What you should

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know about how

your septic

system affects

water quality

Septic System
 Basics and
 Self-Inspection
 Guide

Care and Maintenance of Your Septic System

Phosphates and Water Quality



LAKE WESLEMKOON CONSERVATION ASSOCIATION



WELCOME TO THE GET PUMPED! PROGRAM

This package is part of the Lake Weslemkoon Conservation Association's efforts to maintain or improve water quality on our lakes. The general objective is to increase awareness about septic systems, their direct effect on water quality and what is needed to maintain a healthy condition.

With this program we have taken the unusual step of reaching out to every cottager on the lake, whether you are a member of the Association or not. If you're not a member of the association please look at the brochure outlining our activities and consider joining (65% of cottagers are members).

The Get Pumped! program is already underway with the first group of cottagers organizing to get their septic pumped. In order to get a group rate, a minimum of 10 cottagers is needed for the pumping company to bring their equipment onto the lake. As most septic systems have never been pumped, we hope for many more of you to take advantage of this service! If you are not sure about getting a pump-out consider an independent inspection (see page 18 for details). Each cottager contracts directly with the service provider, not the LWCA.

The Get Pumped! campaign also provides advice on maintaining septic systems and the usage of products that are less harmful to the water. Phosphate build up in the lake is very harmful and has risen significantly as electric dishwashers and clothes washers have been installed. Products such as Nature Clean, available in most marinas, reduce septic phosphate loading. Please try them.

We hope that you will find the information valuable and that the contents have lasting value for you and those who share this beautiful place.

On behalf of the

Water Quality and Environment Committee LWCA Board of Directors

DO YOU WATR' CLEAN LAKE

DO YOU HIAVE A

SEPTIC

SYSTEM?

IF YES, TURN THE PAGE

IF NO, TURN TO PAGE 16

(THERE ARE STILL THINGS YOU CAN DO TO HELP OUR WATER QUALITY.)

DO YOU KNOW IF

-YOUR TANK

NEEDS TO BE



IF YES, TURN TO PAGE 18

NOT SURE?

8 >> GET PUMPED! HOW YOUR SEPTIC SYSTEM AFFECTS WATER QUALITY

GET PUMPED! HOW YOUR SEPTIC SYSTEM AFFECTS WATER QUALITY >> 9

TRY DOING A SE LF-INSPECTION

But first, some septic basics...



SFPTIC TANK

TILF BFD

OUR LAKE

A septic system is an organic system. It needs bacteria to break down the waste and uses the soil to filter out the remaining impurities. The system is generally made up of a tank and a tile bed.

A septic tank and its field of drain pipes is a constantly changing system. The waste destined for the tank from toilets, showers, sinks, and washing machines is mostly water with varying amounts of solids. The two compartments in the tank (see next page for a diagram) are designed to control the agitation that comes each time something new floods in. Over time, settling occurs in the tank, especially in the second compartment that feeds the tile bed.

Settling divides the sewage into three layers. The bottom is sludge, the middle is liquid and the top is a foamy scum. The outlet is designed to control the amount of scum that leaches out so liquid is the primary thing that leaves the tank and is distributed through the tile bed to be absorbed and evaporate. The tile bed needs an adequate amount of soil under, beside and above so that no liquid escapes to nearby water sources. The bottom layer of sludge should never accumulate enough to reach the outlet. It can only be removed by pumping when this threatens to happen.

If the sludge overflows into your bed it may cause irreparable damage and you may have to get a new bed put in. That's why it's a good idea to get your tank inspected.

If you would like more detailed information about septic systems please go to our website, www.weslemkoon.com, and download the PDF "Septic System Self-Inspection Guide".

In any community that has added septic systems over the years, tanks and fields are in various states of readiness for pumping. Here's an attempt to divide the lake's septic systems into five categories with appropriate action steps. Some systems may straddle these categories so you'll have to use your own judgment.

CATEGORY	DESCRIPTION	ACTION
1	Steel tank and field more than 25 years old	Consider getting tank pumped as soon as possible. Owners of these tanks should be aware that the tank itself may have rusted out and should be inspected.
2	 a) Plastic/concrete tank and field more than 25 years old b) 5-10 year system with fre- quent usage c) 5-10 year system with water using appliances 	Consider getting tank pumped as soon as possible. Remember, letting the sludge get to high and spill into the tile may cause damage to your tile bed which may be expensive to fix.
3	a) 5 year or less system with frequent usage.b) 5 year or less system with water using appliances.	Try a self-inspection or consider joining LWCA members who are booking an inspection of their system. Act on advice from consultant which may include a schedule for pumping or maintenance of the tile bed.
4	Recent systems with varying seasonal use.	Retain information about inspection service or follow advice for self- inspection.
5	New owners of old properties with existing septic systems of undetermined age and status	Find the inspection hatches and consider either self-inspection or join LWCA members who are booking an inspection of their system.

