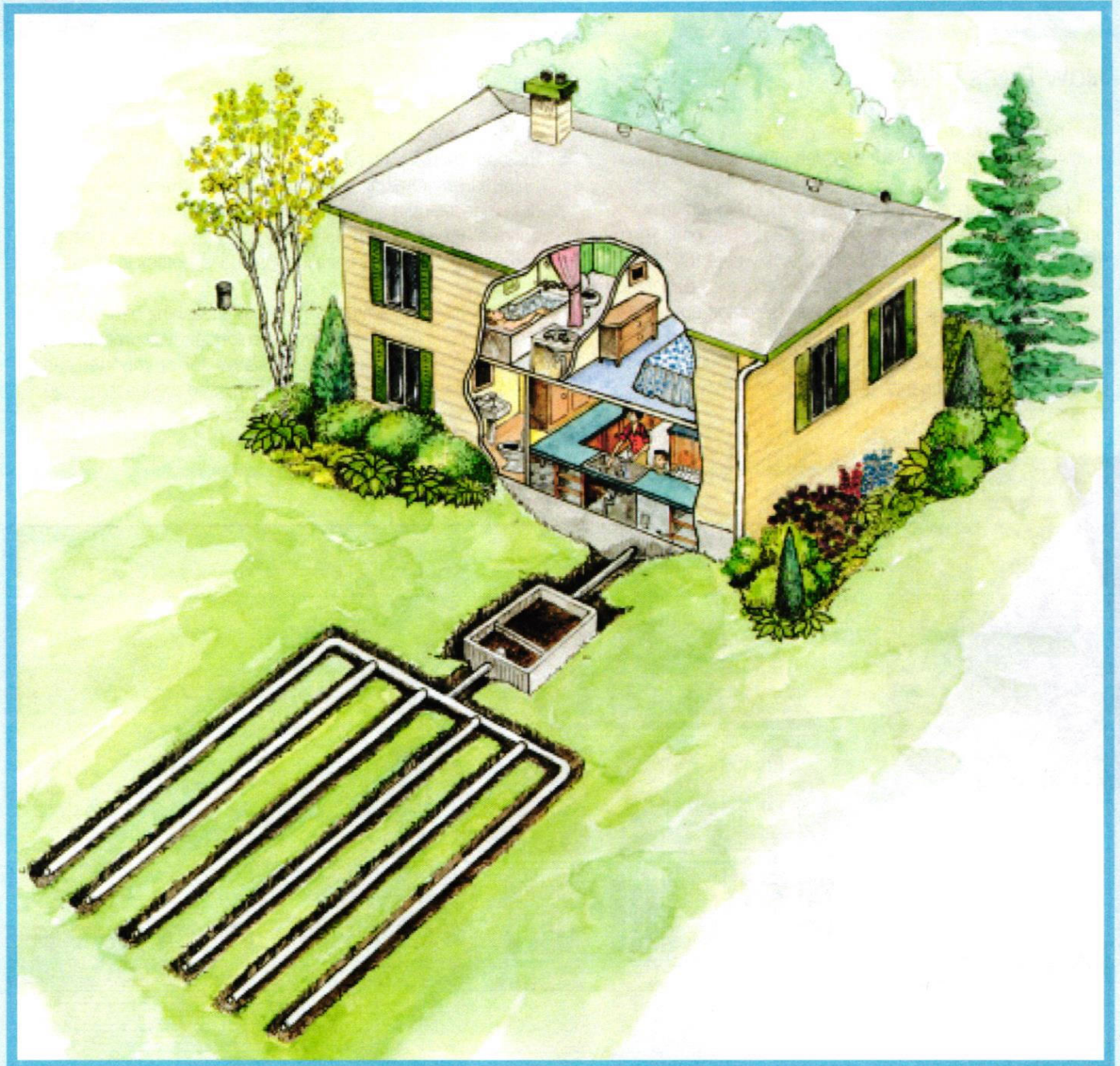
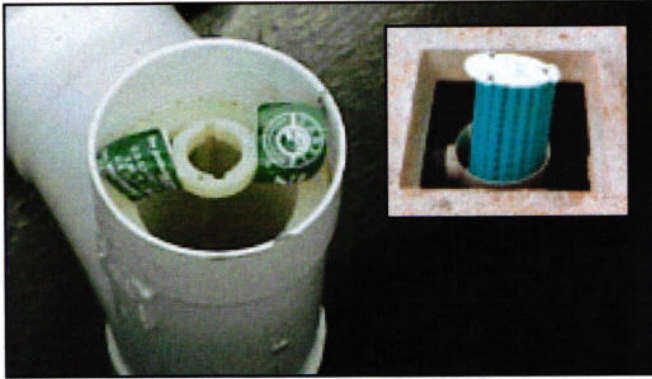


