



Township of Minden Hills Septic Re-Inspection Program: *What can you Expect?*

Presentation by:

Paisley McDowell
Project Manager

June 3 & 5, 2021

Claire Kartner
Project Coordinator

Outline

- Introduction of WSP
- Re-Inspection
Background
- Re-Inspection Process
- Past Program Results
- Summary
- Questions



Please remain muted for the presentation. An opportunity for questions will be provided at the end.

Introduction

- **WSP is a consulting firm with approximately 8,300 employees in Canada**
- **WSP has worked for over 30 years in the on-site sewage industry**



WSP's Project Team

Management Team

Claire Kartner, Paisley McDowell, Michael Varty...

Qualified (BCIN) Inspectors: Brian Cooper, Hayley Cahill, Brittany Hewitt, Matt Hamming, Rachel Dalton, Patrick Finkle...

Scheduling Assistants: Emily Aitken, Reagan Campbell...

Credential Summary

- Education: Environmental Engineering, Water Resources Engineering, Sustainability and Environment, Environmental Technician
- Active members of the Ontario Onsite Wastewater Association (OOWA)
- Registered designers with Ministry of Municipal Affairs and Housing (MMAH)
- Good standing with the Professional Engineers of Ontario (PEO)



Re-Inspection Background



Past and On-Going Projects

Discretionary Programs:

Township of Algonquin Highlands | **2,218 Properties** (*so far*) | (2018-2020)

Township of Minden Hills | **Approx. 6,000 Properties** | (2021-2025)

Municipality of Dysart et. al. | **Approx. 5,000 Properties** | (2021-2025)

Orr Lake (Township of Springwater) | **197 Properties** | (2017)

Town of South Bruce Peninsula | **5,208 Properties** | (2013-2016)

Mandatory Programs (every 5 years):

Wellington County | **613 Properties** | (2015-2017)

Town of Caledon | **36 Properties** | (2015-2016)

Policies

The corporation of the Township of
Minden Hills
By-Law No. 20-14
BEING A BY-LAW TO IMPLEMENT A SEWAGE
(SEPTIC) SYSTEM MAINTENANCE INSPECTION
PROGRAM.

- The Clean Water Act (2006):
 - Identifies 21 potential significant drinking water threats, including septic systems (S.O. 2006, Chapter 22).

- The Ontario Building Code (2012):
 - The Building Code Act (O.Reg. 332/12): A municipality may pass by-laws to establish and govern a Sewage System Maintenance Inspection Program.
 - *Division C, Section 1.10* describes Sewage System Maintenance Inspection Programs Including Discretionary Programs
 - A Sewage System “Maintenance Inspection Program” shall apply to all sewage systems in the affected area, in this case the Township of Minden Hills.
 - The inspector appointed shall inspect all sewage systems for compliance with the requirements of Section 8.9 of Division B.

Program Objectives

- Re-Inspecting all classes of systems within the Township of Minden Hills.
 - *Inspection for compliance with Section 8.9 of the Ontario Building Code.*
- Intended to protect lake water, drinking water resources, public health, and the environment.
- Provide education and learning opportunities to system owners.
 - *Owners are required to be present at their inspection.*



CLASSES OF ON-SITE SEWAGE SYSTEMS

Class 1: Privy, Outhouse,
Composting Toilet,
Incinerating Toilet

Class 2: Greywater
Systems

Class 3: Cesspools

Class 4: Septic Tank and
Leaching Bed

Class 5: Holding Tank



WSP's Responsibilities

Implement the Septic Re-inspection program on behalf of the Township of Minden Hills:

Our role will include:

- Notifying property owners about the program;
- Scheduling the inspections;
- Completing the inspections;
- Issue follow-up documents based on the inspection; and,
- Generate meaningful information based on the results of the program.
 - *This will be included in an Annual Report to the Township.*

