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Invert Level 650mm to 850mm (adjustable with Risers)

Tank Capacities (L):

Primary Chamber : 2400 Secondary/Aeration Chamber:875 Clarifying Chamber : 650 Discharge Chamber : 875 Discharge Volume: 170

Effluent Quality Performance Criteria:

Parameters & Specification Total Suspended Solids: <30mg/L Biological Oxygen Demand: <20mg/L pH: 6 - 8

Structural integrity: 15 years (tanks) Serviceability min 15 years

System complies with AS/NZS 1547:2012 & 1546.3

Treatment Performance:

Maximum: 1800 Litres per day Minimum: 180 Litres per day

All measurements are in millimetres unless specified otherwise



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Invert Level ...600mm to 1150mm (adjustable with Risers)

TANK CAPACITIES:

Primary Chamber Capacity: 1855 Secondary Chamber Capacity: 1187 Clarifying Chamber Capacity: 1060 Discharge Chamber Capacity: 353 Discharge Volume: 170

EFFLUENT QUALITY PERFORMANCE CRITERIA:

Parameters & Specification Total Suspended Solids: <30mg/L Biological Oxygen Demand: <20mg/L pH: 6 - 8

Structural integrity: 15 years (tanks) Serviceability min 15 years

System complies with AS/NZS 1547:2012 & 1546.3

TREATMENT PERFORMANCE:

Maximum: 1800 Litres per day Minimum: 180 Litres per day

All measurements are in millimetres unless specified otherwise

Land Application System	Site Feature	Setback
All Land Application Systems	Public Water Supply Production Bores located in Public Drinking Water Source Areas ⁴	100m
	Potable Private Bore	30m
	Non-potable ⁵ Private Bore	20m
	Watercourses used for agriculture, aquaculture and stock watering	50m
Soil Absorption System – Trenches, Beds and mounds	Property boundary	3m up-slope
		1.8m down-slope
	Building	6m up-slope
		3m down-slope
	Driveways, paved surfaces	1.2m
	Sub-soil/open drains	6m
	Swimming pool	6 up-slope
		3 down-slope
Irrigation System – Dripper	Property boundary	0.5m
	Building	0.5m up-slope
		1.8m down-slope
	Driveways, paved surfaces	0.5m
	Sub-soil/open drains	3.0m
	Swimming pool	1.0m
Irrigation System – Spray	Property boundary	1.8m
	Building	3m up-slope
		1.8m down-slope

Table 11: Horizontal Setback Distances for Single Residential Dwellings.

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	Driveways, paved surfaces	1.8m
	Sub-soil/open drains	6m
	Swimming pool	6m up-slope
		3m down-slope

NOTES:

1. Establishing a land application area upslope of a building may have implications for the structural integrity of the building. This issue is beyond this Code's scope and should be examined by a building professional on a site-by-site basis.

2. Separation distances from boundaries may need to be increased

3. For description of Public Drinking Water Supply Areas (PDWSA) contact the Department of Water, <u>www.water.wa.gov.au</u>. For details on minimum recommended setback buffer distances in PDWSAs please refer to Appendix 2 of the Government Sewerage Policy

4. Where a bore is established to draw ground water solely for garden purposes only (not for animal or human consumption), the Local Government may approve a distance of less than 30 meters. The Local Government will determine the set back distance (which should be as far as practicable, away from the land application area). The Local Government must request the owner provide in writing a statement that the bore water is for garden purposes only.

5. For details on minimum recommended buffer distances in environmental sensitive areas please refer to Appendix 3 of the Government Sewerage Policy

Table 12: Vertical Setback Distances from Bedrock and Groundwater

	Distance in Meters ^{1,2}
Highest known Groundwater level	0.6 – 1.5m
Hardpan or bedrock ³	0.6 – 1.5m

NOTES

1. The distance is dependant on soil type, minimum distance can be used for loams and clays, and the maximum should be used for gravels and sands.

2. The depth is measured from the base of the disposal/irrigation system (ie trench bottom, bed base or dripper tube).

3. Bedrock for the purposes of this Code is unbroken solid rock and includes shallow cap rock formations.

7.2.3 Minimum Land Application Area

The minimum land application area required to dispose/reuse the treated effluent into or onto the soil depends mainly on the type of soil and the level of treatment. Table 13 represents the minimum land application area required in square metres per each litre of effluent produced per day.

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Code of Practice for the Design Manufacture Installation and Operation of ATUs Serving Single Dwellings Part 2 Installation and Operation of ATUs Serving Single Dwellings

An ATU must be a minimum of:

- 1.2 metres from any boundaries or buildings
- 1.8 metres from the surface irrigation disposal area
- 6.0 metres from a well, bore, dam or any water course whether it is used for a domestic water supply or discharging to a proclaimed water catchment area.
- NOTE: Where it is intended to locate the surface irrigation disposal area upslope of a building, the footing design engineer should be consulted to determine the likely impact on the building footing and the need for any additional requirements such as diversion trenches. Confirmation of the footing design engineer's requirements should be provided with the application.

(c) Depth to Groundwater

The minimum depth from the upper surface of the irrigation area to the highest known water table shall be 500 mm. In the case of a surface irrigation system, the 500 mm distance being from the upper surface of the irrigation area to the highest known water table level. For subsoil systems, the 500 mm is taken from the invert of the discharge pipe to the highest known water level. This is necessary to ensure a safety factor exists should there be a malfunction in the chlorination unit. Given that irrigation is above ground, a 500 mm zone of unsaturated soil is seen as the minimum acceptable distance to permit microbiological attenuation. For reduced irrigation areas in sand conditions, the clearance to ground water shall not be less than 1.8 m post development with a pre-development level of not less than 1.2 m to the highest expected water table.

7. SYSTEM OPERATION

To ensure that the operation of the treatment unit is efficient and trouble-free, the use and discharge of strong alkalis, oils, acids, bleaches, disinfectants, etc to the primary and secondary treatment compartments should be avoided. Chemicals should not be disposed of through the unit. Where biodegradable cleaners are used, the manufacturer's recommendations should be followed.

The maximum daily flow should not be exceeded nor the system subjected to shock loads; for example, by using the shower or bath and washing machine at the same time. Wherever possible, the washing machine should always be loaded to capacity and the washing staggered throughout the week to reduce shock loads.

If the biological activity of the system is affected, then there will be a reduction in the quality of reclaimed effluent, requiring the system to be re-balanced by the authorised maintenance contractor.

8. MAINTENANCE

The owner of a premises where an ATU is installed must ensure that at all times satisfactory arrangements are in place for the maintenance of the ATU by an authorised person as required by Regulation 42A.(1) of the *Regulations*.

An authorised person who is responsible for maintenance of an ATU that serves a single dwelling shall ensure the ATU is maintained in accordance with the requirements of this Clause and subject to any maintenance requirements imposed as a condition of approval.

A person shall not carry out maintenance on an ATU, and the owner of any premises on which an ATU is installed shall not arrange for a person to carry out maintenance on the

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