

Maintenance of septic tank systems

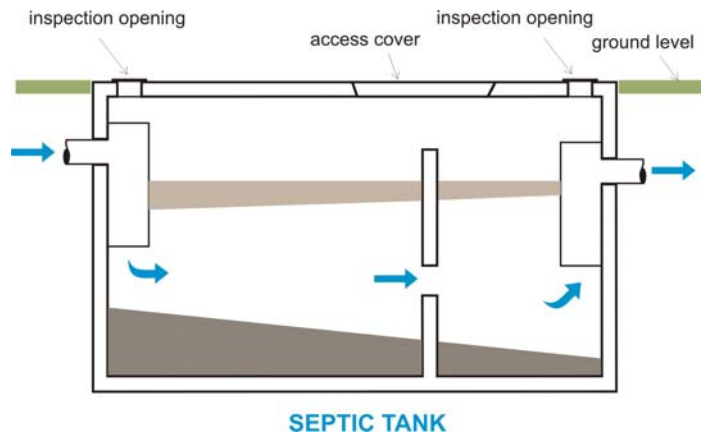
This fact sheet provides basic information about maintaining your septic tank, disposing of the effluent after it has passed through the septic tank and tips to help you to save money, reduce pollution and conserve resources.

What is a septic tank and how does it operate?

Septic tanks have been used in un-sewered areas for many years as the most suitable form of primary treatment of sewage.

The septic tank is an underground watertight tank generally constructed of concrete or plastic which is usually divided into at least two compartments. The tank receives all sewage and separates the solid portion of the waste from the liquid portion. The liquid portion (effluent) passes out of the tank after approximately 24 hours. The tank performs three functions:

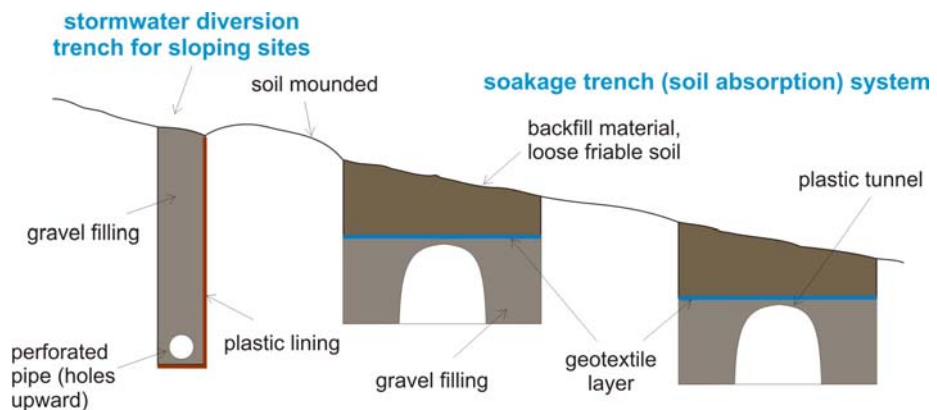
- It acts as a settlement chamber for solid materials
- It allows some bacterial breakdown of waste materials to occur
- It acts as a storage chamber for undigested solid materials which must be removed periodically (usually every 4 years).



Disposing of effluent

There are several methods of disposing of the effluent after it has passed through the septic tank. A common onsite disposal method is subsurface soakage (absorption trenches).

The diagram below shows an example of an onsite disposal system. In this method, the effluent is received from the tank into a suitably sized subsoil trench or system of trenches. The effluent is distributed to the base and sides of the trench over its entire length for absorption and final biological treatment by the soil.



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An effluent disposal system using absorption trenches cannot be installed on all sites. Some sites are unsuitable due to poor absorption of effluent by the soils, the nature of the terrain (too steep, too wet), inadequate property size, ground water or rock too close to the surface as well as any other factors which would interfere with proper functioning of the system.

Alternatives are available including aerobic wastewater treatment systems, aerobic sand filters, composting toilets, reed beds and other systems utilising wastewater treatment technologies.

