

**BIG BASSWOOD LAKE
SEPTIC INSPECTION REPORT**



**FUNDING
AGENCY**



**PARTICIPATING
MUNICIPALITY**



**ENGINEERING
CONSULTANT**



INSPECTIONS COMPLETED - 2019

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1. INTRODUCTION

The Big Basswood Lake Association (BBLA) has retained Tulloch Engineering Inc. to complete a review of septic systems and surface drainage for properties abutting Big Basswood Lake. The Ontario Trillium Foundation (OTF) provided the BBLA with funding to complete the septic inspections. The OTF is an agency of the Government of Ontario and one of Ontario's leading granting foundations. The OTF provided the grant money to support septic inspections and education for property owners to preserve the pristine water quality of Big Basswood Lake. A Media Release for this funding was provided and is included for reference in Appendix A. An excerpt from the Media Release is as follows:

Big Basswood Lake is one of the clearest, most pristine lakes in Ontario (source FOCA Lake Partner program). Its crystal clear waters are enjoyed by its residents' year-round and it is a major contributor to tourism and a major supporter of the local service industry in the township of Huron Shores. To ensure the continued health of the lake, the members of Big Basswood Lake Association asked the lake association to undertake a program of septic inspections and, in particular, to run an education program on how properly maintained septic systems sustained the ongoing well-being of the lake.

Due to confidentiality concerns it became necessary for the Municipality of the Huron Shores (Municipality) to become directly involved in the septic system study. The Municipality provided a list of properties abutting Big Basswood Lake along with contact information of property owners to Tulloch Engineering. The Municipality will have access to detailed information regarding each individual property that was part of the inspection. Only general overall information, without identifying property owners, will be provided to the BBLA and the public.

The study also provided an opportunity to educate owners on how to properly maintain septic and greywater systems in order to preserve the water quality of Big Basswood Lake. Where the study identified issues where Big Basswood Lake may be impacted, these were noted and details provided to the Municipality.

2. BACKGROUND

2.1 SEPTIC SYSTEMS AND IMPORTANCE OF SEPTIC REVIEWS

Septic system site reviews are very important since a great deal of waterfront properties in Ontario are serviced by private wells and on-site septic systems rather than being connected to a municipal sewer and water system. The water and septic systems are regulated by the Ontario Building Code Act, 1992 and the Ontario Building Code (OBC) (O.Reg. 332/12).

One of the main reasons to have the septic inspection review completed was due to the concerns with the increased blue-green algae blooms in lakes throughout the Algoma District. Lakes previously affected in Algoma include Bright Lake, Lake Lauzon, Desbarats Lake, Cloudy Lake, Diamond Lake, Twin Lakes, Bass Lake and Upper Island Lake. Blue-green algae blooms can be caused from leaching of septic systems into nearby lakes. In Ontario, the growth of blue-green algae thrives on phosphorus. Caution must be taken when algae is observed as it can produce toxins which are harmful to humans and animals. To prevent the growth of blue-green algae, phosphate free detergents, personal care and household cleaning products should be used at all times. Fertilizers, specifically fertilizers containing phosphorus should be avoided and septic inspections should be done frequently to ensure that they are not leaking into a nearby water source.

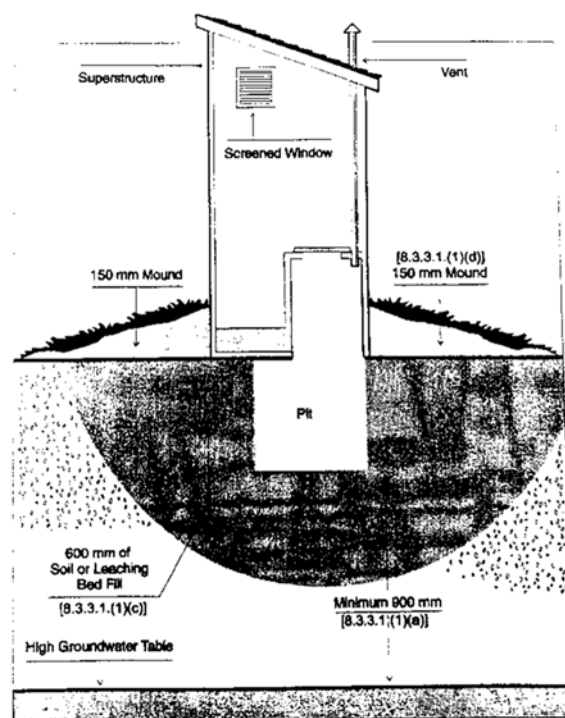
There are five classes of on-site wastewater systems available to property owners including:

- Class 1 – Privy and Composting Toilets
- Class 2 – Leaching Pit for Greywater Disposal
- Class 3 – Cesspools
- Class 4 – Septic Tank and Field Bed Systems
- Class 5 – Holding Tanks

Class 1 systems – Privies or more commonly known as “outhouses”, are used for the disposal of human waste only. These systems do not require a building permit for construction but the OBC has made requirements for property owners to follow when constructing a class 1 system. It provides requirements for the privy itself as well as the structure above.

