

MOORABOOL

SHIRE COUNCIL

GUIDE FOR INSTALLATION OR ALTERATION OF A SEPTIC TANK SYSTEM

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What is an On-site Sewage Management System?

A domestic on-site sewage management system is made up of various components, which if properly designed, installed and maintained, allow the treatment and utilisation of wastewater completely within the boundary of a property.

Wastewater can be blackwater (toilet waste), greywater (water from showers, sinks and washing machines), or a combination of both.

Partial on-site systems, eg: pump out and common effluent systems (CES) also exist. These usually involve the primary on-site treatment of wastewater in a septic tank, followed by collection and transport of the treated wastewater to an off-site treatment facility. Pump out systems use road tankers to transport the effluent, and CES use a network of pipes.

How does an On-site Sewage Management System work?

For complete on-site systems there are two main processes:

- Treatment of wastewater to a certain standard
- Its application to a dedicated area of land

The type of application permitted depends on the quality of treatment of the wastewater and can be carried out using various methods:

Septic Tanks

Septic tanks have two compartments and treat both greywater and blackwater, but they provide only limited treatment through the settling of solids and the flotation of fats and greases.

Bacteria in the tank physically break down solids over a period of time. Wastewater that has been treated in a septic tank can only be applied to land through a below ground soil absorption system, as the effluent is too contaminated for above ground or near surface irrigation.

Aerated Wastewater Treatment Systems

Aerated wastewater treatment systems (AWTS) have several treatment compartments.

The first is like a septic tank, but in the second compartment air is mixed with the wastewater to assist bacteria to break down solids. A third compartment allows settling of more solids and a final chlorination contact chamber provides the ability for disinfection.

They require regular maintenance and testing to verify their performance and owners need to be familiar with manufacturers operating procedures. The effluent produced must comply with a certain standard and may be applied to a dedicated area by trenches, surface or sub-surface irrigation.

Procedure for Issuing of Septic Tank Permits

1. Anyone wishing to install/alter a septic tank system or any other system of treating and disposing of domestic waste water e.g. composting toilet or sewage treatment plants must first apply for a Permit using the form "Application to install/alter a septic tank system".
2. The application form must be signed by either the owner or agent for the owner and accompanied by full details of the proposed system together with plans and specifications, requirements for which are detailed on the application form. All parts of the form must be completed. Where applicable a copy of Councils Planning Permit should be included with the application.
3. Applications will not be considered until the required fees have been paid.
4. All owners or their agents are advised that no work is to commence until a written permit to install/alter has been issued by Council.
5. As part of the assessment of the application, an authorised officer may need to visit the site. Therefore the application should include details and directions, if necessary, regarding site locality and accessibility.
6. For all systems full technical details of the type of system including the 'Certificate of Conformance and Conformance Number must be lodged.
7. A Land Capability Assessment prepared by an appropriately qualified person must be included with the application. The assessment must include a Management Program for the proposed system.
8. All plumbing work on a septic tank system must be undertaken by a registered plumber.
9. A copy of any Certificate of Compliance issued to the owner pursuant to the Building Act 1993 must be lodged with council on completion of works.
10. An as constructed plan of the system to a scale of not less than 1:500 must be provided on completion if at variance from the submitted plan.

Note: If the plumber/drainer nominated by you is unavailable to do the work please advise the name of the plumber who will be undertaking the installation before work commences.

The information you provide will be held securely by Council for the purpose of making its legal obligations under the Environment Protection Act 1970 and associated and related legislation. The information will be kept confidential and identifying information will not be disclosed to any person for any other purpose. You may access your own information by contacting Council's Environmental Health Unit on 5366 7100

These are just some of the treatment and application methods available, and there are many other types such as composting toilets, sand filter beds, wetlands and mounded earth beds.

Local Councils are responsible for approving the installation of septic tanks systems, including composting toilets and AWTS within their area where the design use of the system does not exceed 5,000 litres per day. Larger systems, treating more than 5,000 litres per day, must be individually approved by the EPA.

Community education fact sheets

A series of fact sheets have been developed to help you in understanding the application process; how septic tanks operate; the type of systems can be used and ongoing maintenance requirements. A list of the fact sheets can be downloaded from Council's website.

- Split Systems
- Septic tank with Reed Bed
- Septic Tank with Sand Filter
- Package Treatment plants
- Basic Design
- Common disposal methods
- Historic Septic Tanks
- Plumber's responsibilities
- Land owners responsibilities
- Home owner and rental responsibilities

Site Plan

The site plan provided with your application **must be legible and detailed**. Rough hand drawn sketches with no site details will not be accepted. Your septic tank is just as important as your building plans.

