



ON-SITE SEWAGE MANAGEMENT PLAN

2007

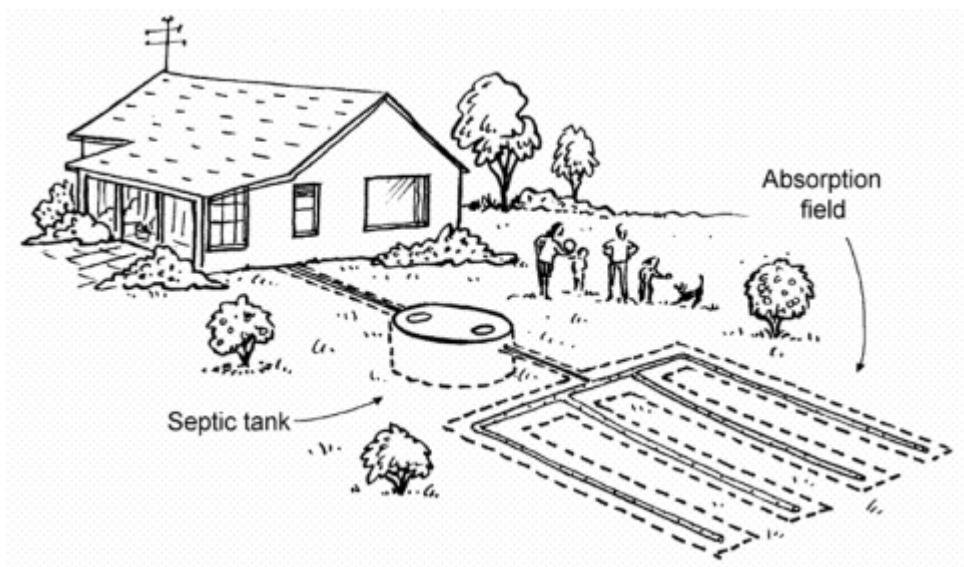


TABLE OF CONTENTS

1.	<u>INTRODUCTION</u>	<u>- 5 -</u>
1.1	PLAN STATUS	- 5 -
1.2	OBJECTIVES	- 5 -
1.3	PURPOSE	- 5 -
1.4	LEGISLATION AND GUIDELINES	- 6 -
2.	<u>APPLICATION REQUIREMENTS.....</u>	<u>- 7 -</u>
2.1	SUBDIVISIONS OR REZONING	- 7 -
2.2	INSTALLATION OF NEW DOMESTIC ON-SITE SEWAGE MANAGEMENT SYSTEMS	- 9 -
2.3	COMMERCIAL, TOURIST AND AGRICULTURAL DEVELOPMENTS	- 10 -
2.4	PRESSURE SEWERAGE SYSTEMS	- 10 -
3.0	<u>SYSTEM SELECTION.....</u>	<u>- 10 -</u>
3.1	CONVENTIONAL SEPTIC TANK	- 10 -
3.1.1	HOW DOES A SEPTIC TANK WORK?	- 11 -
3.1.2	WHAT SIZE DOES MY SEPTIC TANK HAVE TO BE?	- 12 -
3.2	DO I NEED A FILTER IN MY SEPTIC TANK?	- 12 -
3.3	SOIL ABSORPTION SYSTEMS	- 12 -
3.4	HOW DOES AN ABSORPTION TRENCH WORK?	- 12 -
3.4.1	WHAT SIZE DOES MY ABSORPTION TRENCH HAVE TO BE?	- 13 -
3.4.2	ABSORPTION TRENCH CONSTRUCTION	- 13 -
3.5	HOW DOES AN EVAPO-TRANSPIRATION AREA WORK?	- 14 -
3.5.1	WHAT SIZE DOES MY EVAPO-TRANSPIRATION AREA HAVE TO BE?	- 14 -
3.5.2	EVAPO-TRANSPIRATION AREA DESIGN	- 14 -
3.6	AERATED WASTEWATER TREATMENT SYSTEMS (AWTS)	- 15 -
3.6.1	WHAT SIZE DOES MY AERATED WASTEWATER TREATMENT SYSTEM HAVE TO BE?	- 16 -
3.6.2	DOES MY AERATED WASTEWATER TREATMENT SYSTEM NEED A FILTER?	- 16 -
3.6.3	SURFACE OR SUBSURFACE IRRIGATION AREA?	- 16 -
3.6.4	WHAT SIZE DOES MY SURFACE IRRIGATION AREA HAVE TO BE?	- 17 -
3.6.5	AWTS MAINTENANCE REQUIREMENTS	- 17 -
3.7	COMPOSTING TOILETS	- 17 -
3.8	CONSTRUCTED WETLANDS - REED BEDS	- 18 -
3.8.1	DESIGN AND SIZING OF CONSTRUCTED WETLANDS - REED BEDS	- 19 -
3.9	SAND MOUNDS - SAND FILTERS	- 19 -
3.9.1	DESIGN AND SIZING OF SAND MOUNDS AND FILTERS	- 19 -
3.10	AMENDED SOIL SYSTEMS	- 19 -
3.10.1	DESIGN AND SIZING AMENDED SOIL SYSTEMS	- 20 -
3.11	ALTERNATIVE SOLUTIONS	- 20 -
4.	<u>GREY WATER TREATMENT AND DISPOSAL.....</u>	<u>- 20 -</u>
4.1	GREY WATER DIVERSION	- 20 -
4.2	GRAVITY DIVERSION DEVICES	- 20 -
4.3	PUMP DIVERSION DEVICES	- 21 -
4.4	GREY WATER TREATMENT SYSTEMS	- 21 -
4.5	ASSESSMENT AND DESIGN OF GREY WATER LAND APPLICATION AREAS	- 21 -
5.	<u>RESPONSIBILITIES.....</u>	<u>- 22 -</u>

