

Wastewater - frequently asked questions



Environmental Health

What do I need to include in my application?

Please ensure your application includes the following		✓
1	Application form found on the Shire website	
2	Details of the type of system that you are proposing to install, including the manufacturer and the size. Ensure that your proposed system is on the Department of Health's approved list	
3	Plan of the entire property showing the location of existing and proposed septic systems, contours, setbacks from buildings, boundaries and any bores or water courses	
4	Plan of the proposed system in relation to the house, showing setbacks and fixtures intending to discharge into the system	
5	Floor plan of the proposed building(s) that will be serviced by the system	
6	Soil report – more information on this below	
7	If you are proposing to install an Aerobic Treatment Unit (ATU), a signed maintenance agreement with the person who will be servicing the unit	

Note: some areas are 'sewage sensitive areas' and secondary treatment may be required, for example, those properties close to the Margaret River or the Blackwood River. If you require planning approval for your development, ask the planning officer if these special requirements apply to your proposal.

What needs to be included in a soil report?

All septic applications submitted to the Shire need to be accompanied by a soil report showing the suitability of the site for onsite wastewater disposal. The only exception is in areas where the soil conditions are consistent, e.g. Prevelly, Gracetown.

Site conditions and characteristics of soils are important for both the sizing and siting of septic systems. In poor draining soils, such as clay, larger disposal areas may be required to increase the area of soil into which the effluent can be absorbed. In contrast, some coarse sands can be so free draining they are not able to filter out pollutants. Shallow groundwater or thin layers of free draining soil over heavier soils also need to be considered.

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As a minimum, the soil report must provide soil profile details at the septic disposal area (soil type and texture) to a depth of at least 1.2 meters and the depth to the winter water table.

The soil report used for the purposes of building foundations is not acceptable, as these reports are conducted according to a different Australian Standard.

A suitably qualified and experienced person is required to undertake the soil assessment. A [list of local professionals](#) is available on the Shire website.

A sample soil report is available upon request.

What are the different types of systems?

Primary treatment systems

Primary treatment systems (also known as septic tanks, conventional systems or standard systems) are common. They usually consist of two concrete or plastic septic tanks, or one large septic tank with a baffle, which drains into alternating leach drains or soak wells.

The minimum capacity of a primary treatment system, treating all wastes, connected to a residential premise up to 5 bedrooms, is 3180L. Two septic tanks, 1 x 1520mm in diameter and 1 x 1220mm in diameter or one large baffled tank of at least 3180L is suitable.

Leach drains can be concrete or non-concrete. The length of the leach drain required depends on the volume of wastewater, the soil type and the manufacturer of the drain.

Soak wells can only be approved for use in sand.

Secondary treatment systems

Secondary treatment systems (formerly known as aerobic treatment units or ATUs) function like small treatment plants. They produce effluent of a secondary standard which can be used for irrigation. These systems are required to be serviced regularly (usually quarterly) by an authorised service person.

Alternative treatment systems

Alternative treatment systems are another type of septic. Some alternative treatment systems provide treatment at the disposal area which may assist with the removal of nutrients through amended soils.

Like secondary treatment systems, an approved installer is required for the installation and there will be conditions of approval and specific installation requirements that need to be met. Sometimes, ongoing maintenance is required.

Alternative toilets

Alternative toilets are waterless or composting toilets. When proposing to use an alternative toilet, the application process is the same as for an effluent disposal system. The proposed system must be one that is on the list of approved alternative toilets on the Department of Health website.

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The installation must be in accordance with the conditions of approval for that particular system so it is important to be familiar with the system and the conditions prior to applying for approval to install. For example, some waterless toilets cannot be approved on small lots (<1000m²) or lots where sewer is available.

Greywater systems

Greywater is the wastewater from:

- showers
- baths
- handbasins
- washing machines
- dishwashers
- sinks in kitchens and laundry sinks

It does not include toilet waste.

There are 2 types of greywater reuse systems in WA:

1. **Greywater diversion devices (GDD)** – these systems divert greywater without storage or treatment and can be used via sub-surface irrigation in gardens.
2. **Greywater treatment systems (GTS)** – these systems collect and treat the greywater to a higher standard. The disinfected greywater can be used for irrigation and other applications such as reuse in toilet systems or washing machines.

When proposing to use a greywater system, the application process is the same as for an effluent disposal system. The proposed system must have WaterMark Certification and the installation must be in accordance with the manufacturer's guidance. It is important to be familiar with the system and these conditions prior to applying for approval to install. For example, some greywater treatment systems are not approved to receive kitchen greywater.

Who will assess my application?

Smaller developments, like a single house are usually approved by the Shire. For larger developments, including commercial proposals, the application will be forwarded to the Department of Health. Referral to the Department of Health will incur an additional fee.

Can I construct or install a wastewater system before I get an approval?

No. It is an offence to install a septic system without approval.

Can I use a wastewater system before it is approved?