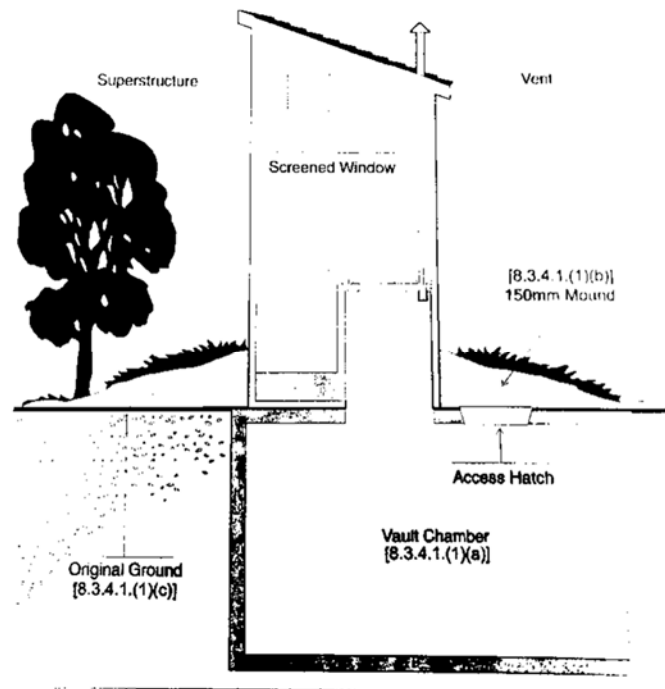
The OBC states that an **earth pit privy** shall be constructed with the following requirements:

- a) The bottom of the pit shall be at least 900mm above the high groundwater table
- b) The side of the pit shall be reinforced so as to prevent their collapse
- c) The pit shall be reinforced so as to prevent their collapse
- d) The pit shall be surrounded on all sides and on its bottom by not less than 600mm of soil or leaching bed fill
- e) The soil or leaching bed fill around the base of the sides of the superstructure of the earth pit privy shall be raised or mounded to a height of at least 150mm above ground level.



The OBC states that a **vault privy** shall be constructed with the following requirements:

- a) The container or structure used for the holding or storage of human body waste shall be watertight and made of a material that can be easily cleaned.
- b) The soil or leaching bed fill around the base of the sides of the structure shall be raised or mounded to a height of at least 150mm above ground level.
- c) The surface of the ground in the area of the vault privy shall be graded so that surface drainage will be diverted away from the privy.



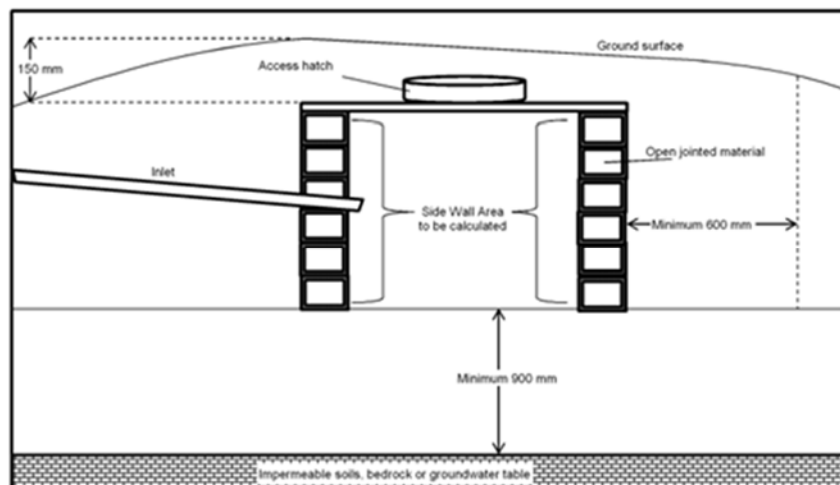
The OBC states that a privy must be enclosed with a structure above. That structure must be constructed with the following requirements:

- a) strong, durable and waterproof materials.
- b) Solid floor supported by a sill constructed of treated timber, masonry or other material of at least equal strength and durability.
- c) Easily sanitized.
- d) Equipped with one or more seats, each having a cover and being supported by an enclosed bench or riser which is lined with an impervious material on all interior vertical surfaces.
- e) Equipped with a self closing door.
- f) Has one or more screened openings for ventilation.
- g) Has a screened ventilation duct at the top end that extends from the underside of the bench to a point above the roof of the structure.
- h) Shall not have any openings for the reception of human body waste other than a urinal or the requirements from (d).

Class 2 systems – Leaching pits are used for the disposal of greywater waste, such as waste from sinks, dishwashers, showers or laundry machines. The OBC states that a greywater leaching pit may only be used if the daily greywater sewage flow does not exceed 1,000 litres per day.

The OBC states that a **greywater leaching pit** must be constructed using the following requirements:

- a) The bottom of the pit shall be at least 900mm above the high ground water table.
- b) The pit shall be constructed in such a manner as to prevent the collapse of its sidewalls.
- c) Any material used to support or form the sidewalls of the pit shall be an open jointed material of a type that will permit leaching from the pit.
- d) The pit shall be provided with a tight, strong cover that shall remain over the pit except when it is necessary to remove it for purposes of adding or removing greywater from the pit or for maintenance.
- e) The earth around the perimeter of the pit shall be raised or mounded to a height of at least 150mm above ground level.
- f) The surface of the ground in the area of the pit shall be graded so that surface drainage in the area will be diverted away from the pit.
- g) The pit shall be surrounded on all sides and on its bottom by at least 600mm of soil having a percolation time of less than 50 minutes.

