MOYNE SHIRE COUNCIL

FACTSHEET 3: HOW TO MAINTAIN A HEALTHY SEPTIC SYSTEM

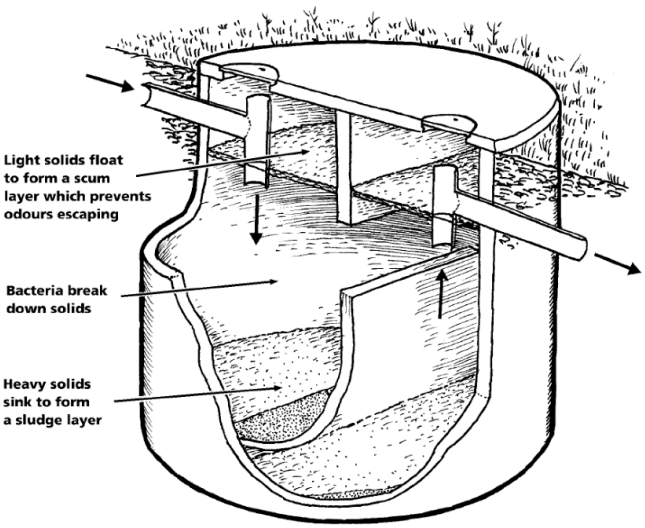
As a septic system owner you are responsible for ensuring that your septic system is safe and working properly. A failing septic system is a health risk for your family and the community and may be causing harm to the environment.

Your septic system is a living ecosystem where bacteria do the work of digesting waste. Fats and solids are retained in the tank. Liquid effluent flows into the trench and is further treated by the soil.

How a septic tank works?

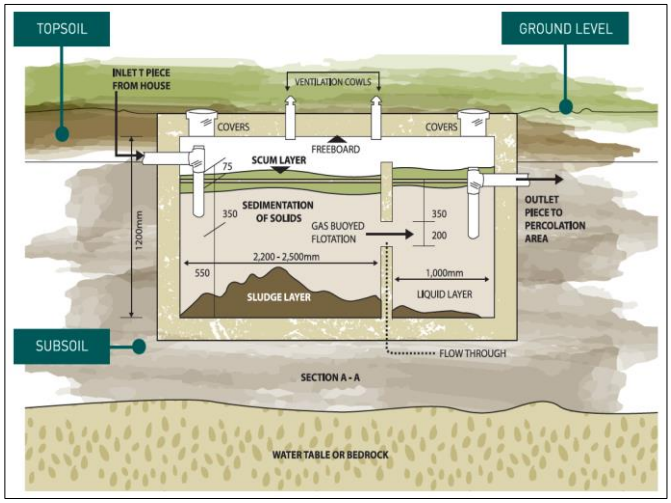
A healthy septic tank is a living ecosystem where the right bugs (bacteria) thrive in the right proportions to digest waste and treat the water (effluent).

Health caution: Septic tanks do not kill pathogenic bacteria, viruses, or parasites. Septic tank effluent must be treated with extreme caution and contact with people, food, clothing and pets must be prevented! Do wash your hands!!



The contents of a healthy septic tank should form 3 layers:

- A layer of fats (called **scum**) which floats to the surface.
- A **clear** layer (called **effluent**).
- A layer of solids (called **sludge** or **bio-solids**) which sinks to the bottom.



The scum helps prevent odours escaping and stops air entering. The treated effluent flows out of the tank through an outlet pipe as new wastewater enters.

In some septic systems this effluent is stored in a holding tank before being pumped out into a collection vehicle ('pump-out' systems).

In most septic systems, the effluent is discharged from the septic tank directly into the soil by pipes and trenches (an effluent disposal field).

In areas where soil is shallow or unsuitable, special absorption fields may be constructed (eg. raised earth mounds, evapotranspiration beds, or modified earth absorption fields).

At this stage the effluent still contains large amounts of dissolved pollutants such as salts and nutrients (eg. compounds of nitrogen and phosphorus). It and also contains disease causing pathogens (eg. viruses, bacteria and worms).

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In the effluent disposal field, natural soil processes kill off more pathogens and break down some of the nutrients that cause pollution.

This is a slow process, and soil bacteria need oxygen to work, so it is important not to overwhelm the soil with too much effluent.

In time the effluent evaporates, is taken up by plants nearby, or leaches into the groundwater zone.

A hazard is created when effluent flows along surface or subsoil pathways into drainage channels, creeks, or rivers.

Simple, easy tips

Many of the following tips help reduce the volume of wastewater going into the septic system, and help avoid the use of chemicals, which interfere with how well the septic system does its job.

In the laundry

• Wash your laundry in stages over several days – this will avoid flooding the system with large amounts of water at one time.

• Front loading washing machines are best for households on septic systems because they use less water and detergent.