The Re-Inspection Process

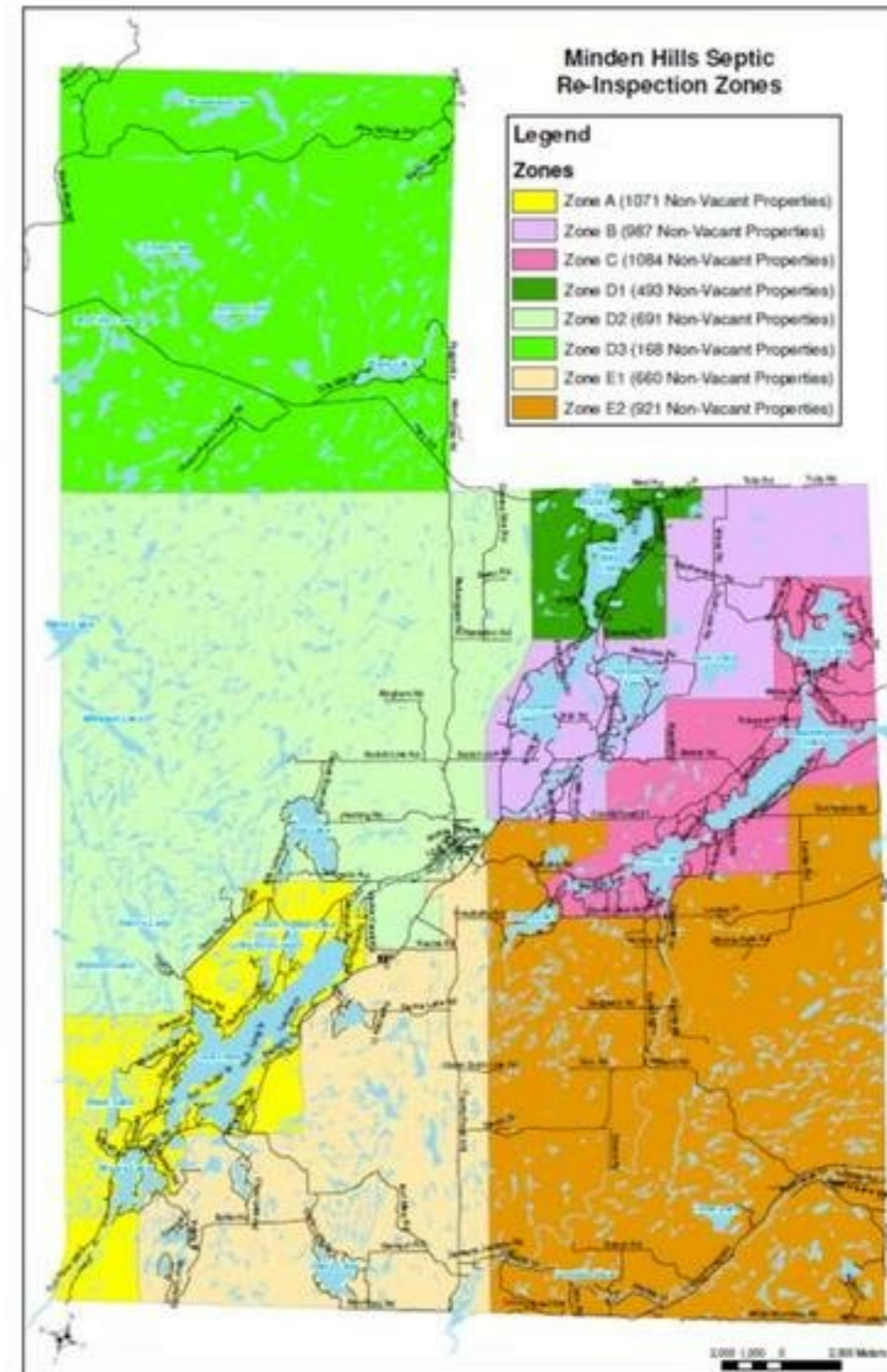


Scheduling

→ Designated Inspection Years

→ Approximately 6,000 properties are to be inspected between 2021-2025

→ The Township has been divided into five (5) main inspection zones



Zone A (2021)



Minden Hills Septic Re-Inspection Zones

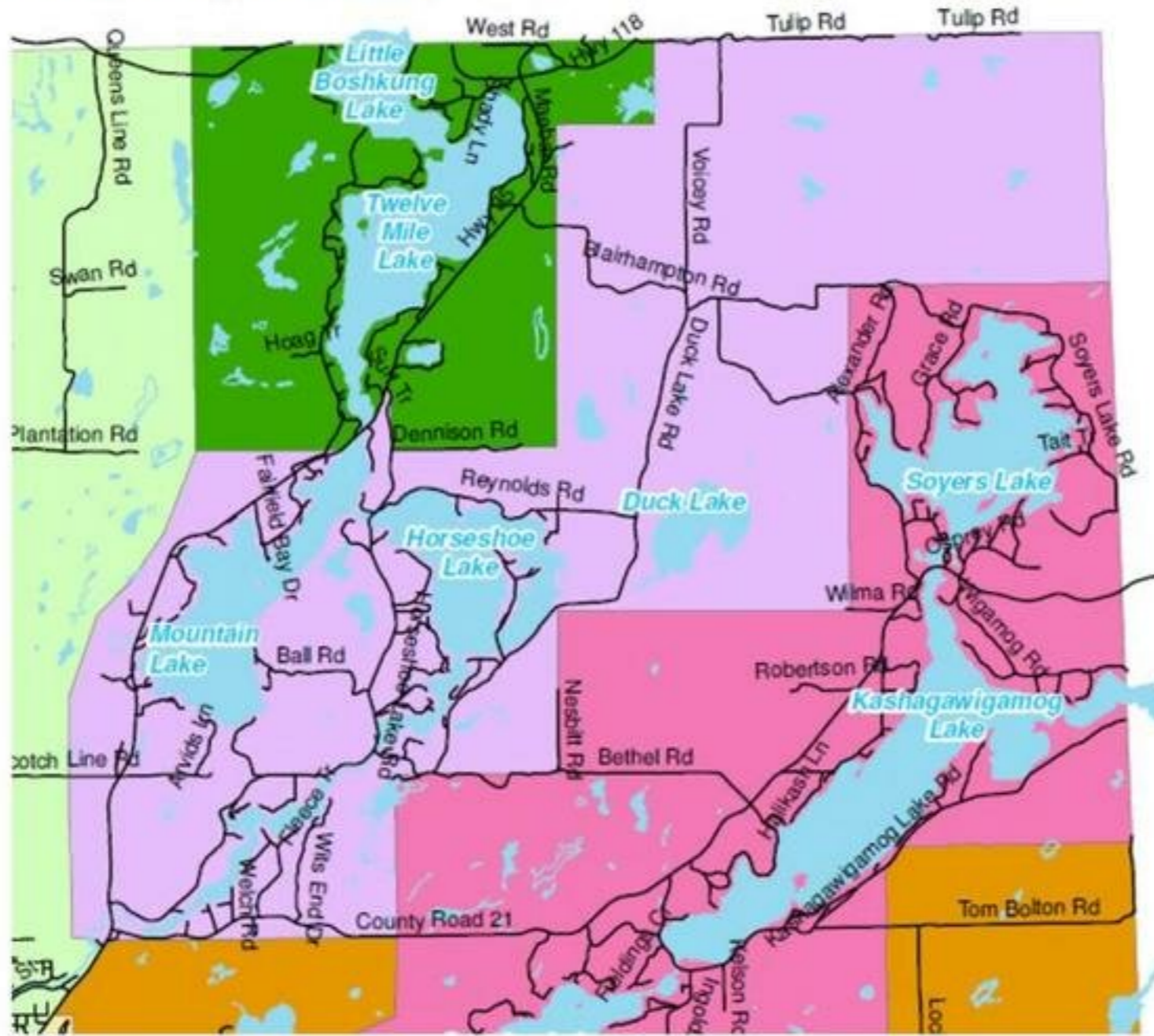
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Zones

