of the available well records for the nearby properties are attached as Appendix A.

A soils investigation was completed nearby which consisted of excavating one (1) test pit. The test pit was excavated to a depth of 1.5 m and confirmed that the native soils consisted of poorly graded fine sand with some gravel. The water table was not encountered during the excavation of the test pit but the sand was moist at the bottom. A grain size analysis was completed on a sample of soil from the test pit and confirmed that the soil was classified to be a poorly graded sand/gravelly sand with a coefficient of uniformity of 1.7 and a 'T' time of 4 to 6 min/cm.

A test pit summary has been attached as Appendix B.

### 3.3 HYDROGEOLOGY

As part of the Grey and Bruce Counties Groundwater Study, conceptual models of groundwater flow within the water table and bedrock aquifers throughout the region were constructed using information obtained from the Water Well Information System. In the general vicinity of the site, mapping provided in the study indicates that the direction of groundwater flow through these aquifers is to the west towards Lake Huron. There are no wellhead or surface water protection areas located on or in the vicinity of the property.

### 3.5 GROUNDWATER USE

In general, groundwater in the area is no longer being utilized as a drinking water source since most residents are connected to the municipal water system. Well records indicate that local wells are drilled to depths ranging from 65.8 m to 74.4 m into the bedrock. The bedrock aquifer is hydraulically separated from the ground surface and any potential sewage system by a layer of clay which varies in thickness from 24.69m to 44.5 m. As a result, this aquifer is unlikely to be impacted by any sewage systems or other surface activities.

## 4. NITRATE IMPACT ASSESSMENT

Nitrate is considered to be the critical parameter of concern when assessing impacts to groundwater quality downgradient of on-site sewage systems especially for sites in which there is a downgradient potable use of groundwater.

Since average day flows from the system will be less than 10,000 L/day, the proposed works are not subject to the "Reasonable Use" criteria provided in the MECP's *Guideline B-7*. For systems having an average day flow of less than 10,000 L/day, the MECP's *Procedure D-5-4* applies. This procedure stipulates that the concentration of nitrate cannot exceed the Ontario Drinking Water Standard (ODWS) of 10 mg/L at the downgradient property boundary.

Possible attenuation mechanisms for nitrate include dilution by dispersion in the groundwater flow system, plant uptake and denitrification. In assessing the contaminant attenuation, only dilution is accepted by the MECP as a quantifiable attenuation mechanism for nitrate. The application of this attenuating mechanism in the evaluation involves using the recharge that occurs both upgradient and downgradient of the leachingbed on the property to dilute nitrate in groundwater to acceptable concentrations.

As noted above, Procedure D-5-4 will be used to calculate the concentration of nitrate at the downgradient property boundary. The following provides a summary of the calculations:

### Step One: Lot Size Consideration

Smallest Lot Size - 0.079 ha (0.20 acres)

Notes:

1. The proposed lot is less than the 1.0-hectare size in which no further evaluation would be required. Therefore, further evaluation is required.

### Step Two: System Isolation Consideration

Procedure D-5-4 states the following:

*Where proposed lot sizes are less than one hectare, the proponent and/or the consultant is/are responsible for assessing the potential risk to groundwater. Developments will normally be considered as low risk where it can be demonstrated that sewage effluent is hydrogeologically isolated from existing or potential supply aquifer(s). In making this assessment, the proponent and/or the consultant must:*

- a) evaluate the most probable groundwater receiver for sewage effluent: its definition must be defended by hydrogeological data and Information obtained through a test pit, auger hole and/or test drilling program; and*
- b) define the most probable lower hydraulic or physical boundary of the groundwater receiving the sewage effluent.*

According to the well records for the area, the area near the subject property consists of clay deposits ranging in thickness from 24.69m to 44.5m overlying bedrock.

All effluent from the septic tank system will flow primarily in a horizontal direction towards Lake Huron due to the high porosity surficial soils. The bedrock aquifer is protected by an impervious layer of clay deposits that have been identified from geological mapping in the area. For any effluent that migrates into the bedrock aquifer, groundwater discharge is to Lake Huron.

As a result, septic tank effluent has a very low risk of adversely affecting groundwater quality of any users of the bedrock aquifer in this area of the municipality.

The calculations below are completed as per section 5.6.2 "Predictive Assessment – Residential Development" of the D-5-4 Guidelines.