Failure to provide a suitable plan with your application will result in a delay to the processing of your permit as you will be asked to re draw and resubmit your plan.

If your neighbour has a dam on their property, or you have a dam or waterway running through your property, it must be shown on your plan. An appropriate site plan will ensure that everyone understand the required works and your permit can be issued without delay.

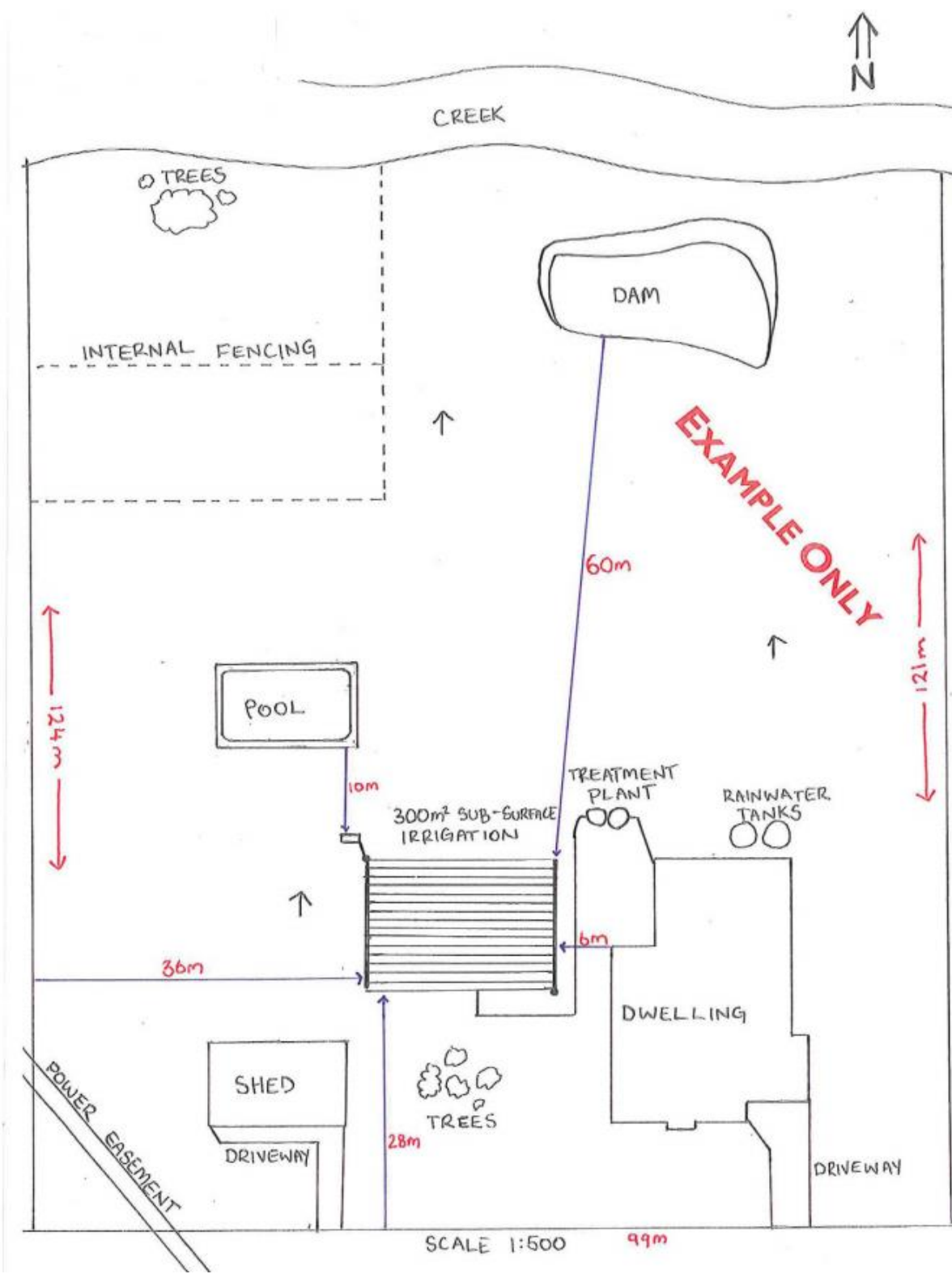
The following details should be included on your plan:

- Location of septic tank/ treatment plant
- Detailed plan of wastewater disposal field (showing distribution pits, trenches, individual irrigation lines, vacuum breakers, flush/ scour valves, return lines, flushing trenches/ pits etc.)
- Location of pump wells (if used)
- Diversion drains/ embankments for surface water
- Setback distances
- Location of the dwelling and all existing and proposed buildings including driveways
- Driveways, easements, dams, creeks, water tanks, wells, etc.
- Point of North
- Fall of the land
- Significant identifying features (large trees, fences, rocks/ rock beds, stand of trees etc.)