- Zone A (1071 Non-Vacant Properties)
- Zone B (987 Non-Vacant Properties)
- Zone C (1084 Non-Vacant Properties)
- Zone D1 (493 Non-Vacant Properties)
- Zone D2 (691 Non-Vacant Properties)
- Zone D3 (168 Non-Vacant Properties)
- Zone E1 (660 Non-Vacant Properties)
- Zone E2 (921 Non-Vacant Properties)

Zone B (2022)

Minden Hills Septic Re-Inspection Zones

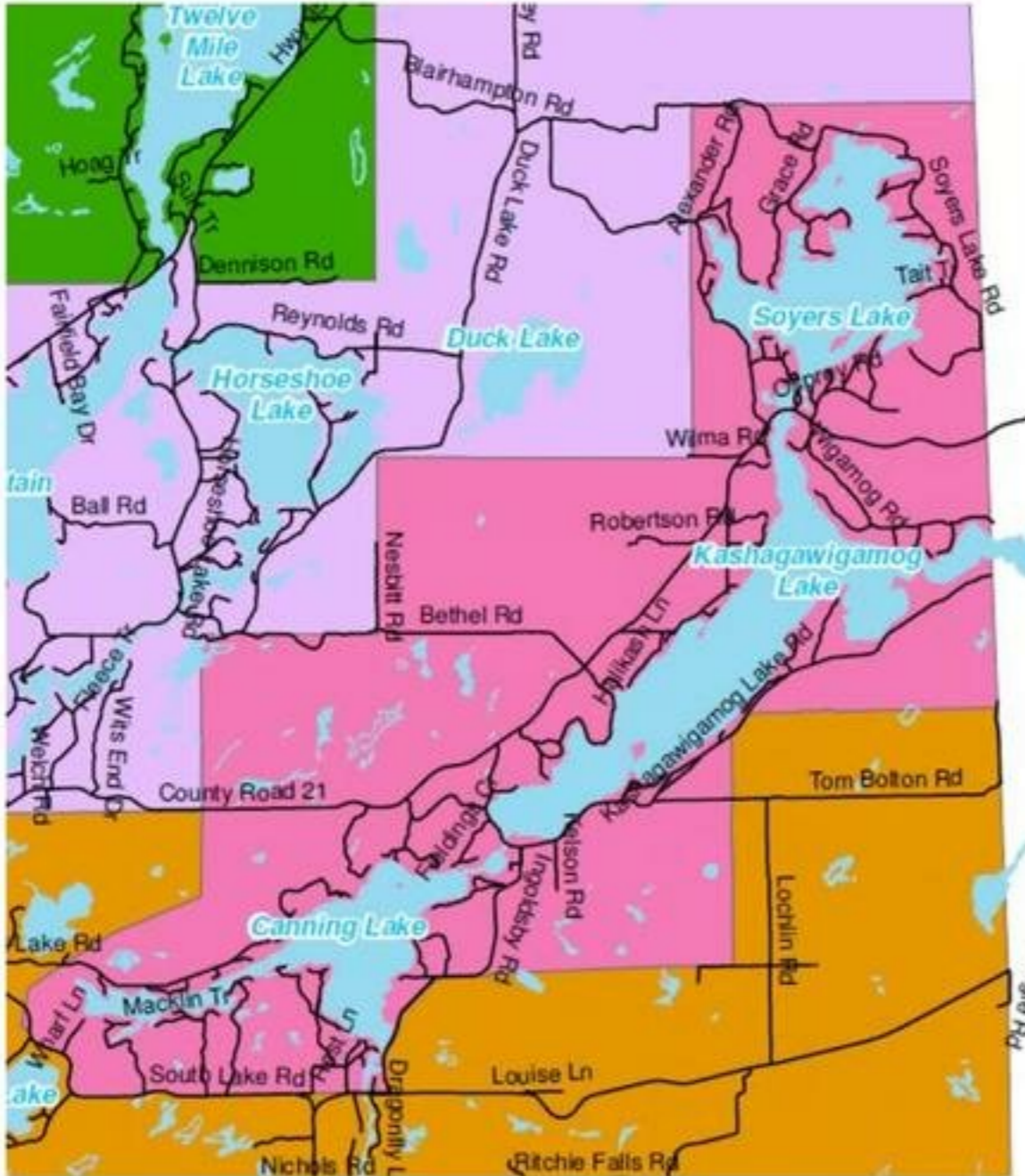


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Zone C (2023)