• Use low-phosphorus or phosphorus-free liquid detergents. Phosphorus is a major pollutant of waterways and contributes to the growth of algal blooms.

• Repair leaking taps and cisterns.

•Extend the life of your trench and avoid blockages by installing a lint filter on the washing machine – a stocking over the outlet hose will do.

• If you have a blocked drain, use boiling water or a drain eel to clear the line, don't use caustic soda or drain cleaners in a septic tank.

In the kitchen

- Use a sink strainer – this prevents particles of food getting into the septic system. Food scraps can slow down the digestion process and can make solids build up more quickly (so you need more frequent pump-outs/desludging).
- Don't pour oils and fats down the sink – they solidify and may block the system and build up in the tank. Instead, put small amounts in the compost or into a container such as a milk carton to throw out with the rubbish.

In the bathroom

- Install a low-flow showerhead to save water.
- Repair leaking taps.
- Minimise the use of commercial cleaners and bleaches – these can interfere with the bacterial breakdown in the tank. Instead, try using baking soda, vinegar, or a mild soap solution.
- Don't flush anything down the toilet that could clog up the system, such as plastic, grease, tampons, condoms, paper towels, plastics, or cat litter. These items will quickly fill up the tank, decreasing its efficiency and making it necessary to pump out more often.
- Don't leave taps running unnecessarily, for instance when cleaning teeth.
- Install a dual-flush cistern for the toilet.

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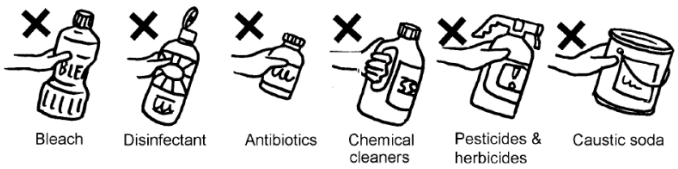
Around the tank and trench area

- Keep water from rainwater tank overflow outlets, roof downpipes, and paved areas away from the absorption/disposal field. If the field is flooded, the soil won't be able to cleanse the wastewater from the septic system.
- Have a plumber fit an effluent filter to the septic tank outlet to keep solids in the tank, and extend the life of your trenches.
- Only plant grass near the absorption field – roots from larger plants such as trees and shrubs are likely to damage the trench – and mow it regularly.
- Don't drive or park on any part of the absorption area. This will compact soil and may crush the pipes and Reln drains.



What not to put into your septic system

- Don't allow stock onto the absorption area. This will compact soil and may crush the pipes or Reln drains.
- Grow nutrient-tolerant plants near disposal fields and irrigation areas.

Ideas for landscaping and irrigation

When choosing what to plant, consider which plants will do best in the local soil type, and which ones can cope best with regular daily doses of nutrient-rich wastewater.

These plants must be able to cope with nutrients such as sodium, chloride, nitrogen and phosphorus. Many Australian natives can't cope with high levels of these nutrients.

How to manage greywater

Studies show that greywater contains significant amounts of pollutants and bacteria which are harmful to health and the environment.

Greywater must be treated and cannot be connected directly to the stormwater system.

If you have a separate greywater system that is accredited and its installation approved, keep your greywater as clean as possible by:

• cleaning the greywater tank at least twice a year

• spreading your washing over a few days, to reduce the load on the disposal area

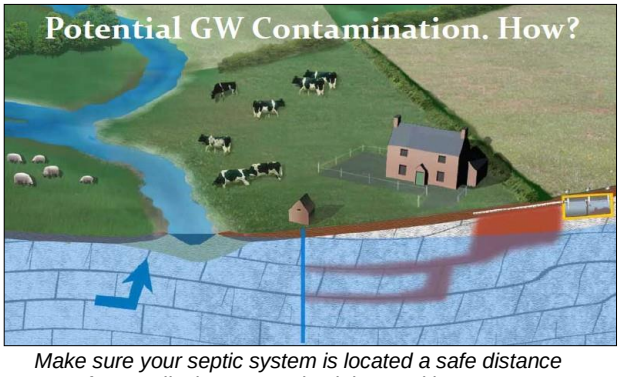
• using strainers in the sink and lint filters in the laundry to prevent food and fibre going into the system

• wiping grease out of pans before washing

Groundwater

If you're drinking untreated groundwater or using it for cooking and washing food you could be in danger of getting ill. A report from the Nagambie/Tongala area in Victoria warns there are all sorts of impurities to be aware of in groundwater.

Despite the fact that the water looked and tasted clean, the report found it contained heavy metals, and leakage from septic systems.



Make sure your septic system is located a safe distance from wells, bores, creeks, lakes and houses.

Information Guide adapted from existing EHPA, Dept. of Local Government NSW &Tweed Shire Council resources. Moyne Shire Council acknowledges these sources.

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