

Exploring Lessons Learned with Municipal Re-inspection Programs for Residential On-site Wastewater Systems in Ontario: Spotlight on the Township of Leeds and the Thousand Islands' Sewage System Re-Inspection Program

Background

The Township of Leeds and the Thousand Islands (i.e. the Township) is a rural municipality located in Eastern Ontario (see Figure 1) and is within the United Counties of Leeds and Grenville, with a population of 9,465 residents [1]. The Township is made up of diverse hamlets, villages, and rural lands, that host built and natural assets including: the 1000 Islands and St. Lawrence Seaway; the UNESCO designated Rideau Canal and lock system; and the Frontenac Arch Biosphere [2]. The Township has approximately 9,300 permanent residents, as well as thousands of seasonal residents, that make up 5,858 households [3]. Approximately 5,578 households in the Township rely on residential sewage systems for their sewage needs.



Figure 1. Location of Township of Leeds and the Thousand Islands [4]

This case study provides an overview of the Township's sewage system re-inspection program. In preparation for this profile, three key informants were interviewed in order to fully understand the details of the program, benefits, challenges, and lessons learned.

History of the Septic Re-inspection Program

The sewage system re-inspection program in the Township started in 2009, in partnership with the Leeds, Grenville and Lanark District Health Unit (i.e. the Health Unit) [5]. Prior to the official launch of the mandatory inspection program in 2009, there was a pilot project in 2006, with support from the Charleston Lake Association. Though informants indicated there has never been any major concerns within the Township in relation to sewage systems, the potential impact that these systems could have on water systems was a catalyst to implementing the re-inspection program. It was explained,

“Since 2006, when we started the first pilot project on septic systems, they were concerned about their biggest resource in this municipality, and that is their surface water bodies, the lakes, the rivers. And so, cottage associations and area residents who know that certain people have upgraded and yet other people, they haven't done anything in a lot of years, that's where some of the concern comes from” (Health Unit Representative).

The tragedy in Walkerton, Ontario in 2000 where 7 people died and thousands became ill due to a contaminated drinking water supply [6], also was noted by a Municipal Elected Official Representative as raising awareness amongst municipal elected officials on water quality issues. It was further explained regarding motivations for the program,

“We wanted to make sure that people can continue to enjoy those, not just this generation but the next ones, and in order to really do that, is to go back and look at some of these septic systems to make sure that they're actually

functioning the way they're supposed to"
(Municipal Representative).

This program is currently mandatory.

Re-Inspection Program Details

In December 2008 the Township of Leeds and the Thousand Islands, under the power of Section 8 of the *Municipal Act, 2011*, implemented a septic re-inspection program by-law ([by-law 17-030](#)). This by-law outlines the Township's mandatory inspection program. In the Township there are two types of mandatory inspections. The first type of mandatory re-inspection program is dictated mandatory under the Ontario Building Code (due to policies made in the local source protection plan, which was created under the *Clean Water Act, 2006*). The village of Lansdowne (approximately 280 households and 5 commercial/recreation/industrial users), draws its drinking water from municipal wells. These wells are protected under the *Clean Water Act (2006)*. Under this legislation, source protection plans have been made for the area, and Well Head Protection Areas (WHPAs) have been defined. Mandatory re-inspections every 5 years are required for those septic beds that fall within the WHPA to this municipal water supply [7]. Re-inspections of these systems (currently two) are a priority for the Township.

The other sewage system re-inspection program in the Township was made mandatory under the powers of the Ontario Building Code and the *Municipal Act, 2011*, but is implemented at the discretion of the Township. This program targets areas deemed to have potential risk to human and/or environmental health. Priority locations for re-inspections include the villages and hamlets where there are small lots and high density, resulting in wells and sewage systems being in close proximity. Furthermore, priority is given to waterfront properties, especially those with systems close to the St. Lawrence River [7]. Approximately 150-200 re-inspections are performed each year

(depending on the areas chosen and staff availability). Where and how many re-inspections are performed annually is ultimately decided by Township council.

