



## Municipality of Brockton Planning Report

Application: Zoning By-law Amendment  
File Number: Z-50-18.34  
Date: May 28, 2019

**To:** Mayor and Council Members, Municipality of Brockton

**From:** Dana Kieffer, Planner for the Municipality of Brockton

**Subject:** Application by Smurk Inc. c/o Ballantyne c/o Lippert to re-zone a portion of the lot from Environmental Protection to Inland Lake Residential Special.

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### Recommendation:

That the Municipality of Brockton Council **APPROVE** the proposed Zoning By-law Amendment submitted by Smurk Inc. Z-50-18.34 and pass the site-specific By-law attached. And;

That the Municipality of Brockton Council pass the site-specific By-law attached to place the property under Site Plan Control.

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### Reasons for and Nature of the Application:

The owner proposes to sever the land into two parcels and build two dwellings. Currently, only a storage building is located on the proposed most northwesterly lot. The proposed development involves three applications:

- **Official Plan Amendment** to re-designate the cleared portion of the lot from Hazard Land to Inland Lake Residential as per the SVCA's recommendation on the hazards present. Also reduce the required lot size from 8,094 m<sup>2</sup> to 3,140 m<sup>2</sup>. The Bruce County Planning & Development Committee recommended that this be forwarded for approval to The County of Bruce Council on May 16, 2019.
- **Zoning Amendment** application to rezone a portion of the existing lot, which is cleared of trees, from Environmental Protection to Inland Lake Residential which will mirror the proposed Official Plan Amendment. The By-law will also involve several site-specific requirements.
- **Consent** application to create a new lot which will facilitate the construction of two dwellings - one on the severed lot and one on the retained lot. Also, to require a lot grading and drainage plan to the satisfaction of the Chief Building Official

**Location:**

The municipal address is 496 Lake Rosalind Road 4.

**Site Description:**

The lands proposed to be developed are located at the end of Lake Rosalind Road 4 on the southwest side, across the road from the lake.

**Proposal:**

The cleared portion of the site together with the wooded area at the south end of the lot is proposed to be rezoned from Environmental Protection Special to Inland Lake Special to permit the residential use and to allow for site-specific front yards.

The zoning will also require:

- Reductions in front yard setbacks for both dwellings;
- A Level IV treatment unit and a Type A dispersal bed (commonly referred to as a tertiary septic system) with a phosphorus removal add-on;
- An additional by-law will place the property under site plan control.

The 'Environmental Protection Special (EP-10)' zone on the remaining treed lands would remain unchanged.

**Building proposal:**

- 2 detached dwellings, bungalow
- Floor area: 132 m<sup>2</sup> (10.4 x 12.8) and 148.6 m<sup>2</sup> (12.2 x 12.2)
- Servicing: municipal water and private (tertiary) septic system
  - The shed on the retained already has a meter in it, so the house will be able to use that. The Planner has received confirmation from Veolia Water that hook-up into the municipal water system for the severed lot is possible.

**Consent application:**

- |  |                                  |
|--|----------------------------------|
| • Area of the property:                    | 0.773 ha (7,730 m <sup>2</sup> ) |
| • Retained lands (lands to the northwest): | 4059 m <sup>2</sup>              |
| • Building envelope on the retained lot:   | 650 m <sup>2</sup>               |
| • Severed lands (parcel to the southeast): | 3140 m <sup>2</sup>              |
| • Building envelope on the severed lands:  | 165 m <sup>2</sup>               |

**Agency Circulation:**

Saugeen Valley Conservation Authority:

- SVCA staff note that based on the updated proposal, as received by Bruce County Planning dated December 20, 2018, all proposed buildings, and sewage disposal systems will be located outside of the proposed EP-10 zone.
- We note that all site grading and alteration should also occur outside of the EP-10 zone, and that site alteration and grading within the EP-10 zone may not be acceptable to SVCA staff.

Comment: Bruce County Planning Department was provided with a map from SVCA showing the Hazard boundaries of site. The boundaries of both the proposed Official Plan Amendment and Zoning By-law Amendment reflect this map.

Municipality of Brockton: If the applicant is able to maintain a minimum of 5 m to front lot line I would not have an objection to his application. Just to be clear the minimum setback of 5 m would apply to both lots. A greater setback would be encouraged, if they are able to stay out of the EP zone. The proposal should be subject to Site Plan approval.

Historic Saugeen Metis: no objection or opposition to the proposed development

Bruce- Grey Catholic District School Board: no comments

**Public Comments:**

The application was the subject of an information meeting at the Municipality of Brockton Council on April 23, 2019. Planning staff has received several letter speaking for and against the application. These letters are attached in Appendix 6, and the concerns raised by neighbours included:

- Capacity for joining the municipal water system;
- Stormwater run-off;
- On-site sewage disposal;
- The adjustment of the hazard boundaries;
- Tree retention;
- Size of the lot; and
- Potential use as neighborhood landfill site in the past.

Planning staff feel that these concerns have been adequately addressed by the applicant and the requirements for:

- Site plan control, which can deal with tree retention
- A lot grading and drainage plan, which will deal with the stormwater
- The requirement for a Level IV treatment unit and a Type A dispersal bed (commonly referred to as a tertiary septic system); and
- Confirmation from Veolia Water that connection to the municipal water system is available.

Further to addressing the concerns, the Hazard designation in the Official Plan is meant to reflect actual hazards including, but not limited to, flooding, erosion, wetlands, etc. It is known that when we create designations and zones, we are operating at a macro level and that a micro approach, using on-site visits, can more accurately reflect the hazards present on the property. Therefore, the applicant engaged SVCA for a site visit and the Plan is being updated to reflect the SVCA's interpretation of the Hazard boundaries to more accurately reflect the subject lands. The portion of the site that is cleared of trees is not characteristic of a Hazard. There is no apparent risk to development or human activity and the development of the land as proposed would not impact the environmental feature. Through direction from the Bruce County Official Plan, we defer to SVCA's expertise in this matter.

The area of the lot is 0.773 ha. It is relatively long in frontage (152 m) along the roadway and narrow in depth (46 m). Most of the lot is wooded and slopes toward Lake Rosalind. The land is separated from Lake Rosalind by the public road and the tier of lots immediately abutting the lake. The minimum area required for a lot not located on the waterfront is 8,094 m<sup>2</sup> and the severed and retained lots are proposed to be 3140 m<sup>2</sup> and 4059 m<sup>2</sup> respectively.

One of the main reasons the Official Plan requires minimum lot sizes in the Inland Lakes designation is to ensure the proper area for a sewage treatment system and/or a well. The Planner recommends a tertiary sewage disposal system and with an additional phosphorus removal measures be required on both the severed and retained for the new development.

Planning staff have confirmed that a water connection is available.

Both the County and Municipality have reviewed records regarding the potential landfill site and have no records to indicate this was the case.