Minden Hills Septic Re-Inspection Zones











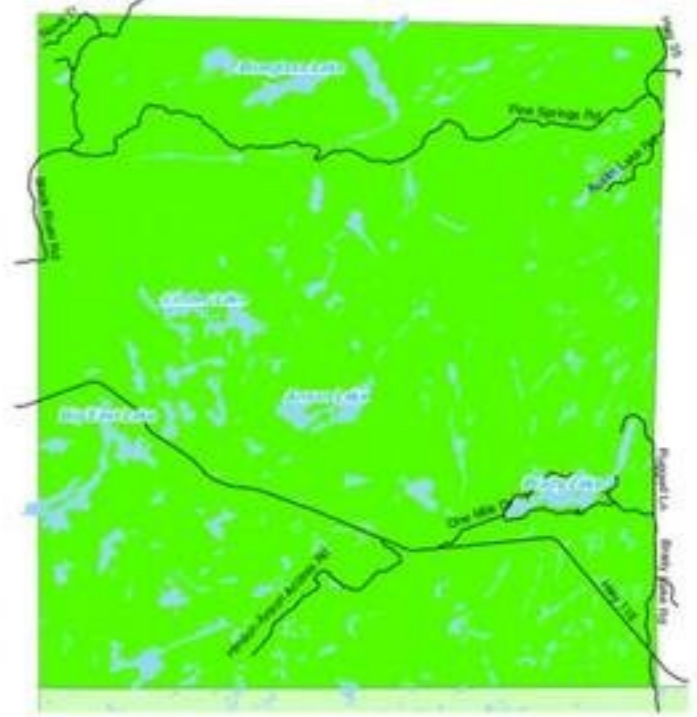
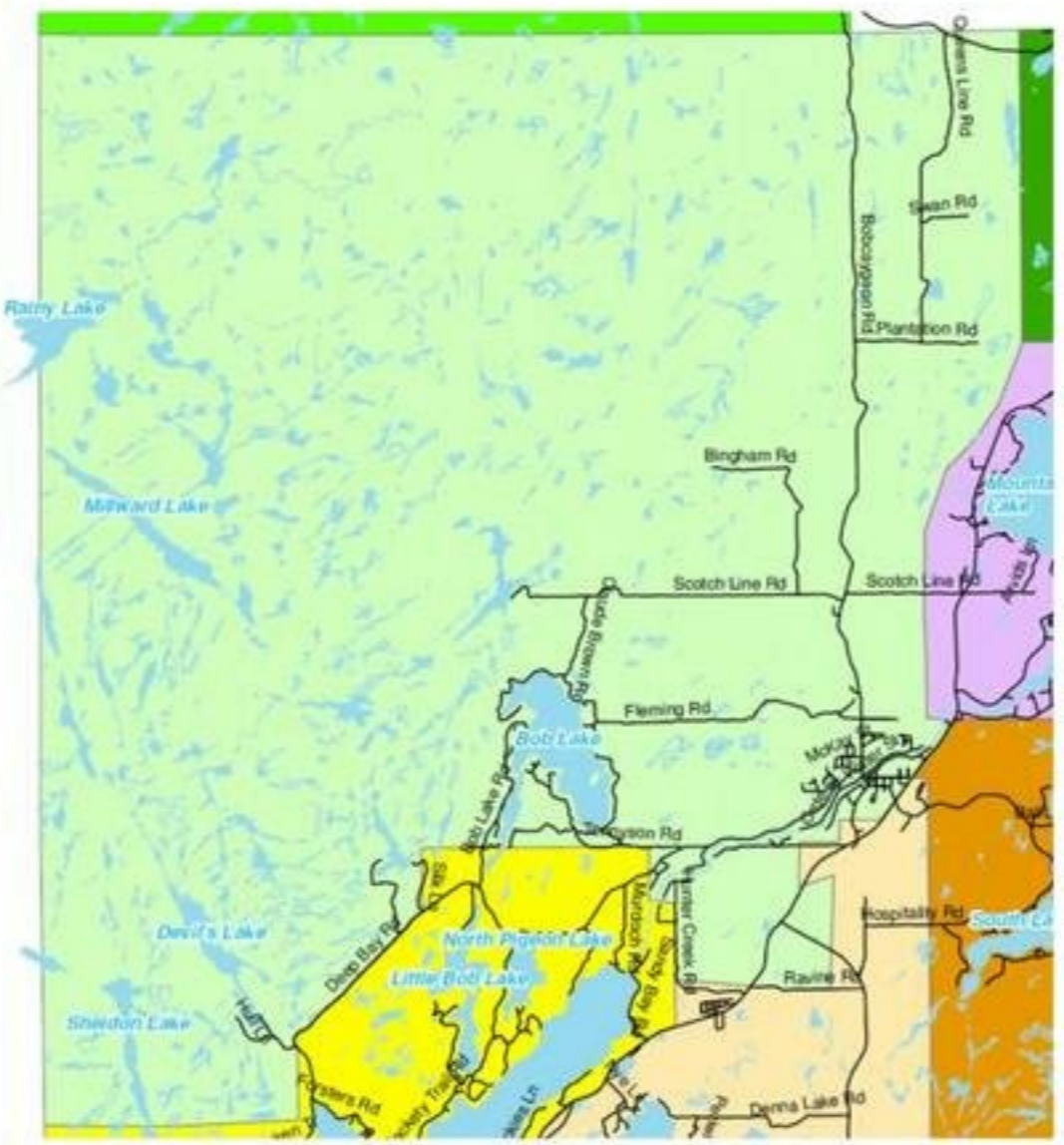
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Zone D (1,2,3) (2024)









