

# sewage management



AWTS



*In unsewered areas, choosing an appropriate method for the treatment and reuse of household wastewater is critical in preserving the health of the public and the environment. **Aerated Wastewater Treatment Systems (AWTS)** are one alternative that has been developed as a way of achieving sustainable sewage management on residential properties.*



## ◇ what is an AWTS?

An Aerated Wastewater Treatment System (AWTS) is essentially a small scale sewage treatment plant that services a single household. Through a series of treatment and disinfectant processes, household wastewater is transformed into non-potable water that can be distributed on lawns and gardens.

## ◇ how does an AWTS work?

An AWTS consists of one or two wastewater tanks, which contain a series of chambers. Wastewater enters the first chamber and solids settle to the bottom to form a sludge layer. The 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 aerated and broken down further by biological activity. A third chamber also allows further

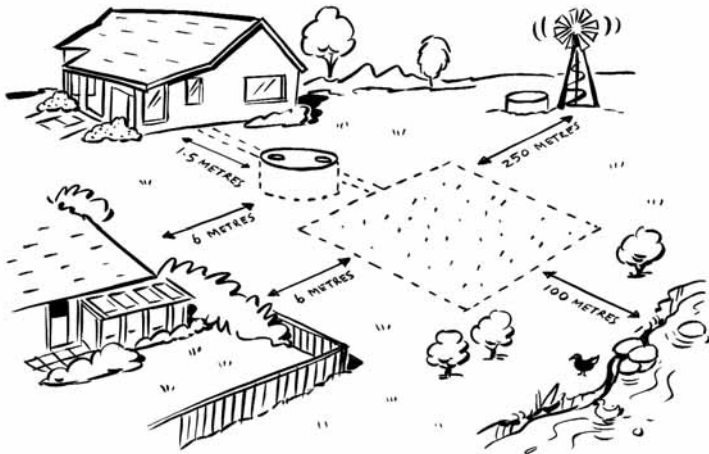
clarification of the wastewater through the settling of any remaining solids. The treated effluent is finally disinfected in a chlorination or UV chamber and irrigated through fixed hoses across lawns or gardens.

## ◇ how to maintain your AWTS

The effective operation of your AWTS is dependant on regular maintenance. At present, all AWTS are required to be maintained and serviced by a qualified service technician on a quarterly basis at the cost of the owner. It is essential that the irrigation area of your AWTS is well maintained. The area must be correctly sized to allow effective disposal of treated effluent on your property. Treated effluent must not run to, or be sprayed onto neighbouring properties.

# sewage management

## AWTS



### ◇ how to maintain your AWTS cont...

To assist in this, the Department of Local Government determined that surface spray irrigation areas should be located at least:

- 100m from permanent surface waters;
- 250m from any domestic ground water well;
- 40m from any other waters;
- 6m if area is up-gradient or 3m if area is down-gradient from driveways and property boundaries;
- 15m from a dwelling;
- 3m from pathways; and
- 6m from a swimming pool.

Additionally, Hornsby Shire Council requires a minimum of 1 sprinkler per 20m<sup>2</sup> of land approved for irrigation, or subsurface irrigation lines installed at 1.5m spacings.

### ◇ approval to operate

The NSW Government introduced the SepticSafe Program in 1998 to help property owners and Councils keep onsite sewage management systems working efficiently and safely. All owners of sewage management systems are now required to apply to Council for an Approval to Operate. This Approval is a means by which the Council can monitor and manage the cumulative impact of sewage pollution in local areas. The Approval also ensures that property owners are aware of their responsibility to efficiently operate and regularly maintain their system.

### ◇ owners responsibility

The owner of the AWTS is responsible for:

- Ensuring that the tank/s do not leak;
- Promptly fixing the system when problems are detected;
- Ensuring that the system is inspected quarterly by a qualified service technician;
- Desludging the system when solid levels become too high;
- Lodging an application for an Approval to operate every three years; and
- Complying with Council's request for inspections or maintenance.

### ◇ further information

Department of Local Government 'SepticSafe Program'  
- [www.dlg.nsw.gov.au/dlg/dlghome/dlg\\_home.asp](http://www.dlg.nsw.gov.au/dlg/dlghome/dlg_home.asp)

Local Government (Approvals) Regulation 1999  
- [www.austlii.edu.au](http://www.austlii.edu.au)

Approval to Operate Application Form  
- [www.hornsby.nsw.gov.au](http://www.hornsby.nsw.gov.au)



#### THE BUSHLAND SHIRE

296 Pacific Highway  
Hornsby NSW 2077

Telephone 9847 6666  
8.30am - 5.00pm

[www.hornsby.nsw.gov.au](http://www.hornsby.nsw.gov.au)

#### FURTHER INFORMATION

General information on Aerated Wastewater Treatment Systems can be obtained from the Environmental Health & Protection Team on **9847 6829**.