HOW TO DO A SE LF-INSPECTION





Even properly sized and maintained sewage systems will not last forever. Here are some ways to maintain your sewage system.

- CHECK YOUR TANK REGULARLY AND HAVE IT PUMPED OUT WHEN NEEDED. This will eliminate the build up of solids in the tank, and reduce the possibility of flushing untreated sewage out into the tile bed where it can plug the gravel and soil.
- REDUCE WATER USE. Use water saving devices such as shower flow restrictors, low flush toilets, and "suds saver" washing machines. Your system has a limited life and is wearing out every time you leave the tap dripping, or scrape dinner plates into the kitchen sink.
- Keep brush and tree growth away from the tile bed area. The roots can plug the tiles.

- Examine your tile bed area for erosion, and replace missing soil.
- Re-route surface water drainage and eaves troughs away from both the septic tank and the tile bed areas.
- If you are having a party or other large gathering at the cottage, have the tank pumped out just prior to the event so that you are starting out with an empty tank. You should rent portable toilets for very large groups.
- Don't dispose of solvents, paints, or any strong chemicals in the septic system. Remember, the septic system is organic. Dispose of them in municipal hazardous waste facilities.
- Keep vehicles, including snowmobiles, off the sewage system. Compacting the soil above the tiles reduces the evaporation and transpiration processes in the summer, may allow the bed to freeze in the winter, and could crush the tiles.
- Don't add structures later which will block access to tank ports.
- Avoid using anti-bacterial liquid detergents. The septic system needs bacteria in order to function properly.
- Avoid putting dental floss down the toilet as it tends to get caught up in the tile bed.
- It is not a good idea to pour fats, cooking oil and greases into your septic system.

Permission to use this editorial content was granted by Tom Cathcart, Director, Health Protection, Peterborough County/City Health Unit.

FLUSH FOR LESS

The typical household toilet uses as much as 13 litres per flush, which can add up to a lot of wastewater going into your septic tank. To save water you might want to consider getting a dual flush toilet. Dual flush means that there are 2 buttons on the top of the toilet tank, one for a half flush (3 litres) and one for a full flush (6 litres). If you're interested in getting a dual flush toilet we suggest the Caroma (www.caroma.com.au/products). NOTE: Requires original manufacturer's parts in order to maintain efficiency.

Do you want a lake that is unpleasant to swim in, with water that tastes and smells bad, with algae build up on boat hulls and shorelines, and that is full of decaying plants and algae that use up dissolved oxygen so fish will suffocate?



PROTECT OUR LAKE FROM NUTRIENT OVERLOAD

REDUCE THE PHOSPHORUS YOU PUT IN YOUR SEPTIC SYSTEM. Septic systems, old and new, have limits on the amount of phosphorus they can capture and remove, especially those located on limited soil cover on the Canadian Shield – like our Lake.

- Pump out your septic tank regularly.
- Use phosphate-free detergents and low phosphorus dishwashing detergents.

■ REDUCE THE PHOSPHORUS LOADINGS FROM OTHER SOURCES.

- Do not wash boats, shampoo or bathe in the lake.
- Avoid using fertilizers.
- Enhance and maintain a natural, forested shoreline to increase nutrient uptake by shoreline plants.
- Prevent surface runoff from your property into the lake.

Extracted from: "Seven Hints on Protecting Your Lake", Ministry of Environment and Energy, March 1995.



YES, I AM INTERESTED IN HAVING MY SEPTIC SYSTEM INSPECTED.

NEXT STEP.

■ TEXT Patty Milne 416.459.1968; OR EMAIL patricia.milne@sympatico.ca.

NOTE: Cottager contracts directly with service provider.

YES, I AM INTERESTED IN HAVING MY SEPTIC TANK PUMPED.

NEXT STEP.

■ CALL OR EMAIL PATTY MILNE FOR INFORMATION.

Phone: 416.459.1968 Email: patricia.milne@sympatico.ca

NOTE: Cottager contracts directly with service provider.