### Proposed Lot to be Severed

Contaminant Source: 40 mg/l nitrate-nitrogen  
 (Septic Tank Systems)

Background Water Quality: 0.20 mg/l (estimated)

Effluent Volume: 1,000 l/day

Available Infiltration Water:  
 ( $Q_{\text{infiltrate}}$ )  $Q_{\text{infiltrate}} = A \times W_s \times I_f$

Where A = Gross area within the flow path of the  
 contaminant plume in square metres.  
 = 790 m<sup>2</sup>

$W_s$  = Average daily precipitation surplus, in metres per day.  
 $W_s = P - E_T$

Where  $W_s$  = Average annual precipitation surplus, (m/yr)

P = mean annual precipitation (m/yr) derived from the  
 Environment Canada precipitation normals for the  
 closest climatic station to the site (Goderich) (1.050  
 m/yr)

$E_T$  = mean annual actual evapotranspiration (m/yr) derived  
 from the Environment Canada evapotranspiration  
 normals (0.425 m/yr)

$W_s = P - E_T$   
 = 1.050 – 0.425  
 = 0.675 m/yr  
 = 1.855 x 10<sup>-3</sup> m/day

$I_f$  = Infiltration factor

The MECP has compiled a set of factors to quantify the percentage of the water surplus that infiltrates into the subsurface. These factors are defined as infiltration factor,  $I_f$ , and are shown in the following table:

Physical Description of Site	Value of $I_f$
<b>Topography:</b> <ul style="list-style-type: none"> <li>• Flat land, average slope &lt;0.6 m per km</li> <li>• Rolling land, average slope of 2.8 m to 3.8 m per km</li> <li>• Hilly land, average slope of 28 m to 47 m per km</li> </ul>	<b>0.30</b> 0.20 0.10
<b>Soil:</b> <ul style="list-style-type: none"> <li>• Tight impervious clay</li> <li>• Medium combination of clay and loam</li> <li>• Open sandy loam</li> </ul>	0.10 0.20 <b>0.40</b>
<b>Cover:</b> <ul style="list-style-type: none"> <li>• Cultivated lands</li> <li>• Woodland</li> </ul>	<b>0.10</b> 0.20

$$\begin{aligned}
 L_f &= \text{Topography Factor} + \text{Soil Factor} + \text{Cover Factor} \\
 &= 0.3 + 0.4 + 0.1 \\
 &= 0.8
 \end{aligned}$$

$$\begin{aligned}
 \text{Therefore: } q_{\text{infiltrate}} &= 790 \text{ m}^2 \times 1.856 \times 10^{-3} \text{ m/day} \times 0.8 \\
 &= \mathbf{1.17 \text{ m}^3/\text{day}}
 \end{aligned}$$

The nitrate concentration at the downgradient boundary of the proposed development can be calculated as follows:

$$\text{Nitrate Concentration} = \frac{Q_{\text{infiltrate}} \times C_{\text{background}} + Q_{\text{effluent}} \times C_{\text{effluent}}}{Q_{\text{infiltrate}} + Q_{\text{effluent}}}$$

$$\text{Where: } q_{\text{infiltrate}} = 1.17 \text{ m}^3/\text{day} \text{ (1170 l/day)}$$

$$C_{\text{background}} = 0.20 \text{ mg/l}$$

$$\begin{aligned}
 Q_{\text{effluent}} &= \text{sewage effluent flow based on a} \\
 &\text{daily effluent production rate of 1000} \\
 &\text{l/day/dwelling} \\
 &= 1000 \text{ l/day}
 \end{aligned}$$

$$\begin{aligned}
 C_{\text{effluent}} &= \text{sewage effluent nitrate concentration} \\
 &= 40 \text{ mg/l}
 \end{aligned}$$

Therefore:

$$\begin{aligned}
 \text{Nitrate Concentration (C}_{\text{boundary}}) &= \frac{(1170 \text{ l/day} \times 0.20 \text{ mg/l}) + (1000 \text{ l/day} \times 40 \text{ mg/l})}{1170 \text{ l/day} + 1000 \text{ l/day}} \\
 &= \mathbf{18.54 \text{ mg/l}}
 \end{aligned}$$

### Retained Parcel

Contaminant Source:  
 (Septic Tank Systems) 40 mg/l nitrate-nitrogen

Background Water Quality: 0.20 mg/l (estimated)

Effluent Volume: 1,000 l/day

Available Infiltration Water:  
 ( $Q_{\text{infiltrate}}$ )  $Q_{\text{infiltrate}} = A \times W_s \times I_f$

Where A = Gross area within the flow path of the  
 contaminant plume in square metres.  
 = 800 m<sup>2</sup>

$W_s$  = Average daily precipitation surplus, in metres per day.

$$W_s = P - E_T$$

Where  $W_s$  = Average annual precipitation surplus, (m/yr)

P = mean annual precipitation (m/yr) derived from the  
 Environment Canada precipitation normals for the  
 closest climatic station to the site (Goderich) (1.050  
 m/yr)

$E_T$  = mean annual actual evapotranspiration (m/yr) derived  
 from the Environment Canada evapotranspiration  
 normals (0.425 m/yr)

$$\begin{aligned}
 W_s &= P - E_T \\
 &= 1.050 - 0.425 \\
 &= 0.675 \text{ m/yr} \\
 &= 1.855 \times 10^{-3} \text{ m/day}
 \end{aligned}$$

$I_f$  = Infiltration factor

The MECP has compiled a set of factors to quantify the percentage of the water surplus that

infiltrates into the subsurface. These factors are defined as infiltration factor,  $I_f$ , and are shown in the following table:

