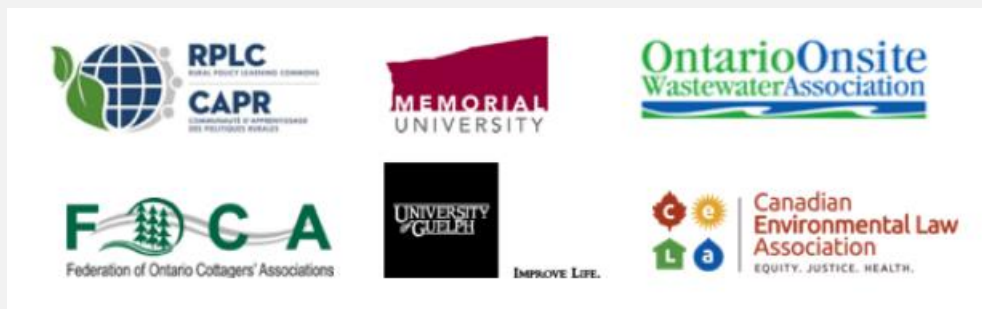


Septic Maintenance Project

Partner Project Update



Anne Egan

President

Ontario Onsite Wastewater Association



Exploring Successes, Challenges, and Lessons Learned with Municipal Re-inspection Programs for Residential On-site Wastewater Systems in Ontario