Applications for larger properties should show the whole allotment on one plan and submit a close-up extract of the building envelope and wastewater system

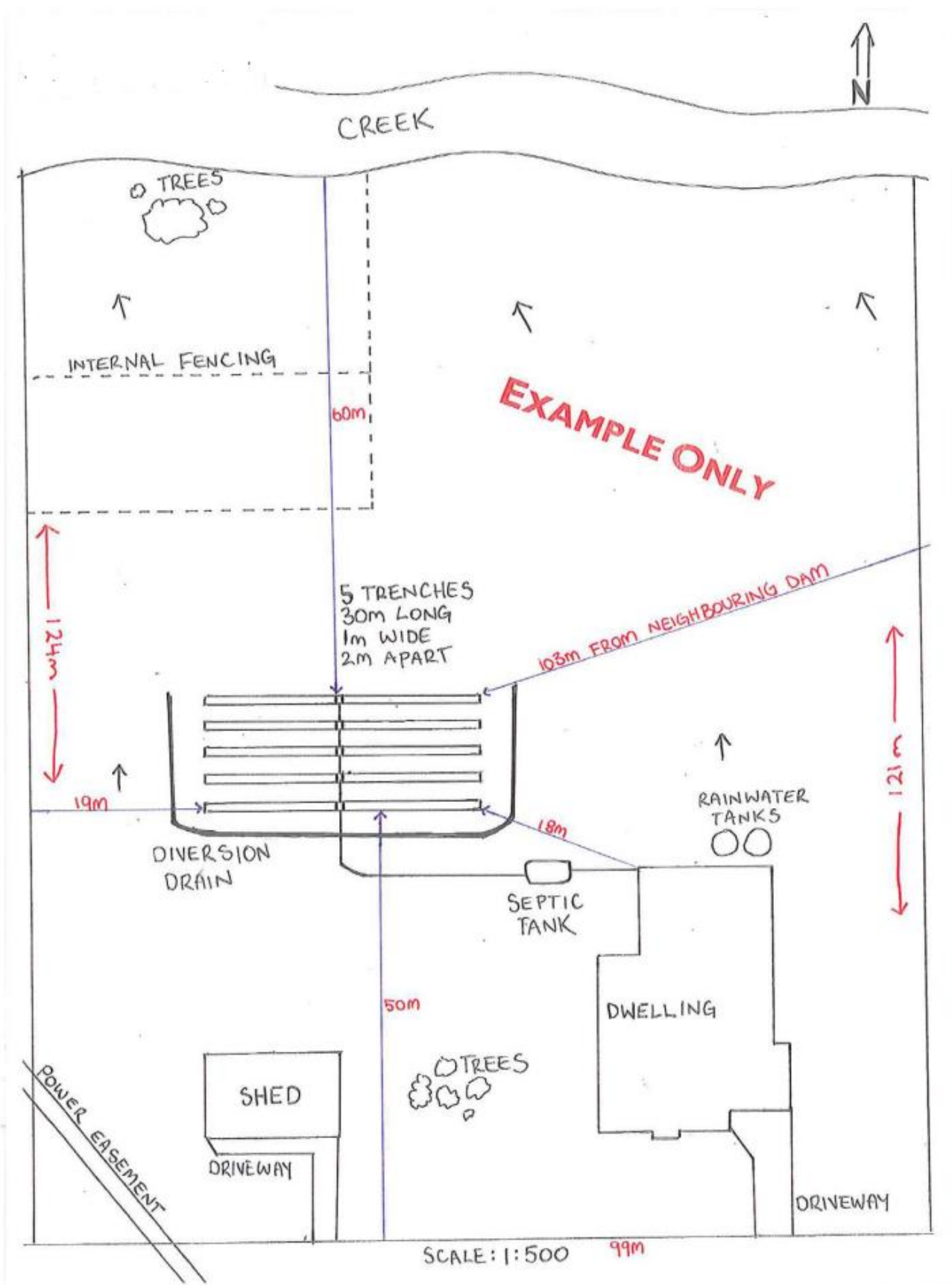
On the following pages are examples of site plans.