Physical Description of Site	Value of $I_f$
<b>Topography:</b> <ul style="list-style-type: none"> <li>• Flat land, average slope &lt;0.6 m per km</li> <li>• Rolling land, average slope of 2.8 m to 3.8 m per km</li> <li>• Hilly land, average slope of 28 m to 47 m per km</li> </ul>	<b>0.30</b> 0.20 0.10
<b>Soil:</b> <ul style="list-style-type: none"> <li>• Tight impervious clay</li> <li>• Medium combination of clay and loam</li> <li>• Open sandy loam</li> </ul>	0.10 0.20 <b>0.40</b>
<b>Cover:</b> <ul style="list-style-type: none"> <li>• Cultivated lands</li> <li>• Woodland</li> </ul>	<b>0.10</b> 0.20

$$\begin{aligned}
 L_f &= \text{Topography Factor} + \text{Soil Factor} + \text{Cover Factor} \\
 &= 0.3 + 0.4 + 0.1 \\
 &= 0.8 \\
 \text{Therefore: } q_{\text{infiltrate}} &= 800 \text{ m}^2 \times 1.856 \times 10^{-3} \text{ m/day} \times 0.8 \\
 &= \mathbf{1.19 \text{ m}^3/\text{day}} \\
 &=
 \end{aligned}$$

The nitrate concentration at the downgradient boundary of the proposed development can be calculated as follows:

$$\begin{aligned}
 \text{Nitrate Concentration} &= \frac{Q_{\text{infiltrate}} \times C_{\text{background}} + Q_{\text{effluent}} \times C_{\text{effluent}}}{Q_{\text{infiltrate}} + Q_{\text{effluent}}} \\
 \text{Where: } q_{\text{infiltrate}} &= 1.19 \text{ m}^3/\text{day} \text{ (1190 l/day)} \\
 C_{\text{background}} &= 0.20 \text{ mg/l}
 \end{aligned}$$

$$Q_{\text{effluent}} = \text{sewage effluent flow based on a daily effluent production rate of 1000 l/day/dwelling}$$

$$= 1000 \text{ l/day}$$

$$C_{\text{effluent}} = \text{sewage effluent nitrate concentration}$$

$$= 40 \text{ mg/l}$$

Therefore:

$$\begin{aligned} \text{Nitrate Concentration (C}_{\text{boundary}}) &= \frac{(1190 \text{ l/day} \times 0.20 \text{ mg/l}) + (1000 \text{ l/day} \times 40 \text{ mg/l})}{1190 \text{ l/day} + 1000 \text{ l/day}} \\ &= 18.37 \text{ mg/l} \end{aligned}$$

Based on the above calculations, conventional on-site sewage treatment will not be sufficient on the proposed lot to be severed or the retained parcel and will not meet the Ministry's maximum 10 mg/L nitrate concentration at the downstream property line.

It should be noted that although not permitted to be used in the calculations by the D-5-4 guideline, there are no downgradient uses for groundwater between this property boundary at Boiler Beach Road and Lake Huron. The sewage effluent would be subject to further dilution from groundwater flow through the property before reaching Lake Huron which will reduce the downstream nitrate concentration even further than what has been calculated above.

To meet the Township's Official Plan policy requiring partially severed lots designated Lakeshore Residential to meet the MECP's 10mg/L nitrate requirement at the downstream property line, an on-site tertiary sewage system with the ability to provide denitrification of the sewage effluent will need to be installed on both properties.

In order to meet the 10 mg/L nitrate requirement at the downstream property line, the tertiary treatment system that is installed must be able to reduce the nitrate concentration in the sewage effluent prior to disposal into the leaching bed to the following concentration level:

#### Proposed Lot to be Severed

$$\begin{aligned} \text{Required Effluent Concentration (C}_{\text{effluent}}) &= \frac{[C_{\text{boundary}}(Q_{\text{infiltrate}} + Q_{\text{effluent}})] - [Q_{\text{infiltrate}} \times C_{\text{background}}]}{Q_{\text{effluent}}} \\ &= \frac{[10\text{mg/l} \times (1170 \text{ l/day} + 1000 \text{ L/day})] - [1170 \text{ L/day} \times 0.2 \text{ mg/l}]}{1000 \text{ l/day}} \\ &= 21.47 \text{ mg/l} \end{aligned}$$



### Retained Parcel

$$\begin{aligned} \text{Required Effluent Concentration (C}_{\text{effluent}}) &= \frac{[C_{\text{boundary}}(Q_{\text{infiltrate}} + Q_{\text{effluent}})] - [Q_{\text{infiltrate}} \times C_{\text{background}}]}{Q_{\text{effluent}}} \\ &= \frac{[10\text{mg/l} \times (1190 \text{ l/day} + 1000 \text{ L/day})] - [1190 \text{ L/day} \times 0.2 \text{ mg/l}]}{1000 \text{ l/day}} \\ &= \mathbf{21.66 \text{ mg/l}} \end{aligned}$$

There are several on-site tertiary treatment systems available in Ontario that are certified under CAN/BNQ 3680-600 that are capable of reducing the nitrate concentration of the sewage effluent to at least 20 mg/L prior to being discharged to the leaching bed. A tertiary treatment system that can reduce the effluent concentration to at least 20 mg/L will result in a nitrate concentration at the downstream property line of **9.3 mg/L** for the severed property and **9.24 mg/L** for the retained parcel.