### **Provincial Interests, Policy Statements or Plans**

Under Section 3(5) of the *Planning Act*, the Municipality of Brockton "shall be consistent with" matters of provincial interest as set out in the Provincial Policy Statement (PPS).

The PPS at Section 1.1.5., indicates that resource-based recreational uses including recreational dwellings are permitted. Development that is compatible with the rural landscape and can be sustained by rural level of services is promoted. Development should be appropriate to the infrastructure which is planned or available and avoided where it requires uneconomic expansion of infrastructure. Agriculture and other resource related uses should be protected. Compliance with the minimum distance separation formula is required.

Comment:

The proposal to develop the subject lands with a severance that would permit two dwellings (and an additional garage) can be sustained with the services available and does not compromise agricultural resources nor does it conflict with the MDS formulae. The application is consistent with the PPS.

An overview of the PPS policies is provided in the appendices.

### **Bruce County Official Plan**

On May 16, 2019 Planning and Development Committee recommended that the joint file to this application BCOPA-226 be recommended for approval.

This Official Plan Amendment permitted a decreased lot size from 8094m<sup>2</sup> to 3140m<sup>2</sup> and adjusted the Hazard and expanded the Inland Lake designations as per the SVCA's recommendation.

It should be noted that County Council spoke extensively to phosphates and the negative degradation to lakes in the County. Council encouraged Brockton to consider requiring both a tertiary septic system with a phosphate removal add-on feature in this application.

The Bruce County Official Plan states that "... new development shall not be permitted unless it can be proved that the inland lake can sustain the level of development proposed without suffering undue environmental degradation".

#### **Comment:**

Through the requirements of:

- Site plan control, which can deal with tree retention
- A lot grading and drainage plan, which will deal with the stormwater
- The requirement for a Level IV treatment unit and a Type A dispersal bed (commonly referred to as a tertiary septic system); and
- Confirmation from Veolia Water that connection to the municipal water system is available.

Planning staff feel the potential for undue environmental degradation is being adequately mitigated.

The proposed zoning amendment conforms with the provisions of the Official Plan.

### **Zoning (Brockton Zoning By-law 2013-26)**

The subject lands are currently zoned Inland Lake Residential (LR) and Environmental Protection Special (EP-10). This amendment will change a portion of the lands zoned EP-10 to LR-10 as recommended by the SVCA to better reflect the actual hazards on the subject lands.

The amendment will also include:

1. A portion of the 'Environmental Protection Special (EP-10)' is proposed to be rezoned to 'Inland Lake Residential Special' to mirror the Official Plan Amendment;
2. Recognize proposed setback deficiencies in the front yard and minimum lot size;
3. Require a Level IV treatment unit and a Type A dispersal bed (commonly referred to as a tertiary septic system) with additional phosphate-removal measures;
4. Put the property under site plan control by passing a bylaw under Section 41 of the Planning Act.

A lot grading and drainage plan to the satisfaction of the Chief Building Official will be a condition of the Consent.

**Conclusion:**

The proposal is consistent with the Provincial Policy Statement and compatible with the inland lake landscape. The proposed development is appropriate to the infrastructure and services that are available to the site. Agricultural resources are not affected and there is compliance with the minimum distance separation formulae. Finally, the applicant is being held to a high standard of development to mitigate the environmental concerns.

The application is consistent with the Provincial Policy Statement and conforms with the Bruce County Official Plan. Planning staff recommend the application be approved.

Respectfully submitted,




Dana Kieffer, M.Sc.

Planner - Municipality of Brockton

County of Bruce, Planning & Economic Development

## Appendix 1 – Context / Background

<b>File Number</b>	Municipality of Brockton Zoning By-law Amendment File Number <b>Z-50-18.34</b>
<b>Development Proposal</b>	The purpose of the Zoning By-law Amendment is to facilitate the severance of a parcel of land. The owner is proposing to construct a new residence on the severed parcel and a residence on the retained lands.
<b>Zoning By-law</b>	‘Inland Lake Residential (LR)’, ‘Environmental Protection Special (EP-10)’ and ‘General Agriculture (A1) with Saugeen Airport Overlay’ – Municipality of Brockton By-law 2013-026.
<b>Zoning By-law Amendment</b>	To implement the Official Plan Amendment, the related Zoning amendment would rezone a portion of the subject lands [±0.224 ha (0.55 ac)] from ‘Environmental Protection Special (EP-10)’ to ‘Inland Lake Residential Special (LR-x)’ to facilitate the construction of a residence on the severed parcel and a residence on the retained lands.
<b>Related File</b>	County of Bruce Consent File Numbers <b>BCOPA 2236-18.34</b> and <b>B-80-18.34</b>
<b>Owner</b>	Chane Ballantyne (Smurk Inc.)
<b>Agent</b>	Adam Lippert
<b>Legal Description</b>	Part of Lot 68, Concession 3 NDR, being Parts 2 to 3, 3R-1261, geographic Township of Brant
<b>Municipal Address</b>	<b>496 Lake Rosalind Road 4</b>
<b>Lot Dimensions</b>	<b>Entire Lot</b>
<b>Frontage</b>	+/- 152.3 m (499.67 ft)
<b>Depth</b>	+/- 46.08 m (151.2 ft)
<b>Area</b>	+/- 0.773 ha (1.91 ac)
<b>Lot Dimensions</b>	<b>Lands to be Severed</b>
<b>Frontage</b>	+/- 63 m (207 ft)
<b>Depth</b>	+/- 19.8 m (151 ft)
<b>Area</b>	+/- 0.314 ha (0.76 ac)

Lot Dimensions	Lands to be Retained
Frontage	+/- 89 m (292 ft)
Depth	Irregular
Area	+/- 0.459 ha (1.13 ac)
Uses Existing	Vacant
Uses Proposed	Residential
Structures Existing	Garage (on retained parcel)
Structures Proposed	House on each parcel
Servicing Existing	None
Servicing Proposed	Municipal water and private septic
Access	Lake Rosalind Road 4, a year-round municipal road
Surrounding Land Uses	Agricultural uses to the South and West; Residential to the North and East
Subject Lands	



