



Conservation
ONTARIO
Natural Champions

SEPTIC SYSTEMS

What is a Septic System?

A septic system is a private sewage treatment system. They are common in rural areas where there are no municipal sewage pipes for homes, farms, businesses or other facilities to hook into. They are less common in urban areas.

What your septic looks like, how it's designed and constructed depends on where you live, how much space you have, the characteristics of the surrounding land and the make-up of the soil. Whatever type you have, however, all septic systems require careful attention to design, construction, operation and maintenance.



How does a Septic System Work?

If you rely on a traditional septic system, your household wastewater flows through pipes to an outdoor, underground septic tank. Here solids settle and separate from the liquid.

Light solids, such as soap suds and fat, float to the top and form a scum layer. This layer remains on top and gradually thickens until you have the tank cleaned.

The liquid waste flows through a series of pipes to where it is slowly released into the leaching bed. The leaching bed is made up of porous materials, such as sand and gravel, and acts as a filter to clean the water before it seeps back into the ground.

The heavier solids settle to the bottom of the septic tank where they are gradually decomposed by bacteria. But some non-decomposed solids remain, forming a sludge layer that must be pumped out every three to five years.



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How can I Keep my Septic System Working Properly?

1 Get to Know Your Septic System:

- Know the location of your septic tank and what sort of material it is made from.
- Know the size and shape of your leaching bed.

2 Maintain Your Septic System Properly:

- Have your septic system inspected at least every three years.
- Pump your septic tank as needed (generally every three to five years).
- Service and maintain treatment units and effluent filters according to manufacturer instructions.
- Have the tank replaced if not sound (e.g steel tanks are susceptible to decay and last only 20 to 25 years) or if undersized for sewage flows.
- If you turn a seasonal residence into a permanent one, or add members to your family, your septic system may need to be resized to function properly.
- Install an effluent filter to the outflow pipe leading from your septic tank to your leaching bed. An effluent filter will prevent solids from entering and clogging the leaching bed and is a cheap way to prevent costly tile bed repairs.
- Locate all pump chambers and ensure that pumps and alarms are working properly (if your system has them).
- Keep records of pumping, maintenance and repair.





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Be Careful About What Goes Into Your Septic System:

- Take household hazardous wastes to your municipal hazardous waste facility. If you pour wastes such as paint, grease, pesticides, solvents, thinners, nail polish remover, kerosene, antifreeze, gas or oil down drains or into toilets, they can seep into the groundwater. They may also prevent your septic system from working properly.
- Avoid using disinfectants like bleach, caustic toilet bowl cleaners and drain cleaners which kill beneficial bacteria in your tank and may cause sewage to pass through the system without proper treatment.
- Look for liquid detergents or concentrated detergents that don't contain phosphates which can harm local water quality.
- Keep household items, such as dental floss, feminine hygiene products, condoms, diapers, food solids, hair, washing machine lint and cat litter out of your system. These can clog your leaching bed and pipes.
- Check with your local health department before using septic tank additives. Commercial septic tank additives do not eliminate the need for periodic pumping and can be harmful to your system.
- Garboraters should not be used on most conventional septic systems. They will fill the tank much more rapidly and you'll need more frequent pump-outs.



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Be Careful About What Goes Over Your Septic System:

- Plant only grass over and near your leaching bed to aid in evaporation and prevent erosion.
- Don't allow trees or shrubs to grow too close to the leaching bed or tank as their roots can clog or damage your system.
- Do not apply manure or fertilizers over the leaching bed.
- Keep vehicles and livestock off your leaching bed and away from your septic tank. Excessive weight can damage the pipes and tank, and your system may not drain properly under compacted soil.
- Keep gutters and basement sump pumps from draining into or near your leaching bed, avoid heavy lawn watering and divert other forms of runoff.



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Conserve Water Flowing to the System:

- Use low flow showerheads, low flush toilets and fix any leaking plumbing fixtures. Excessive water flowing into the septic tank, from overuse of toilets, laundry, dishwasher, showers, and baths, can cause the sludge to be disturbed, allow the solids to pass out of the tank and clog your leaching bed pipes and even your leaching bed.



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Ensure that Renters or Guests are Aware:

of your septic system and its proper use.



How will I know if there is a Problem with my Septic System?

If your septic system is not functioning properly, you may notice the following signs:

- Sinks, showers and toilets back up with sewage or drain slowly.
- The lawn over the leaching bed has patches of abnormally healthy-looking grass.
- There are soggy areas, areas with surfacing grey water, or areas with surfacing sewage on or near the leaching bed.
- The lawn above the leaching bed is wet.
- There is a sewage odour in your home or over the area of your leaching bed.
- Large amounts of algae growth occur in or around nearby lakes or water bodies.
- Nearby well water tests indicate high levels of nitrates, bacteria, or other contaminants.
- Dosing pumps, if your system has them, run constantly or not at all.



Why is the Province Concerned about my Septic System?

The intent of the *Clean Water Act, 2006* is to ensure communities are able to protect their municipal drinking water supplies through developing collaborative, locally driven, science-based protection plans. Communities will identify potential risks to local water sources and take action to reduce or eliminate these risks. Municipalities, Conservation

Authorities, property owners, farmers, industry, community groups, and the public will all work together to meet common goals. One thing property owners can do is take responsibility for maintaining their septic system to minimise the risk of health and environmental problems that could affect municipal drinking water sources.

