

DESIGN OPTIONS FOR THE INSTALLATION OF SEPTIC TANK SYSTEMS*

*To be read in conjunction with the current version of the Septic Tank Code of Practice

PRIMARY TREATMENT

SEPTIC TANKS

All Septic Tanks for all waste installations shall be a minimum of 3000 litres, with a full size baffle and shall conform to Australian standards.

SECONDARY TREATMENT

TREATMENT PLANTS

Approved all waste sewerage treatment plants may be installed in accordance with the Environment Protection Authority (EPA) Certificate of approval.

SAND FILTERS

All waste sand filters may be installed in accordance with the current edition of the Septic Tank Code of Practice. For most dwellings, they shall have a surface area of 24 metres squared (8m X 3m). The sand medium in the filter shall comprise of clean *silica* or a *granatic sand*. Council is required to analyse the sand to ensure the sand has an effective size of between 0.25cm – 0.60cm, with a uniformity coefficient of less than 4. A sample of the sand will be taken from the installation site. The sand must not be placed into the excavation until approval for use is granted by Council's authorised officer.

TERTIARY TREATMENT (EFFLUENT DISPOSAL AREA)

SUB SOIL ABSORPTION OR EVAPOTRANSPIRATION TRENCHES

The total average length of the trenches required is required to be 240 metres. The total average length of the trenches may be *halved*, if the effluent is treated via a sand filter or approved sewage treatment plant. Each trench is to be a maximum of 30 metres long, 450mm wide and 380mm deep.

SUB SURFACE IRRIGATION

The total area of sub surface irrigation must be a minimum of 600 metres squared. All irrigation pipe work and fittings must comply with AS2698, and AS1477, AS4130 and AS4129 *Plastics Pipes and Fittings for Irrigation and Rural Applications*. The irrigation system must be permanently fixed with distribution pipes buried below the natural ground surface.

SURFACE IRRIGATION (DRIP FEED IRRIGATION)

The total area for surface irrigation must be a minimum of 600 metres squared. All irrigation pipe work and fittings must comply with Australian Standards 2698, and AS1477 *Plastics Pipes and Fittings for Irrigation and Rural Applications*. The irrigation system must be permanently fixed with pipe laid in trenches below the ground surface. 150mm of mulch must be laid over the irrigation area with the drip feed pipes protruding above mulch level.

MINIMUM SET BACK DISTANCES

The effluent disposal area must be at least:

- (i) 2 metres on the low side of any building or the high side of any boundary allotment.
- (ii) 2 metres from any water supply pipe, gas pipe, stormwater drain or other similar service line which is not part of the system or from tree canopies.
- (iii) 4 metres on the high side of any building or the low side of the boundary of any allotment.
- (iv) 6 metres from the high side of a swimming pool.
- (v) 15 metres from any cutting or escarpment at which the effluent is likely to emerge.
- (vi) 15 metres from any underground water tank, bore or well which is less than 20 metres deep and used for domestic supply.
- (vii) 60 metres to any surface waters
- (viii) 100m to any surface waters within special water supply catchment areas declared under the Catchment and Land Protection Act 1994.
- (ix) 200 metres upslope from a domestic water supply channel
- (x) 300 metres down slope from a domestic water supply reservoir.

Surface and ground water shall be prevented from effluent absorption areas by use of cut off drains where required.

COMMON SYSTEM OPTIONS:

All waste septic tank to:

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| (a) Sand filter to agricultural line trenches | (e) Treatment plant to agricultural line trenches |
| (b) Sand filter to Sub surface irrigation | (f) Treatment plant to Sub surface irrigation |
| (c) Sand filter to Surface irrigation | (g) Treatment plant to Surface irrigation |