## Appendix 2 Provincial Policy Statement 2014

Does it Apply?	Policy Area
	1.0 Building Strong Communities
	1.1 Managing and Directing Land Use
	1.1.3 Settlement Areas
x	1.1.4 Rural Areas in Municipalities
x	1.1.5 Rural Lands in Municipalities
	1.16 Territory Without Municipal Organization
	1.2 Coordination
	1.2.6 Land Use Compatibility
	1.3 Employment
	1.3.2 Employment Areas
	1.4 Housing
	1.5 Public Spaces, Recreation, Parks, Trails and Open Space
	1.6 Infrastructure and Public Service Facilities
	1.6.6 Sewage, Water and Stormwater
	1.6.7 Transportation Systems
	1.6.8 Transportation and Infrastructure Corridors
	1.6.9 Airports, Rail and Marine Facilities
	1.6.10 Waste Management
	1.6.11 Energy Supply
	1.7 Long-Term Economic Prosperity
	1.8 Energy Conservation, Air Quality and Climate Change
	2.0 Wise Use and Management of Resources
x	2.1 Natural Heritage
	2.2 Water
x	2.3 Agriculture
	2.3.3 Permitted Uses
x	2.3.4 Lot Creation and Lot Adjustments
	2.3.5 Removal of Land from Prime Agricultural Areas
	2.3.6 Non-Agricultural Uses in Prime Agricultural Areas
	2.4 Minerals and Petroleum
	2.4.2 Protection of Long-Term Resource Supply
	2.4.3 Rehabilitation
	2.4.4 Extraction in Prime Agricultural Areas
	2.5 Mineral Aggregate Resources
	2.5.2 Protection of Long-Term Resource Supply
	2.5.3 Rehabilitation
	2.5.4 Extraction in Prime Agricultural Areas
	2.5.5 Wayside Pits and Quarries, Portable Asphalt Plants and Portable Concrete Plants
	2.6 Cultural Heritage and Archaeology

	3.0	Protecting Public Health and Safety
<b>x</b>	3.1	Natural Hazards
	3.2	Human-made Hazards

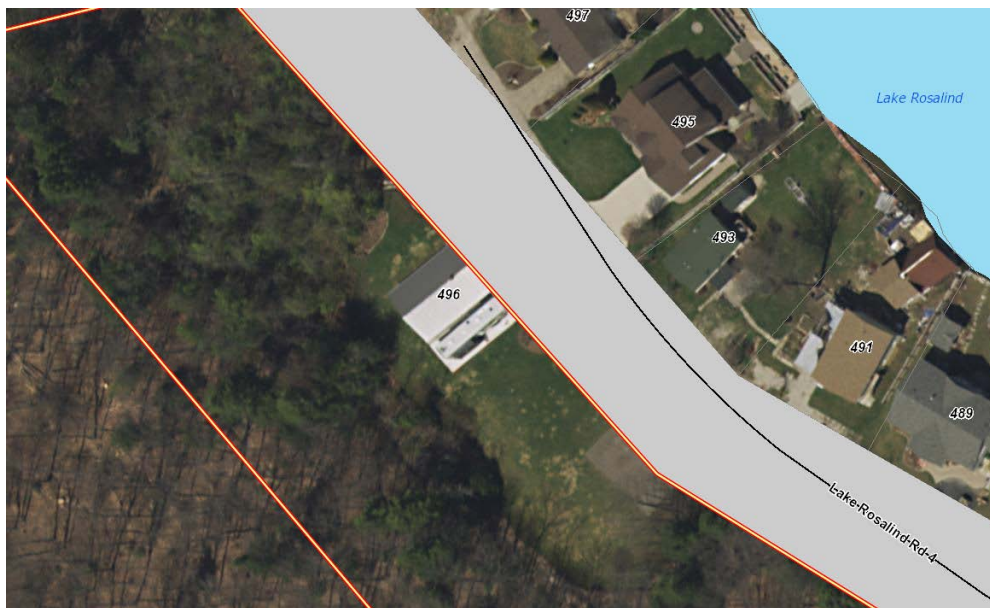
**County of Bruce Official Plan**

- 5.4 Inland Lakes Development Area
- 5.8 Hazard Land Area
- 6.5.3.6 Consents- Inland Lakes Area

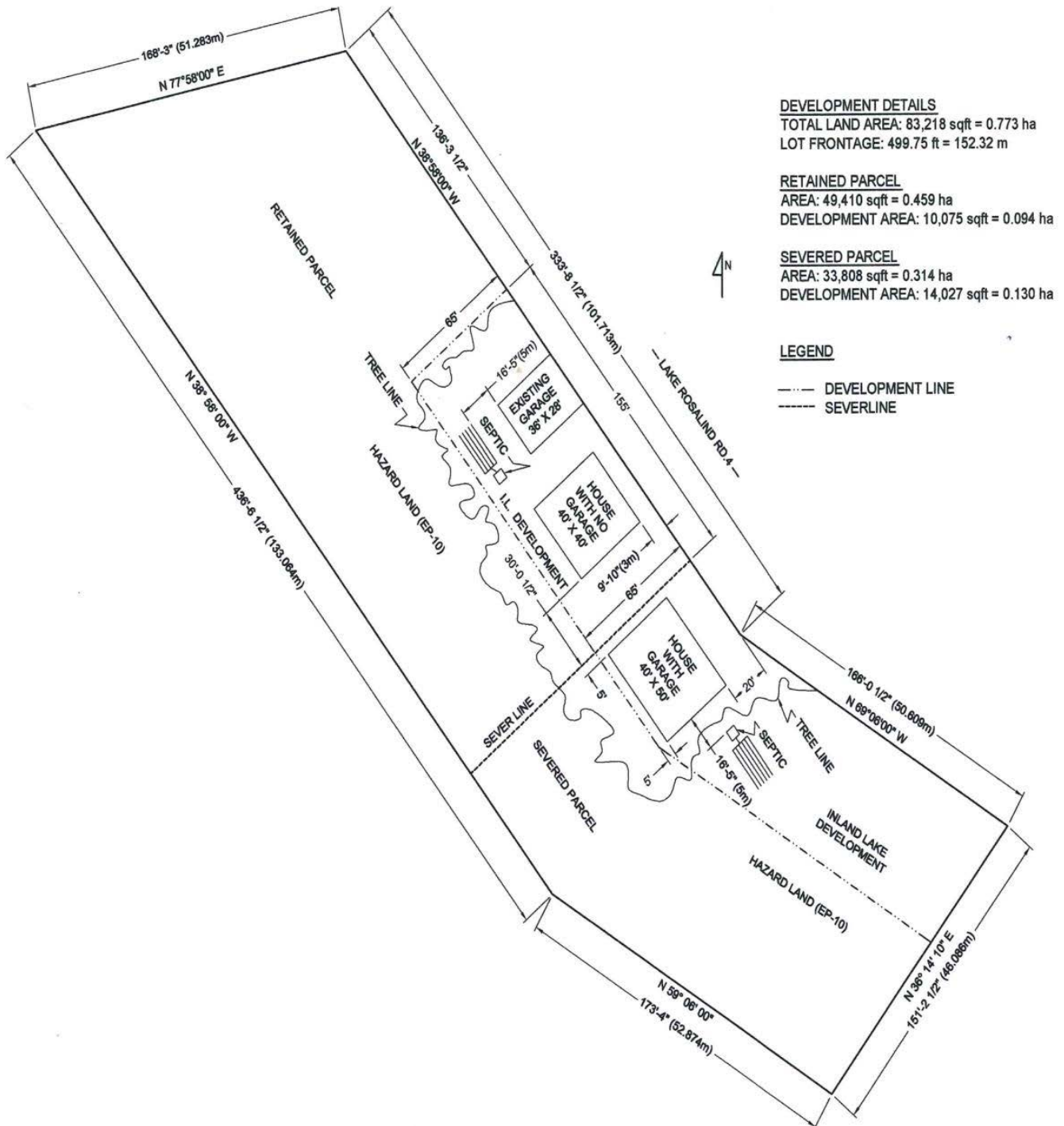
**Municipality of Brockton Zoning By-law 2013-26**