## 5. CONCLUSIONS AND RECOMMENDATIONS

Based on the findings of the sewage system impact assessment, the following conclusions are made:

1. One (1) residential lot measuring 0.079 ha. in area is proposed to be severed from an existing parcel of land located on Part Lots 52 & 53, Part 1 and 2, Concession A, in the Former Township of Huron, in the Township of Huron-Kinloss;
2. Subsurface conditions in the vicinity of the subject property consist of a layer of topsoil ranging in thickness from 0 m to 1.22 m overlying a layer of sand ranging in thickness from 1.52 m to 3.66 m overlying a layer of clay ranging in thickness from 24.69m to 44.5 m overlying a layer of sandy hardpan ranging in thickness from 10.36m to 21.95m overlying bedrock;
3. Based on a soil sample taken from a nearby test pit, the native soil is classified as poorly graded sand – gravelly sand with a coefficient of uniformity of 1.7 and a 'T' time of 4 to 6 min/cm;
4. All properties in the vicinity of the subject property obtain their drinking water from the municipal water distribution system;
5. Sewage effluent loading calculations indicate that the creation of the new residential lot and servicing it with a conventional Class 4 on-site sewage system will result in a nitrate concentration of **18.54 mg/L** and servicing the retained parcel with a conventional Class 4 on-site sewage system will result in a nitrate concentration of **18.37 mg/L** in the shallow groundwater flowing off-site. These concentration levels are above the MECP's requirement of 10 mg/l required at the down gradient property boundary.
6. A tertiary treatment system that can reduce the sewage effluent concentration to at least 20 mg/L will result in a nitrate concentration at the downstream property line of **9.3 mg/L** for the severed lot and **9.24 mg/L** for the retained parcel.

Based on these conclusions, the following recommendation is made:

1. In order to meet the MECP's 10mg/L nitrate concentration at the downstream property boundary, an on-site tertiary sewage system that is certified under CAN/BNQ 3680-600 with the ability to provide denitrification of the sewage effluent to at least **21.47mg/L** for the severed lot and **21.66mg/L** for the retained parcel is required to be installed.

All of which is respectfully submitted,

**Cobide Engineering Inc.**



Stephen J. Cobean, P.Eng.  
 Director

# Appendix A

**- WELL RECORDS**

**SEWAGE SYSTEM IMPACT ASSESSMENT**

**SHELTON PROPERTY  
PART LOTS 52 & 53, PART 1 AND 2, CON A  
TOWNSHIP OF HURON-KINLOSS  
COUNTY OF BRUCE**

UTM 17z 445650E  
5R 4887300N



AUG 30 1963  
 ONTARIO WATER RESOURCES COMMISSION  
 1572

The Ontario Water Resources Commission Act

Elev. 520.625

# WATER WELL RECORD

Basin 22 County or District BRUCE Township, Village, Town or City HURON  
 Con. A Lot 53 Date completed 15 MAY 1963  
 (day month year)  
 Address KINCARDINE ONT

Casing and Screen Record		Pumping Test	
Inside diameter of casing	<u>4"</u>	Static level	<u>12'</u>
Total length of casing	<u>200'</u>	Test-pumping rate	<u>20</u> <del>25</del> G.P.M.
Type of screen	<u>-</u>	Pumping level	<u>18'</u>
Length of screen	<u>-</u>	Duration of test pumping	<u>10 HRS</u>
Depth to top of screen	<u>-</u>	Water clear or cloudy at end of test	<u>CLEAR</u>
Diameter of finished hole	<u>4"</u>	Recommended pumping rate	<u>18</u> G.P.M.
		with pump setting of	<u>40</u> feet below ground surface

Well Log		Water Record		
Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	Kind of water (fresh, salty, sulphur)
<u>TOP SOIL</u>	<u>0</u>	<u>4</u>	<u>170</u>	<u>FRESH</u>
<u>STONE Y GREY CLAY</u>	<u>4</u>	<u>20</u>	<u>X</u>	
<u>SOFT GREY CLAY</u>	<u>20</u>	<u>60</u>		
<u>SANDY GREY CLAY</u>	<u>60</u>	<u>100</u>	<u>215</u>	
<u>SOFT GREY CLAY</u>	<u>100</u>	<u>120</u>		
<u>SANDY CLAY</u>	<u>120</u>	<u>150</u>		
<u>SAND</u>	<u>150</u>	<u>160</u>		
<u>COURSE SAND</u>	<u>160</u>	<u>165</u>		
<u>FINE GRAVEL</u>	<u>165</u>	<u>200</u>		
<u>BROWN ROCK</u>	<u>200</u>	<u>216</u>		