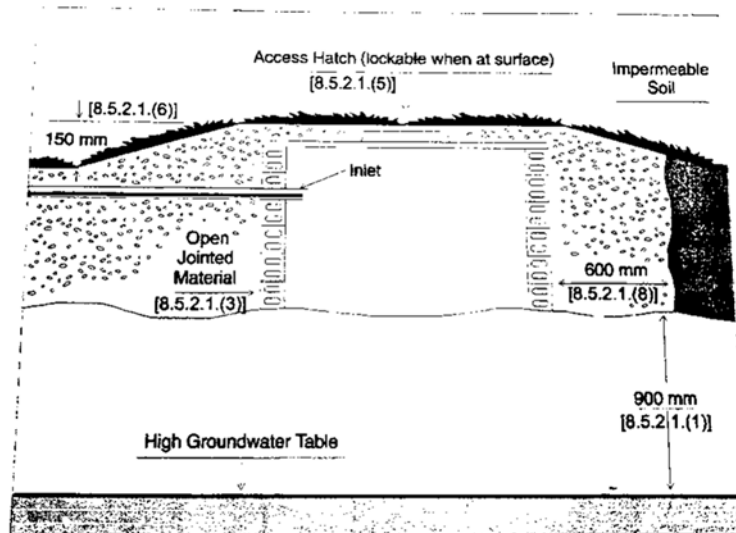


Class 3 systems – Cesspools are designed to receive sewage from a Class 1 sewage storage system for disposal. The OBC states that a cesspool may only be used if the daily sewage flow does not exceed 1,000 litres per day.

The OBC states that a **cesspool** must be constructed using the following requirements:

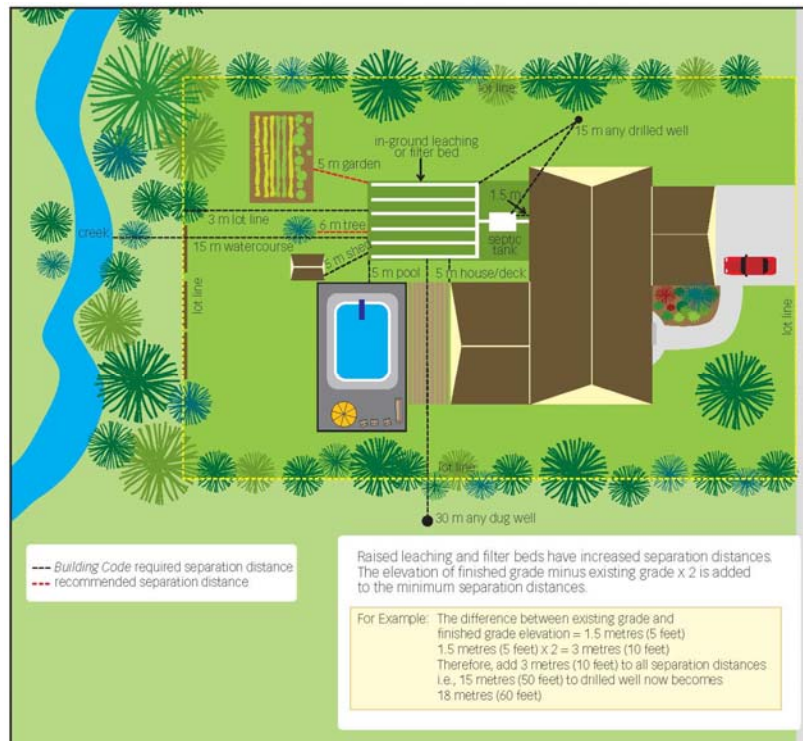
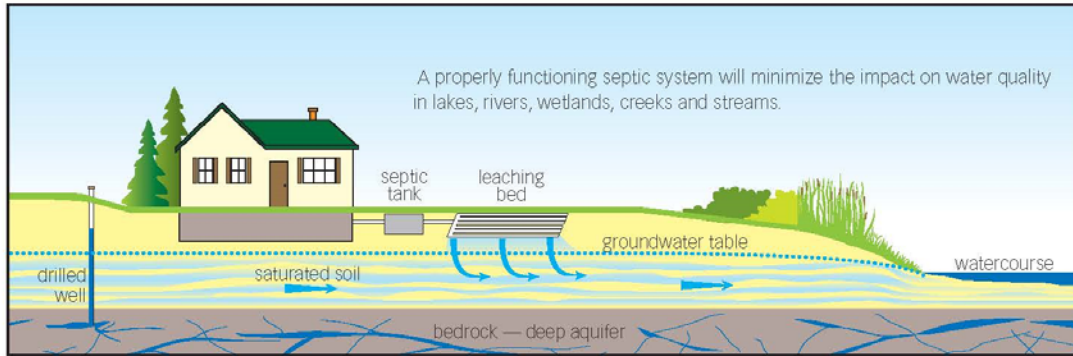
- a) The bottom of the cesspool shall be at least 900mm above the high ground water table.

- b) The cesspool shall be constructed in such a manner as to prevent the collapse of its sidewalls.
- c) Any material used to support or form the sidewalls of the cesspool shall be an open jointed material of a type that will permit leaching from the cesspool.
- d) The cesspool shall be provided with a tight strong cover that shall remain over the cesspool except when it is necessary to remove it for purposes of adding or removing sewage in the cesspool or for maintenance.
- e) Where the cesspool extends to the ground surface, the cover required in (d) must be lockable.
- f) The soil or leaching bed fill around the perimeter of the cesspool shall be raised or mounded to a height of at least 150mm above ground level.
- g) The surface of the ground in the area of the cesspool shall be graded so that surface drainage in the area will be diverted away from the cesspool.
- h) The cesspool shall be surrounded on all sides and on its bottom by at least 600mm of soil or leaching bed fill, except the top where the cesspool extends to the surface of the ground.



