

## Murrumbidgee Council

### Recommended Specifications for On-Site Sewage Management System Installation in Murrumbidgee Council

#### Two Main Types of System

There are two main types of system that are used outside sewerage areas to dispose of sewage waste. They are:

1. Septic Tank or;
2. Aerated Waste Treatment System (AWTS)

The septic tank is the more traditional system. It generally involves less maintenance but has slightly less flexibility in the irrigation of different areas. The final product or “effluent” contains disease carrying organisms and for this reason, disposal areas need to be located underground or well away from living areas.

The AWTS is a more modern development that provides a safer final product (it is chlorinated) and can be irrigated above ground, closer to living areas. It is however more costly to maintain since it must be serviced by a qualified person every 3 months.

Depending on which system you choose to use, there will be different installation requirements.

**Use this handy checklist to make sure your system meets Council’s requirements.**

#### General Requirements for Both Systems

- Internal drainage lines must be laid out such that a minimum of joints occur under the floor.
- Drainage lines must have a fall of at least 1 in 60 (for 100mm diameter pipes)
- Surcharge gullies, wherever possible, should be located as close as possible to the end of the line.
- Inspection openings should at least be provided on toilet lines and every 30 metres of unbroken pipe. It is also recommended that inspection openings be provided at each junction with main and branch lines.

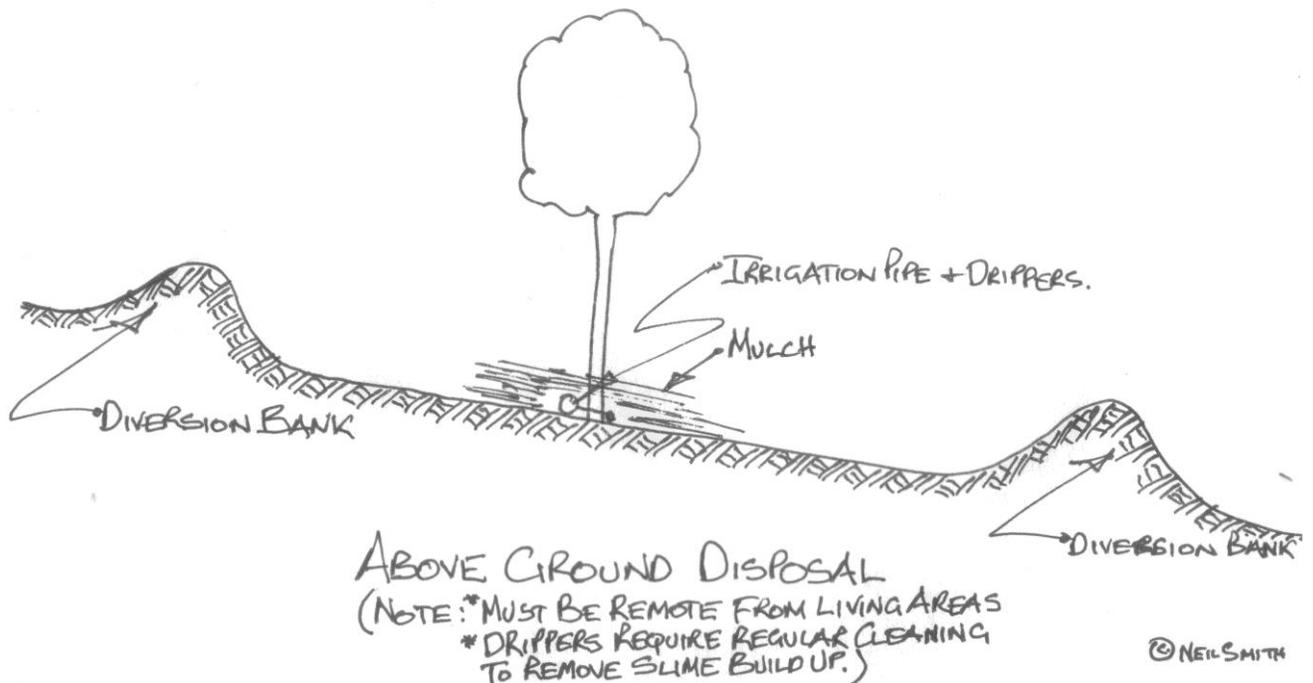
#### Septic Tank Installation Recommendations

- The tank is located at least 1.5 metres away from the residence.
- The tank has a “T” inlet & outlet, a baffle and minimum 3,300 litre capacity.
- The tank outlet discharges to a sump (or collection well) & pump with float switch.
- The pump discharges to a distribution system with stop cocks to at least 2 separately available disposal areas.

- Above ground disposal areas are located at least 100 metres away from any residence or living area.
- The disposal area/s are located at least 100 metres away from any permanent water-course, dam or bore.

