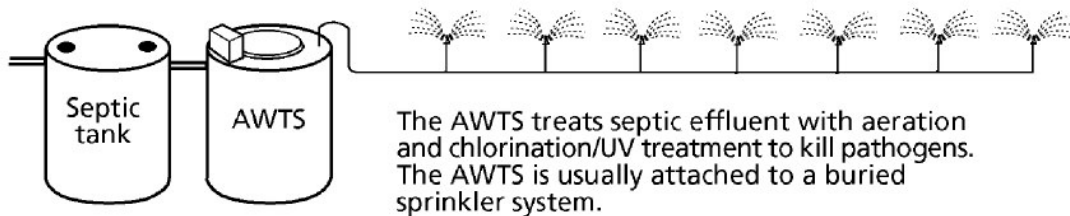


Aerated Wastewater Treatment Systems or AWTS

The effluent from an aerated septic tank is usually treated and disinfected to a standard suitable for irrigated onto land.



The AWTS system consists of two tanks (sometimes within a single larger tank). The first is a basic septic tank where solids settle and anaerobic digestion occurs. In the second, oxygen is bubbled through the effluent to encourage aerobic bacteria to digest the waste. Finally, the effluent is disinfected using chlorine or ultra-violet light before being pumped to an irrigation area.

Fixed line drip irrigation systems are preferred, although in rural areas some councils also permit the use of low throw spray irrigation on larger properties.

The extra treatment provided by an aerated septic tank reduces pathogen levels, (and can sometimes reduce nutrients) as long as the system is kept well maintained and the disinfection unit is functioning properly. People using aerated septic systems are required to enter into a regular maintenance contract for quarterly servicing, which may be supervised by the council.

New accreditation requirements have been introduced for aerated septic systems in NSW. All new designs must be tested for six months before being released for sale, their operation and maintenance is supervised by the council and manufacturers must continue to audit system performance in the field.

Aerated septic systems may also be used to treat greywater to a standard suitable for garden watering of non-food plants.

Package treatment plants

An AWTS is an example of a small package treatment plant that is in common use in New South Wales. There are a number of other well designed package treatment plants available for sewage treatment in specialised applications.

Package treatment plants are commercially distributed sewage management systems that combine appropriate wastewater technologies in an integrated package. They have breakdown alarms and are sometimes equipped with electronic control systems allowing for remote control of treatment processes.