Class 4 systems – Septic Tank and Field Beds treat wastewater below ground by transferring the wastewater from a house through pipes into a septic tank which is then connected to a field bed. Field beds are made up of multiple lengths of perforated pipes or infiltration chambers, buried in gravel and surrounded by either native or imported soil. Class 4 systems in the Big Basswood Lake area require a permit issued by Algoma Public Health (APH). APH will only issue the permit if the daily design sewage flow does not exceed 10,000L per day. The Ministry of the Environment, Conservation and Parks is the approving agency if a system exceeds 10,000 L per day. The figures below demonstrate the typical layout of class 4 systems and the

required setbacks. The Municipality of Huron Shores currently requires a setback distance of 30m from septic to watercourse whereas the Algoma Public Health enforces the Ontario Building Code which only requires a setback distance of 15m. At this time, property owners must meet the required setback from the Municipality where possible. When this setback is not able to be met but the 15m setback is achieved, the Algoma Public Health provides a letter to the Municipality to show the rationale in approving the system with the 15m setback.



Class 5 systems – Holding Tanks are used as a last option when on-site sewage systems are not feasible on a property due to space restrictions or poor soil conditions. Holding tanks are designed to accept all sewage from a household and then the holding tank is pumped out and sewage is hauled off site to an approved waste disposal facility. Holding tanks can be used as a temporary sewage storage solution when upgrading a Class 4 system or while waiting for municipal services. Class 5 systems also require a written service agreement with a waste management system (Hauled sewage) for the removal of sewage. Holding tanks must have a minimum 7-day sewage holding capacity. All Class 5 systems are also required to be equipped with an audible and visual alarm which warns the owner that the system is nearing capacity.

The septic review is not only to determine if there are any issues with existing sewage systems but also to provide education to property owners on how to maintain their properties and the adverse effects that the condition of their system may have on their health, property value and the quality of lake water. The septic review may detect potential system problems before the deficiency leads to ultimate system failure. The septic review was most beneficial when the property owner was on-site for the inspection.

Active healthy bacteria are required for a septic tank and leaching bed to operate successfully. These healthy bacteria are killed or harmed by cleaning products (antibacterial, non-biodegradable or chlorine based) and by full toxic or hazardous products (varnish, paint, pesticides or gasoline). Without these active healthy bacteria, a septic system can fail prematurely or result in a leachate breakout, potentially affecting the groundwater, surface water and the environment. Hazardous products do not break down when going through the septic system and therefore remain hazardous when going into the ground and water and have the potential to poison well water and lake water.

2.2 INSPECTION BACKGROUND

A total of 261 individual properties having frontage on Big Basswood Lake were identified by the Municipality of the Huron Shores. Based on the Municipality's assessment, 208 of those properties were identified as having a residence. It should be noted that there may be other lots with trailers and privy systems that the Municipality may not be currently aware of.

The Municipality of Huron Shores sent out a letter to property owners notifying them of the study and requesting that they contact the Municipality to arrange an inspection time. The inspections were voluntary, not mandatory. A copy of the letter as well as a form was sent to residents and

is included in Appendix B. Residents called in to the Municipality to arrange a date for inspection by the representative from Tulloch Engineering. Of the 208 properties, 118 property owners arranged for the inspection to be completed or approximately 56% of property owners responded to the letter opting to have the inspection completed.

Brysin Shaw, Engineering Technologist of Tulloch Engineering completed site inspections from June 2019 to October 2019. These were done under the supervision of Marshall D. Thompson, P. Eng. of Tulloch Engineering. Marshall D. Thompson has met the requirements of a Qualified Person and has also passed the On-Site Sewage Inspection Technical Building Code Examination and the Designer Legal Building Code Examination. Refer to Appendix C - Qualifications of Review Engineer for confirmation of qualifications of Marshall D. Thompson – BCIN 25764.

The inspection included the completion of a form for each individual property that recorded information such as the residence type (seasonal or permanent), type of dwelling, class of septic system, type of water supply and whether serviced by hydro. Much of this information was provided in advance or during the inspection by the property owner. In addition, an above ground visual assessment was made of the septic system including the septic tank type and condition and determination if there was a field bed breakout of leachate. The inspection also noted potential surface runoff risks with the potential for sediment to enter the lake during rain events. Setback distance between the lake and closest location of septic tank, privy or field bed was measured with a measuring tape. Property owners were asked to be on site during the visual inspection if they were available. A blank septic system inspection form is included in Appendix D.

