

# A guide to proper care and maintenance of your septic system

Septic systems treat wastewater from household toilets and greywater from the laundry, kitchen and bathroom. This treated water can then be safely dispersed below ground.

There are two types of septic systems – all purpose and split systems.

- **All purpose systems** collect all household wastewater and treat it in one tank, discharging through a distribution box into a land application area (septic trenches).
- **Split systems** use two tanks to treat wastewater. Toilet water is discharged into the septic tank then through a distribution box to the **land application area** (septic trenches). Greywater is discharged to a holding tank before being distributed to the garden. The kitchen sink waste is connected to a grease trap which collects any oils or fats before the wastewater reaches the holding tank.

Bacteria breaks down the solids in the septic tank. The end products are mainly water and sludge (undigested materials), which sinks to the bottom of the tank, and scum that floats to the top of the tank.

A healthy septic system is a living ecosystem – the bacteria needed to break down solids must be in the right proportion to digest the waste.

This guide provides advice on how to ensure your system is healthy and in top working order.

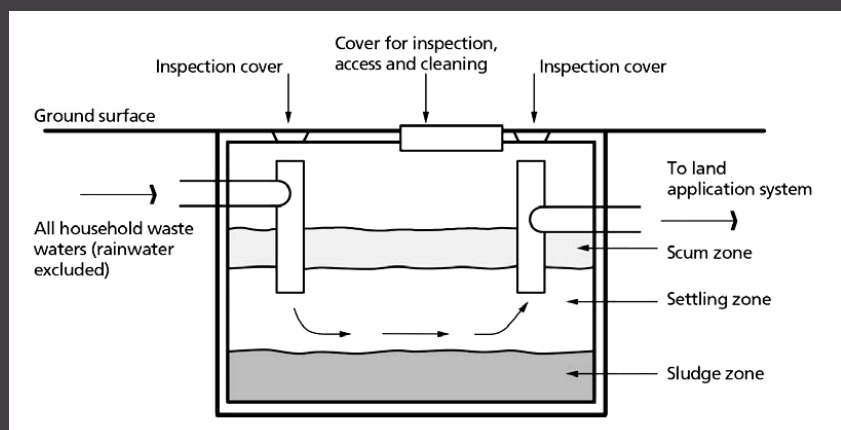


A healthy septic tank

## The contents of a healthy septic tank should form three layers:

1. a layer of fats (**scum**) which floats to the surface
2. a **clear** layer (settling zone called **effluent**)
3. a layer of solids (**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.



A healthy septic tank



## Health caution

Septic tanks do not kill pathogenic bacteria, viruses or parasites. Effluent must be treated with extreme caution and contact with people, food, clothing and pets must be prevented.

Make sure you thoroughly wash your hands and anything else that accidentally comes into contact with effluent.

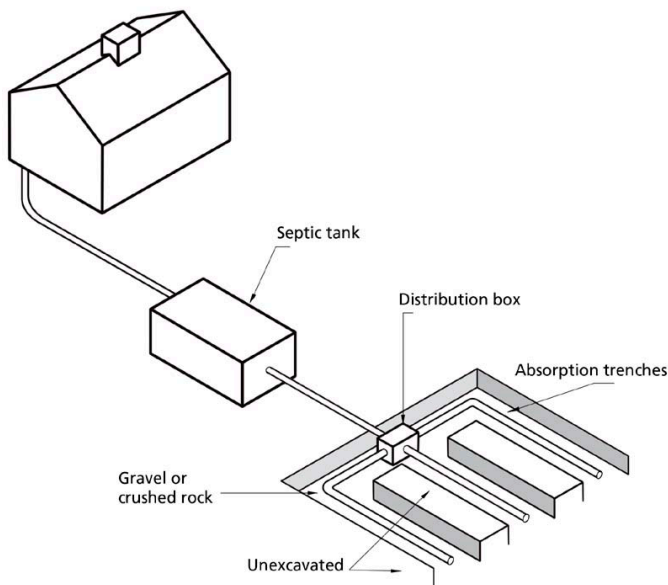
## Septic trenches (Land application areas)

In most septic systems, effluent is discharged from the septic tank directly into the soil via pipes and trenches. Special absorption fields may need to be constructed in areas where the soil is shallow or unsuitable.

At this stage, the effluent still contains large amounts of dissolved pollutants and contains disease-causing pathogens, for example, viruses, bacteria and worms.

Bacteria breaks down more of the nutrients that can cause problems with the soil in the septic trenches. This is a slow process – soil bacteria need oxygen to work, so it is important not to disperse too much effluent at one time.

The effluent evaporates over time, and is taken up by nearby plants or leaches into ground. A hazard is created when effluent flows into drainage channels, creeks or rivers.