Minden Hills Septic Re-Inspection Zones

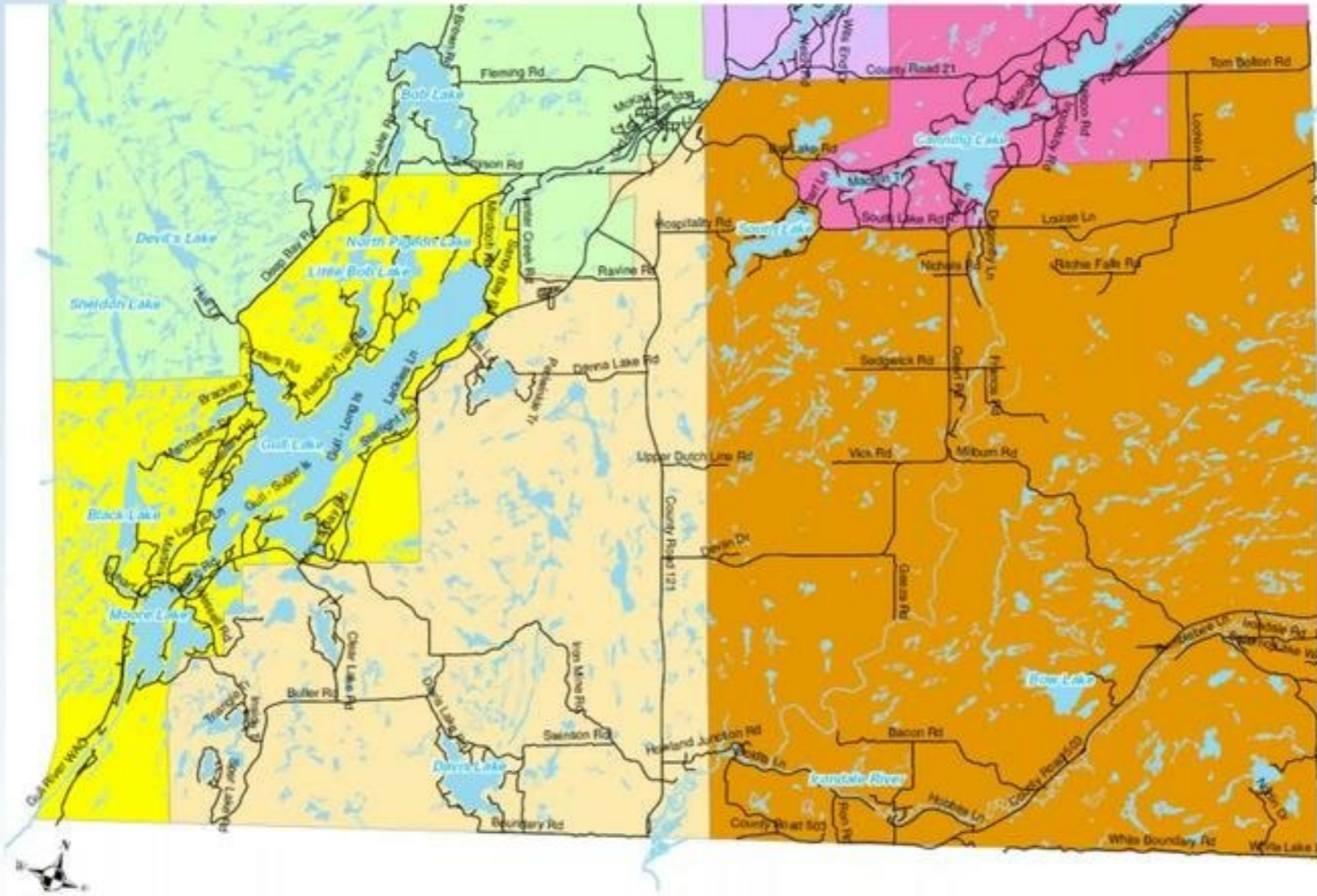
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	Zone E2 (921 Non-Vacant Properties)



Zone E (1,2) (2025)

Minden Hills Septic Re-Inspection Zones

Legend	
Zones	
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	Zone E2 (921 Non-Vacant Properties)



Scheduling

- WSP will send an information package to affected zones each spring containing:
 - Information about the program
 - Outline the process for booking a desired inspection time
 - WSP contact information (Phone, e-mail)
 - Booking deadline
- WSP has dedicated Scheduling Assistants to support with bookings and to answer questions



Scheduling: Information Packages

What WSP Has Sent So Far... Zone A:

Inspection Package



Township of Minden Hills
Building Department
7 Milne St.
Minden, Ontario
K0M 2K0 705-286-1260



WSP Canada Inc.
Septic Re-Inspection Project Team
126 Don Hillock Drive, Suite 2
Aurora, Ontario
L4G 0G9 289-984-0448

«OwnerName»
«Address»
«City», «Province»
«PostalCode» «Country»

May 20, 2021

Re: **Township of Minden Hills Septic Re-Inspection Program**
«LOCATION»
«TOWN_ARN»
Septic Inspection Notification Letter and Information Package



Scheduling: Information Packages

What WSP Has Sent So Far... Zone A:

Quick Reference Guide

QUICK REFERENCE GUIDE



What kinds of systems are inspected as part of this program?

This program will include inspections of all five (5) classes of on-site sewage systems, as regulated by the Ontario Building Code (Part 8). Some key details can be found below:

Classes of on-site sewage systems	Characteristics of system	How to prepare for your inspection
Class 1: Privy, Outhouse, Composting Toilet, Incinerating Toilet	Only accepts human waste.	Ensure structure is vermin-proof (no possible access for mice, etc., into pit through doors/walls/windows) and that the pit is not exposed at grade.
Class 2: Greywater Systems	Only accepts greywater (wastewater that excludes human waste).	Ensure that there are no illegal discharges from the system and the system does not receive human waste.



Scheduling: Information Packages

What WSP Has Sent So Far... Zone A:

Septic Questionnaire (Optional)



Township of Minden Hills
Building Department
7 Milne Street, PO Box 359
Minden, Ontario
K0M 2K0
705-286-1260



WSP Canada Inc.
Septic Re-Inspection Project Team
126 Don Hillock Drive, Suite 2
Aurora, Ontario
L4G 0G9
289-984-0448

Re: Township of Minden Hills Septic Re-Inspection Program
Septic Questionnaire - Optional

Dear Property Owner,

Please complete the following Questionnaire to the best of your ability (you may leave sections blank if unknown). WSP encourages you to have this Questionnaire available for review by the WSP Inspector at the time of your inspection.