SepticSmart!

Understanding Your Home's Septic System





Effluent filter in septic tank.



Septic tank and leaching bed.

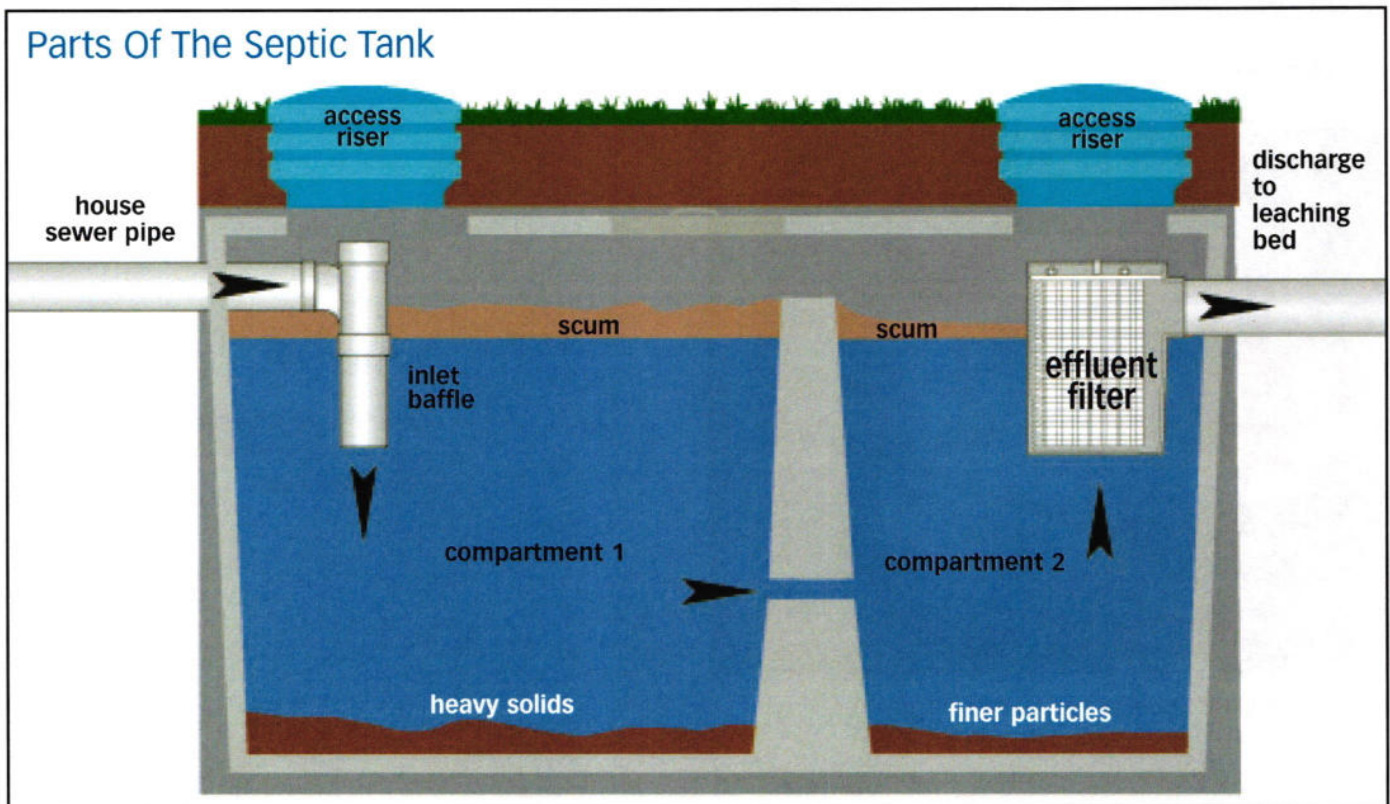
leaching bed's perforated PVC drain pipes disperse the effluent, allowing the liquid to seep into the ground where bacteria and other organisms process the wastewater further. Soils below the stone in the trench bottom act as a biological, chemical, and physical filter to remove most remaining organic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