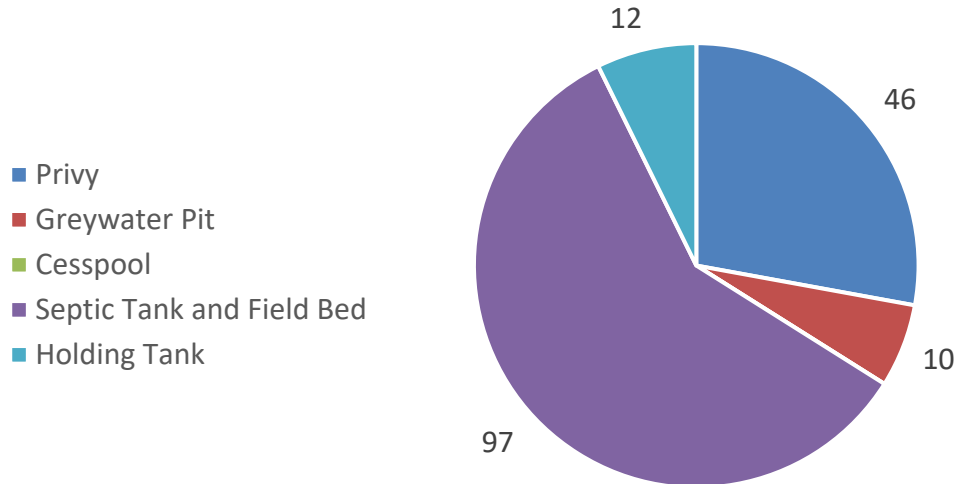
3. SEPTIC SYSTEM EVALUATIONS

Detailed findings of the inspection for each property was provided to the Municipality only. Each resident will also be provided with a copy of their detailed inspection report for their own use. An overall summary of the results is herewith provided to the Big Basswood Lake Association and to the public. It is noted that these results only represent the properties that arranged to have an inspection completed and should not be applied to all properties.

3.1 SEPTIC SYSTEM CLASSES

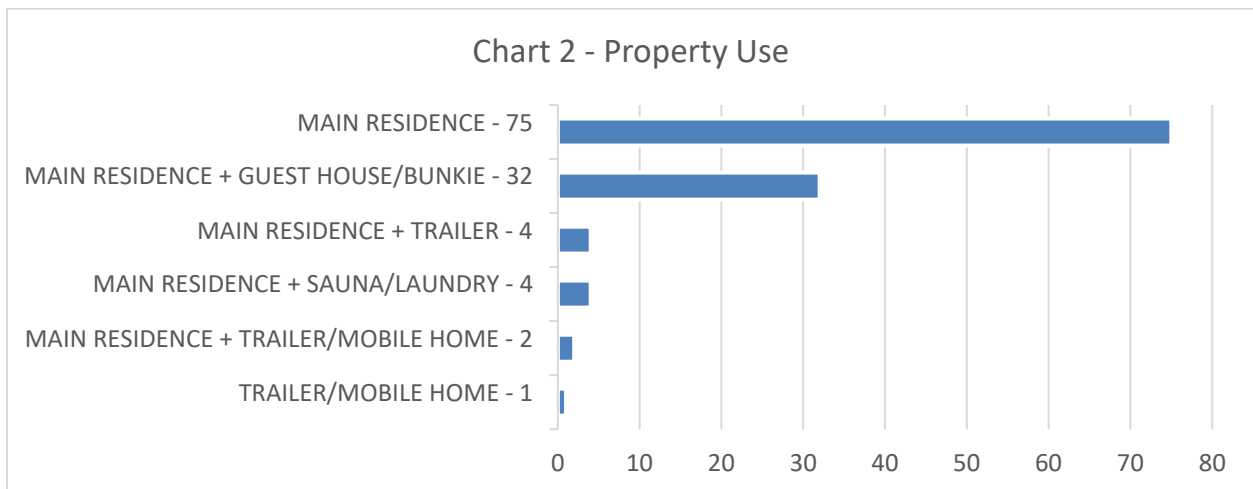
The following chart illustrates the number of systems pertaining to each septic Class. These only represent the properties that had inspections completed. Note that some properties had multiple systems in different classes.

Chart 1 - Septic System Type



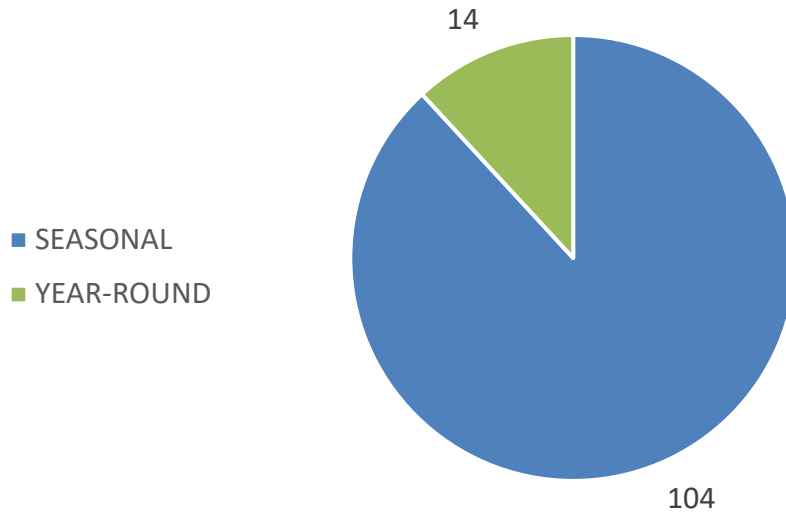
3.2 PROPERTY USE

The following chart illustrates the number and the functional use of each property. Again, these only represent the properties that volunteered and had inspections completed. Most properties only had one main residence which contributed to the septic system.



The majority of the properties included in the inspection with septic systems were seasonal type properties only. This is illustrated in the chart below.