- Section 9 Inland Lake Residential (LR)
- Section 24 Environmental Protection (EP)

### Appendix 3 – Air Photo



## Appendix 4 – Applicant Sketch



## Appendix 5 - Maps



Bruce County Official Plan



Municipality of Brockton Zoning By-law

## Appendix 6 - Public Comments

Attention: Candace Hamm  
Bruce County Planning and Development

Re: Bruce county official plan amendment file number BCOPA 236-18.34  
and  
Municipality of Brockton Zoning by-law amendment file # Z-50-18.34

We attended the information meeting on Tuesday April 23rd 2019 at 7pm in the council chambers in Walkerton regarding the development proposal.

Our understanding of this proposal is that Mr. Ballantyne owns a lot known as 496 Lake Rosalind Rd. 4 and he would like to sever this lot into 2 lots and build a residence on each lot. We have many concerns regarding this proposal and are AGAINST having this lot severed .

Our first concern is whether our community well can accept more water consumption and usage from 2 more homes, it was our understanding that we are pretty much at maximum now... and there have been past issues with the current usage. The current retained parcel that has a garage, has water and hydro hook up. . . water consumption we're sure is minimal compared to a new house build. We are not opposed to one home being built on the "open space" of the retained land as long as there is some restrictions and there is no interference with the surrounding treed area on the property.

The suggested severed parcel, however, is a treed area with a creek running through it, and it's zoned EP-10 Environmental Protection Special, it is zoned as such for a reason. . . that area has remained intact and untouched since the beginning of the Lake Rosalind community, it is home to much wildlife in the area and the trees themselves not only provide beauty to the area but also acts as a wind and snow barrier.

We object to "Any" interfere with this area and STRONGLY suggest it remain zoned environmental protected.

No disruption of any kind should be allowed to this area as it would disturb the natural environment that everyone loves.

We ask that we be notified via e-mail of the any decisions regarding this matter to [akennedy487@gmail.com](mailto:akennedy487@gmail.com)

Kind Regards,  
Mr & Mrs R. Kennedy  
487 Lake Rosalind Rd. 4  
Candace Hamm,  
Applications Technician  
Corporation of the County of Bruce Planning and Development



The Lake Rosalind Property Owners Association Board of Directors met on April 15<sup>th</sup>, 2019 to review the proposed Bruce County Official Plan Amendment File Number BCOPA 236-18.34 and Municipality of Brockton Zoning By-Law Amendment File Number Z-50-18.34

President Pat Mulhern noted that the purpose of the Official Plan Amendment and Zoning By-law Amendment is to facilitate the severance of a parcel of land where the owner is proposing to construct a new residence on the severed parcel and a residence on the retained lands. To implement the Official Plan Amendment, the related Zoning amendment would rezone a portion of the subject lands from Environmental Protection Special (EP-10) to Inland Lake Residential Special (LR-x) to facilitate the proposed construction of a dwelling on each parcel.

A lengthy discussion ensued noting the following concerns:

- 1) A recent report (Lake Rosalind Water Supply and Condition Update Report) noted that the well serving residents on Road 4 is at or near capacity and further hook ups would challenge the well capacity. In times of drought (such as 2017) water must be “delivered/hailed” to the well in order to maintain the current capacity. In cases of drought, water restrictions were/are applied. There have also been concerns over well quality. Not all current residents on Road 4 are connected to the well and would need to be able to connect as current landowners if they wished to do so in the future. It would not be acceptable to restrict current landowners from connecting to the well in order to accommodate new builds. Veolia should be required to put their approval of the additional hook up for this property in writing to confirm proper availability.
- 2) The French Report discusses the concern that the population density on Lake Rosalind is greatly over extended. The suggestion in the report is to minimize any further building. Also noted in this report is the need for any new lots to adhere to 1 hectare in size. The correct zone by-law which requires 1 hectare for each new building lot should serve to preserve the existing population density and possibly reduce the density issue over time. The proposed property is not in alignment with these recommendations.
- 3) There is deep concern with the removal of the tree canopy that currently exists on the property. Over the past years, the residents of Lake Rosalind have worked diligently to enhance the quality of the lake. The Lake Rosalind/Marl Lake Joint Water Quality Committee was created to review any situation that may have a possibility of decreasing water quality. The removal of a substantial tree canopy as well as additional residential builds will further stress an already suffering lake.

- 4) There is currently a creek running through the property with environmental factors that naturally prohibit flow to the lake. Any environmental disturbance to this property could detrimentally affect the delicate balance needed for lake quality.
- 5) It is the understanding of the Board of Directors that fill has been added to this parcel of land in the past. This is evidenced by the contours which do not appear to be natural. The Board of Directors questions whether clean fill was added or was this property an old **unregistered** landfill site that has been covered? The concern is the serious repercussions on the surrounding environment.
- 6) The Lake Rosalind Property Owners Association Board of Directors is very concerned with the precedence that approval may offer as there would now be little validity to restrict other property owners from engaging in similar requests. We are aware of at least 6 other building lots on the lake. In more simple terms....when does it end?

Following a detailed discussion, a vote was taken and accepted to offer approval to the Lake Rosalind Property Owners Board of Directors to put their concerns in writing noting that there is no support for either amendment. The hope from the Lake Rosalind Property Owners Association Board of Directors is that the requests for both amendments will be denied.

Inland Hub, Walkerton Planning Office

Attn: Candace Hamm, Bruce County Planning and Development Department

Re:

Bruce County Official Plan Amendment File Number BCOPA 236-18.34 and Municipality of Brockton Zoning By-Law Amendment File Number Z-50-18.34

Hello Candace, as homeowners and full time residents of Lake Rosalind residing at #475 Rd 4, we, John and Deb Goddard, would hereby like to voice a couple of concerns that we have regarding the proposed by-law changes to properties just down the road from us. While we certainly do not want to hamper a home owners' rights to alter, change or beautify their property; our concerns lie with the possible lack of "dotted 'i's and crossed 't's" that may exist regarding these proposed changes.