Property owners are notified of the date they must have their re-inspection completed by via mail. The Township gives property owners the choice of who they would like to perform the re-inspection. These choices include: Leeds, Grenville & Lanark District, Health Unit; the Township; or a licensed sewage installer. The letter package includes a list of Leeds, Grenville and Lanark District Health Unit approved qualified inspectors in the area [5]. If the resident does not respond to the initial letter, 2-3 additional letters are sent out. If there is still no response or a resident refuses a re-inspection, the Health Unit does have the option of doing the re-inspection without consent and fining the resident. However, this avenue has never been pursued.

Re-inspections are solely visual, looking for surface characteristics and obvious signs of failures of septic tanks and/or beds. The re-inspections are performed using Provincially developed guidance documents (see Further Resources section below). This form is left with the resident so that they are informed about what was found. At the end of the re-inspection, if the system passes, the inspector usually will inform the resident that the "pass" on the system does not guarantee the longevity of the system, however, the current report provides a current synopsis of the state of the system based on the visual inspection.

Property owners are required to pay for the re-inspection and any follow up repairs/fees. If there is a remediation or an entirely new system required, the issue ultimately comes back to the Chief Building Official at Leeds, Grenville & Lanark District, Health Unit. The Health Unit then has the power to issue a work order. Depending on the severity of the issue the timeline for action varies. It was explained,

“It’s going to vary, if it’s sewage running out onto the ground then they may be ordered right then and there before you leave the property to get the pumper here today and get the tank pumped out and keep that tank pumped down, so the sewage isn’t coming out onto the ground.

And by the way, here’s the list of installers I expect to hear something very shortly about a permit to upgrade. If it’s something less of an issue like that, e.g. it’s a broken baffle on the outlet side, basically say here’s what you’ve got to do, if you don’t do it it’s going to wreck your system. So, get a hold of somebody that can come and do it. And you know there’s no real timeline but generally you hear back from them in a few weeks. So, I think it all depends on what you’re dealing with” (Health Unit Representative)

Only once the Health Unit is satisfied the sewage system is in proper working order, will a completion certificate be issued to the property owner [5].



Figure 2. New Tertiary Septic System Installment Following a Failed Inspection of the Previous System [Photo Credit: Liz Huff]

The re-inspection costs approximately \$200. All sewage system permits, and re-inspection records are kept at the Health Unit, with a copy being given to the Township. If remediation or a

new system requiring a new permit is needed, the cost of a new permit is rebated from the cost of the re-inspection. It was explained,

“So, we don’t double dip, we’ll take what we’ve got and put it towards. If the permit fees \$700 and you paid me \$200 to have me out, then you owe me \$500 when the permit comes in” (Health Unit Representative).

The Township is also considering a loan program for residents who have no other option for accessing funds for replacing or repairing systems.

After the re-inspections have been completed for the season, the Leeds, Grenville & Lanark District, Health Unit staff meet with the Township to go over how many systems were re-inspected, how many required remedial actions, and how many systems needed replacement. The Township also provides public outreach nights on the re-inspection program. For example, before re-inspections occurred in the village of Seeley’s Bay, an information night was held. Additional adhoc education and outreach events occur in conjunction with Conservation Authorities and lake associations.

Lessons Learned

As noted above, there are many benefits to a sewage system (i.e. septic) re-inspection program. However, there are some challenges that can be learned from the Township of Leeds and the Thousand Islands program. For example, it was warned it is not a perfect system, especially when you are only doing visual inspections. It was explained,

“You’re looking at surface characteristics, you’re looking for obvious signs of failure, obvious issues with the septic tanks and or beds themselves. But that’s not to say that if there’s no outward sign that it’s functioning 100 percent, that the treatments actually happening. But it is a step towards it” (Municipal Representative).