Connection to a community disposal scheme may also be an alternative where available. These community schemes include publicly or privately managed septic tank effluent disposal schemes (STEDS), pumped sewer and effluent systems and vacuum systems.

Maintaining your septic system

To ensure the most efficient operation of a septic tank the system must be installed in accordance with the 'Waste Control Systems, Standard for the Construction, Installation and Operation of Septic Tank Systems in South Australia' (see our [Onsite Systems](#) webpage). This includes any alterations or changes to an existing system.

The following tips will help you to save money, reduce pollution and conserve resources:

- Remove accumulated sludge from the tank:
 - Generally, septic tanks require periodic cleaning or pumping out of accumulated solids every 4 years. If solids are allowed to build up in the tank to a point where they pass to the effluent treatment stage they can cause problems.
- Household pipes may become filled with sewage and the subsoil soil trench system could soon become clogged with solids. This may cause the effluent to come to the surface, pool and cause unpleasant smells. This can constitute a risk to public health, particularly to children playing in the vicinity.
- Poorly maintained irrigation systems used in aerobic wastewater treatment systems or sand filters can also present similar problems with surface effluent. For more information see fact sheet 'What you should know about your aerobic system' (see our [Onsite Systems](#) webpage).
- Minimise or manage the volume of water entering the system to improve the lifespan and operation of the absorption trench:
 - Regularly check plumbing fixtures for leaking taps or toilets cisterns. Have them repaired.
 - Ensure water from roof downpipes does not enter the system and roof water is diverted away from the effluent disposal area.
 - Install water saving devices such as shower heads that minimise water use and dual flush toilet cisterns
 - If the terrain slopes down to your absorption trench ensure that surface water is diverted around the soakage area by installing a stormwater diversion trench.
 - Spread large washing loads over several days to minimise the impact on your septic tank system. Plan your water usage so that large flows to the system in a short time are avoided, for example, operate the dishwasher

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and washing machine at separate times.

- Ensure the system can be readily accessed for maintenance:
 - If you own a house built prior to March 1995 and your tank is difficult to access for maintenance, you may consider installing an approved access shaft to minimise future maintenance difficulties.
 - Do not construct driveways, buildings or paved areas over the septic and soakage system as this may result in damage to the system and access problems when the tank requires pumping out at a later date.
- Use household detergents and bleaches sensibly:
 - The normal use of household detergents and bleaches is considered satisfactory.
 - If you have an aerobic wastewater treatment system or sand filter, follow the manufacturer instructions for these systems.
 - If in doubt about any household product suitability, consult the product manufacturer.
- Don't use the system for the disposal of chemicals:
 - Don't dispose of medicines or strong chemicals such as pesticides and paints into the septic system. This can cause the septic tank to malfunction and may pollute groundwater.
- Protect the septic tank and disposal area from damage:
 - If the tank and disposal area are exposed to vehicle traffic use a barrier or other means to prevent vehicles driving over the tank and soakage as this could cause

damage and result in costly repairs.

- Prevent mosquito breeding:
 - Ensure that all vents associated with the system are fitted with mosquito proof mesh and access openings are correctly sealed.

System failure

After a number of years of use, some soakage systems may fail and require replacement.

The first signs of system failure may be soggy patches on the surface in the area where the soakage trenches are located. This can be accompanied by strong odours and blocked pipes. This can constitute a health risk and advice should be sought from a registered plumber to confirm the cause.

If the trench requires replacement or the system needs to be altered in any way, the local council Environmental Health Officer should be consulted.

A malfunctioning effluent disposal system can constitute a risk to public health and in some cases result in action being taken by the relevant authority.

Note: Odours may occur on initial use of the system. If this becomes a problem consult your local council or the Department of Health.

Further information

- Contact the Environmental Health Officer at your local council. Go to the [Local Government website](#) to locate the Council responsible for a particular Town or Suburb.
- Contact SA Health's Wastewater Management Unit (details below) or go to our [Onsite Systems](#) webpage.

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