Our concerns are as follows:

1. The added strain to our already taxed water well system. Is it prudent to add another potential two residential buildings to a well system that is currently having problems, at times, keeping up with the demands of its residents as well as its quality that has been in question lately. These are problems or concerns that council is already aware of and are being monitored but not rectified as of yet. It is our understanding that drilling a new well may be the answer but not at this current time.
2. To re-designate a portion of the subject lands from Hazard Land Area to Inland Lake Area with Exceptions. This homeowner knowingly knew the by-law when they purchased this property and It's interesting to us that this 'Hazard' designation in the past does not seem to mean anything currently if a by-law change can in affect be quickly changed. This seems to be a curious and questioning thing to many of us. Also, we have become aware recently that an old dump used to be on the property in question and if this is indeed true, is this a 'can of worms' that we want opened' being so close to an inland lake, where there are many home owners taking their drinking water from? We have also heard from a couple of residents who have environmental backgrounds and who have voiced concerns about the impact of changing the land due to any potential new buildings and the natural water runoffs that would change because of this. Would any one party take responsibility for repercussions that may happen because of changed water runoffs into Lake Rosalind, a lake that is already suffering from current environmental and residential issues?

We feel that until further studies are done and/or current problems are addressed, these proposed by-law changes should be delayed at this time.

We sincerely thank you for this opportunity and venue for expressing our concerns.

Regards,  
John and Deb Goddard  
#475 Rd 4 Lake Rosalind

## Introduction

This document was produced in an effort to preserve land zoned as Environmentally Protected or Hazardous within the Lake Rosalind watershed. The Lake Rosalind watershed consists of surface water used for recreation and domestic plumbing for residents living on and around Lake Rosalind. Additionally there are approximately 68 residents that are connected to the municipal well system along Road 4, of which at least one non-permitted private water supply is located in the same area.

The Clean Water Act was introduced by the Province of Ontario to ensure that all residents have access to safe drinking water. The capacity of the water supply system in the Community has been recognized as a significant risk to not support the existing and future water demands for the community (Melchin et al., 2016).

## Rationale

There was an application put forth on lot 496 Lake Rosalind Road 4 to reduce the Hazardous area and rezone it for residential. The developer has proposed to split the lot into two separate properties, requiring municipal water services. It was recommended by the Saugeen Valley Conservation Authority, Environmental Planning Technician to further reduce the EP zone. The reasoning was based off of zoning changes previously approved on the property with no scientific evidence to support the decision that it will not negatively impact the area. After reviewing the publically available documents and incorporating "best practice" scientific principles, there is an overwhelming amount of evidence to support that past zoning changes have negatively impacted both surface and ground water in the area.

## Objectives

*The purpose of this document is to demonstrate how water related negative consequences are impacted by the reduction of Environmentally Protected Hazardous zones to replace with the construction of more residents that will require municipal water supply. Specifically, how the local ground and surface water supply and quality are linked to the management of storm water and waste water and other land use practices using reports submitted to the municipality by professionals in relation to the Lake Rosalind watershed.*

## Drinking Water

### Demand

The existing water supply has been noted that it cannot meet the current demand at all times of the year. To increase the demand of a well that struggles to supply, would jeopardize the security of clean water for the residents that currently rely on it. This point has been discussed in the Inspection Reports conducted in 2017, and 2018. "Well #1 has been clearly impacted by drought, with shown effects of reduced well yield

during seasons that lack precipitation over extended periods of time” (Shannon, 2017; Shannon 2018). Additional confirmation can be found in the Tier Three Water Budget and Local Area Risk Assessment. The impact of climate change has resulted in recent droughts that have negatively impacted the supply of the current drinking water system.

The two wells that supply water to the Community of Lake Rosalind have had historical issues with meeting the existing residential demands. As recently as the summer of 2012, the water levels in both wells fell below safe operating levels and the wells were unable to supply demand to the community (Melchin et al., 2016). Well #1 is a shallow dug well that extends less than 4 m below surface and is vulnerable from both water quality and quantity perspectives. Well #3 is a deeper well that extends 23 m below surface; however, the static water levels in Well #3 vary dramatically (up to 7 m) from one year to the next and fall to depths below the pump intake, which lies over 16 m below surface. It was interpreted that during these periods, the well could not service the demands of the community (Melchin et al. 2016).

The Tier Three Assessment establishes the risk that a community's sources of water will not be able to meet allocated water demands, taking into consideration climate and other water uses. Land use in the Study Area is primarily agricultural with natural areas such as forests and wetlands scattered throughout. Urban areas exist along the shores of Lake Rosalind and Marl Lake (Melchin et al., 2016). As Local Area B (Lake Rosalind Wells) was assigned a Significant Risk Level, all consumptive demands or areas of recharge reduction (due to land use development) within this area are classified as Significant Water Quantity Threats (Melchin et al, 2016).

### Quality

The data below was sourced from the Walkerton Drinking Water System Summary Reports from 2010 to 2018, prepared by Veolia Water in accordance with Schedule 22, Ontario Regulation 170/03. These documents are publically available and reflect the quality of the drinking water over the past 8 years. The reports indicate that the municipal system, which consists of Well #1 and Well #3, provides the community with water that meets the Drinking Water Quality Standards in Ontario Regulation 169/03 with the exception of sodium, which often exceeds the value found in the regulation. The aesthetic objective for sodium in drinking water is 200 mg/L at which it can be detected by a salty taste and is not toxic. A maximum acceptable concentration (MAC) for sodium in drinking water has 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. (MOECC, 2006)

The other important parameter that should cause concern noted in the public water supply reports is the increasing trend associated with the concentration of nitrates

(Figure 1). The MAC of nitrates in drinking water is 10 mg/L as nitrogen (MOECC, 2006). Nitrates are present in water (particularly ground water) as a result of decay of plant or animal material, the use of agricultural fertilizers, domestic sewage or treated wastewater contamination, or geological formations containing soluble nitrogen compounds (MOECC, 2006).