No. Once installed but still uncovered, you must contact the Shire to arrange an inspection. If the officer is satisfied a *Permit to Use* will be issued to the property owner.

Once you have received a *Permit to Use* you can use the system.

What if I have a spa?

Spas over a 350L capacity are to be connected to a separate disposal system.

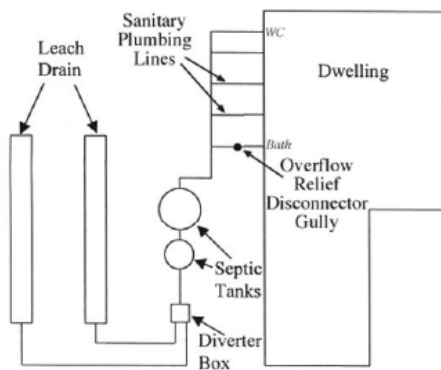
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What if I need a pump tank?

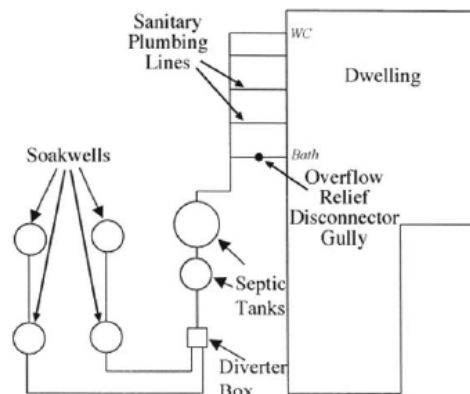
Where a pump tank is required, the tank is to have a minimum capacity of 1000L, be sealed to prevent the escape of odours and have both an audible and visual warning device.

What does a typical installation look like?

Typical installation patterns – primary treatment

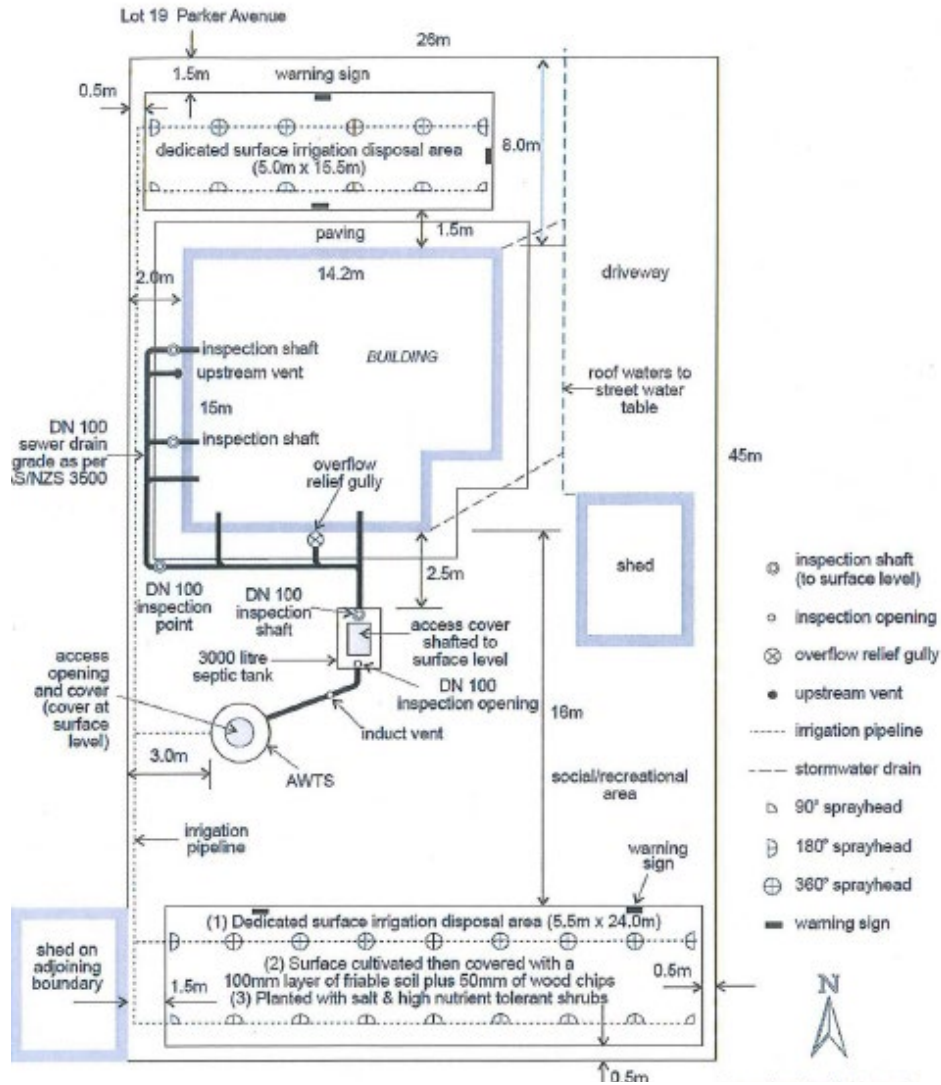


Schematic Diagram of Septic Tank



Schematic Diagram of Septic Tank

Typical installation patterns – secondary treatment



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What setbacks are required?