Septic Questionnaire

Inspection Property Address: _____

Inspection Property Tax Roll Number: _____

Name of Person Completing Questionnaire: _____



Scheduling: Information Packages

What WSP Has Sent So Far... Zones B-E:

Program Introduction Letter



Township of Minden Hills
Building Department
7 Milne St. Minden, Ontario
K0M 2K0 705-286-1260



WSP Canada Inc.
Septic Re-Inspection Project Team
126 Don Hillock Drive, Suite 2 Aurora, Ontario
L4G 0G9 289-984-0448

«OwnerName»
«MailingAddress»
«City», «Prov»
«PostalCode» «Country»

May 20, 2021

Subject: Township of Minden Hills Septic Re-Inspection Program: Introduction Letter

Dear Resident:

The Township of Minden Hills (the Township) has implemented a mandatory Septic Re-Inspection Program for its residents. WSP Canada Inc. (WSP) is administrating the Septic Re-Inspection Program on behalf of the Township and will be starting inspections in 2021. Residents are being contacted at this time to provide an introduction to the program, and to invite residents to Virtual Public Information Sessions (detailed further below). If you are receiving this letter, your property is **not** within the 2021 inspection zone and you will be contacted in your designated year with further information.



Scheduling

- Inspections are completed between May and September each year
 - Weekday and weekend dates available (first-come, first-served)
- Inspections will be approximately 45 minutes to 1 hour in duration
- Owner or a representative over the age of 18 is required to be present for the inspection
- Owners in Zone A will have until June 18, 2021 to book an inspection or one will be assigned for the same inspection year (2021)



Scheduling: Boat Access Only Properties

- Select days will be available
- Neighbours are encouraged to coordinate, and can act as representatives for each other's inspections
- WSP must be notified of special access before the inspection
- Inspectors have their own transportation to meet at properties

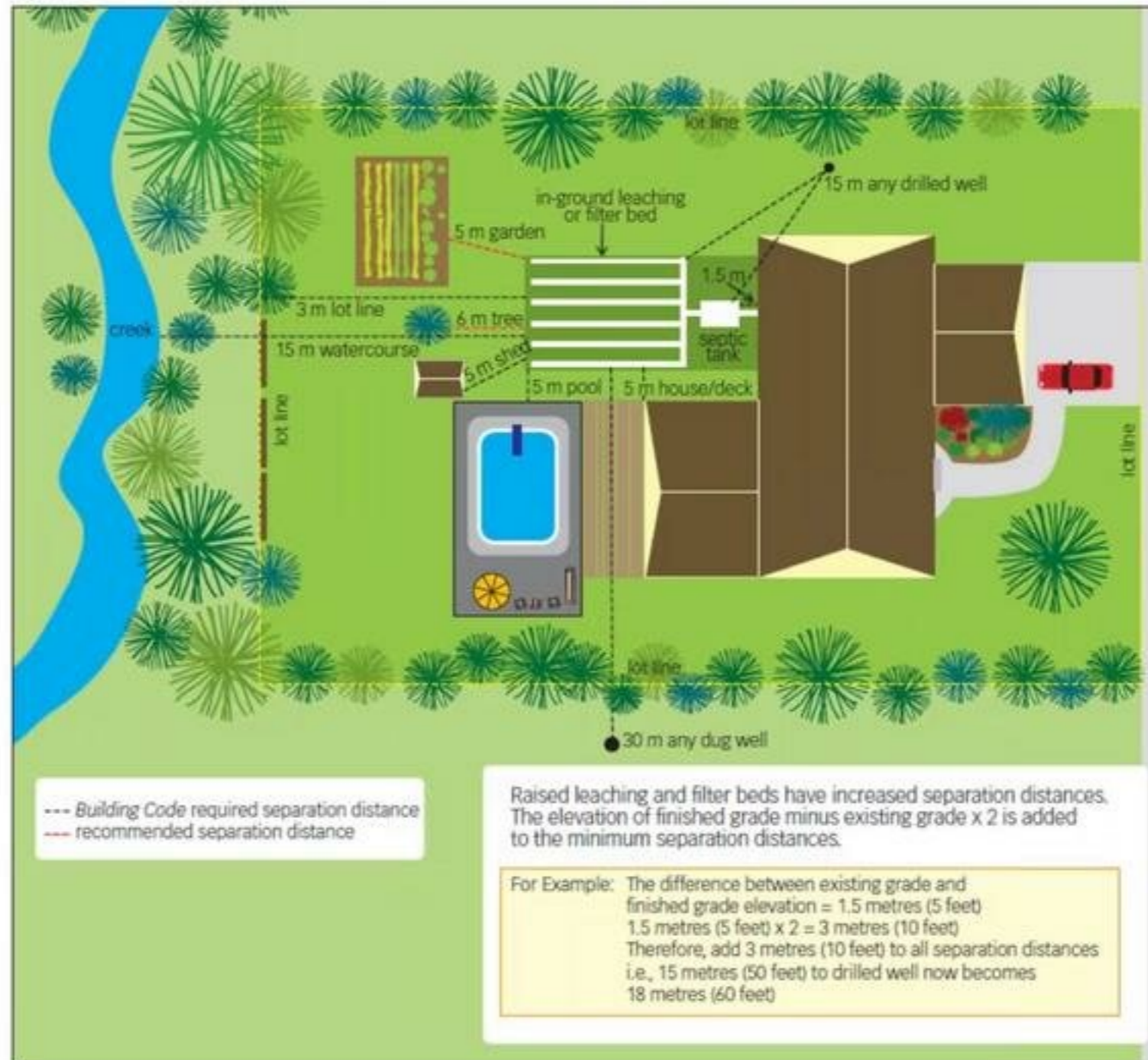


COVID-19 Impacts

- Inspectors will maintain a 2 m separation distance and wear face coverings
- Sewage treatment and disposal services are listed under businesses permitted to open



Minimum Separation Distances For Leaching Or Filter Beds



Septic Tank Inspection

The good.....