For what purpose(s) is the water to be used?  
DOMESTIC ~~INDUSTRIAL~~

Is well on upland, in valley, or on hillside? UPLAND

Drilling or Boring Firm DURHAM DRILLERS  
DURHAM ONT

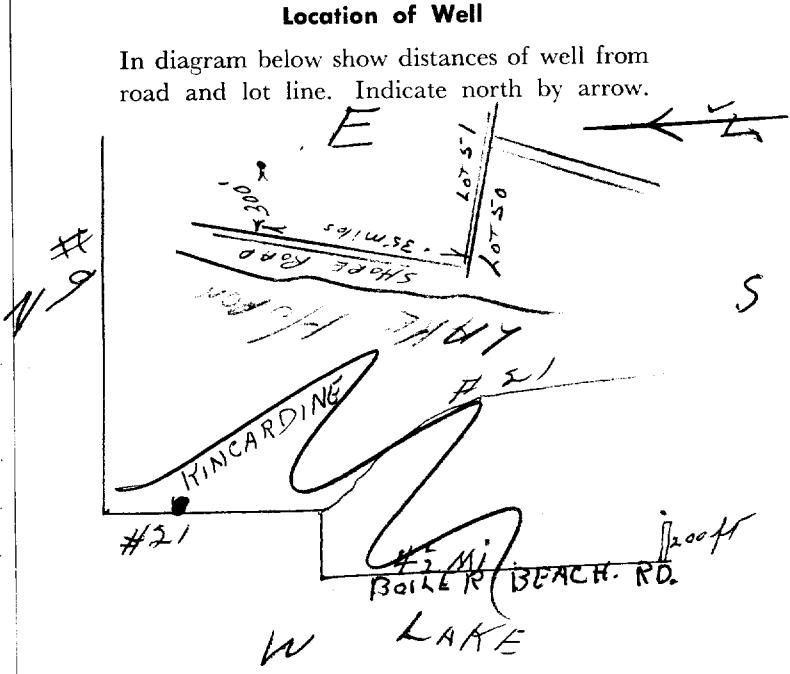
Address .....

Licence Number 1000

Name of Driller or Borer E HOTCHKISS

Address DURHAM ONT.

Date JULY 31 1963  
Edward Bryano  
 (Signature of Licensed Drilling or Boring Contractor)





MINISTRY OF THE ENVIRONMENT  
The Ontario Water Resources Act  
**WATER WELL RECORD**

41 A/4E

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

11 1404301 14011 LR  
 COUNTY OR DISTRICT: Bruce TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: Huron Twp. CON., BLOCK, TRACT, SURVEY, ETC.: Lake Range  
 DATE COMPLETED: 08 DAY, 10 MO, 76 YR.  
 87050 RC 5 ELEVATION 0600 RC 5 BASIN CODE 22

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET	
				FROM	TO
	Sand			0	3
Brown	Sand	Gravel	Hard	3	12
Blue	Clay		Soft	12	47
Blue	Clay	Stones	Soft	47	93
Brown	Hardpan	Stones	Hard, gravelly	93	165
	Silt	Gravel, boulders	Hard	165	182
Brown	Hardpan	Stones	Hard	182	199
Lt. Brown	Limestone		Soft	199	224

31 0003 28 00126281173 004730589 00933051285 01656141272 0182 061113  
 32- 01996141273 022461585

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
0224	1 <input checked="" type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
15-18	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
20-23	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
25-28	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
30-33	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL

51 CASING & OPEN HOLE RECORD

WELL DIA. INCHES	MATERIAL	WALL TH. INCHES	DEPTH - FEET
10-11	1 <input checked="" type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE	.188	0 0200
17-18	1 <input type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input checked="" type="checkbox"/> OPEN HOLE		200-4 0224
24-25	1 <input type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE		27-30

SCREEN

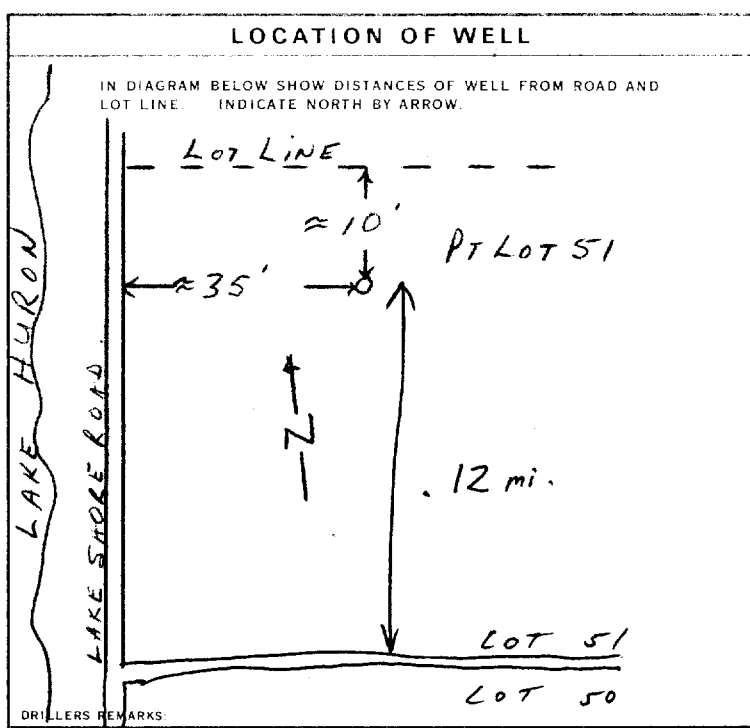
SIZE(S) OF OPENING (SLOT NO.)	DIAMETER	LENGTH
	31-33	34-38
		39-40
		41-44
		80

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET	MATERIAL AND TYPE
10-13	14-17
18-21	22-25
26-29	30-33
	80

