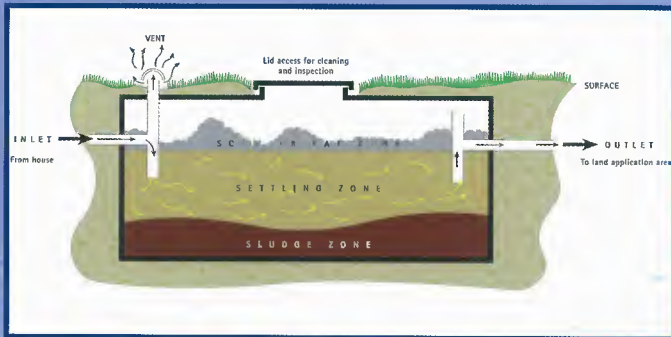


How an on-site wastewater management system works

On-site wastewater management systems are used to manage wastewater from households and holiday homes where no reticulated sewerage system is available. Although there are a great variety of systems currently available, all consist of two essential parts: the treatment unit and the land application area.

Treatment unit

The treatment unit functions to separate the solids from the liquids and to breakdown organic matter within the wastewater. The most common form of treatment unit is the septic tank. Wastewater from the kitchen, toilet(s), bathroom(s) and laundry is directed into the septic tank. The heavier solids then settle at the bottom of the tank, while fats float to the top. The liquids flow out of the tank and into the land application area. This process is shown in the diagram below.



Land application area

The wastewater from the treatment unit is discharged into the soil via trenches, beds, mounds or dripper lines. The area into which the waste-water is discharged is called the land application area. The wastewater still contains harmful bacteria and nutrients at this stage. Biological activity acts to provide essential further treatment as the wastewater passes through the soil.

Septic tank failure

The less solids that enter the septic tank, the less frequently you will have to arrange to have the sludge removed. For a septic tank serving a typical three bedroom household, the sludge should be removed at least every five years.

Check the yellow pages of your local phonebook, under "Septic Tank Services", for local providers

System failure can occur due to the septic tank being full of sludge and scum or the land application area becoming clogged. Signs of failure include:

- The land application area is wet or soggy, or wastewater is ponding on the ground surface
- There is an unpleasant "sewage" smell near the septic tank or land application area
- The drains and toilets run slowly

A failed septic tank or land application area can create a serious health risk or adverse effects on the surrounding environment, including the spread of infectious diseases and the contamination of water within nearby creeks, coastal water or underlying groundwater. Action must be taken to rectify system failure immediately. You will need to engage an experienced person to assist you with this task.

Want to know more?

Contact the Marlborough District Council:
Phone: (03) 520 7400
Website: www.marlborough.govt.nz.
[enviromonitoring](http://www.marlborough.govt.nz/enviromonitoring)



Looking After Your Septic Tank

Helpful Tips



1 Have a healthy tank

The septic tank removes solids present in domestic wastewater, allowing the remaining liquid to pass through into the land application area. There are bacteria present in the wastewater that breakdown this solid material, turning it into a liquid sludge. Household cleaners, strong detergents and other chemicals can kill these "good" bacteria.

To keep the "good" bacteria alive:

Do

- ✓ Check all household cleaners to see if they are suitable for use with septic tanks
- ✓ Use bio-degradable soaps
- ✓ Use low phosphorus detergents
- ✓ Use detergents in the recommended quantities
- ✓ Use biodegradable substitutes

Don't

- ✗ Use bleaches, whiteners, nappy soakers, stain removers or disinfectants
- ✗ Put chemicals, pesticides, oil or paint down the drain

The Council has another brochure on household cleaners and septic tanks. This looks at the effect of cleaning agents on septic tanks and provides biodegradable substitutes for these cleaning agents.

2 Reduce the liquid load into the tank

Most water used in your house or holiday home ends up in the septic tank as wastewater. If less water is used, the wastewater is retained in the tank for longer, providing more time for the solids to settle.

To reduce the liquid load on the tank:

Do

- ✓ Install water reduction fixtures, such as dual flush toilets, low flow shower heads and spray nozzle taps
- ✓ Have showers instead of baths
- ✓ Place a brick or water filled plastic bottle in your toilet cistern
- ✓ Fix leaking taps

Don't

- ✗ Wash your clothes or use the dishwasher until you have a full load
- ✗ Do multiple loads in succession
- ✗ Run the washing machine and dishwasher at the same time
- ✗ Let surface water enter the septic tank

A reduction in water use will also improve the performance of the land application area by reducing the amount of wastewater that needs to be discharged into the soil. This is particularly important if the land application area is prone to being wet.

3 Reduce the solid load into the tank

Solid material in wastewater settles on the bottom of the septic tank, where it forms a liquid sludge, while fats float to the top to form a crust. The more solids that enter the tank, the quicker the sludge and crust build up.

Sludge and scum need to be removed from the septic tank periodically (see the reverse of this brochure). If this does not occur, the wastewater will not be retained in the tank for sufficient time to allow the solids to settle out. The solids will then flow over into the land application area where they can cause blockages. Such blockages impair the performance of the land application area.

Inorganic material (such as plastics) will not be broken down within the septic tank.

To reduce the amount of solids entering the system:

Do

- ✓ Scrape all dishes to remove fats and grease etc prior to washing
- ✓ Shake all sand and dirt from clothes before you wash them

Don't

- ✗ Install or use a waste disposal unit in your kitchen sink
- ✗ Put sanitary pads, tampons, disposable nappies, condoms or coffee grounds into the system