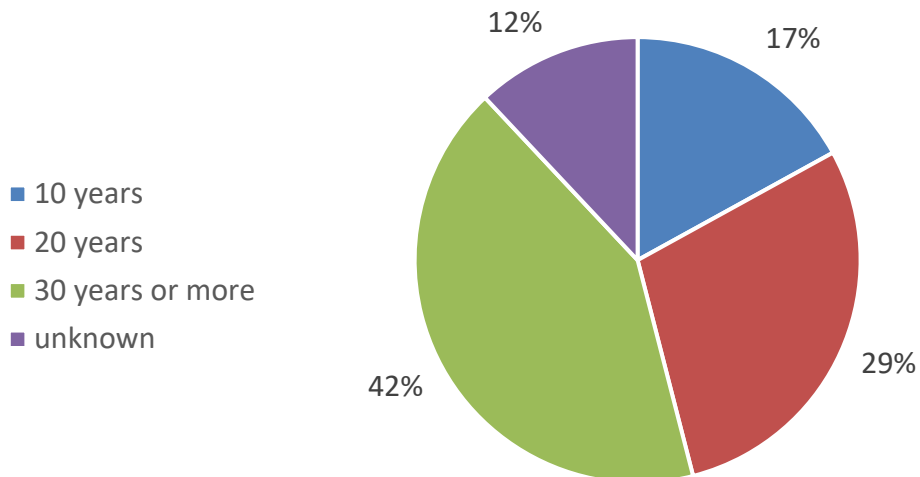
Chart 3 - Type of Residence



3.3 SEPTIC SYSTEM AGE

The following chart illustrates the septic system age of all the properties which were included in the inspection. A total of 42% of the septic systems are 30 or more years old.

Chart 4 - Septic System Age



Generally, the useful life of a septic system ranges from 15-40 years. The useful life of a septic system is dependent on installation, maintenance and amount of use of the septic system. As most of the systems included in the inspection are seasonal residences, the useful life of those septic systems would be expected to be longer.

4. IDENTIFIED ISSUES

The following sections provides a summary of all systems and properties identified with concerns at the time of inspection.

4.1 LAKE SETBACKS

One field bed and two septic tanks did not meet the required OBC setback of 15m from the lake. A total of 31 field beds and 56 septic or holding tanks were in the setback range of 15-30 metres. It is noted that the municipal setback requirement is a relatively new requirement and therefore existing systems at the time of implementation would be compliant as an existing use. A further 65 field beds and 51 septic or holding tanks were greater than 30 metres away from the lake. There was also one privy system that did not meet the required 15m setback by OBC requirements.

4.2 INADEQUATE PRIVY CONSTRUCTION

There were four privy septic systems with old structures which contained holes in the walls at the base of the structures. One of these privies is not being used at this time according to the property owner.

4.3 PRIVIES WITH INADEQUATE SETBACKS TO WATERCOURSE

Five privy systems were found to be in close proximity to a natural water course. The OBC requires that earth pit and vault privies have setbacks of 15m and 10m, respectively, to the nearest watercourse. If the property owner was on site during the time of inspection, the inspector recommended that the privy be moved if the owner decides to upgrade the privy system.

4.4 LEACHATE BREAKOUTS

Leachate breakouts are defined as an occurrence where raw sewage "breakouts" from the ground to the surface and occurs when there is not sufficient capacity for the ground to absorb the leachate. They sometimes will occur when there has been excessive rain causing the ground to become saturated. There was no evidence of leachate breakouts from any field beds observed at the time of inspection. It is noted that several properties are only occupied for one or two weeks and therefore leachate breakouts may not be evident in these situations.

4.5 CONCERNS WITH NEIGHBOURING PROPERTIES

Four property owners expressed concern of neighboring properties having possible septic issues that may or may not be known by the Municipality. As these property owners did not sign up for a sewage inspection the issue could not be investigated by Tulloch's inspector but the comment will be passed on to the Municipality and the Algoma Public Health. The APH noted that they keep a file on these complaints and may decide to investigate.

4.6 OTHER CONCERNS

There were numerous other issues identified during the sewage inspections. They are wide ranging and cannot be easily summarized without listing them in detail:

- Outdoor Shower 10m from Lake – Recommended that water be directed into a greywater system.
- Composting Toilet has overflow system of hose onto ground but apparently has never overflowed
- Vehicles are parking on Field Bed – Recommended to owner that this is inappropriate
- Old Privy (Unused) adjacent to intermittent water course – Recommended to remove or relocate if plans to use again
- Field Bed adjacent to an intermittent watercourse
- Outdoor Shower that drains on ground - Recommended that water be directed into a greywater system
- Septic Tank has never been pumped out – Recommended that this be done at least every five years

Complete, in depth, septic inspections would be required to observe all major deficiencies within septic systems on Big Basswood Lake. This would include opening up the septic tank to check buildup of solids and the condition of the tank. It would include excavating the absorption trench to see if the distribution piping has been compromised. These type of intrusive inspections are costly although more effective at identifying issues. Only visual inspections were completed, at this time, as per the scope of the septic review.

Major deficiencies would include field bed failures, backups/blockages, septic or holding tank leaks, saturated system field bed, sludge in system field bed, corrosion of tanks and structural failure of the tank.

5. SUMMARY

This study has reviewed the sewage systems of residential properties adjacent to Big Basswood Lake in the Municipality of Huron Shores. A total of 118 properties were inspected by Tulloch Engineering while 90 properties fronting on Big Basswood Lake with known permanent or seasonal dwellings were not inspected as the property owners did not sign up for an inspection. Therefore, this study is somewhat limited in its scope as only 56% of the properties were inspected. It would be expected that property owners with known sewage system issues would be less likely to arrange for an inspection. With a low participation level in the inspection program, it is possible that some deficiencies may not have been available for review.