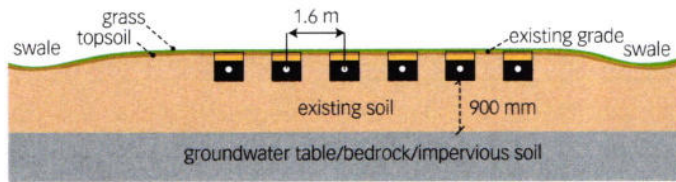


Did You Know?

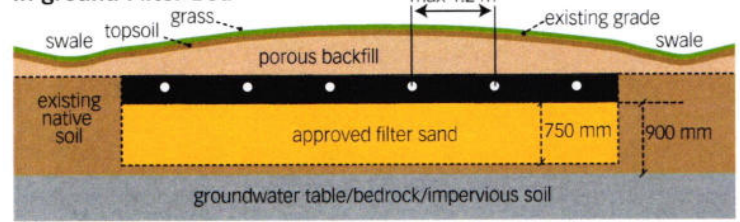
The soil under the stone in the trench bottom of a properly working system can remove 99 percent of the *E.coli* for every 30 centimetres (12 inches) of unsaturated soil.



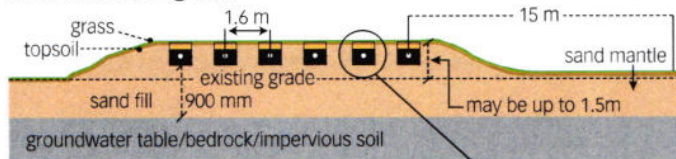
In-ground Leaching Bed



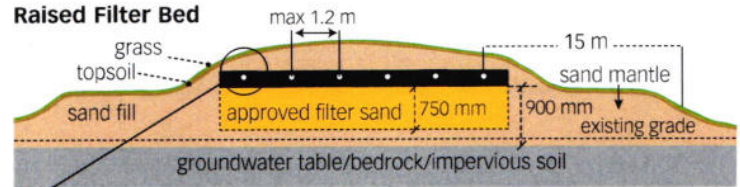
In-ground Filter Bed



Raised Leaching Bed



Raised Filter Bed



Absorption Trench
End view cross-section.

- topsoil
- sand
- geotextile
- perforated PVC drain pipe
- stone

325 mm to 625 mm (for 75 mm dia.)
300 mm to 600 mm (for 100 mm dia.)

50 mm

75 mm – 100 mm

150 mm

Absorption Trench
Longitudinal cross-sectional view.

Leaching Bed — in-ground leaching bed or raised leaching bed*

Description:

- a series of trenches with stone on the trench bottom and perforated PVC drain pipes above
- stone and geotextile fabric cover the drain pipes
- backfilled with sand and topsoil
- the length and number of absorption trenches depends on percolation rate of the native soil and daily sewage design flow

Advantages:

- less expensive because you can use native soil as backfill
- usually a gravity-fed system where no pumps are required

Disadvantages:

- space may be an issue on smaller lots
- may be hard to find good quality stone for absorption trenches
- raised leaching beds are more expensive than the in-ground type because imported sand is required to construct the trenches
- raised leaching beds require increased separation distances

* Raised leaching beds are the same as in-ground leaching beds except they are above existing grade. Raised beds are built above grade because regulations require certain separation distances between the bottom of the absorption trenches and high groundwater levels, bedrock or impervious soils.