It was noted that mandatory programs are needed and that solely volunteer programs do not reach the systems that need re-inspecting the most. However, it was also mentioned that if the Township ever pursued legal action on those refusing a re-inspection or refusing to comply with needed remediation resulting from the re-inspection, this would be very costly. It was explained,

“And most municipalities don’t have the pockets to do that. Contrary to popular belief, they don’t have the pockets to chase down say 35 properties at that cost, it just doesn’t happen”
(Municipal Representative).

A concern that the re-inspection program addressed is finding (often outdated and malfunctioning) sewage systems not in the Township’s records. It was explained,

“ I don’t think that the municipality has a big, big overall problem, but we certainly have areas where we have no idea what’s in the ground and so that’s where the re-inspection programs kick in to look at those, you know, areas that we have concern about that are sensitive, that we have no record of anything, systems are older”
(Health Unit Representative).

One informant explained the importance for municipal staff continuity with these programs, especially for convincing changing councils of the value of the program. In addition, the Health Unit provides an important record keeping function for the Township, however, municipal staff hold essential corporate memory on risk areas and priorities.

One challenge found in Eastern Ontario was finding human resources to perform the re-inspections. It was explained,

“Even our list of those guys who will do septic re-inspections, it’s reduced down to about 10, right now in this area, the other guys just say ‘I don’t have time to go out there and do them, if they call me and need a new system fair

enough, but for the amount of time it takes me and the little bit of money I get out of it. I did a few in the early days but I’m not doing them anymore’. So, you know, now the resources just to do the re-inspections start to drop” (Health Unit Representative).

Issues with an aging demographics of qualified inspectors were also noted. The importance of hands-on college programs was highlighted. A self-created peer support group of Eastern Ontario Chief Building Official’s was noted as an important avenue for sharing knowledge and building capacity on sewage system related issues in the region.

It was warned that there will always be residents both for and against a sewage system re-inspection program,

“There’s pros and cons [on] both sides, I guess. People on the other side just think it’s another sort of money grab. The people who are truly concerned about the health and safety of, not only their property, and their family and the neighbours and so forth, they’re the ones that understand what’s going on. You’re always going to have the opposition to it as well, we get both sides of the coin, it is what it is, I don’t think that will ever change” (Municipal Representative).

The financial fear of the cost of potential needed repairs or replacement of systems remains one of the most prominent concerns of residents. As mentioned, the Township is considering a loans program to meet this need. Septic rehabilitation loan programs, such as the one in the City of Kawartha Lakes, is being considered. The loan program in the City of Kawartha Lakes does not require the resident to prove income, just prove they have sufficient equity in their home to cover the loan. It was explained,

“What higher purpose is there then to try and help ease residents through the cost trauma of an initiative that will benefit everybody in terms

of safe water quality. And think of the liability risks to our municipality if we do have a serious water quality problem in one of the villages where there's broken holding tanks and systems that haven't been looked at in 50 years"
(Municipal Elected Official Representative).

Currently the benefits of this program outweigh the costs, and that is why Township council chooses to maintain it. The program not only reduces risks and liability at the Township level, but also at the residential level where having properly maintained sewage systems was noted as an asset for property value. Furthermore, informants explained there are benefits of the sewage system re-inspection program for reducing risks of drinking water contamination and improving/maintaining the quality of surface water. This is particularly important in the Township of Leeds and the Thousand Islands, as the Township's economy relies on water related recreation (e.g., waterfront recreational properties, boating, fishing, etc). Ensuring this program stays in place is a key objective of the Township and Health Unit staff in order to contribute to the sustainability of the Township.