Example of a Treatment Plant and subsurface irrigation



Road Name

Example of a Standard Septic Tank and Absorption Trenches



Road Name

Setback / Buffer Distances

The following buffer setback distances apply to the sub-surface drip irrigation areas:

Landscape Feature or Structure	Setback Distances (m)	
	Secondary Treated Wastewater (Sub-Surface Drip Irrigation)	Soil Absorption/transpiration trenches
Building		
Wastewater up-slope of building	3	6
Wastewater down-slope of building	1.5	3
Wastewater up-slope of cutting or escarpment	15	15
Allotment boundary		
Sub-surface drip irrigation up-slope of adjacent allotment	3	6
Sub-surface drip irrigation down-slope of adjacent allotment	1.5	3
Services		
Water supply pipe	1.5	3
Sub-surface drip irrigation up-slope of a potable supply channel	150	300
Sub-surface drip irrigation down-slope of potable water supply channel	10	20
Gas supply pipe	1.5	3
In-ground water tank	4	15
Stormwater drain	3	6
Recreational Areas		
Children's grassed playground	3	6
In-ground swimming pool	3	6
Surface Water (up-slope off)		
Dam, lake or reservoir (potable water supply)	150	300
Waterways (potable water supply)	100	100
Waterways, wetlands (continuous or ephemeral, non-potable); estuaries, ocean beach at high-tide mark; dams, lakes or reservoirs (stock and domestic, non-potable).	30	60
Groundwater Bore		
Category 1 and 2a soils	50	NA
Category 2b to 6 soils	20	20
Water Table		
Vertical depth from base of trench to the highest seasonal water table	1.5	1.5
Vertical depth from irrigation pipes to the highest seasonal water table	1.5	NA

Maintaining your Onsite Wastewater Management System

Responsibility for managing septic tank systems lies with the property owner. A properly managed septic tank system will assist in prolonging the life of the system and prevent it from premature failure resulting in a public health risk to the occupants and surrounding environment.

As a preventative on-going maintenance measure, and to increase the life of the system, it is important that the septic tank be desludged once at least every three years. Failure to do so may cause failure of the system and be very costly to repair. If you have an Aerated Wastewater Treatment System it is essential to ensure that the system is working correctly and to also protect public and environmental Health as both are put at risk when systems fail. ***All treatment plants must be serviced by a qualified person every 3 months in accordance with the Certificate of Approval of the system.***

One area of the system that can be overlooked at times is the actual effluent discharge field. This area should be looked at during every service with the effluent lines being flushed to ensure that they are working correctly. Failure to do this can lead to system failures which can involve not only effluent pooling on the ground but also costly pump failures.

Council follows up all owners or occupiers that are not having their systems serviced quarterly and sending the reports to Council. Under section 53N Environmental Protection Act 1970 failure to comply with the permit conditions for your system is an on the spot fine of \$806, or a maximum fine of 10 penalty units (currently over \$1600). A list of service providers can be downloaded at Council's website.

No stock or vehicle traffic is permitted over the onsite wastewater management system or sub-surface drip irrigation area. If the safety of the onsite wastewater management system or sub-surface drip irrigation system are in doubt then they must be appropriately fenced.

Buildings, driveways, concrete, tennis courts, swimming pools, garden beds, vegetable gardens, large trees and the like must not be placed in or on the land application area. Please note pool/spa back wash is not allowed to enter the septic tank.

Permit Approval Time Frame

Council will issue an approval to install if the proposed system is suitable for the development, the application is filled correctly (including a detailed plan on the page provided) and copies of any other information required is provided.

Please note: Council will endeavour to provide a decision on applications within 3 weeks. However, decisions can take longer dependent on the quality of information submitted with application. **NO** work should commence until the applicant received this approval

Inspections /Approval to Use

Inspections are required of your system during installation and the completion of works. **These inspections are mandatory.** You should contact Council's Environmental Health Unit at least 48 hours prior to arrange a suitable time for inspection.

The issuing of a 'Certificate Approving the Use of a Septic Tank System' is a legal requirement. Fines apply when a system is used without approval. Prior to using the AWTS, a Certificate of Use must be issued by Council. For new dwellings a Certificate of Use must be provided prior to a Certificate of Occupancy being issued by your Building Surveyor. Use of the system will not be approved until a final inspection is completed by an authorized Council officer and the following documentation is submitted to Council: an as constructed plan; plumber's compliance certificate; manufacturer's commissioning report; electrical installation certificate; and a signed servicing agreement.