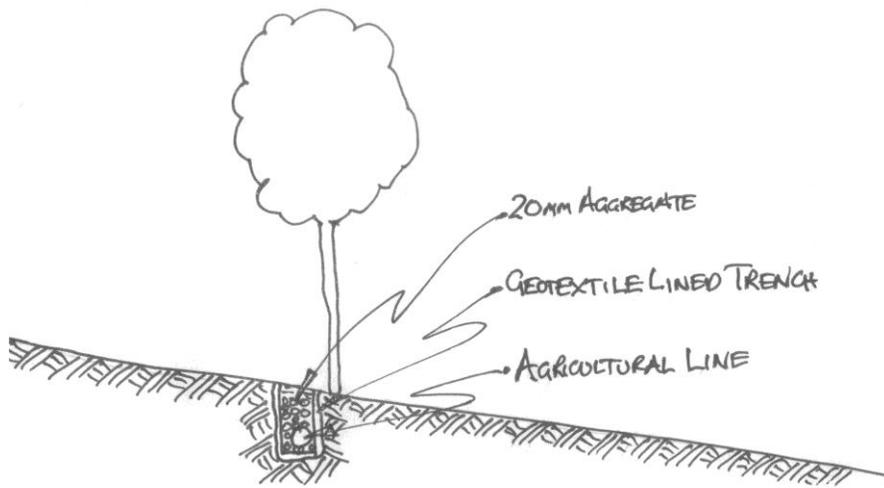
#### *Above Ground Disposal*

- Disposal area/s incorporate raised banks to prevent excess effluent run-off leaving them.
- Diversion banks are installed uphill from disposal areas to prevent rainfall run-off entering them.
- Irrigation lines incorporate drippers to specific approved plants to minimise the amount of effluent pooling at ground level. This is to minimise insect contact with the effluent. It should be noted that drippers require regular cleaning to prevent slime build up and subsequent blockages.
- All irrigated plants are provided with mulch. This is to maximize water retention and also to minimise flying insect contact with the effluent.
- All irrigated plants are chosen from Council's list of recommended species.

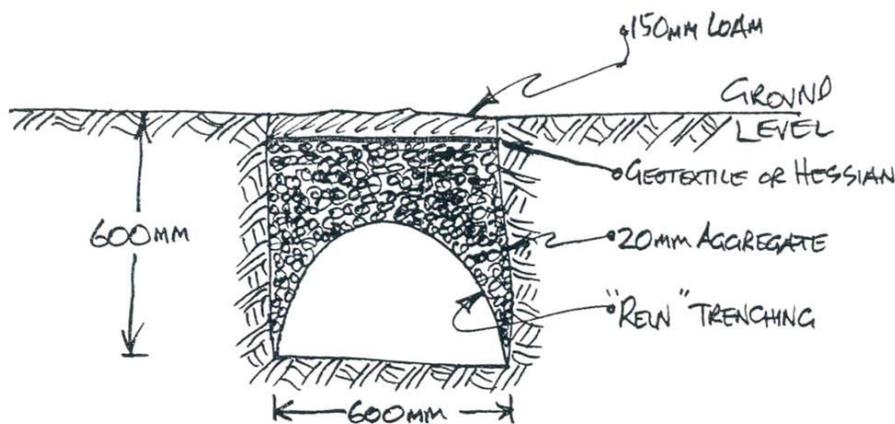


*Below Ground Disposal*

- ❑ Diversion banks are installed uphill from disposal areas to prevent rainfall run-off entering them.
- ❑ Transpiration beds are a minimum of 100 square metres in area X 0.4 metres deep. They are constructed using 20mm aggregate covered with hessian or geotextile and finished with at least 150mm of sand and loam mixed in 50/50 proportion.
- ❑ Absorption trenches are a minimum 40 metres in length by 0.6 metres deep. They are constructed using “Reln” trenching or other approved void creation material, surrounded by 20mm aggregate, covered with hessian or geotextile and finished with at least 150mm of loam.
- ❑ All plants over the disposal area are chosen from Council’s list of recommended species.



BELOW GROUND (AG. LINE) DISPOSAL © NEIL SMITH



SECTIONAL VIEW - ABSORPTION TRENCH

### **AWTS Installation Recommendations**

- The AWTS is located at least 1.5 metres away from any residence.
- The pump discharges to a distribution system with stop cocks to at least 2 separately available disposal areas.
- The disposal area/s are located at least 10 metres away from any residence or living area.
- The disposal area/s are located at least 10 metres away from any permanent water-course, dam or bore.
- Within each the disposal area there are at least two warning signs that comply with AS 1319 and have 1) a green background 2) 20mm high capital lettering in black or white, and 3) the words “RECLAIMED EFFLUENT – NOT FOR DRINKING – AVOID CONTACT”.
- A contract is established for the quarterly maintenance of the AWTS.