There are four properties that do not fall under the jurisdiction of the Algoma Public Health due to having daily sewage flows of greater than 10,000 Litres/day. These properties included Phillips Bay Resort (formerly Bill Phillip's Camp), Dehler's Campground, Big Basswood Lake Camps and Trailer Park, and Melwel Lodge. None of these four commercial properties participated in the study. The approvals for septic systems on these properties are by the Ministry of Environment, Conservation and Parks through an Environmental Compliance Approvals. The approval requirements tend to be more onerous than a Public Health Unit approval as a qualified engineer will be involved in any septic system approvals.

The septic system reviews were all non-intrusive, the field inspections were limited to what was viewable to the inspector at the time of inspection. Therefore, the impact of septic systems on the water quality of Big Basswood Lake is not fully understood. The locations of field beds were not easy to determine, especially for older systems. The impact on Big Basswood Lake from groundwater flow from the septic systems also cannot be determined within the scope of this investigation.

While somewhat disappointing at the participation level for these sewage system inspections the study provided benefits in the following areas:

- Although many property owners did not participate, they would no doubt be aware of the focus of sewage system impacts to Big Basswood Lake and may be stirred to take action to address any deficiencies on their own.
- All participating property owners were made available information packets on sewage systems including:

- FOCA Fact Sheets – Septic Systems and Natural Shorelines
 - Guide to Sustainable Living in Algoma
 - Septic Smart – Understanding Your Home’s Septic System
 - A Shoreline Owner’s Guide to Healthy Waterfronts
 - Website Links to several relevant sites
- Several participating property owners acknowledged that their septic systems needed to be replaced and Tulloch’s representative was able to provide a list of approved sewage system installers in this area.
 - Sixteen properties were identified as having minor deficiencies that were shared with the property owners for potential correction.
 - The inspector was able to respond to numerous questions from property owners about sewage systems

The level of awareness of the impact of sewage and surface drainage runoff to the water quality of Big Basswood Lake was raised significantly. We trust that this report will be beneficial to the endeavors of the Big Basswood Lake Association to preserve, for generations to come, the pristine water quality of Big Basswood Lake.

Prepared by:



Olivia L. Tulloch, E.I.T.
TULLOCH Engineering Inc.

Submitted by:



Marshall D. Thompson, P. Eng.
TULLOCH Engineering Inc.

APPENDIX A

Media Release

MEDIA RELEASE

September 10, 2019

\$57,100 OTF Grant Contributes to the Long-Term Stewardship of Big Basswood Lake

Huron Shores, ON - On Tuesday, during a Sowerby Heritage Evening presentation, the Big Basswood Lake Association took the opportunity to acknowledge and thank the Ontario Trillium Foundation (OTF) for a \$57,100 OTF Seed grant received in June 2018 to support ongoing inspection and education of septic systems on Big Basswood Lake. Local MPP Michael Mantha and OTF representative Michelle Martin were on hand to congratulate the Big Basswood Lake Association and hear more about how this OTF grant is making a difference in the community.

“Life-Long Northerners truly understand how precious our water resources are to us,” said Michael Mantha, MPP for Algoma-Manitoulin. “It is wonderful to see the strong support that the Big Basswood Lake Association (BBLA) is receiving from OTF. BBLA members know that education and community involvement is the key to protecting and conserving our precious environment and resources. I congratulate BBLA on this outstanding initiative, which will help local residents understand that they play a vital role to play in this endeavor. Regular inspection and maintenance of septic systems will help to ensure that our children and grandchildren can enjoy the same clean water that we have today.”

Big Basswood Lake is one of the clearest, most pristine lakes in Ontario (source FOCA Lake Partner program). Its crystal clear waters are enjoyed by its residents’ year-round and it is a major contributor to tourism and a major supporter of the local service industry in the township of Huron Shores. To ensure the continued health of the lake, the members of Big Basswood Lake Association asked the lake association to undertake a program of septic inspections and, in particular, to run an education program on how properly maintained septic systems sustained the ongoing well-being of the lake.

Basswood residents are justifiably proud of our lake and want to do everything possible to keep it in the pristine state that it exists in today. This grant from the OTF will be a major contributor to the ongoing education of our residents on the stewardship of our lake.

The [Big Basswood Lake Association](#) (BBLA) has for mission to preserve and protect the quality and natural beauty of Big Basswood Lake and its watershed: leading the lake community in making sound choices towards sustainable solutions.

Big Basswood is a conservation lake - one of the few lakes in Ontario where Lake Trout have been and are still naturally breeding. Through education of its residents and the visitors to the lake, hoping to preserve this pristine water. To this end, BBLA has sponsors a number of programs that contribute to the stewardship of the lake: e.g. septic tab distribution, ongoing lake water sampling, invasive species education, waste management.

The [Ontario Trillium Foundation](#) (OTF) is an agency of the Government of Ontario, and one of Canada’s leading granting foundations. OTF awarded \$108 million to 629 projects last year to build healthy and vibrant communities in Ontario.

Media Contact:

Larry Allcorn, Chairman
Big Basswood Lake Association
416.407.2185
lallcorn@bell.net

APPENDIX B

Initial inspection Request Letter

*The Corporation of the
Municipality of Huron Shores*

May 16, 2019

Dear Big Basswood Lake Property Owner:

As endorsed by the membership of the Big Basswood Lake Association (BBLA), the BBLA Board applied for and secured grant funding from the Ontario Trillium Foundation to review on-site sewage systems and water drainage systems of properties on Big Basswood Lake. This will also be an opportunity to offer educational materials on how sewage and drainage systems can be managed in order to retain the pristine water quality of the Lake. The Council of the Municipality of Huron Shores is partnering with and being funded by the BBLA to provide the administrative support for the project. The Municipality will be organizing the communications, scheduling the inspections and recording information for the project during the summer of 2019.

