

General Wastewater System FAQs

1. What is wastewater?

Wastewater is used water that is generated from domestic or commercial activities. Residential wastewater comes from toilets, baths, showers, sinks, washing machines and dishwashers.

2. What is an Onsite Wastewater System?

An onsite wastewater system is infrastructure that manages wastewater on a property, when there is no external sewerage connection (i.e. SA Water).

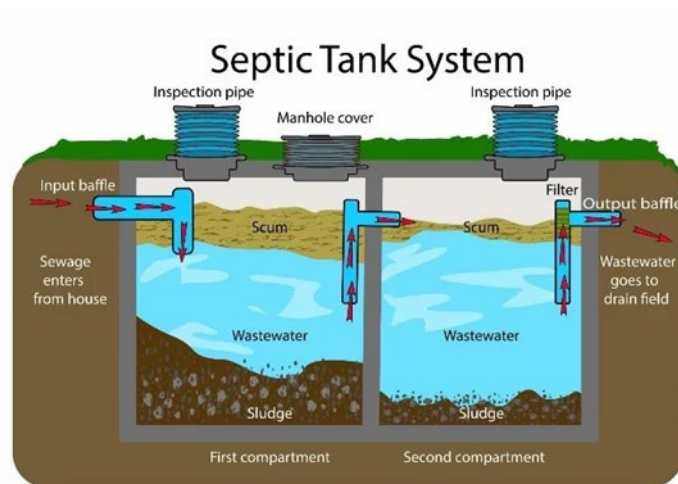
There are various types of onsite wastewater systems, and the most common include:

- A septic tank and soakage system.
- An aerobic wastewater treatment system and irrigation area.
- A holding tank.

What is a Septic Tank System?

A septic tank is a component of a wastewater system that collects liquid wastewater. This tank assists to separate solids from this liquid and allows for primary anaerobic treatment of effluent to occur. Effluent will then flow out of the septic tank into a land disposal area (such as a trench) to undergo further treatment. This treatment of effluent does not adequately kill pathogenic bacteria, viruses and parasites to allow the effluent to be disposed of on the surface (i.e. irrigation).

A septic tank is required to be desludged by a licenced EPA contractor to remove the build-up of sludge and scum (as seen in the below image). This is typically required to occur every 4 years, but this can vary depending on the size and daily flow into the septic tank.

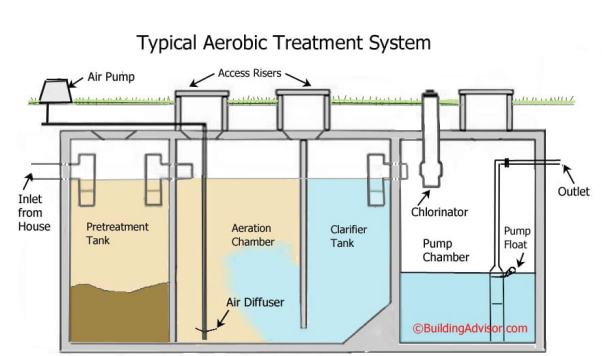


[Image Source](#)

3. What is an Aerobic Wastewater Treatment System?

An aerobic wastewater treatment system is an alternative to the septic tank. Liquid wastewater will enter this system and undergo further treatment through aeration and clarification. This will treat effluent to a better quality than a septic tank, but will not kill 100% of pathogenic bacteria, viruses and parasites. Following secondary treatment effluent can either be disposed of to a subsurface bed or be disinfected and go to a designated irrigation area.

An aerobic system is required to be regularly serviced by a licenced technician. This frequency is noted in product approvals and will typically be required every quarter. An aerobic system is also required to be desludged.



[Image source](#)

4. What is a land application area?

A land application area is where the treated wastewater goes once leaving a septic tank or aerobic wastewater treatment tank. A land application area can be:

- A subsurface soakage trench or bed, or
- An irrigation area.



5. How much does it cost to desludge a tank?

This figure ranges between \$200-\$300 per trip and will vary depending on the company and the distance to the nearest disposal facility.

6. How much does it cost per year to service an Aerobic Wastewater Treatment System?

This figure can depend on the servicing frequency required, but it will typically range between \$400-\$500 per year.

7. What are my current obligations with an Onsite Wastewater System?

A person must ensure they regularly maintain their onsite wastewater system in accordance with manufacturing guidelines and the relevant legislation. There is also a responsibility to ensure that your system is not causing a risk to public health.

8. What is the expected lifespan of a Septic Tank System?

The lifespan of a Septic Tank System can range between 15 to 30 years and is dependent on factors such as (but not limited to) usage, soil and groundwater conditions, surface water diversion, construction materials and most importantly regular maintenance.

9. How much does it cost to upgrade an onsite wastewater system?

A typical cost for replacement of a residential onsite wastewater system is approximately \$20K-\$30K. This figure will vary depending on the type of system and site-specific conditions (i.e. soil, land area).

10. What is the process for installation of an Onsite Wastewater System?

- An onsite wastewater system must be designed by a qualified wastewater engineer. An engineer will need to be engaged and they will assess the site and soil to design an appropriate system for the land. An engineer will develop a report and design plans for a wastewater system.
- An application will then need to be lodged with the Council that includes the wastewater engineers report. This application will be assessed to ensure compliance with the legislation and then approved by an authorised officer usually within Council.
- Once the system has been approved a qualified plumber will need to install the system in accordance with the approved plans.

11. What are the health risks of exposure to wastewater?

Wastewater contains microbiological and chemical hazards that can cause harm to people and the environment if not properly managed. Direct contact with wastewater can cause the following illnesses:

- Campylobacteriosis.
- Cryptosporidiosis.
- Escherichia coli.
- Encephalitis.
- Gastroenteritis.
- Giardiasis.
- Hepatitis A.
- Leptospirosis.

Glossary:

Aerobic: Something that does involve oxygen.

Anaerobic: Something that does not involve oxygen. The breakdown of wastewater in a septic tank occurs by anerobic bacteria (they do not need oxygen to survive).

Effluent: The liquid discharged from a septic tank or aerobic wastewater system. The effluent will then go to a land application area.

Pathogenic: A microorganism that has the potential to make someone sick (i.e. is infectious and can cause disease).