... and the not so good.



Septic Tank Inspection

- Septic tanks provide a good overview regarding the health of the entire septic system
- The homeowner is required to uncover the septic tank lids prior to WSP visiting the property
 - Most tanks have two lids (one near the inlet and one near the outlet of the tank); both must be uncovered
 - If a pump tank is present, the lid must be uncovered



Septic Tank Inspection

- WSP will estimate the sludge and scum layer depths through the use of a bailer apparatus
- WSP can then discuss if the frequency of tank pump outs is appropriate (i.e. too frequent, or not frequent enough)
- The tank **does not** have to be pumped for the inspection (the owner may pump the tank 1 month in advance of the inspection if desired)



Metal Tanks

- While metal tanks are no longer installed in Ontario, WSP has found a handful (about 1-2% of tanks) through our septic programs
- Sewer gases have a corrosive effect on metal tanks
- Caution should be taken if you are aware or suspect you might have a metal tank



Leaching Bed Inspection

The good.....



... and the not so good.



Leaching Bed Inspection

- WSP will complete a non-intrusive surface inspection of the leaching bed area to assess the presence or absence of signs/symptoms of leaching bed stress. These may include:
 - Breakout of sewage onto the ground
 - Spongy and wet areas
 - Dead or over nitrified vegetation
 - Visible damage or other immediate concerns (i.e. the presence of above-ground pools, trees, a driveway on the leaching bed surface, etc.)



Certificates and Remedial Actions

- When there are no identified operation and maintenance issues, WSP will issue an Inspection Report and Certificate to the property owner
- Where there is identified operation and maintenance issues, WSP will issue a Remedial Action Letter to the property owner, in addition to the Inspection Report, describing the visual deficiencies observed by the inspector
 - This letter will outline the expected time frame for completion of the remedial action(s)
- All Inspection Reports and will also be forwarded directly to the Township of Minden Hills by WSP



Inspection Results

- WSP will prepare an annual report to summarize the inspection results (including number of properties assessed, number of certifications, and remedial actions, etc.)
- Statistical data and trends will be summarized utilizing charts, graphs and GIS mapping



2020 Program Results

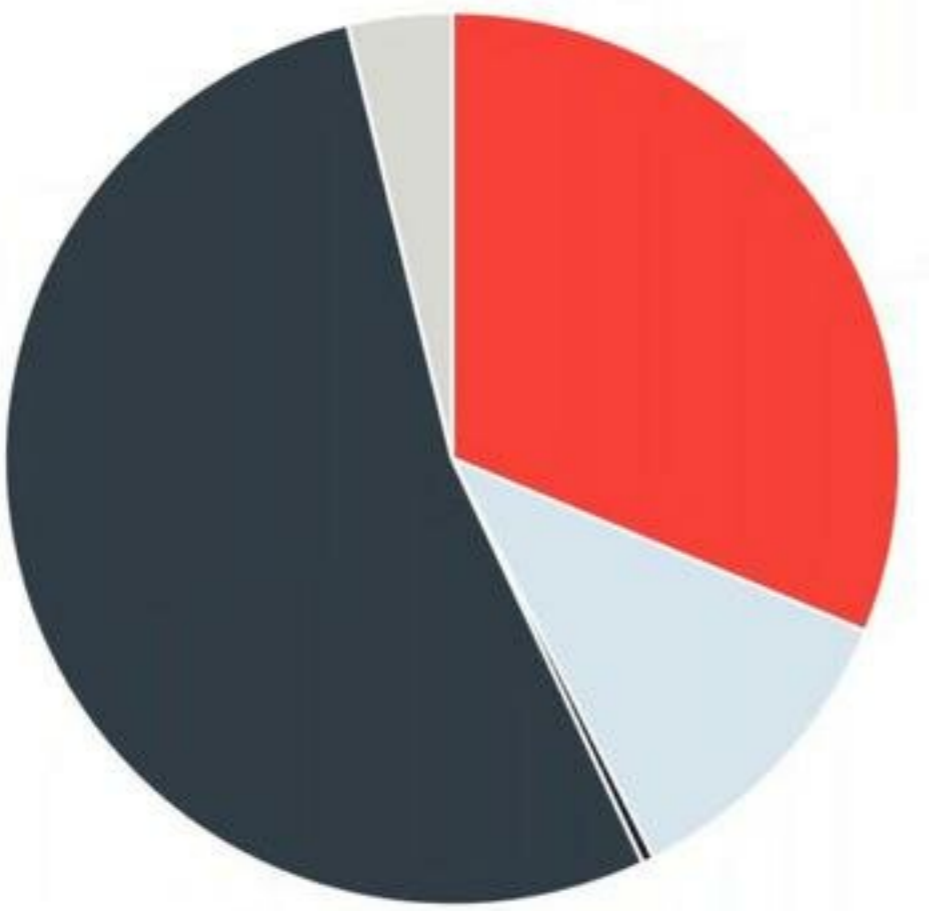
From Algonquin Highlands

Septic Re-Inspection Program - 2021 Septic Social



Distribution of Sewage System Class

Number of Systems



- Class 1 Systems
- Class 2 Systems
- Class 3 Systems
- Class 4 Systems
- Class 5 Systems

