

ON-SITE SEWAGE MANAGEMENT

Aerated wastewater treatment system

If you live in an unsewered area, you need to choose an appropriate method for the treatment and disposal of household wastewater to protect public health and preserve the environment. An aerated wastewater treatment system (AWTS) is a high-tech alternative that has been developed for on-site sewage management on constricted sites.

What is an AWTS?

An AWTS is essentially a small-scale sewage treatment . plant servicing a single household. It is a series of treatment and disinfection chambers that transform household wastewater into non-potable water, which can then be used for subsoil and general irrigation of the household's lawn and gardens.

CROSS SECTION OF AWTS SCUM AIR INLET FROM TO PUMP PRIMARY SETTLING CHAMBER HOUSE AND LAND CHAMBER APPLICATION CHAMBER AREA SLUDGE SLUDGE RETURN DISINFECTION CHAMBER

How does an AWTS work?

- An AWTS contains a series of treatment stages across several chambers.
- Wastewater enters the first chamber and solids settle to the bottom to form a sludge layer.
- A scum layer, containing fats and greases, collects at the top of the chamber and the clarified wastewater flows from between the two layers to the second chamber.
- In the second chamber, this clarified wastewater is mixed with air to further remove nutrients.

- A third chamber also allows further clarification of the wastewater through the settling of any remaining solids.
- The treated effluent is finally disinfected in a chlorination or UV chamber and is then applied to land.



How to maintain an AWTS

DO...

- Ensure the AWTS is approved to operate by Lismore City Council.
- Have the system maintained and serviced every three months by a suitably accredited plumbing contractor, at the cost of the owner.
- Ensure they assess sludge and scum levels in all tanks, as well as performance of irrigation systems and disinfection chamber.
- Have tanks de-sludged or pumped out, at least every three years, by a suitably accredited contractor (at the cost of the owner).
- Fit system with an alarm to indicate mechanical and electrical equipment malfunctions.
- Use biodegradable liquid detergents with low sodium and phosphorus levels.
- Maintain the irrigation area, ensuring it is a suitable size and allows for effective disposal of treated effluent on the household's land. (It must not run to or be sprayed onto neighbouring land.)

DON'T ...

- Put large quantities of bleaches, disinfectants, whiteners or nappy soakers into your AWTS.
- Allow any foreign material such as nappies, condoms and sanitary/hygiene products to enter your AWTS.
- Put fats and oils down the drains.
- Ever switch off power to the AWTS (can increase cost but is essential).

Land application area irrigation

Land application areas should be sized in accordance with Lismore City Council's On-site Sewage and Wastewater Management Strategy.



For more information contact Lismore City Council. Phone **1300 87 83 87** or visit our website **www.lismore.nsw.gov.au**