Filter Bed — in-ground filter bed or raised filter bed**

Description:

- no trenches, one large bed
- the bed is prepared with a special “filter sand” that is a specified grain size to allow for optimum percolation while treating the effluent
- perforated PVC drain pipes are laid on a continuous stone layer over the filter media sand

Advantages:

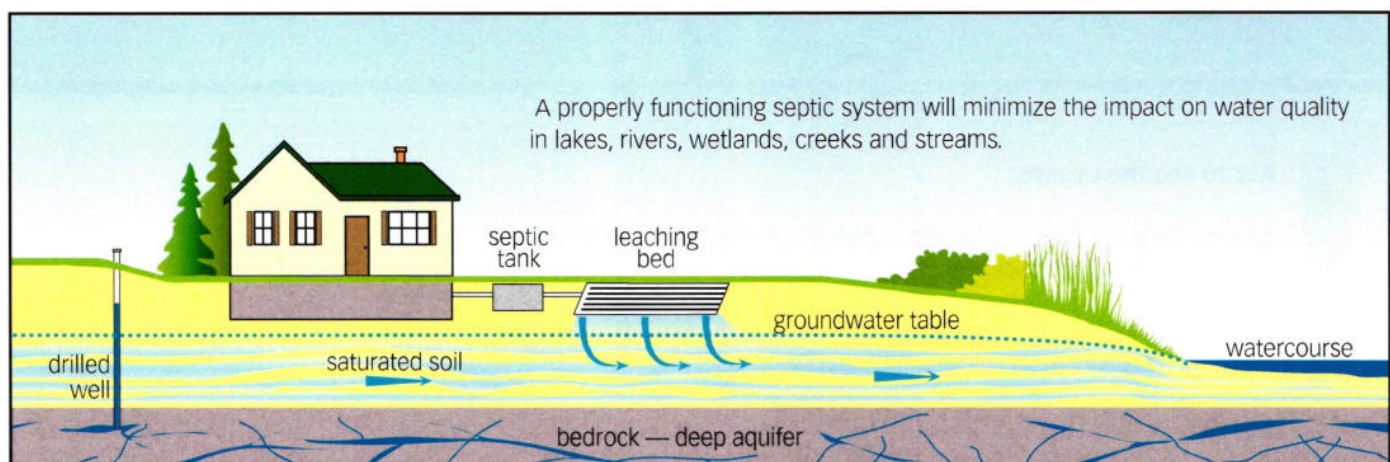
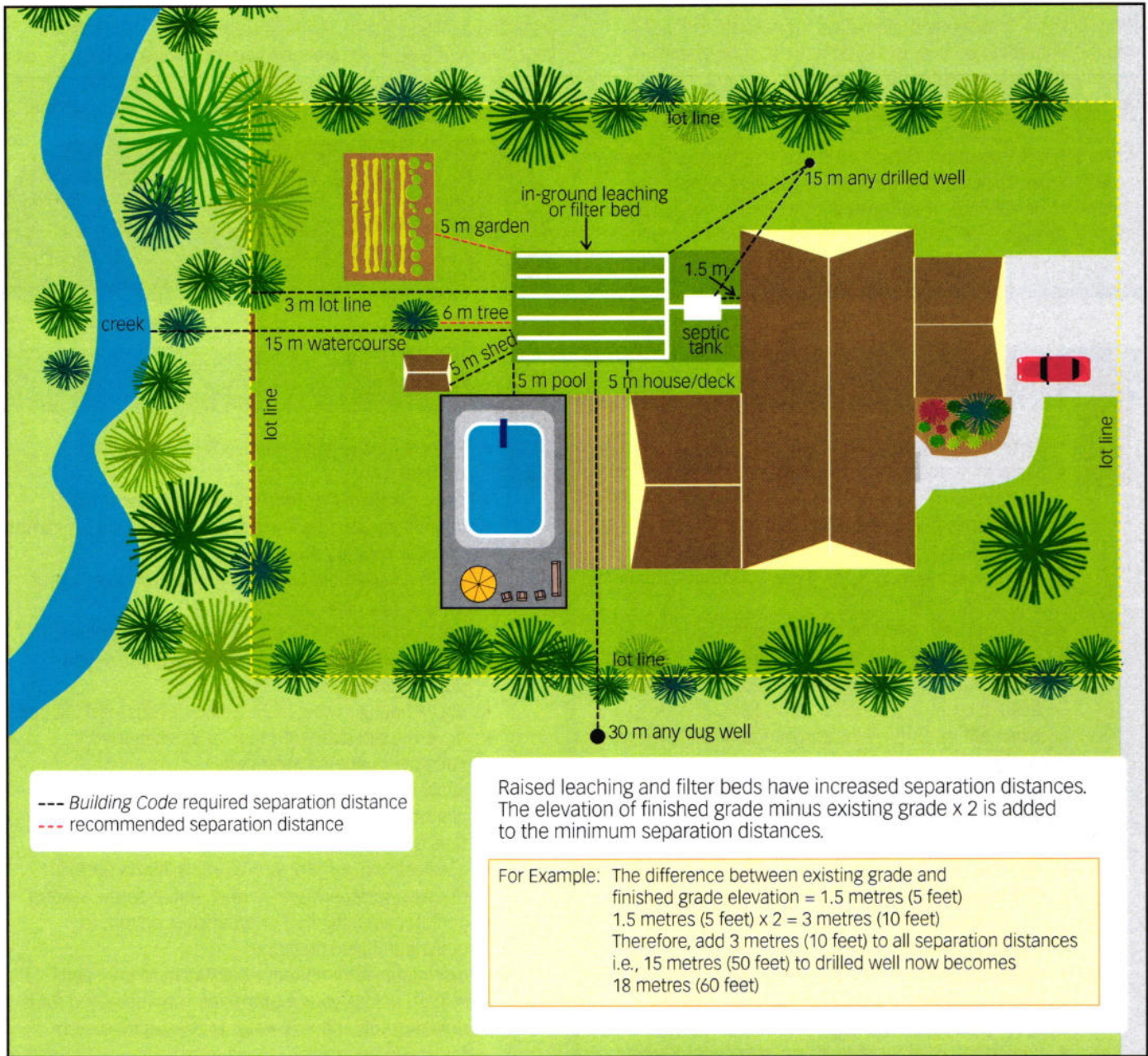
- the system is smaller making it ideal for small lots where separation distances may be an issue

