

## What Is A Septic System?

If you live in a rural area or a small community or if you have a cottage, chances are you have a septic system. Septic systems are onsite treatment units that eliminate the need for municipal sewers in rural areas. Anything that goes down the drain — every shower drip and every toilet flush — flows to the septic system. Septic systems are comprised of a tank, a network of pipes and billions of organisms that process your waste.

This booklet will help you become familiar with how your system works and how to keep it working properly. It is important to know that you are responsible for your septic system and that it is in your best interest to take good care of it — from a health, financial and environmental perspective.

### Septic systems are also known as:

- on-lot systems
- onsite systems
- individual sewage disposal systems
- onsite sewage disposal systems
- onsite wastewater treatment systems
- sediment tank and treatment trench systems



Effluent filter in septic tank.



Septic tank and leaching bed.

## How Does It Work?

The most common septic system consists of a septic tank and leaching bed — all of which is hidden beneath the soil.

All household wastewater exits your home through an underground pipe that leads to the buried septic tank. The waste flows to the first compartment of the tank where the heavy solids settle and the lighter materials (fats, oils and grease) float to the top as scum. Baffles and screens (see illustration on page 3) keep this scum layer from escaping the tank and flowing to the leaching bed. This scum is removed when the tank is pumped during regular maintenance (see *Why Should I Maintain My Septic System?* on page 8).

In the second compartment of the tank, finer particles settle to the bottom. Organic materials break down in the tank. On newer systems, any remaining organic material is trapped and decomposes on a screen called the effluent filter located at the outlet of the tank. As of January 2007, effluent filters became mandatory on all new installations and upgrades in Ontario.

From the tank, the effluent moves to a leaching bed made up of a network of perforated polyvinyl chloride (PVC) drain pipes. Stone and a layer of unsaturated native soil or imported sand surround these pipes. The effluent flows to the leaching bed either by gravity or a pump depending on site conditions. The

leaching bed's perforated PVC drain pipes disperse the effluent, allowing the liquid to seep into the ground where bacteria and other organisms process the wastewater further. Soils below the stone in the trench bottom act as a biological, chemical, and physical filter to remove most remaining organic and biological contaminants.

In Ontario, the *Ontario Building Code* (OBC) governs nearly all rural septic systems. If you are installing, repairing, upgrading or replacing such a system, you must contact your local regulatory agency. It may be your municipality, health unit or conservation authority that inspects systems, issues permits, maintains records and enforces Part 8 of the *Ontario Building Code*.

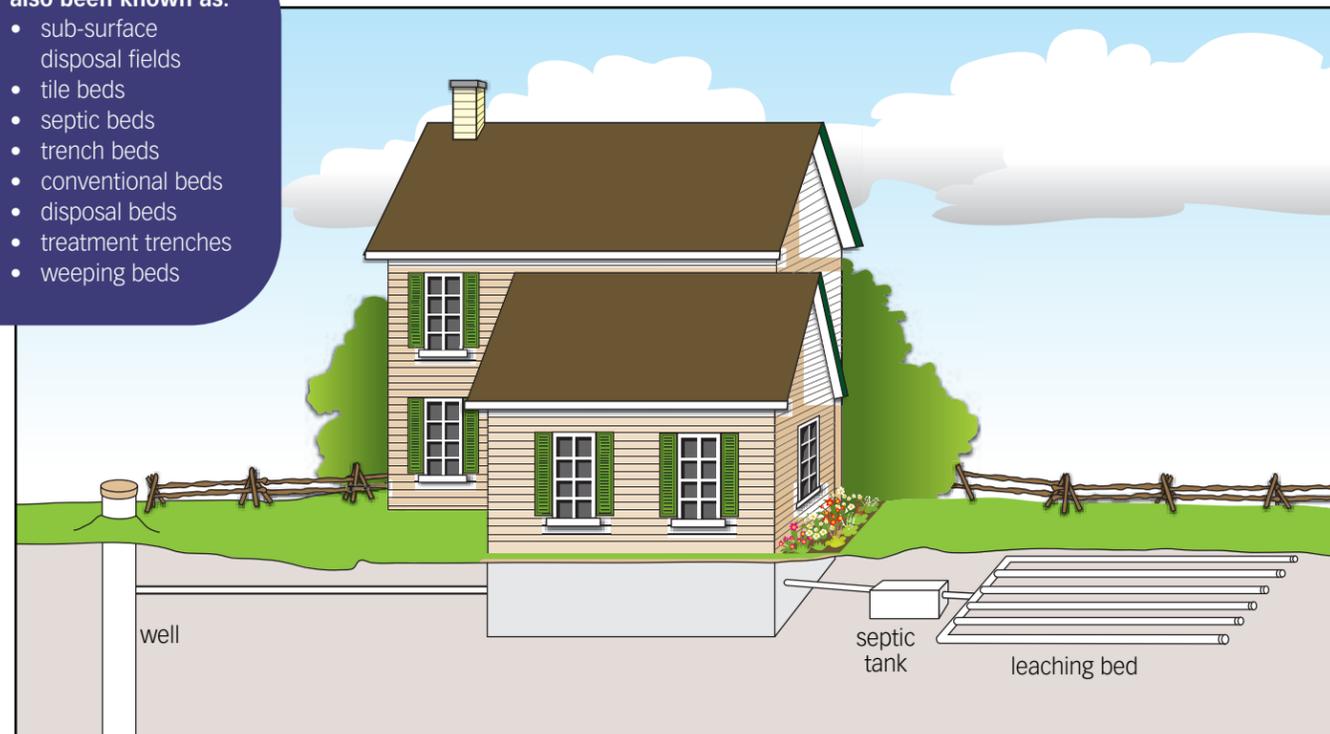


### Did You Know?

The soil under the stone in the trench bottom of a properly working system can remove 99 percent of the *E.coli* for every 30 centimetres (12 inches) of unsaturated soil.

### Leaching beds have also been known as:

- sub-surface disposal fields
- tile beds
- septic beds
- trench beds
- conventional beds
- disposal beds
- treatment trenches
- weeping beds



## Parts Of The Septic Tank