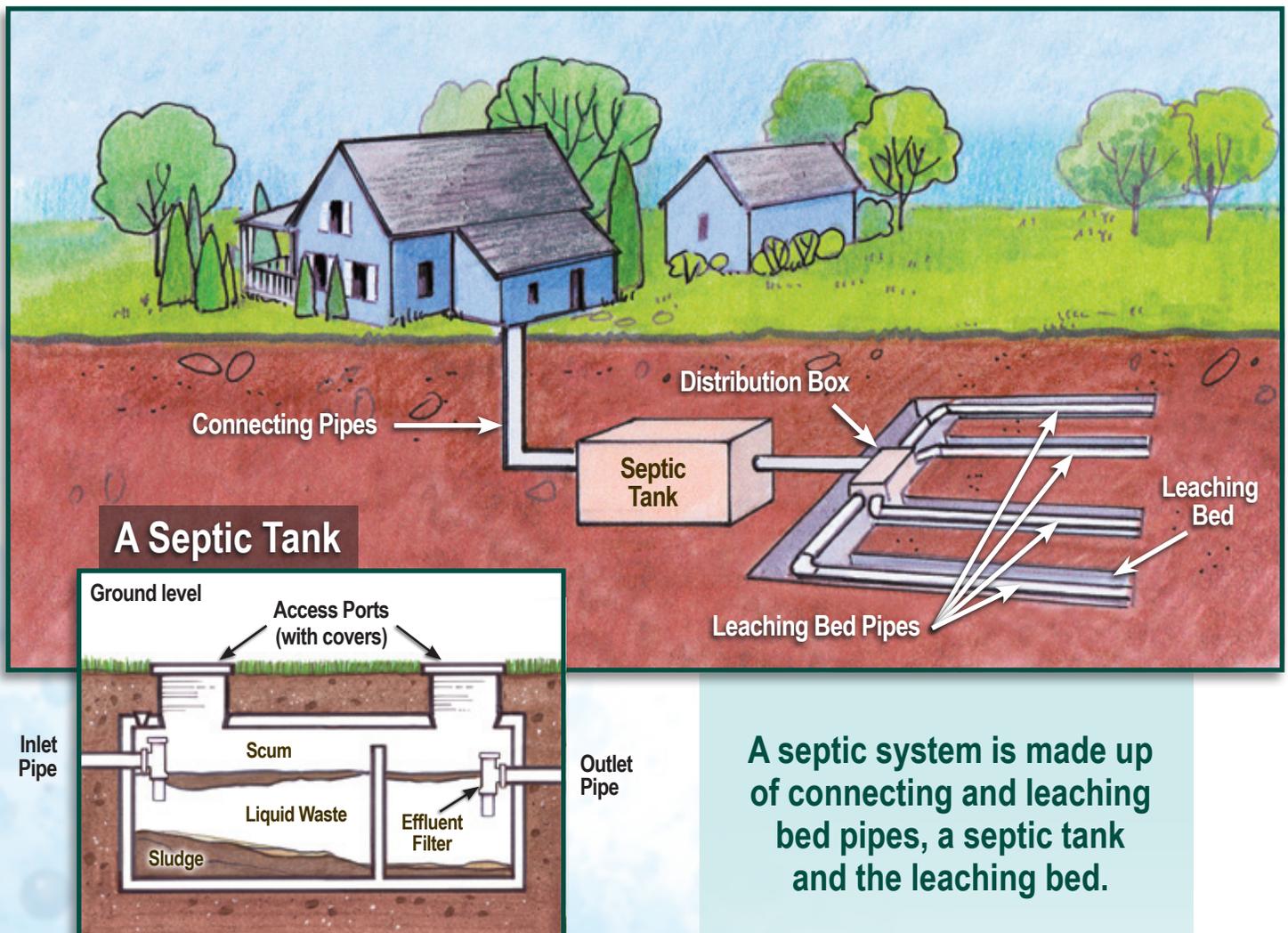
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Why is it Important to Keep a Septic System in Good Working Order?

A septic system built to current-day standards and maintained properly may enhance the value of your property, prevent costly replacement or repairs in the future and prevent pollution. Septic systems that are in good working condition help reduce the risk

of drinking water contamination, both to your water supply and your neighbour's. This is important, especially if there are drinking water wells or surface water intakes located on or near your property.

What does a Septic System Look Like?



A septic system is made up of connecting and leaching bed pipes, a septic tank and the leaching bed.

What Should I do if I Suspect a Problem with my Septic System?

For more information about the management of septic systems, or to find out if your property is within a vulnerable area, contact your local Source Protection Region or Area. You can find out which Source Protection Region or Area you live in at www.conservationontario.ca.

For additional sources of information on Septic Systems in Ontario contact the Ontario Rural Wastewater Centre at www.uoguelph.ca/orwc/ or the Ontario Onsite Wastewater Association at www.oowa.org.



For More Information on How to Care for Your Septic System

Please contact your local Source Protection Region or Area:



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For more information on the Source Protection Program, please visit the Ministry of the Environment's website:

www.ontario.ca/cleanwater

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