Septic trench system diagram.



Access to your septic system must be clear of obstructions.

## Greywater tanks and grease traps

Split systems have a separate tank for greywater and a grease trap for collecting oil and grease from the sink. The trap is designed to remove any grease so it does not clog the greywater (sullage) tank.

The baffles in the grease trap must be checked and replaced when required. Grease traps should be cleaned and checked approximately every three months.

## Inlet and outlet baffles

Commonly, there are two types of baffles – inlet and outlet – which need to be in place to avoid solids overflowing from the septic tank to the septic trenches. Overflow will cause the trenches to fail and is an expensive problem to fix.

## Keeping your septic system healthy

### Top five tips to prevent your system failing:

1. Do not put non-organic materials like plastics down the toilet or sinks.
2. Do not put chemicals like solvents, oils, paints, disinfectants, pesticides, household cleaning products and bleaches in sinks and toilets as they can kill the helpful bacteria in your septic system.
3. Switch to natural cleaners if possible and use smaller amounts. Particularly avoid cleaners that contain high levels of phosphorous.
4. Change to low phosphorous washing powders – this can make a difference to the amount of phosphorus entering waterways from septic systems.
5. Use traditional non-toxic cleaners like vinegar or bicarbonate of soda in the kitchen and bathroom.



Bleach



Disinfectant



Antibiotics



Chemical cleaners



Pesticides and herbicides



Caustic soda

## What to do if your septic system is unhealthy

### If in doubt call:

- a licensed plumber/drainager
- a Council of the City of Gold Coast (Council) registered **site and soil evaluator** – a list of registered site and soil evaluators is on Council's website
- Council's Plumbing and Drainage section.

A phone call to a **site and soil evaluator** and/or licensed plumber/drainager will often either solve the problem or put your mind at rest.



## Checklist to maintain a healthy septic system

Your septic system may need attention if:

- ☑ the air around it smells – usually like rotten eggs
- ☑ the ground is damp or soggy, or pools form downhill
- ☑ there's lots of dark green grass growing on or around the septic trenches
- ☑ the toilet or drains are slow to clear or backing up
- ☑ the septic tank has not been checked for over 12 months
- ☑ the septic tank has not been pumped out in the past three to five years\*
- ☑ If any of these problems occur, you should act quickly so that the damage and the cost of repair are limited.

\* This is the most common cause of problems – get it pumped out.

## Maintaining access to your septic system for inspection and maintenance

Please ensure that you:

- do not cover tanks with earth, concrete, pavers or any other material
- maintain easy access to any inspection openings
- do not allow roof or surface water to enter any part of the system
- maintain grass and plants growing over septic trenches.

## Mandatory five year compliance inspections

You are required by law to have your septic system inspected by a licensed person every five years.

You must provide Council of the City of Gold Coast (Council) with a copy of the inspection report on the form sent out to remind you that your system is due for inspection.



Have your septic system inspected by a licensed person every five years.

## Frequently asked questions

**Q1. Who can carry out the five year compliance inspection?**

- A. Only a suitably qualified person such as a:
- licensed drainer
  - person with an interim drainer's license
  - Council registered service agent
  - Council registered homeowner inspectors

**Q2. Where can I discharge effluent and greywater?**

- A. Your effluent must be contained on your property and must not run into neighbours' properties or onto the nature strip into the kerb and channel. Substantial on-the-spot fines may be issued by Council officers.

**Q3. My lawn is continually soggy and bad smelling – how can I fix this?**

- A. The use of an enzyme formulation may help in reducing the grease build up that can cause septic system failure. If this is not successful, a new trench might need to be installed. Homeowners must provide a site and soil evaluator's report and must seek approval from Council before work can commence.

**Q4. What do I do if effluent is overflowing?**

- A. This may indicate that there is a blockage somewhere in the line or that the disposal area is blocked or is being inundated by excess stormwater. First, check for blockages in the drainage line and then call a licensed plumber/drafter if required.

**Q5. What do I do if there is too much sludge and scum in the septic tank?**

- A. Have the tank pumped out by a licensed liquid waste contractor.

**Q6. What can I do to stop the septic system smelling?**

- A. If the septic system is in good order and the smell is coming from the vent pipe, just add a cup full of soda ash or lime in a slurry form to your septic system on alternate days until the odour ceases.

## For more information

Contact the Council of the City of Gold Coast about your septic system and legislative requirements on:

- P** 1300 GOLDCOAST (1300 465 326)  
**E** [mail@goldcoast.qld.gov.au](mailto:mail@goldcoast.qld.gov.au)  
**W** [cityofgoldcoast.com.au](http://cityofgoldcoast.com.au)