Under Freedom of Information and Protection of Privacy Law, contact information in the Municipality's databases cannot be shared with others; hence the involvement of the Municipality to assist the Association with contacting you to communicate awareness for the project and to schedule inspections.

During the period from June 17 to October 4, 2019, Brysin Shaw of Tulloch Engineering, Thessalon (Phone No. 1-705-842-3372 or 1-800-797-2997), the firm hired by the BBLA, will be conducting the field work at participating properties. As part of the survey, Tulloch Engineering will complete on-site visits of all sewage systems on lake-front properties, document the type and location of sewage systems and make note if there appear to be any operational issues that may impact lake water quality.



What's the purpose of the survey & why is it important?

The aim of the survey is to protect the health of the population and the health of Big Basswood Lake and its ecosystem by promoting safe and healthy lifestyle choices.

Failing sewage systems and sediment laden surface run-off, especially near a lake, have been identified as a real threat to drinking water and lake water quality and clarity. Raw sewage and greywater can contain harmful bacteria, parasites and viruses which, if not properly managed, can enter ground water and surface water supplies that are used as drinking water. Faulty systems also allow phosphorus, nitrates and other nutrients to enter the water, contributing to the growth of potentially harmful organisms such as cyanobacteria (blue green algae) that can be very detrimental to the ecosystem of the lake. This will severely affect water for drinking, fisheries, wildlife, humans and impact property values in a very negative way. The frequency of pump-outs, age, location, structural integrity of systems, surface water drainage and household water usage all impact the effectiveness of sewage systems and will be assessed as part of the survey. It is important that property owners be knowledgeable of their systems and how that impacts water quality. The survey process will provide that information. Septic systems that have identified issues will be shared with the property owner, the municipality and other local health authorities as appropriate. The intent is to work towards a collaborative solution to resolve those issues to protect the long term health of Big Basswood Lake.

... / 2

As a property owner, what will I need to do?

The Municipality asks that each property owner, please do the following:

1. Upon receipt of this letter, contact the Municipal Office **by June 7, 2019** at 705-843-2033, identifying this project, provide the most convenient date for you, as per area (see below) give a.m. or p.m. preference, and advise if you approve attendance on your property in your absence, for an on-site visit during the period from June 17 to October 4 (it is preferable that the system will have been used for at least one week prior to the inspection date to assist in identifying any operational issues);

Due to the large area of Big Basswood Lake, and to conduct the entire project as efficiently as possible, minimize travel time and costs, Brysin Shaw of Tulloch Engineering will attempt to conduct property visits by areas, as follows:

Areas Accessed Directly or Indirectly from:

Highway 129 - Monday each week
Melwel Road - Tuesday each week
Highway 17 - Wednesday, Thursday, and Friday each week

2. Provide any and as much information as you can to Mr. Shaw, about the installation and locations of septic tanks, field beds, holding tanks, greywater systems, outhouses, potable water sources (wells or lake) and areas of high rain runoff into the lake on your property. Please feel free to fill in as much information as you can on the upper half of the attached review sheet prior to Mr. Shaw's visit and he will collect it from you when he attends at the property or, if you do not plan to be at your property during the on-site visit, you can make arrangements to forward the sheet directly to Tulloch Engineering in Thessalon;
3. Provide any information you can to Mr. Shaw about the frequency of septic tank or holding tank pump outs;
4. If you have any questions or concerns regarding the project, contact Larry Allcorn, Chairman, Big Basswood Lake Association at:
email: lallcorn@bell.net
Phone: 1-416-407-2185

Your participation in this program demonstrates your commitment to protect Big Basswood's clear, deep and cold water into the future. It is our hope that all property owners on the lake will choose to participate and that everyone will come away with knowledge and inspiration to continue to promote healthy water stewardship.

Yours truly,



Deborah Tonelli
Clerk/Administrator

Encl. - 1

APPENDIX C

Qualifications of Review Engineer

**Ministry of
Municipal Affairs
and Housing**
Building and Development Branch
777 Bay Street, 2nd Floor
Toronto ON M5G 2E5
Telephone: (416)585-6666
Fax: (416)585-7531
www .obc.mah.gov.on.ca

**Ministère de
Affaires municipales
et du Logement**
Direction du bâtiment et de l'aménagement
777, rue Bay, 2^{ème} étage
Toronto ON M5G 2E5
Téléphone: (416)585-6666
Télécopieur: (416)585-7531
www .obc.mah.gov.on.ca



June 10, 2005

Marshall Thompson
61 Thompson Dr.
R.R. #4
BRUCE MINES ON P0R 1C0

BCIN: 25764

I write to congratulate you on passing the On Site Sewage Inspection Technical 1997 Building Code examination taken on May 30, 2005 in Sault Ste. Marie.

Please note that the completion of an examination is not, in and of itself, qualification under Sections 2.16, 2.17, 2.18, or 2.19 of the Building Code. Please see the Qualification and Registration tab at our website, www.obc.mah.gov.on.ca, for more information about qualification and registration application and filing procedures.

Please contact a certification analyst at 416.585.6666 if you have any questions.

A handwritten signature in black ink, appearing to read "A. Suleman".

A. Suleman, P.Eng.
Manager /A, Code Interpretation, Registration and Training



APPENDIX D

Septic System Inspection Form