5.1	COUNCIL RESPONSIBILITIES	- 22 -
5.2	OWNER RESPONSIBILITIES	- 22 -
6.0	<u>INFORMATION.....</u>	<u>- 23 -</u>
6.1	ON-SITE SEWAGE MANAGEMENT SYSTEMS REGISTER	- 23 -
7.0	<u>REGISTRATION & APPROVAL.....</u>	<u>- 23 -</u>
7.1	EXISTING SYSTEMS	- 23 -
7.2	NEW SYSTEMS	- 24 -
7.3	RENEWAL OF COUNCIL APPROVAL	- 24 -
7.4	TRANSFER OF OWNERSHIP	- 24 -
8.0	<u>MONITORING PROGRAM.....</u>	<u>- 25 -</u>
8.1	RISK ASSESSMENT AND CLASSIFICATION	- 25 -
8.2	PRELIMINARY CLASSIFICATION	- 25 -
8.3	ON-SITE INSPECTION	- 25 -
8.4	RISK ASSESSMENT CRITERIA	- 26 -
8.5	CONTENT OF INSPECTION	- 27 -
8.6	RE-CLASSIFICATION	- 27 -
8.7	AERATED WASTEWATER TREATMENT SYSTEMS (AWTS)	- 27 -
8.8	FINANCIAL HARDSHIP AND UPGRADING FAILING SYSTEMS	- 27 -
9.0	<u>RESOURCES.....</u>	<u>- 28 -</u>
9.1	FUNDING	- 28 -
9.2	FEEES	- 28 -
10.	COMPLAINTS ABOUT ON-SITE SEWAGE MANAGEMENT SYSTEMS	- 28 -
11.	DUTY TO NOTIFY OF POLLUTION INCIDENTS	- 28 -
12.	ENFORCEMENT PROCEDURES	- 29 -
12.1	INADEQUATE OR FAILING ON-SITE SEWAGE MANAGEMENT SYSTEMS	- 29 -
12.2	OUTSTANDING APPROVAL OR INSPECTION FEES	- 29 -
12.3	LOCAL GOVERNMENT ORDERS	- 30 -
13.	BUFFER DISTANCES FOR ON-SITE SEWAGE MANAGEMENT SYSTEMS	- 30 -

DEFINITIONS

Absorption – uptake of effluent into the soil, by capillary action and deep infiltration.

Aerated Wastewater Treatment Systems (AWTS) – an on-site sewage management facility that uses the processes of aeration, clarification and disinfection to provide secondary treatment prior to land application.

Blackwater – wastewater containing the discharges from toilets and/or urinals.

Certificate of accreditation – a certificate issued by the NSW Health Department attesting to the approval of a human waste storage or treatment device in accordance with the provisions of the Regulations.

Council – for the purposes of this plan refers to Gloucester Shire Council.

Design daily flow – the amount of wastewater, in litres per day, allowed in the sizing of land application areas.

Effluent – wastewater discharging from a sewage management facility.

Evapo-transpiration – process by which moisture is subject to processes of evaporation from sun and wind and transpiration via vegetation.

Greywater – domestic wastewater from hand basins, baths, showers and laundry but excludes toilet and urinal waste and depending upon disposal method may also exclude kitchen waste.

Land Application Area – The land disposal area within or upon which wastewater from an on-site sewage management facility is applied.

On-site Sewage Management System – Any facility that stores, treats and/or disposes of sewage and wastewater on-site.

Permeability – the rate clean water is transmitted through soil.