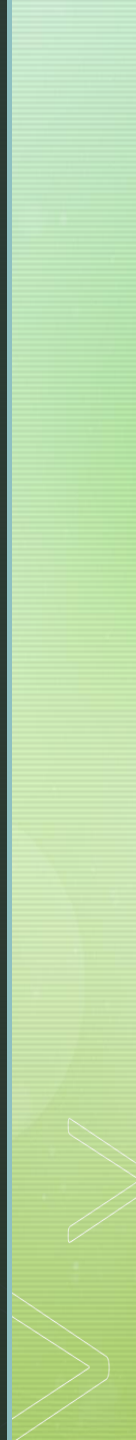
FOCA Seminar

Saturday, October 27, 2018



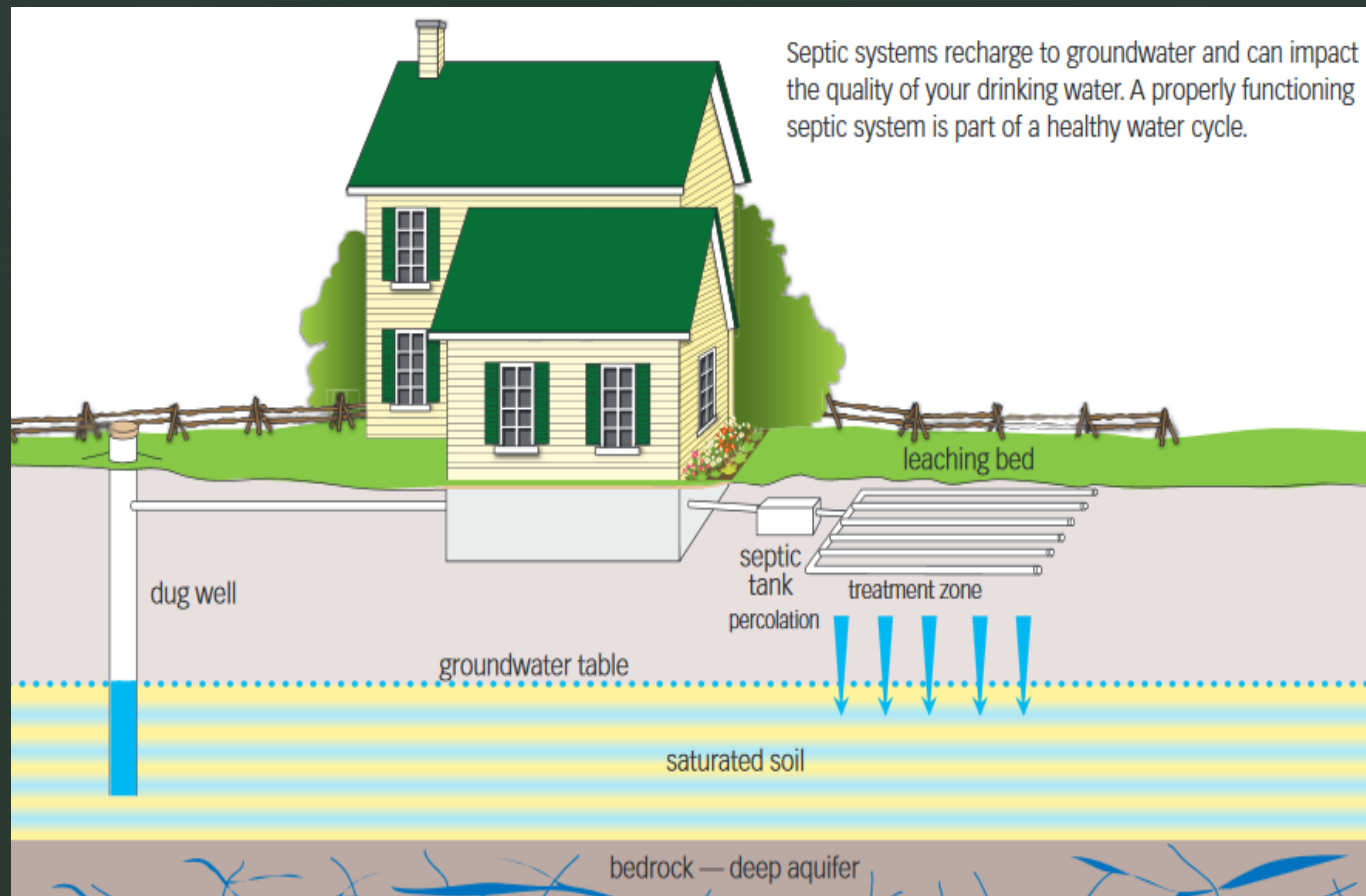


Outline

- Onsite sewage systems in Ontario
 - Project Background
 - The Study - Research Goal and Team Members
 - Case Studies
 - University of Guelph Work
 - Preliminary Findings – Benefits & Issues
 - Preliminary Lessons Learned
- 

Onsite Sewage Systems

- Onsite sewage systems are a vital and permanent component of rural infrastructure



➤ Onsite Sewage Systems

Onsite sewage systems → simple, reliable, robust, but:

Lack of maintenance and aging infrastructure



Impact on water resources



➤ Septic System Maintenance in Ontario

- Septic system maintenance

- Mandated by the Ontario Building Code (OBC) Section 8.9 for *all* systems
- Typical maintenance activities:
 - Solids removal from septic tank
 - Pump repair/ replacement
 - Treatment unit maintenance
 - Leaching bed flushing/repair/maintenance



Septic Re-inspections in Ontario

- **Mandatory Re-Inspections**
 - Only in Source Water Protection areas and areas within 100m of Lake Simcoe shoreline, tributaries, rivers and ponds
 - Every 5 years
 - Principle Authority is responsible
 - Principal Authorities are responsible for conducting inspections occur for:
 - Third-party certificates of compliance may also be acquired to meet requirements
- **Discretionary Re-Inspections**
 - Any Principle Authority can establish a re-inspection program

Provincial Guidelines for Inspections

- Phase I

- Non-intrusive
- Avoids disturbance to the system as a whole
- May be sufficient for establishing compliance
- If not, intrusive, Phase II assessment is required



- Phase II

- More detailed inspection, typically intrusive
- Activities depend on system characteristics
- May include sludge measurements, sewer camera, excavation, load testing, dye testing, etc.



Other Programs: USA

Compliance based inspection programs

- Minnesota, Pennsylvania, Arizona, Massachusetts, California, Others
- Typically required at time of Property Transfer
 - True property value
 - Money is changing hands – mechanism for repair/upgrades
- Inspector training and certification to ensure consistency

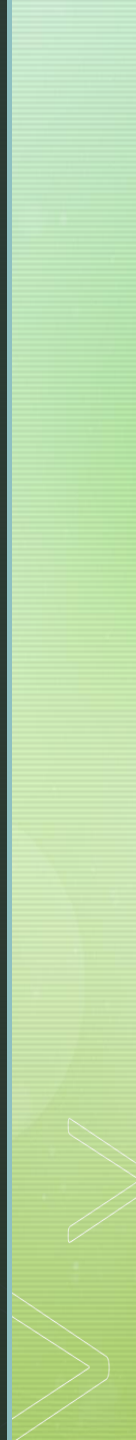
Project Background

- Re-inspection programs
 - Why are they being done?
 - How is the program implemented?
 - Is the program effective?
 - How to evaluate efficacy?
 - Costs?
- Existing Programs
 - Variable and inconsistent
 - One size does not fit all, but can we benefit from sharing information?





The Study

- FOCA initiated
 - Effectiveness of existing programs
 - What is working?
 - What is not?
 - Arm FOCA members with knowledge
 - Assist local councils in developing effective programs
- 

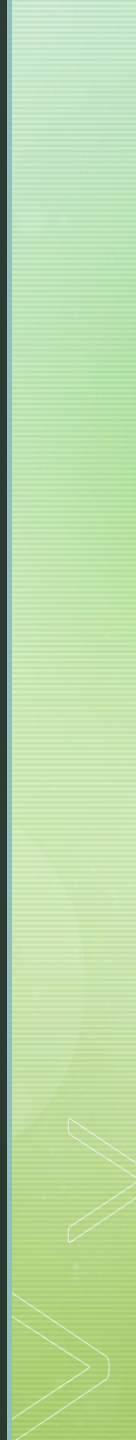
Study Team Members

Individuals	Affiliation
Terry Rees, Executive Director	Federation of Ontario Cottagers' Associations
Anne Egan, President	Ontario Onsite Wastewater Association
Liz Huff, Director	Rural Ontario Municipal Association
Theresa McClenaghan, Executive Director & Counsel	Canadian Environmental Law Association
Sarah Minnes, Research Associate	University of Saskatchewan
John Fitzgibbon, Professor Hugh Simpson, Adjunct Professor Cameron Curran, MSc(Planning) Student Brendan Eidner, MSc(Planning) Student Taylor West, MSc(Planning) Student	University of Guelph