System Class	Number of Systems ¹	Percentage of Systems
Class 1 Systems (Outhouses, Composting Toilets, etc).	150	31%
Class 2 Systems (Greywater)	54	11%
Class 3 Systems (Cesspools)	2	<1%
Class 4 Systems (Septic tank and Leaching Bed)	255	53%
Class 5 Systems (Holding Tank)	18	4%

Note: ¹ 479 systems across 315 properties



Detail on Remedial Actions

32% of systems received remedial action letters in 2020

Cause for Remedial Action	Number of Systems	Percentage of Remedial Actions (per Class)
Solids occupy and/or exceed 33% of the tank volume	16	6%
Tree(s), bushes, roots, or other dense vegetation required to be removed from bed area	36	14%
Cracked, Broken or Missing Tank Lid(s)	8	3%
Outhouse Pit Exposed (Class 1 Systems)	37	25%
No haulage agreement (Class 5 Systems)	7	39%
Metal Septic Tank or Holding Tank	1	<1%
Illegal Discharge (Class 2 Systems)	13	24%



Summary of Presentation

- The Township of Minden Hills has chosen to complete a Discretionary Septic Re-inspection Program
 - *Inspection of Sewage Systems for accordance with OBC Section 8.9*
- WSP is administering the program
- The purpose of this program is to help to protect the surface water and groundwater quality from sewage related impacts and protect human health.
- WSP is committed to providing education to all system owners on best maintenance practices



Frequently Asked Questions

- **Why does my septic system need to be inspected?**
 - Septic re-inspections can provide system owners with advice on how to ensure the system has a long and useful life as well as being proactive with respect to environmental/lake water protection.
- **Why do I have to dig up my tank lids?**
 - Access to your septic tank will be required for system maintenance regardless, and due to safety regulations, WSP cannot complete any digging.
- **What if I have an old system that we no longer use (such as an outhouse)?**
 - All Classes of septic systems must be inspected if they are still in a state that could possibly be used; this can include an old outhouse being used as a storage shed, or a septic tank that still has plumbing connecting the system to the building and is not decommissioned.

Frequently Asked Questions

- **What happens if I miss my inspection, or if (one or all of) my tank lids are still buried/not accessible?**
 - If we arrive onsite and the tank lids are buried/not accessible, or an owner or representative is not present, we will need to rebook another inspection.
- **What if I can only be there on a weekend?**
 - As your presence is required for the inspection (or a representative over the age of 18), you should contact WSP to book for a time that works for you.
- **Do I have to pump my tank before the inspection?**
 - No, it is not required. *Might as well wait for us to tell you if it's time for a pump-out!*

Thank you!

Questions?

mh.info@wsp.com

(289) 984-0448

Township of Minden Hills CBO:

(705) 286-1260 X 510

wsp

Program Objectives

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- Intended to protect lake water, drinking water resources, public health, and the environment.
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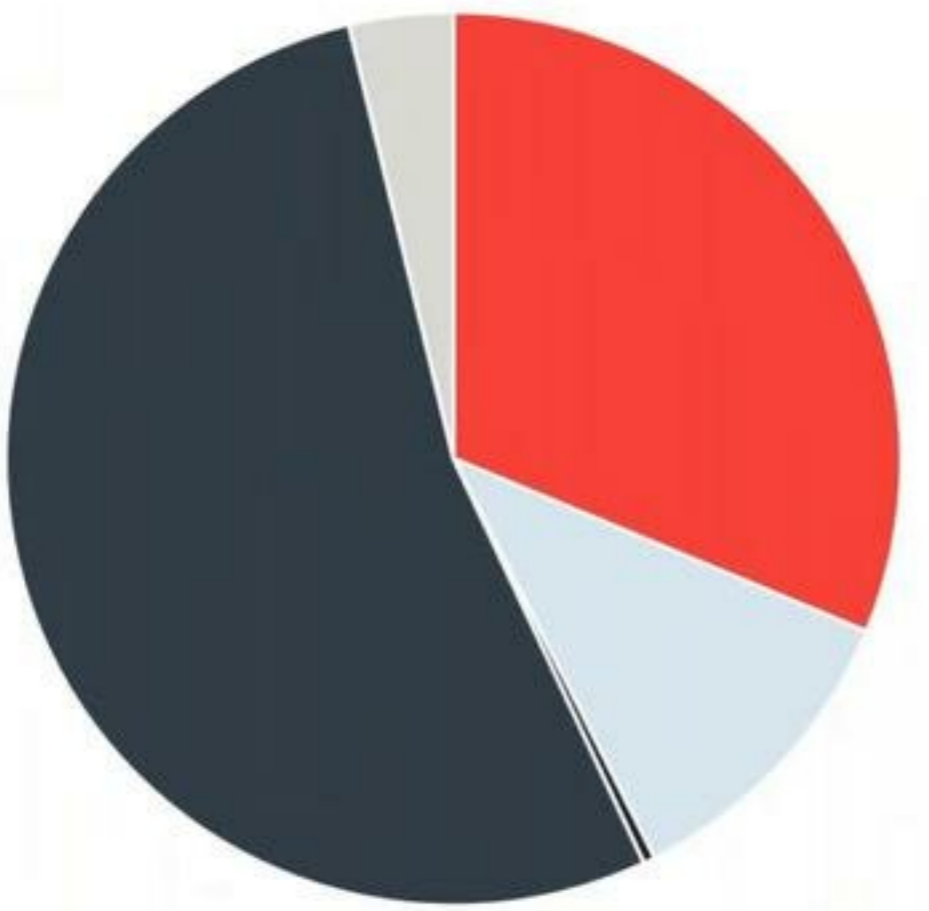
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Septic Re-Inspection Program - 2021 Septic Social



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