

## *Aerobic Treatment Units (ATU's)*

The modern generation of ATU's are robust, reliable units, which under normal domestic operating conditions are capable of producing a very high quality effluent. This high quality effluent when irrigated onto a properly landscaped disposal area effectively contains nutrients and bacteria at far greater capacity than a conventional septic system.

All ATU's currently available have been thoroughly assessed and tested by the Health Department of Western Australia. To ensure your ATU performs satisfactorily the following factors need to be considered:

### ***Quarterly Maintenance***

It is a legal requirement that you have your ATU maintained on a quarterly basis by a licensed contractor. The reason for this is to ensure that your ATU's effluent quality and chlorination levels are maintained thus eliminating any health risks when the effluent is irrigated out. The quarterly maintenance schedule for your ATU has been designed to ensure that it operates correctly, any interference with the units adjustment, apart from being illegal, may cause the unit to malfunction resulting in increased maintenance costs for you, the owner.

### ***Specifically Dedicated Effluent Irrigation Area***

It is a Health Department of WA requirement that the effluent from your ATU is irrigated onto no more than two clearly defined, specifically dedicated and landscaped areas having a total surface area of at least 150m<sup>2</sup>. This must be an area that is not subject to human traffic.

Your irrigation area must also be maintained in accordance with the original approval given by Council unless permission is otherwise given. This can be done by contacting Council's Environmental Health Officers who will amend your original approval to reflect any changes you wish to make.

### ***Planting Of Irrigation Areas***

Your ATU's irrigation area is designed to operate as an evaporation/transpiration area. This means that in order to effectively absorb the effluent this area relies on evaporation via the sun and wind, and transpiration via the roots and leaves of plants. For this reason it is a Council requirement that your ATU's irrigation area is planted

out prior to the commissioning of your ATU and prior to the occupancy of your house.

A large number of trees and plants are suitable for this purpose and fruit trees are included in this group. A list of suitable salt and nutrient tolerant plants has been attached.

### ***Domestic Cleaning Chemicals***

Just like any other type of sewerage treatment system, your ATU utilizes bacteria to break down the wastes entering it. Excessive usage of certain chemicals or combinations of chemicals can reduce the effectiveness of these bacteria or even wipe them out altogether. The efficiency of your ATU is dependent on these bacteria. If they are reduced by heavy chemical usage, the breakdown of the wastes entering your ATU is incomplete and a health risk may result when the effluent is irrigated. For this reason care must be taken when using chemicals which will be entering your ATU. It should be noted that many cleaning chemicals that claim to be “septic tank safe” are only safe when used in small quantities.

It is very important that you also consider your entire cleaning product range as a whole. Sometimes the cumulative effect of the same active ingredient in several cleaners, even when they are used in small amounts, may be enough to upset your system, particularly during its initial startup phase. For this reason it is strongly suggested when cleaners are used, that where possible, they be spaced throughout the week to avoid shock doses.

### ***Sale of Your Property***

There is an obligation on you, the property owner, to inform prospective purchasers of your property that it is equipped with an ATU which must be maintained on a yearly, bi-annually or quarterly basis (dependent on the type of ATU) by a licensed contractor, and that Council is the controlling body for these units.

## APPENDIX 1.

### SUGGESTED GUIDE OF SUITABLE PLANTS FOR THE SURFACE IRRIGATION DISPOSAL AREA

BOTANICAL NAME	COMMON NAME	APPROX HEIGHT IN METERS
<b>TREES</b>		
<i>Agonis flexuosa</i>	Willow Myrtle	5 – 6
<i>Acacia baileyana</i>	Cootamundra Wattle	3 – 5
<i>Banksia</i> spp.		
<i>Casuarina glauca</i>	Swamp Oak	6 – 12
<i>Casuarina stricta</i>	Drooping Sheoake	3 – 5
<i>Casuarina</i>	River Sheoake	6 – 10
<i>Callistemon viminalis</i>	Red Bottlebrush	3 – 6
<i>Callistemon salignus</i>	White Bottlebrush	3 – 6
<i>Eucalyptus grandis</i>	Flooded Gum	10 – 20
<i>Eucalyptus camaldulensis</i>	River Red Gum	15 – 20
<i>Eucalyptus cosmophylla</i>	Cup Gum	5 – 6
<i>Ficus</i> spp.		
<i>Hakea</i> spp.		
<i>Hymenosporum flavum</i>	Native Frangipani	3 – 6
<i>Leptosporum laevigatum</i>	Coast Tea Tree	5 – 6
<i>Melaleuca armillaris</i>	Bracelet Honey Myrtle	3 – 4
<i>Melaleuca quinquenervia</i>	Broad Paperbark	5 – 7
<i>Melaleuca nesophila</i>	Western Tea Myrtle	2 – 4
<i>Pittosporum</i> spp.		
<i>Syzygium paniculatum</i>	Bush Cherry	8 – 10
<i>Tristania laurina</i>	Kanuka	3 – 5
<b>SHRUBS</b>		
<i>Abelia x grandiflora</i>	Abelia	2 – 3
<i>Acacia floribunda</i>	Gossamer Wattle	2 – 4
<i>Acacia longifolia</i>	Sallow Wattle	2 – 4
<i>Acacia iteaphylla</i>	Flinders Range Wattle	2 – 4
<i>Cotoneaster</i> spp.		
<i>Cortaderia selloana</i>	Pampas Grass	2 – 3
<i>Cyperus alternifolius</i>	Umbrella Grass	0.5 – 1
<i>Cyperus papyrus</i>	Papyrus	1 – 2
<i>Cassia</i> spp.		
<i>Chamelaucium uncinatum</i>	Geraldton Wax	2 – 4
<i>Dryandra formosa</i>		1 – 3

## APPENDIX 1 CONTINUED

BOTANICAL NAME	COMMON NAME	APPROX HEIGHT IN METRES
Eremophila spp.		
Grevillia spp.		1 – 3
Hebe spp.	Veronica	0.5 – 1
Iris pseudacorus	Yellow Flag Iris	0.5 – 1
Nerium oleander	Oleander	2 – 3
Malaleuca decussata	Cross Leaved Honey Myrtle	1 – 2
Phormium tenax	New Zealand Flax	2 – 2.5

<b>CLIMBERS</b>		
Bougainvillea spp.		
Clematis spp.		
Hardenbergia violacea	Purple Coral Pea	
Hibbertia scandens	Snake Vine	
Jasminum grandiflorum		
Jasminum polyanthum		
Jasminum officinate	Common Jasmin	
Kennedia rubicunda	Dusky Coral Pea	
Lonicera japonica	Japanese Honeysuckle	
Passiflora spp.	Passion Flower	
Vitis coignetiae	Glory Vine	

<b>PERENNIALS</b>		
Aster novi-belgii	Perennial Aster	
Canna		
Chrysanthemum	Marguerite Daisy	
Chrysanthemum maximum	Shasta Daisy	
Gazania ringens	Black Eyed Susan	
Impatiens spp.		
Salvia uliginosa	Bog Salvia	
Viola spp.		

This list is only intended to provide a selection of trees, shrubs and other plants, which may be considered suitable for the surface irrigation disposal area.

Because of the wide climatic and soil variations, it is essential that further investigations be made with your local plant nursery before finalizing your plant choice to suit your particular locality and site conditions. The Serpentine Jarrahdale Landcare Centre, located next door to the Shire offices, can provide advice on the above list, as well as additional plants that are suitable for use.