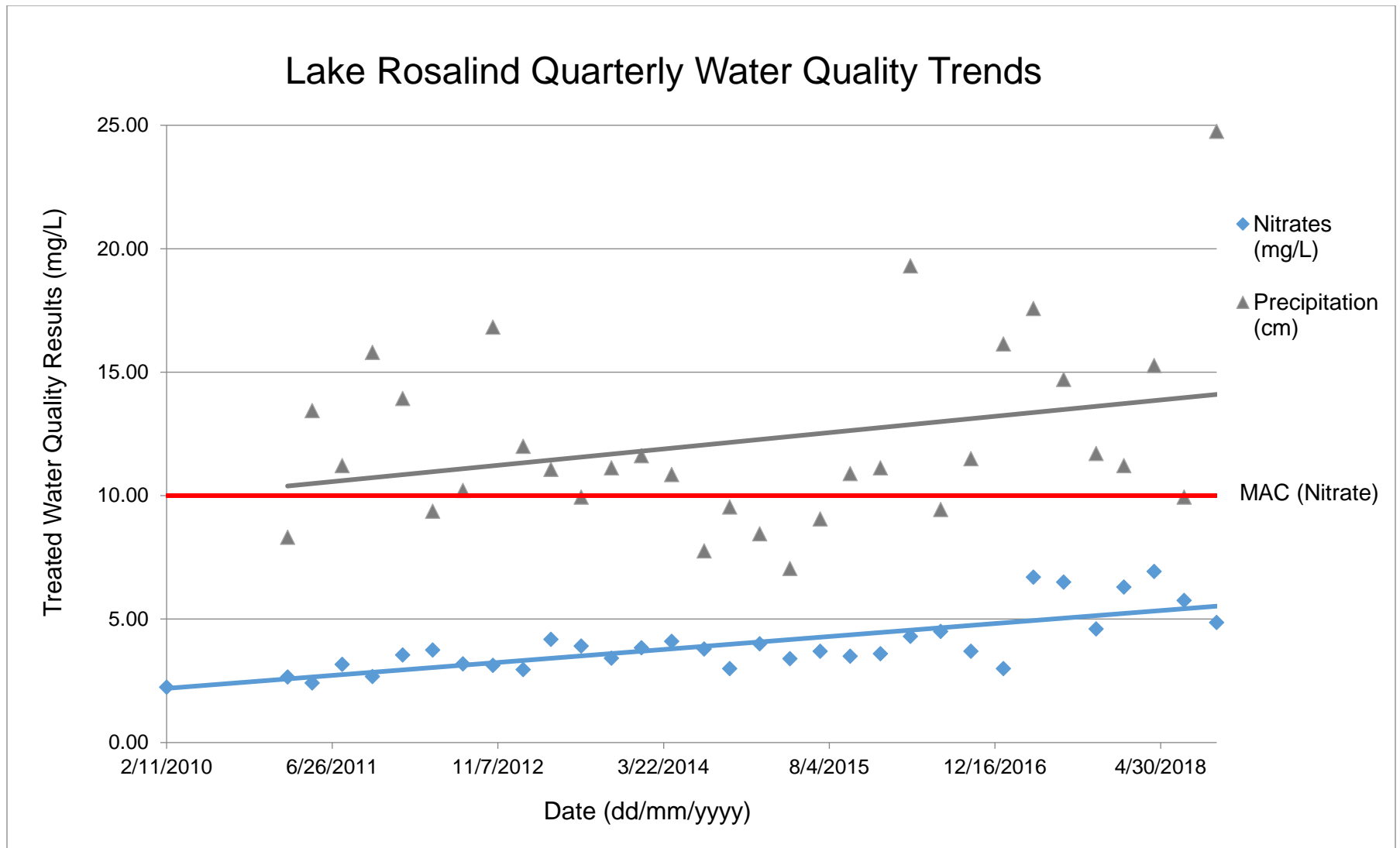


Figure 1. Information Sourced from Lake Rosalind Drinking Water System 2010 – 2018 Summary Reports and precipitation data available for Walkerton, Ontario: Sourced <https://www.worldweatheronline.com/lang/en-ca/walkerton-weather-averages/ontario/ca.aspx> accessed April 25<sup>th</sup> 2019.

As noted in the Tier 3 assessment, the area around the municipal wells is primarily agricultural with some medium density residential. Based on the counts of the fecal indicator *E.coli* measured in Well #1 primarily during the fall months compounded with the increasing trend of nitrates and precipitation, strongly suggests the source of pollution is livestock manure and/or domestic wastewater, and influencing nitrate concentrations (Figure 2). Microbial Source Tracking (MST), MECP Method E3499 could be performed to confirm the source. Walkerton quarterly precipitation data (used due to data availability and proximity radius) was plotted along the same time period and shares a similar and parallel trend with the nitrate levels, suggesting that flooding effects from climate change are correlated with nitrate levels.

## Well #1 Raw Water Counts of E.coli and monthly Precipitation

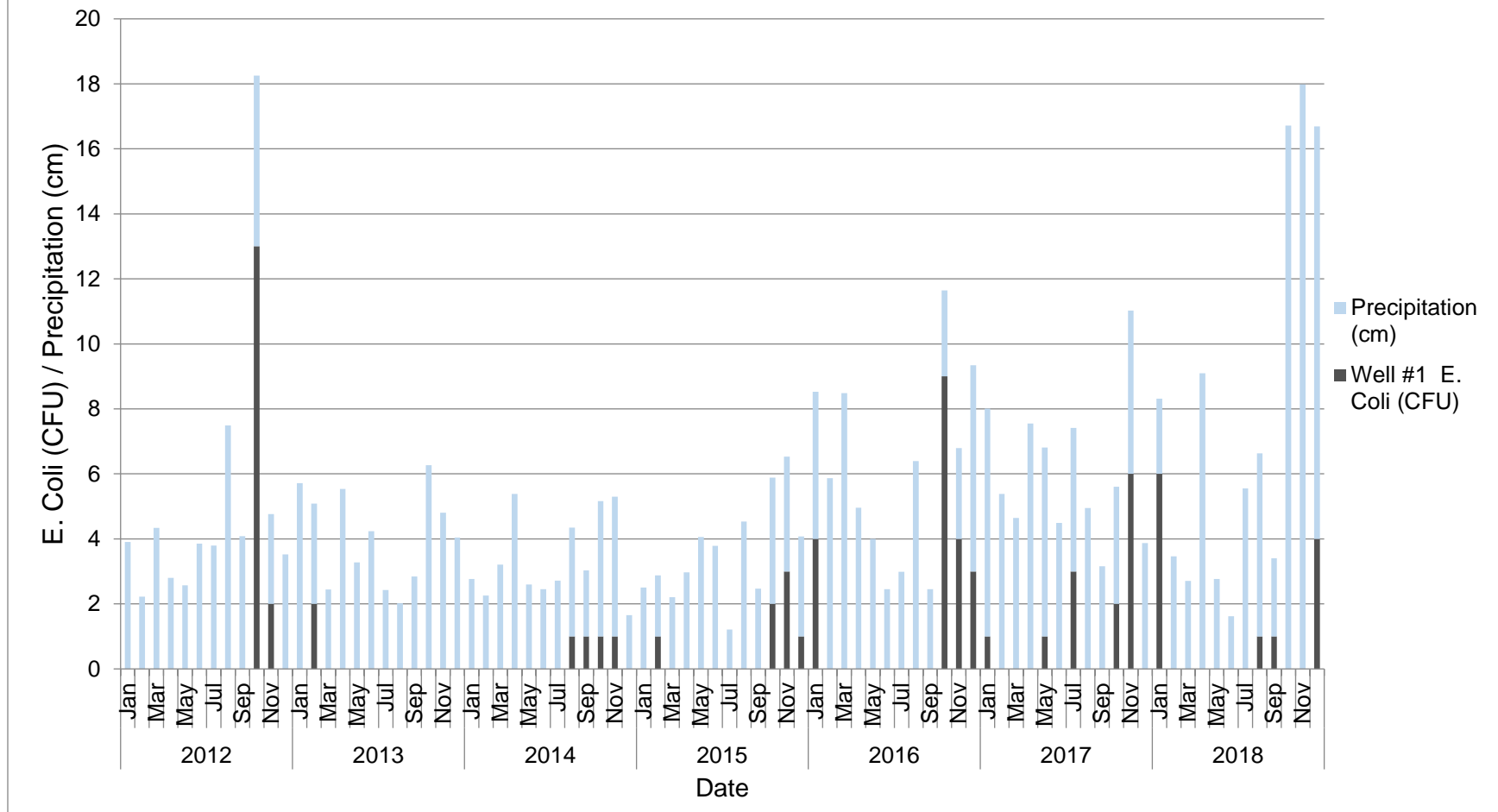


Figure 2. Information Sourced from Lake Rosalind Drinking Water System 2012 – 2018 Summary Reports and precipitation data available for Walkerton, Ontario: Sourced <https://www.worldweatheronline.com/lang/en-ca/walkerton-weather-averages/ontario/ca.aspx> accessed April 25<sup>th</sup> 2019.