71 PUMPING TEST METHOD

PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
1 <input checked="" type="checkbox"/> air PUMP 2 <input type="checkbox"/> BAILER	0020 GPM	01 15-16 HOURS 00 17-18 MINS
STATIC LEVEL: -65 FEET	WATER LEVELS DURING:	1 <input checked="" type="checkbox"/> PUMPING 2 <input type="checkbox"/> RECOVERY
22-24: 024 FEET	15 MINUTES: 012 FEET	30 MINUTES: 020 FEET
38-41: 0008 GPM	45 MINUTES: 024 FEET	60 MINUTES: 024 FEET
RECOMMENDED PUMP TYPE: <input checked="" type="checkbox"/> SHALLOW	RECOMMENDED PUMP SETTING: 025 FEET	RECOMMENDED PUMPING RATE: 0008 GPM



FINAL STATUS OF WELL

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

WATER USE

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

METHOD OF DRILLING

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

CONTRACTOR

NAME OF WELL CONTRACTOR: Davidson Well Drilling Limited LICENCE NUMBER: 1737  
 ADDRESS: Box 486, Wingham, Ontario.  
 NAME OF DRILLER OR BORER: R. Jardine LICENCE NUMBER:  
 SIGNATURE OF CONTRACTOR: Douglas F. Davidson SUBMISSION DATE: 12 Oct. 76

OFFICE USE ONLY

DATA SOURCE: 1 1737 CONTRACTOR: 58-62 DATE RECEIVED: 251176 63-68 80  
 DATE OF INSPECTION: Aug 15/77 INSPECTOR: P.B.S.  
 REMARKS: WI



Ministry  
of the  
Environment  
Ontario

The Ontario Water Resources Act

# WATER WELL RECORD

1406032

MUNICIPALITY 14011

CON. L.R.

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

11

COUNTY OR DISTRICT Bruce	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE Huron Twp.	CON. BLOCK, TRACT, SURVEY, ETC. Con. L.R.	LOT NO. 53
1, Kincardine, Ontario, NOG 2G0			DATE COMPLETED DAY 18 MO Nov YR 83
1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	32
33	34	35	36
37	38	39	40
41	42	43	44
45	46	47	48
49	50	51	52
53	54	55	56
57	58	59	60

## LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET	
				FROM	TO
	Topsoil			0	1
Brown	Sand		Fine	1	6
Blue	Clay	Stones	Soft	6	123
Blue	Clay	Sand	Soft, mixed	123	147
Grey	Sandy hardpan	Stones	Hard	147	181
Brown	Limestone		Soft, broken	181	190
Lt Brown	Limestone		Hard	190	197
Brown	Limestone	Shale streaks	Medium hard	197	244



31	0001 00	0006608	01 233051285	01473052885	01812441273	01906158571	1
32	01976157375	02446151774					

### 41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
0212-10-15	1 <input checked="" type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR
239	2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
243-15-18	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR
	2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
20-23	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR
	2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
25-28	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR
	2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
30-33	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR
	2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL

### 51 CASING & OPEN HOLE RECORD

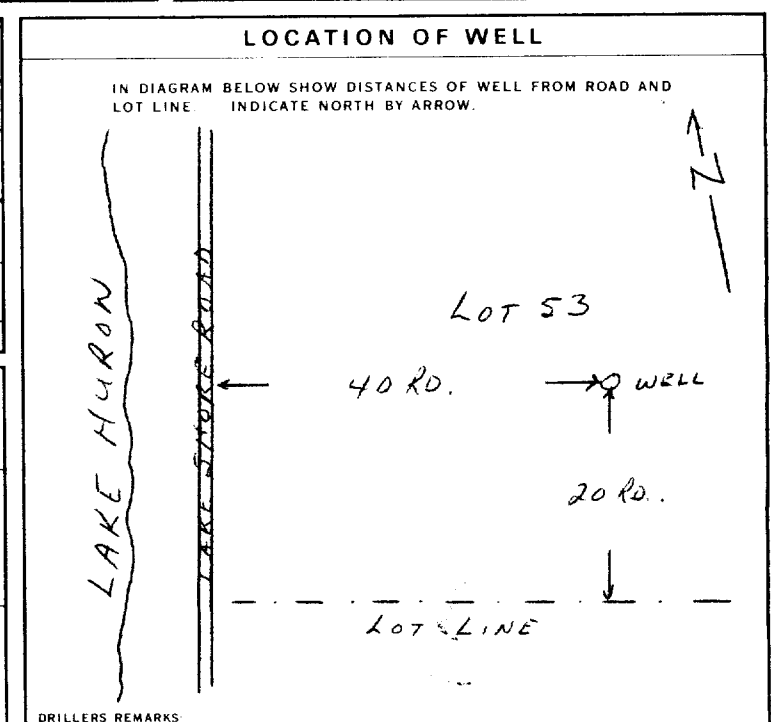
INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET	
			FROM	TO
05	1 <input checked="" type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE	.188	0	191-6 0192
05	1 <input type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input checked="" type="checkbox"/> OPEN HOLE		191-6	0244
	1 <input type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE			27-30