Suitably qualified person – a person holding a qualification in soil mechanics, geology or environmental management with demonstrated experience in the design of wastewater disposal systems.

1. INTRODUCTION

1.1 Plan Status

This plan applies to all land within the Gloucester Local Government Area that is not capable of being connected to a reticulated sewerage system of Council.

This plan was formally adopted by Council and comes into effect on **19 September 2007**.

1.2 Objectives

The plan allows Council to monitor the installation, operation, and maintenance of on-site sewage management systems within the LGA. This will provide early detection of systems that pose a risk to public health and the environment, and will allow remediation of such systems prior to failure.

On-site sewage management systems must be designed, installed, operated and maintained to ensure the following environmental and health performance objectives are met on a sustainable basis:

- Prevention of public health risk
- Protection of surface and ground waters
- Protection of land and vegetation
- Maintaining and improving community amenity
- Conservation and reuse of resources
- Ecological Sustainable Development

1.3 Purpose

The Gloucester Shire Council On-site Sewage Management Plan has been developed to enhance the management of on-site sewage management systems within the Local Government Area. The plan will provide for a reduction in the incidence of ineffective and failing systems, by implementing regular monitoring to ensure early detection and remediation of such systems.

The sustainable management practices adopted within the plan align with Council's Management Plan by promoting the principles of ecologically sustainable development (ESD) and aligning with Council's environmental objectives.

Approximately 2 million people depend on on-site sewage management systems in Australia, and an estimated 290 000 systems exist within NSW. Of these, there are thought to be in excess of 3000 systems within the Gloucester Shire. Recent research suggests around 70% of all on-site sewage management systems in New South Wales fail to meet health and environmental protection standards.

As a result of the risks posed to public health and the environment by on-site sewage management systems, the NSW State Government requires that Council approval be sought by operators of these systems, and that Council provide supervision of system operation. The plan provides a means of compliance with these requirements, for Council and the community.

1.4 Legislation and Guidelines

Local Government Act 1993

The Local Government Act outlines the requirement of on-site sewage management system owners to obtain Council approval to 'operate a system of sewage management'. This includes the operation of an existing system, or the installation and operation of a new system. The meaning of 'operate a system of sewage management' is outlined in the Act, which states:

(1) "In this Part, operate a system of sewage management means hold or process, or re-use or discharge, sewage or by-products of sewage (whether or not the sewage is generated on the premises on which the system of sewage management is operated).

(2) Without limiting subsection (1), operate a system of sewage management includes the following:

- a) use artificial wetlands, transpiration mounds, trenches, vegetation and other effluent polishing, dispersal or re-use arrangements in related land application areas,*
- b) hold or process sewage that is to be subsequently discharged into a public sewer.*

(3) However, operate a system of sewage management does not include any of the following:

- a) any action relating to the discharge of sewage directly into a public sewer,*
- b) any action relating to sewage or by-products of sewage after their discharge into a public sewer".*

Under the Act, Council is required to maintain a register of on-site sewage management systems within the LGA. The Act also states the items that must be included within the register.

Council may issue orders to direct a system owner to operate their system in a way that complies with statutory requirements. Under the Act orders may be issued:

- To prevent environmental damage
- Not to commence, or to cease a hazardous activity
- To dispose of waste
- Not to operate an on-site sewage management system after a specific date
- To comply with the conditions of approval issued by Council
- To abate public nuisance
- To meet specified operational and performance standards

Offences under the Local Government Act include:

- Failure to obtain a Council approval
- Failure to comply with a Council approval
- Failure to comply with an order

Local Government (General) Regulation 2005

The Regulation provides a framework for the processes involved in the installation and operation of on-site sewage management systems. It also outlines the approval process and the items that Council needs to consider when determining

an application for sewerage works, as well as the items that must accompany an application for approval to install a system of sewage management.

Protection of the Environment Operations Act 1997

Under the Protection of the Environment Operations Act, it is an offence to pollute any water course or to permit disposal of waste to an unlawful disposal area, or to transport waste to an unlawful disposal area. Offenders may be issued with penalty notices or face prosecution. Heavy penalties apply to pollution offences under this Act.

Environment and Health Protection Guidelines

Environment and Health Protection Guidelines: On-site Sewage Management for Single Households (E&HPG) has been developed by various NSW Government Departments, and published by the NSW Department of Local Government to assist councils in regulating the installation and operation of on-site sewage management systems. The Guidelines provide technical guidance in the design, operation and maintenance of systems, as well as guidance in the process of supervision and monitoring of systems.