## **Storm Water**

Storm water is water that originates during precipitation events and during snow/ ice melt. Storm water will either soak or infiltrate into the ground, be held on the surface and evaporate or runoff and end up in the watershed, ultimately Lake Rosalind. Due to the location and slope of the land of lot 496 Lake Rosalind Road 4 and adjacent properties, a stream is continuously flowing all year as reported by neighbours. Additionally, storm water is also being directed to the lake from this location due to the topography of the area. The Environmentally Protected and Hazardous zone located on the property (and others around the lake) are necessary for storm water management to not only protect residential infrastructure, but also the water quantity and quality of the lake and in the water table. Past reduction of the EP zone to construct a garage has contributed to a displacement and diversion of water and nutrients from the riparian buffer zone to directly into the lake. Results from water quality testing completed by the Lake Rosalind Water Quality Committee in that area, (location 5 and area) show elevated nutrient loading over a number of years and has been identified as a problem area.

The riparian zone is noted as the interface between land and a body of water. It is known as a terrestrial biome of the earth, where plant habitats and communities along the banks are characterized as hydrophilic. If constructed and undisturbed, this zone acts as a buffer to control, trap, and treat storm water as it travels by gravity to lower elevation. These zones are necessary to reduce the velocity of storm water, allowing it to infiltrate the ground, increase the water table, control erosion, reduce turbidity, and reduce nutrient concentrations as it travels down and enters the body of water.

Tori Waugh, Agriculture Outreach Coordinator for the Saugeen Valley Conservation Authority, presented a widely accepted scientific method to improve the health of inland lakes which follows a three step approach. Step 1 to avoid and prevent; Step 2 to control, trap, and treat water using grassed waterways, tree planting, storm water retention ponds, swales and berms; Step 3 to manage riparian zones through the construction of wetlands and natural channel designs (modified from Tomer et al. 2013)

As it relates to the municipal water system, groundwater recharge refers to the amount of water that infiltrates and seeps through the unsaturated zone and ultimately reaches the water table. The rate of groundwater recharge is dependent on a number of factors including precipitation, evapotranspiration, land use and vegetation, surficial soil type (geology), and physiography.

Recharge is enhanced in areas where the ground surface is hummocky and direct runoff to nearby creeks and rivers is inhibited (Melchin et al. 2016). As Well #1 is largely influenced by the water table, inhibiting runoff in that area using the three step approach above would improve the well recharge rate and water security for the future.

## **Waste Water**

A tertiary septic system that complies with the Effluent Quality Criteria as regulated by the Ontario Building Code (table 8.6.2.2.A) releases a reduced strength effluent from a normal residential waste count of 120-150 mg/L BOD5 to ~ 15 mg/L (Septic Systems Ontario, 2019). However, the average water usage of a 4 person residence is ~ 1000 L/day, and with two residences, 30 000 mg/day of BOD5 would be entering the watershed and consuming oxygen as it is broken down in the lake. Although this system performs better than a traditional system, there is a waste product being generated where persistent harmful algal blooms exist. Furthermore, prior to the previous zoning changes, the area of the lot was wetland and is completely saturated with a continuous flow of water passing through two locations on the property. The performance of a septic system under saturated conditions may not meet



the targets presented by the septic manufacturer. Lastly, detergents and soaps that contain surfactants and water softener brine high in sodium also are not treated by septic systems.

## References

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Veolia Water (2011) Walkerton Drinking Water System 2011 Summary Report. The Municipality of Brockton

Veolia Water (2010) Walkerton Drinking Water System 2011 Summary Report. The Municipality of B

To: Bruce County Planning and Development

I am a Lake Rosalind Associate member and I am in complete support of the proposed development at 496 Lake Rosalind Road 4 as it will provide more tax dollars for the county.

Justin Lippert  
403 Metzger Drive. R.R.#3 Hanover

April 24, 2019

To: Bruce County Planning and Development

From: Debra Good, 489 Lake Rosalind Road 4 (debragood@live.ca)


Re: 496 Lake Rosalind Road 4 Development

To whom it may concern,

I currently own a cottage located at 489 Lake Rosalind Road 4, directly across the road from the proposed development at 496 Lake Rosalind Road 4.

I am in full support of the proposed development and severance and have no objections. The added tax revenue can only help all residents of Brockton.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Debra Good', with a stylized, flowing script.

Debra Good, CPA,MBA,CMA

## Appendix 7

### Draft Zoning By-law Amendment The Corporation of the Municipality of Brockton By-Law No. 2019-~~xxx~~

Being a By-Law to Amend the Municipality of Brockton Comprehensive Zoning By-Law No. 2013-26, As Amended,

The Council of the Corporation of the Municipality of Brockton pursuant to Section 34 of the Planning Act, 1990, therefore enacts as follows:

1. That Schedule A to By-Law No. 2013-26, as amended, is hereby further amended by changing the zoning symbol on Part of Lot 68, Concession 3 NDR, being Parts 2 and 3, 3R1261, geographic Township of Brant, Municipality of Brockton from Environmental Protection Special (EP-10) to Inland Lake Residential Special (LR-10) as shown on Schedule 'A' attached hereto and forming a part of this By-law.
2. That By-law No. 2013-26, as amended, is hereby further amended by adding the following subsection to Section 9.5 thereof:
  - .10 Notwithstanding the LR zoning, the lands delineated as LR-10 on Schedule 'A' to this By-law shall be used in compliance with the LR zone provisions contained in this By-law, excepting however:
    - i. That the minimum lot area shall be no less than +/- 3140m<sup>2</sup>;
    - ii. That the minimum front yard shall be no less than +/- 5 m;
    - iii. That the property be serviced by a Level IV treatment unit and a Type A dispersal bed including additional phosphorus removal measures;
    - iv. That a lot grading and drainage plan be required to the satisfaction of the Chief Building Official; and
    - v. That the property be placed under Site Plan Control.
3. That this By-law shall come into force and effect on the final passing of the Bruce County Official Plan Amendment Number 236 thereof by the Council of the County of Bruce, subject to compliance with the provisions of the Planning Act, R.S.O. 1990.