### 61 PLUGGING & SEALING RECORD

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

### 71 PUMPING TEST

PUMPING TEST METHOD 1 <input checked="" type="checkbox"/> PUMP 2 <input type="checkbox"/> WATER	PUMPING RATE 0010 GPM	DURATION OF PUMPING 01 15-16 30 17-18 HOURS MINS
STATIC LEVEL 043 FEET	WATER LEVEL END OF PUMPING 056 FEET	WATER LEVELS DURING 15 MINUTES 052 FEET 30 MINUTES 054 FEET 45 MINUTES 055 FEET 60 MINUTES 056 FEET
IF FLOWING, GIVE RATE	PUMP INTAKE SET AT 130 GPM	WATER AT END OF TEST 1 <input checked="" type="checkbox"/> CLEAR 2 <input type="checkbox"/> CLOUDY
RECOMMENDED PUMP TYPE <input type="checkbox"/> SHALLOW <input checked="" type="checkbox"/> DEEP	RECOMMENDED PUMP SETTING 075 FEET	RECOMMENDED PUMPING RATE 0010 GPM



### FINAL STATUS OF WELL

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

### WATER USE

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

### METHOD OF DRILLING

1 <input type="checkbox"/> CABLE TOOL	6 <input type="checkbox"/> BORING
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4 <input type="checkbox"/> ROTARY (AIR)	9 <input type="checkbox"/> DRIVING
5 <input type="checkbox"/> AIR PERCUSSION	

CONTRACTOR	NAME OF WELL CONTRACTOR Davidson Well Drilling Limited	LICENCE NUMBER 1737
	ADDRESS Box 486, Wingham, Ontario. NOG 2W0	
	NAME OF DRILLER OR BORER D. Casmore	LICENCE NUMBER
	SIGNATURE OF CONTRACTOR <i>D. Davidson</i>	SUBMISSION DATE DAY 24 MO Nov YR 83

OFFICE USE ONLY	DATA SOURCE 1	CONTRACTOR 1737	DATE RECEIVED 12 01 84
	DATE OF INSPECTION 11/9/84	INSPECTOR	
	REMARKS		

# Appendix B

**- SITE INVESTIATION SUMMARY**

**SEWAGE SYSTEM IMPACT ASSESSMENT**

**SHELTON PROPERTY  
PART LOTS 52 & 53, PART 1 AND 2, CON A  
TOWNSHIP OF HURON-KINLOSS  
COUNTY OF GREY**

## TEST PIT SUMMARY

Date: December 09, 2021

Field Technician: Len Perdue

Location: Boiler Beach Road, Ontario

### TEST PIT #1

Topsoil : 0.0 m – 0.50 m

Sand : 0.50 m – 1.5 m

- Test pit terminated at 1.5 m below ground surface (bgs)
- Sand was found to be moist at the bottom but groundwater table was not reached







County of Bruce  
Planning & Development Department  
30 Park Street, Box 848  
Walkerton, ON N0G 2V0  
brucecounty.on.ca  
226-909-5515



