

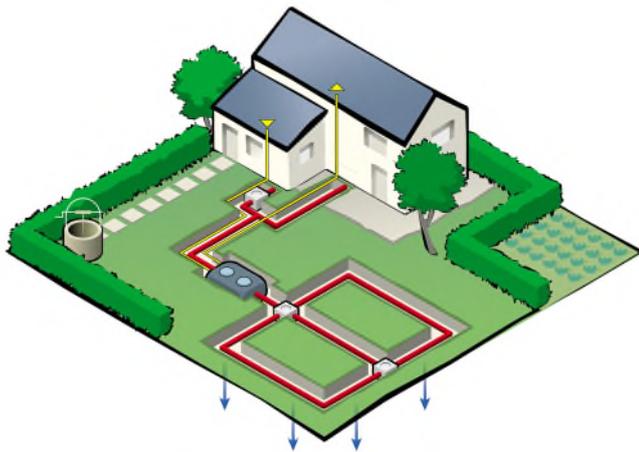


Septic System Fact Sheet

How does the septic system work?

A basic septic system has two main parts, the septic tank (which is a watertight tank that retains any organic matter and solids) and the effluent disposal area known as the land application area. Land application areas can consist of evapotranspiration or absorption trenches, beds or a mound.

Household wastewater flows into the septic tank, breaking down the wastewater consisting of black water (toilet waste) and or a combination of grey water (all other fixtures) using micro-organisms.



These micro-organisms break down the wastewater into a layer that floats, called a scum layer and a layer that sinks to the bottom of the tank called a sludge layer. The liquid that is left in the middle is called supernatant. This liquid is transferred to the land application area and is classed as primary effluent.

Effluent is distributed through the bed or trench by a system of slotted pipes or plastic arches. Capillary action draws effluent up from a lower gravel bed through sand to supply the root zone of vegetation (usually grass) on top of the bed or releases through the gravel and sand to the underlying soil.

All systems must be designed in accordance with *AS/NZS 1547 On-site Domestic Wastewater Management* and the *Queensland Plumbing and Wastewater Code*. The design and installation of land application areas must be carried out by suitably licenced professionals after a site and soil evaluation is conducted by a licenced assessor.

Care needs to be taken during the design and installation of your trenches to ensure, effluent is evenly distributed along and between trenches and effectively reaches the end of the trench. All pipes and arches are laid to manufacturer's recommendations and inspection ports are correctly placed.

Septic System Tips

The land application area need to be maintained and kept in good working order. The trench surface and surrounds need to be mowed regularly to allow maximum evaporation to occur.

Never allow vehicles to be driven across the tanks and trenches and ensure that animal access to the area is restricted.

Do not allow the tank and trenches to be covered with concrete, pavers or soil. Stormwater diversion mounds should be constructed to divert stormwater away from the system.

If a septic tank accumulates too much sludge and scum, the effective volume of the tank is reduced, which reduces the amount of separation that can take place. This means not all the solids, grease and oils will separate and pass out of the septic tank and into the drainage beds/trenches. This can clog the soil surrounding the drainage beds/trenches.

Septic System Maintenance

On-site sewage facilities need regular maintenance to ensure they operate in a safe and effective manner.

Poorly maintained and malfunctioning systems can impact public health, the environment and property value. The steps below will assist in efficient maintenance of on-site sewage facility:

- ensure the system is not overloaded by excessive numbers of people using it;
- avoiding anti-bacterial products and using only septic safe products;
- do not allow foreign objects (eg. disposable nappies, sanitary pads, etc.) to enter the septic system. These objects will block the system;
- clean the outlet filter every three (3) months;
- desludging the septic tank unit every three to five (3-5) years by a licensed liquid waste contractor;
- the land application area must have the grass mowed and plants maintained;
- protect the land application area from vehicles;
- take reasonable steps to keep all plumbing and drainage on the property in good condition; and
- ensure the system does not create a nuisance or pose a health risk to the surrounding area.

Septic System Overload

The separated wastewater in the middle layer of the tank is pushed out into the trenches as more wastewater enters the septic tank from the house.

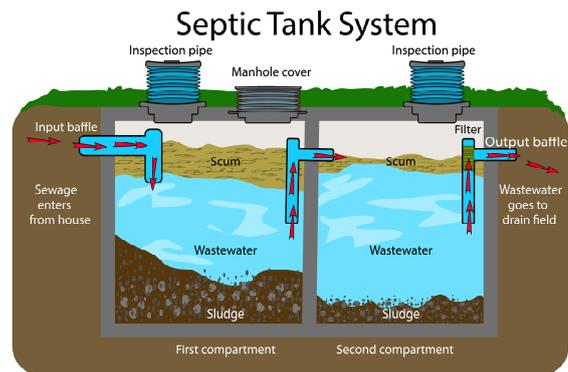
If too much water is flushed into the septic tank in a short period of time, the wastewater flows out of the tank before it has had time to separate.

An absorption trench can become clogged from an overflow of sludge or scum from the septic tank. Therefore, the build-up of sludge on the bottom and scum at the top of a septic tank must be removed (i.e. pumped out) on average every three to five (3-5) years for domestic tanks.

A simple method to determine whether your septic tank needs to be pumped out is to lift the inspection opening on the lid of the septic tank and gauge the depth of sludge in the bottom of the tank using a length of 20mm dowel. If the depth of sludge exceeds

500mm the tank needs to be pumped out by a suitably licensed contractor.

If absorption trench overload occurs (i.e. if effluent is seen to be ponding on the ground surface), endeavour to reduce the volume of effluent passing into the trenches (e.g. from laundry sullage).



Septic Tank

Owners and occupiers of a property where a septic disposal system is installed are responsible for maintaining the system in good working order, so as to safeguard the health of persons occupying the premises.

If the system is not performing or is creating a health hazard, Council will require the system to be repaired or replaced. It is the owners/occupiers responsibility to contact Council if a septic system appears to be malfunctioning.

Where can I get more information?

For further information please contact Council's Customer Service Team on 1300 79 49 29.



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