Further Resources

- Municipal webpage on the sewage system re-inspection program: <http://www.leeds1000islands.ca/en/growing/Septic-Re-inspection.aspx>
- By-law to institute a septic re-inspection program in the Township of Leeds and the Thousand Islands: <http://www.leeds1000islands.ca/en/growing/resources/Documents/17-030---Amendment-to-the-Septic-Re-inspection-Program.pdf>
- A guide to operating and maintaining your septic system: <http://www.oowa.org/wp-content/uploads/2013/11/A-guide-to-operating-and-maintaining-your-septic-system.pdf>
- Leeds, Grenville & Lanark District Health Unit- Class 2 (Grey Water Pit) Maintenance

Inspection Forms: http://rplc-capr.ca/wp-content/uploads/2019/01/LGLDHU_CLASS-2.pdf

- Leeds, Grenville & Lanark District Health Unit Class 4 Sewage System Maintenance Inspection Form: http://rplc-capr.ca/wp-content/uploads/2019/01/LGLDHU_CLASS-4.pdf
- Leeds, Grenville & Lanark District Health Unit Class 5 (Holding Tank) Maintenance Inspection Forms: http://rplc-capr.ca/wp-content/uploads/2019/01/LGLDHU_CLASS-5.pdf
- List of licensed sewage system installers in the Township of Leeds and the Thousand Islands area: <http://www.leeds1000islands.ca/en/growing/resources/Documents/2018-Installers---Contractors.pdf>
- Kawartha Lakes septic rehabilitation program pre-application: <https://www.kawarthalakes.ca/en/municipal-services/resources/Taxes/Septic-Rehabilitation-Program-Pre-Application23.pdf>
- Septic Maintenance Project website: <http://rplc-capr.ca/septic-maintenance-project/>

Prepared by: Sarah Minnes, 2019

Acknowledgements: Thank you to the Township of Leeds and Thousand Islands and those who donated their time to this research. Thank you also to the Rural Policy Learning Commons for their funding of this research.

More about the Project: More case studies like this and other additional research on municipal re-inspection programs for residential on-site wastewater systems can be found on the project's webpage: <http://rplc-capr.ca/septic-maintenance-project/>

References

1. Statistics Canada. 2017. *Leeds and the Thousand Islands, TP [Census subdivision], Ontario and Leeds and Grenville, UC [Census division], Ontario* (table). *Census Profile*. 2016 Census. Statistics Canada Catalogue no. 98-316-X2016001. Ottawa. Released November 29, 2017. <https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/index.cfm?Lang=E> (accessed January 2, 2019).
2. Township of Leeds and the Thousand Islands. (2018a). *About Leeds and the Thousand Islands*. Retrieved January 2, 2018 from <http://www.leeds1000islands.ca/en/living/About-Leeds-and-The-Thousand-Islands.aspx>
3. Township of Leeds and the Thousand Islands. (2018b). *Community Profile*. Retrieved January 2, 2018 from <http://www.leeds1000islands.ca/en/growing/Community-Profile.aspx>
4. Google. (2019). Google Maps. Retrieved January 2, 2018 from <https://www.google.com/maps/place/Leeds+and+the+Thousand+Islands,+ON/@44.9105064,-77.6210438,9z/data=!4m5!3m4!1s0x4ccd42643f8aa31d:0xe944a015e7faadd118m2!3d44.481587!4d-76.0680705>
5. Township of Leeds and the Thousand Islands. (2018c). *Septic Re-Inspection*. Retrieved January 2, 2018 from <http://www.leeds1000islands.ca/en/growing/Septic-Re-inspection.aspx>
6. Ferreyra, C., de Loe, R. C., & Kreutzwiiser, R. D. (2008). Imagined communities, contested watersheds: Challenges to integrated water resources management in agricultural areas. *Journal of Rural Studies*, 24, 304–321.
7. Township of Leeds and the Thousand Islands. (2008). *BY-LAW 17-030*. Retrieved January 3, 2018 from <http://www.leeds1000islands.ca/en/growing/resources/Documents/17-030---Amendment-to-the-Septic-Re-inspection-Program.pdf>

[ng/resources/Documents/17-030---Amendment-to-the-Septic-Re-inspection-Program.pdf](http://www.leeds1000islands.ca/en/growing/resources/Documents/17-030---Amendment-to-the-Septic-Re-inspection-Program.pdf)



IMPROVE LIFE.



Canadian
Environmental Law
Association
EQUITY. JUSTICE. HEALTH.