May 11, 2023

File Number(s): Z-2023-029

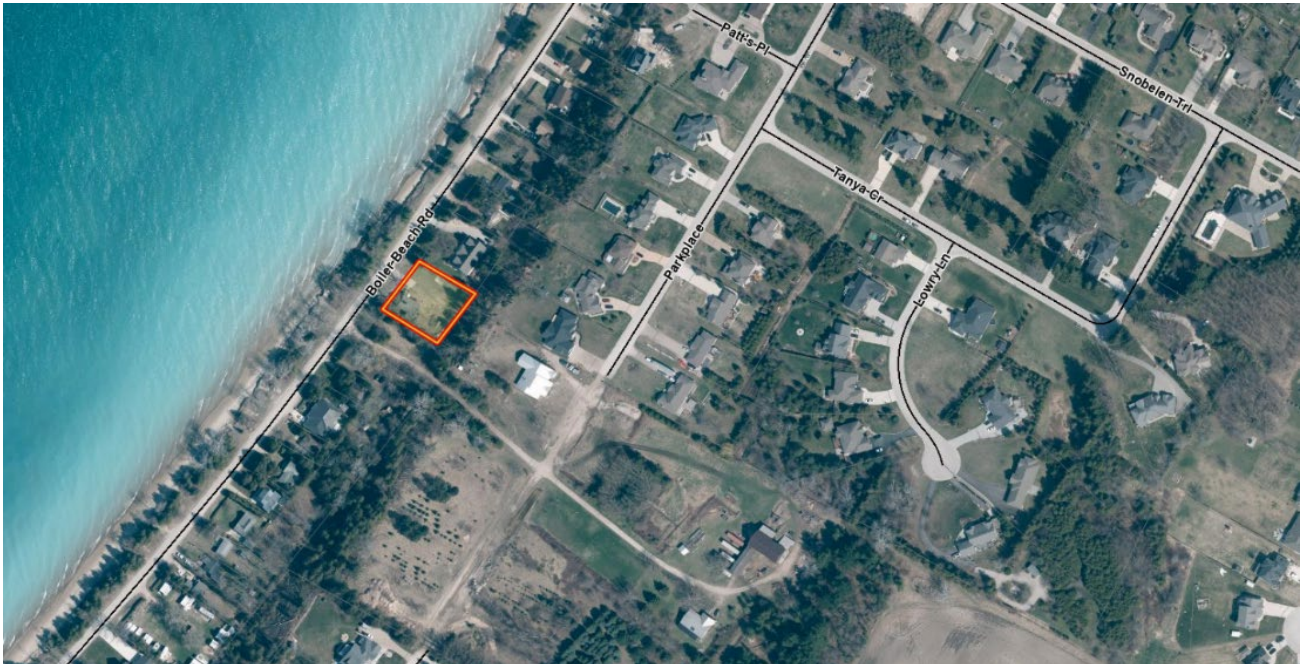
## Public Meeting Notice

**You're invited:**

**To consider Zoning By-law Amendment / file # Z-2023-029  
June 12, 2023 at 7:00 p.m., Council Chambers, Township of  
Huron-Kinloss, 21 Queen Street, Ripley, ON**

A change is proposed in your neighbourhood: The purpose of this application is for a Consent for the creation of a new +/- 786 square meter (m<sup>2</sup>) lot from a +/- 1,565 m<sup>2</sup> parcel. To facilitate the proposed lot creation, the Zoning By-law will be amended to permit a reduced lot area, a reduced frontage, and a requirement for a tertiary septic system for both the retained and severed lands. A holding is also proposed for areas containing high archaeological potential.

The related consent file is B-2023-028.



126 Boiler Beach Rd  
CON A PT LOT 52 PT LOT 53 RP;3R924 PART 1 TO 2 (Geographic Huron Township)  
Township of Huron-Kinloss  
Roll Number: 410716000901800

## Learn more

You can view limited information about the application at <https://brucecounty.on.ca/living/land-use>. Additional information, including the supporting materials, can be provided upon request by e-mailing [bcplwa@brucecounty.on.ca](mailto:bcplwa@brucecounty.on.ca) or calling 226-909-5515. Information can also be viewed in person at the County of Bruce Planning Office noted above, between 8:30 a.m. and 4:30 p.m. (Monday to Friday).

The Planner on the file is: Benito Russo

## Have your say

Comments and opinions submitted on these matters, including the originator's name and address, become part of the public record, may be viewed by the general public and may be published in a Planning Report and Council Agenda. Comments received after June 6, 2023 may not be included in the Planning report but will be considered if received prior to a decision being made, and included in the official record on file.

1. Please contact us by mail (address above) or [bcplwa@brucecounty.on.ca](mailto:bcplwa@brucecounty.on.ca) if you have any questions, concerns or objections about the application.
2. You can speak at the Public Meeting.

For information on how to participate in the Public Meeting, please visit the Township of Huron-Kinloss website at: <https://calendar.huronkinloss.com/meetings>, or contact the Township by 4:30 pm on June 12, 2023 ([jwhite@huronkinloss.com](mailto:jwhite@huronkinloss.com) or 519-395-3735 ext. 123) if you have any questions regarding how to participate in the hearing.

## Stay in the loop

If you'd like to be notified of the decision of the approval authority on the proposed application(s), you must make a written request to the Bruce County Planning Department.

## Know your rights

Section 34(11) of the [Planning Act](#) outlines rights of appeal for Zoning By-law Amendment applications.

If a person or public body would otherwise have an ability to appeal the decision of the Council of municipality to the Ontario Land Tribunal but the person or public body does not make oral submissions at a public meeting or make written submissions to municipality before the by-law is passed, the person or public body is not entitled to appeal the decision.

If a person or public body does not make oral submissions at a public meeting, or make written submissions to the municipality before the by-law is passed, the person or public body may not be added as a party to the hearing of an appeal before the Ontario Land Tribunal unless, in the opinion of the Tribunal, there are reasonable grounds to do so.

Section 53(19) of the [Planning Act](#) outlines rights of appeal for Consent applications.

If a person or public body that files an appeal of a decision of the County of Bruce in respect of the proposed consent does not make written submissions to the County of Bruce before it

gives, or refuses to give, a provisional Consent, the Ontario Land Tribunal may dismiss the appeal.

For more information please visit the Ontario Land Tribunal website at

<https://olt.gov.on.ca/appeals-process/>.

# Site plan