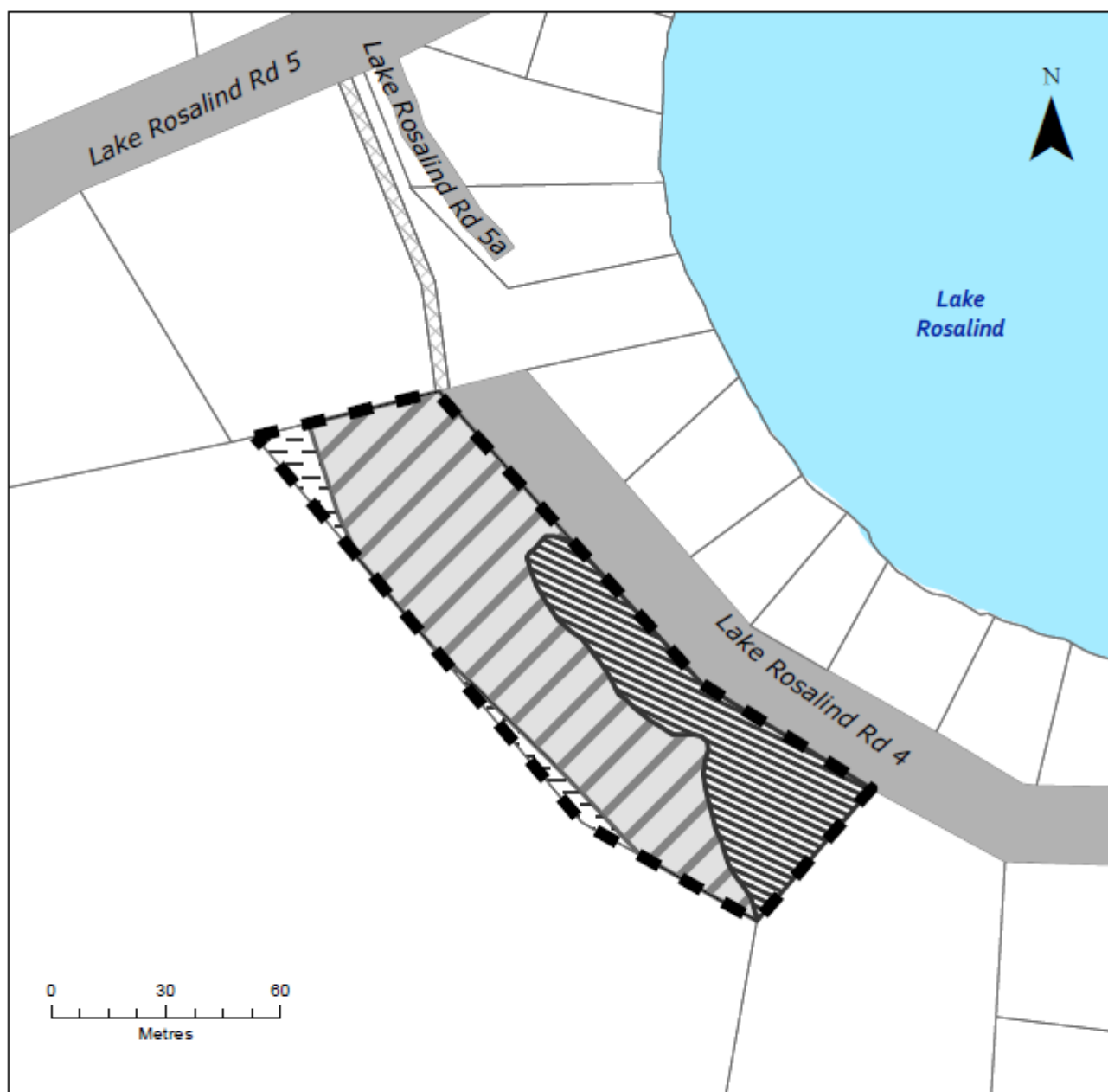
Read, Enacted, Signed and Sealed this \_\_\_\_\_ day of \_\_\_\_\_ 2019.

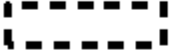



\_\_\_\_\_  
Mayor - Chris Peabody

\_\_\_\_\_  
Clerk - Fiona Hamilton

## Schedule 'A'

Part of Lot 68, Concession 3 NDR (being Parts 2 to 3, 3R1261) (496 Lake Rosalind Rd 4)  
Municipality of Brockton (geographic Township of Brant)



-  Subject Property
-  Lands to be zoned Inland Lake Residential Special (LR-10)
-  Lands to be zoned Environmental Protection Special (EP-10)
-  Lands zoned General Agriculture (A1)

THE CORPORATION OF THE MUNICIPALITY OF BROCKTON  
BY-LAW NO. 2019 - xxx

BEING A BY-LAW TO DESIGNATE A SITE PLAN CONTROL AREA

**WHEREAS** the Official Plan for the County of Bruce empowers the Corporation of the Municipality of Brockton to describe certain lands within the Municipality as a proposed site plan control area;

**AND WHEREAS** the Council of the Corporation of the Municipality of Brockton is empowered pursuant to Section 41 of the Planning Act, 1990 to designate the whole or any part of such area as a site plan control area;

**AND WHEREAS** it is the declared intention of the Council of the Corporation of the Municipality of Brockton that any section or part of a section of this By-law which might subsequently be held to be illegal, shall be severable from the remainder of the By-law and shall not be deemed to have persuaded or influenced the Council to pass the remainder of the By-law;

**NOW THEREFORE THE COUNCIL** of the Corporation of the Municipality of South Bruce **ENACTS** as follows:

1. The following lands are hereby designated as a site plan control area;
  - (i) Part of Lot 68, Concession 3 NDR, being Parts 2 to 3, 3R-1261, geographic Township of Brant (lands subject to the zoning amendment application: File Z-50-18.34 by Smurk Inc.)
2. No person shall undertake any development in the site plan control area designated under Section 1 of this By-law unless the Council of the Corporation of the Municipality of South Bruce has approved of plans, drawings, agreements and other matters referred to in Section 41 of the Planning Act, 1990, or has passed a resolution exempting the development from such works.
3. The Mayor and Clerk of the Corporation of the Municipality of Brockton are hereby authorized to execute any agreements required pursuant to this By-law and affix the Corporate Seal.
4. This By-law takes effect from the date of passage by Council and comes into force and effect pursuant to the provisions of the Planning Act, 1990.

READ A FIRST AND SECOND TIME THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ 2019

\_\_\_\_\_  
MAYOR

\_\_\_\_\_  
CLERK

READ A THIRD TIME AND FINALLY PASSED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ 2019.

\_\_\_\_\_  
MAYOR

\_\_\_\_\_  
CLERK