Disadvantages:

- filter sand is costly because it is hard to find and in most cases needs to be processed to a specific criteria
- can't process heavy flows as effectively as a conventional bed
- raised filter beds are more expensive than the in-ground type because imported sand is required to construct the bed
- raised filter beds require increased separation distances

** Raised filter beds are the same as in-ground filter beds except they are above existing grade. Raised beds are built above grade because regulations require certain separation distances between the bottom of the absorption trenches and high groundwater levels, bedrock or impervious soils.

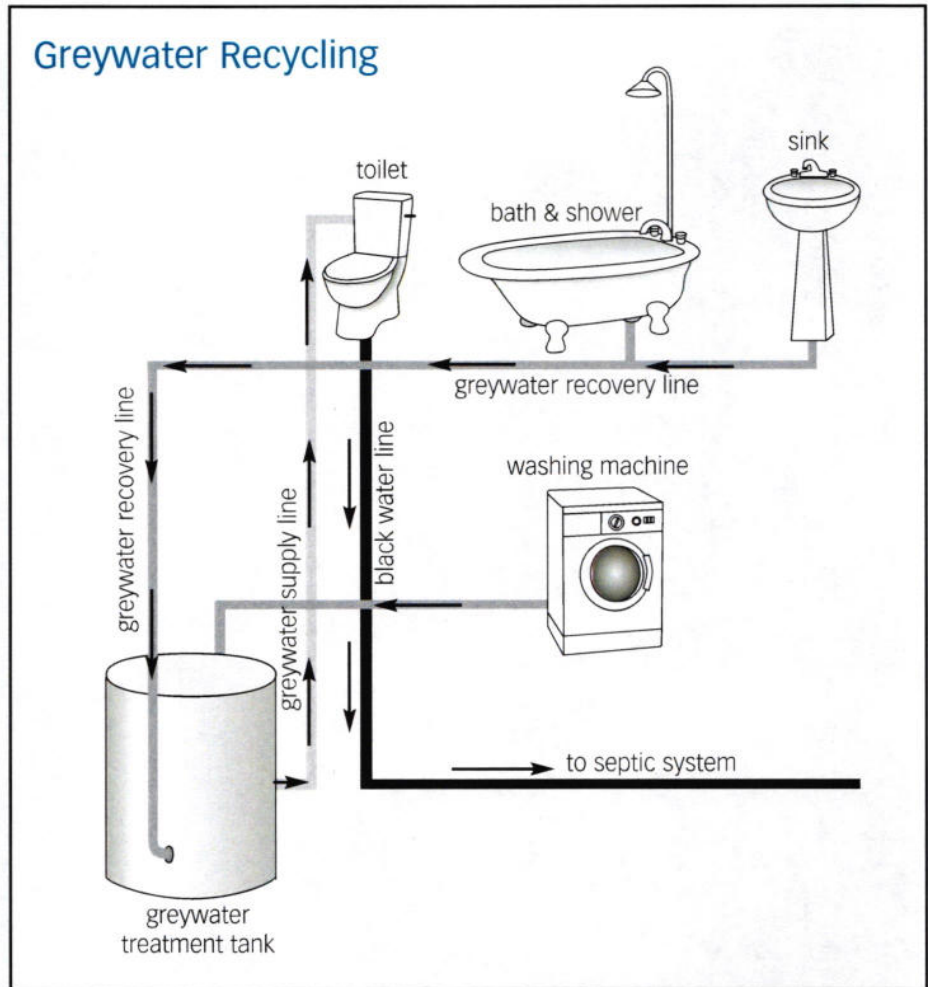
Minimum Separation Distances For Leaching Or Filter Beds



Water Conservation

Water conservation is always a good thing. When it comes to your septic system, the more a household conserves, the less water enters the septic system. Efficient water use can improve the bacterial action of the septic system and reduce the risk of failure.

- Check for leaky taps and leaking toilets. Each small drip adds up.
- Replace your inefficient toilets with a low-flush, high-efficiency or a dual flush toilet (up to a 50 percent reduction in water use).
- Use faucet aerators and high-efficiency showerheads to reduce water use (up to a 30 percent reduction in water use).
- Take short showers instead of baths.
- Consider purchasing a high-efficiency washing machine (up to a 50 percent reduction in water and energy use).
- Wash full loads of laundry or use the appropriate water level or load size selection.
- Consider water-efficient models when replacing your dishwasher (up to a 40 percent reduction in water use).



If you have recurring potable water shortages and are building a new home, you may want to consider recycling your greywater. Greywater recycling collects wastewater from the bath, shower, dishwasher and washing machine. It is treated and reused for toilet flushing. Greywater is not to be used for drinking water or bathing. It requires disinfection to prevent fouling the system.

Your local onsite sewage system professional can help guide you on greywater systems suitable for your new home construction.

Other Information Sources:

- Municipal Building Department
- Local Health Unit
- Local Conservation Authority
- Ontario Ministry of Municipal Affairs and Housing
- Ontario Ministry of Agriculture, Food and Rural Affairs
- Ontario Ministry of the Environment
- Ontario Rural Wastewater Centre
- Canadian Mortgage and Housing Corporation
- Ontario Onsite Wastewater Association
- Ontario Association of Sewage Industry Services