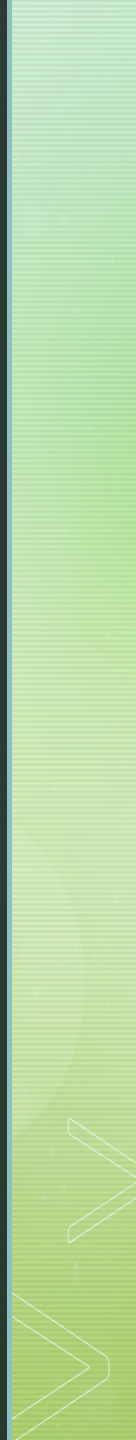
Research Goal

The goal of this research is to highlight promising practices and rural policy implications for municipal re-inspection programs for residential on-site wastewater systems in Ontario.





Case Studies

- Township of Rideau Lakes
 - Township of Leeds and Thousand Islands
 - Municipality of Callander
 - Township of Tiny
 - More to come in Winter 2019 in southwestern Ontario (still to be determined)
- 



University of Guelph Contributions

- Literature Review by 3 Research Assistants
 - Jurisdictional scan on the following areas of focus:
 - Summary of current legislation surrounding water wells in Ontario
 - Review of septic re-inspection programs
 - Bylaws surrounding water and wastewater systems

Student Thesis Project

Cameron Curran, MSc Candidate, University of Guelph

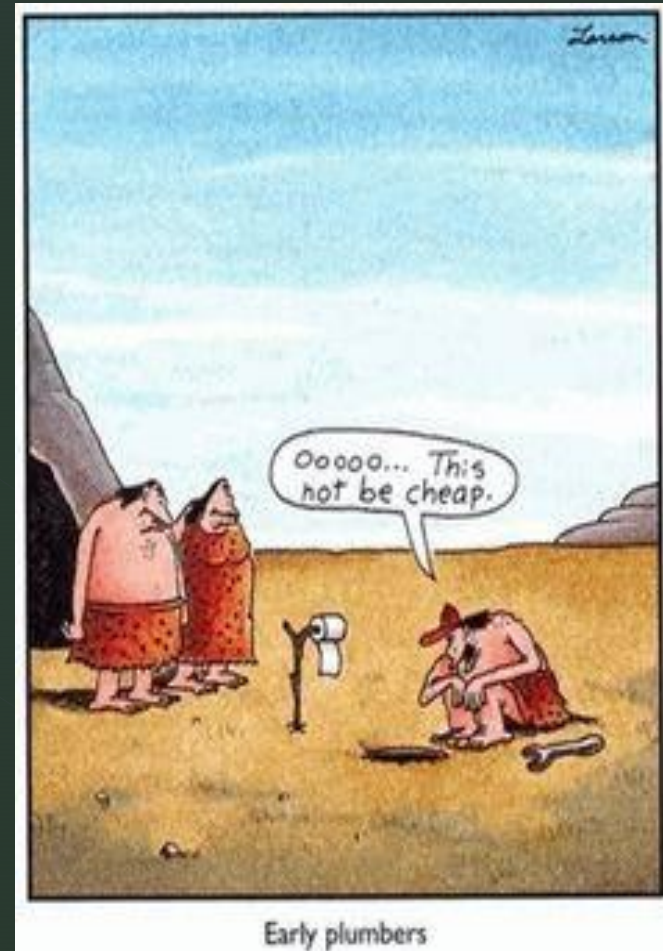
- “Best Practices for Onsite Wastewater System Inspections, Maintenance and Record Keeping in the Lake Simcoe Watershed”
 - Review of septic re-inspection programs, record keeping practices & system owner maintenance
 - Sewage system Owner interviews
 - Facilitate workshop with industry professionals
 - Provide a final report to Ontario Ministry of Environment, Conservation and Parks

Preliminary Findings – Common Benefits

- Education of residents
- Protection of human health
- Protection of water quality
- Cost effective way to reduce risks related to onsite wastewater systems
- Preserving household assets / minimizing risks of failure of major home system

Preliminary Findings – Common Issues

- Proving the effectiveness/
success of a program
- Refusal of compliance
 - Legal action effectiveness/
costs?
- Financial burden for repair/
replacement of systems



Preliminary Lessons Learned

- Homeowner education → one of the primary benefits
- Improve buy-in by:
 - Scheduling appointments with residents
 - Working with residents, providing information sessions etc.
- Different models of the programs can all be successful
 - Determine the right model for your municipality
 - Set objectives for the program
 - Set parameters to measure success



Next Steps

- Finalize literature review (November 2018)
- Complete written case study reports (March 2019)
- University of Guelph student thesis work (August 2019)

Check out our webpage for all project outputs:

<http://rplc-capr.ca/septic-maintenance-project/>

Other Resources:



http://www.omafra.gov.on.ca/english/environment/facts/sep_smart.htm



www.oowa.org