Setbacks - standard systems

what	setback distance	regulation
septic tank to any area that is subject to vehicular traffic	1.2m	(r18A(2)(b))
septic tank to any building foundations, retaining wall or boundary	1.2m	(r8A(1))
base of the leach drains to the highest known winter water table in a sewage sensitive area or on sand	1.5m	(GSP)
base of the leach drains to the highest known winter water table in a public drinking water source area	2.0m	(GSP)
base of the leach drains to the highest known winter water table in loams and heavy soils	0.6m	(GSP)
base of the leach drains to the highest known winter water table in gravel	1.0m	(GSP)
leach drain to any septic tank, any building, footing or retaining wall, any sealed or paved area or any boundary	1.8m	(r50(1)(d)(x))
from any leach drains/soak well to any well, stream or bore intended for human consumption	30m	(r49(1)(b))
from any leach drain to any sub-soil or open drainage system	6m	(r49(1)(c))
from any soak well to any boundary of a lot, building, septic tank or other soak well	1.8m	(r50(1)(a)(d))
leach drains are to be installed parallel with the land contours, they cannot be built over or subject to heavy traffic		

Setbacks – secondary treatment systems

what	setback distance
check any system specific requirements on the approval documents	
all setbacks below are from the ATU Code of Practice	
Surface irrigation (sprinklers)	
to ATU	1.8m
to open-fenced boundaries	1.8m
to closed fencing	1.2m
to any buildings, paved surfaces, paths, driveways etc.	1.8m
to any buildings if installed upslope on a sloped site	3.0m
to swimming pools on a flat site	3.0m
to swimming pools if installed upslope on a sloped site	6.0m
to any wells, bores, dams or water courses used or available for human or animal consumption, or a watercourse within a proclaimed water catchment area	30m

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to highest known water table (from upper surface of irrigation area)	500mm
Sub-strata dripper irrigation (drippers placed on top of the ground surface)	
to ATU	0.5m
to open-fenced boundaries	0.5m
to closed fencing	0.5m
to buildings	0.5m
to paths, drives, carports	0.5m
to swimming pools	2.0m
to bores (for potable purposes)	30m
to garden bores	10m
to sub-soil/open drains	3.0m
to highest known water table	500mm
covered with a minimum of 100mm of approved material (bark, woodchip etc.), not to be subject to foot traffic, paths, clotheslines etc as the sub-surface irrigation lines can become compacted and blocked	
Sub-surface dripper irrigation (drippers buried)	
buried a minimum of 150mm below the ground surface	
to open fenced boundaries	0.5m
to closed fencing	0.5m
to buildings	0.5m
to sub-soil/open drains	3.0m
to swimming pools	0.5m
to bores (for potable purposes)	30m
to garden bores	10m
to ATU	0.5m
to paths, drives, carports	0.5m
to highest known water table (from invert of the discharge pipe)	500mm
not to be subject to foot traffic, paths, clotheslines etc as the irrigation lines can become compacted and blocked	
ATU	
to any buildings or boundaries	1.2m

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to a well, bore, dam or water course used or available for human or animal consumption, or a watercourse within a proclaimed water catchment area	6.0m
ATS	
check for any specific requirements in the approval documents	
some ATS setbacks correspond with those in the Code of Practice for ATUs	
when no setbacks are stipulated, revert to those specified for standard systems in the regulations	

What are the maintenance requirements?

Primary treatment systems

When a septic tank system is correctly installed and maintained, it should work effectively for many years.

If the septic tanks accumulate too much sludge and scum, the volume of the tank is reduced which in turn reduces the time for separation to take place. This means not all the solids, grease and oils will separate and will pass out of the septic tanks and into the leach drains/soak wells. This will clog the soil surrounding the leach drains/soak wells. To prevent this from happening, the septic tanks should be pumped out (desludged) regularly and owners should minimise fat and grease getting into the system. Do not dispose of non-biodegradable materials into your system, or old medicines, large amounts of disinfectant or other chemicals.

The frequency of desludging is dependent on the number of people contributing to the wastewater load. As a guide, every eight years for a two- person household, every four years for a four-person household and more often for households with greater numbers, is recommended.

Most leach drains are fitted with a diverter which allows the occupier to alternate drains, effectively resting one drain and the surrounding soil. This should happen annually. The diverter box between the septic tanks and leach drains can be opened and the effluent flow handle turned.

Never drive over your septic system.

Other systems

Each system will have its own maintenance requirements. Maintenance of secondary treatment systems can only be carried out by [service persons authorised by the Department of Health](#).

Further information

This is a guide only. For more information, please contact [Environmental Health](#) at the Shire of Augusta Margaret River on 9780 5255 or the [Department of Health](#)

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