

In unsewered areas, the proper treatment and utilisation of household wastewater on-site is critical in preserving the health of the public and the local environment. AWTS's have been developed as a way of achieving this.

What is an AWTS?

An AWTS is a purpose-built system used for treatment of sewage and liquid wastes from a single household or multiple dwellings.

It consists of a series of treatment chambers combined with a land irrigation system. An AWTS provides people living in unsewered areas with a system that adds additional treatment to their wastewater to that normally provided by a septic tank.

How does an AWTS work?

Wastewater from a household is treated, in an external tank, in stages in several separate chambers. The first chamber is similar to a conventional septic tank. The wastewater enters the chamber where the solids settle to the bottom and are retained in the tank forming a sludge layer. Scum collects at the top, and the partially clarified wastewater flows into a second chamber. Here the air is mixed with wastewater to assist bacteria in breaking down the waste components. A third chamber allows additional clarification through the settling of solids, which are returned for further treatment to either the septic chamber or to the aeration chamber. The clarified effluent is disinfected in another chamber (usually by chlorination) before the final effluent is led to the irrigation area.

Bacteria in the first chamber break down the solid matter in the sludge and scum layers. Material that cannot be fully broken down gradually builds up in the chamber and must be pumped out periodically.

At present, AWTS's need to be serviced quarterly by an approved contractor at a cost to the owner. Wollongong City Council maintains a register of the servicing of each system within the city.

Maintaining your AWTS

The effectiveness of the system will, in part, depend on how it is used and maintained. The following is a guide on good maintenance procedures that you should follow:

DO

- √ Have your AWTS inspected and serviced four times/year by an approved contractor.
- √ Have your system service include assessment of sludge and scum levels in all tanks, and performance of irrigation areas.
- √ Have your tanks desludged at least every three years.
- √ Have your disinfection chamber inspected and tested quarterly to ensure correct disinfection levels.
- √ Have your grease trap (if installed) cleaned out at least every two months.
- √ Keep a record of pumping, inspections and other maintenance.
- √ Learn the location and layout of your AWTS and land application area.
- √ Use biodegradable liquid detergents such as concentrates with low sodium and phosphorus levels.
- √ Conserve water.
- √ Avoid "shock loads" by ensuring water use is spread evenly throughout the day and week.

DON'T

- X Put bleaches, disinfectants, whiteners, chemicals, drugs, nappy soakers and spot removers in large quantities into your AWTS.
- X Allow any materials such as nappies, sanitary napkins, condoms and other hygiene products to enter the system.
- X Switch off power to the AWTS, even if you are going on holidays.
- X Use more than the recommended amount of detergents.
- X Put fats and oils down the drain and keep food waste out of your system.

Warning Signs

You can look out for a few warning signs that signal to you that there are troubles with your AWTS. Look out for the following warning signs:

- Water that drains too slowly from household fittings.
- Drain pipes that gurgle or make noises when air bubbles are forced back through the system.
- Sewage smells.
- Wastewater pooling over the land application area.
- Black coloured effluent in the aerated tank.
- Excess noise from the blower or pumping equipment.
- Poor vegetation growth in the irrigated area.

Poorly maintained AWT's are a serious source of water pollution and may present health risks, cause odours and attract vermin and insects. By looking after your treatment system you can do your part in helping to protect the environment and the health of you and your family.

Disclaimers

This Fact Sheet was believed to be correct at the date of its publication.

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