NSW Department of Health Accreditation

The NSW Department of Health is responsible for accrediting human waste treatment or storage devices that are intended to receive domestic wastewater or human waste. Council must not approve of the installation or construction of a Sewage Management Facility (SMF) unless the SMF has a current certificate of accreditation issued by the NSW Health Department. Council may consider alternative system designs that have been developed by suitably qualified persons.

AS/NZS 1547 – On-site Domestic Wastewater Management

Australian standard that specifies requirements for on-site domestic wastewater systems including primary and secondary wastewater treatment units and the associated land application areas. The Standard gives specific details for septic tanks that receive domestic black water and grey water; and specific details for land-application and absorption systems, including conventional trenches and beds, evapo-transpiration systems, mounds and irrigation areas.

AS 1546.1 – On-site Domestic Wastewater Treatment Units – Septic Tanks

Specifies a set of performance criteria for septic tanks which provide a base against which any septic tank, conventional or innovative, may be assessed. It also provides basic specifications covering septic tanks made of various materials. These specifications are to be used by manufacturers and quality assessors for demonstrating compliance of a product with the Standard.

2. APPLICATION REQUIREMENTS

2.1 Subdivisions or Rezoning

An on-site effluent disposal (land capability assessment) report prepared by a geotechnical engineer, professional engineer, soil geologist or other suitably

qualified and competent person, experienced in on-site effluent disposal, shall accompany an application to subdivide or rezone in an un-sewered area under one or more of the following circumstances:

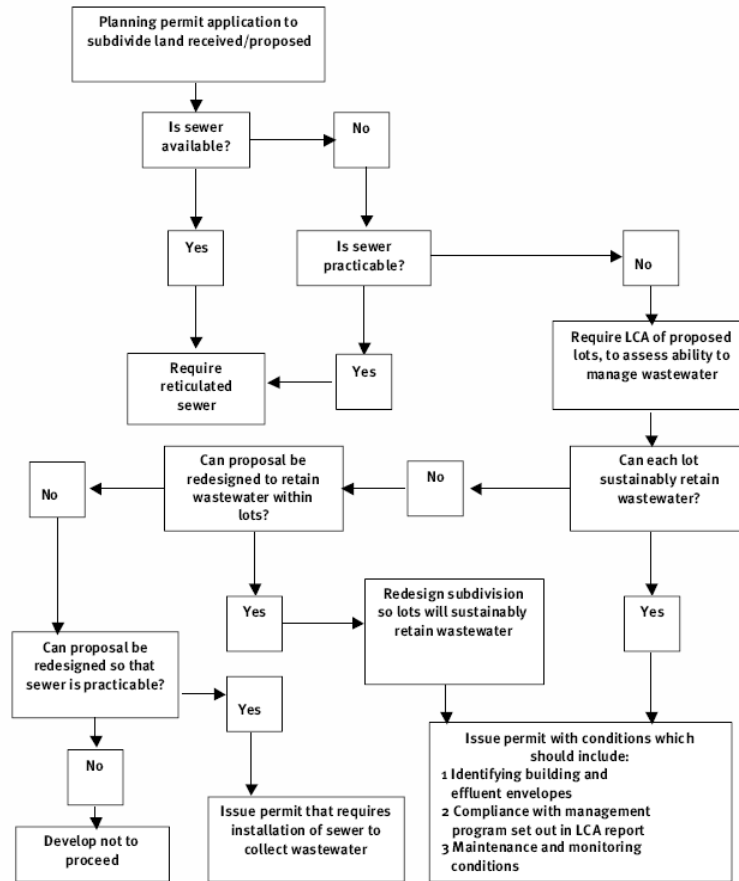
- Located in an environmentally sensitive area (within any of the recommended buffer distances as outlined in this plan)
- The proposed allotments are less than 20,000 m² or 2 Hectares in area
- Proposed allotments in a rural residential or village subdivision not connected to a sewer system

The scale of information contained in a Land Capability Assessment may vary, depending on the size or nature of the proposed development. The Land Capability Assessment is a document written in a report format and contains sufficient details for Council to make an informed decision about the proposal.

The Land Capability Assessment shall assess site conditions at the subject property and report on its suitability for the disposal of effluent on each of the proposed allotments that make up the subdivision. Hydraulic loading, wet weather storage, water and nutrients balance shall be included in the calculations.

Where a proposed subdivision includes an existing dwelling, the assessment will need to demonstrate that subdivision will not result in a reduction for the existing on-site sewage management system to cope with wastewater management.

Individual pump out systems will not be considered or approved for subdivision of land as they are not considered to be an economical and environmentally viable on-site sewage management option.



2.2 Installation of New Domestic On-site Sewage Management Systems

Applications for approval to install new on-site sewage management systems in the Gloucester Local Government Area shall be accompanied by the following and the prescribed fee in accordance with Council’s Fees and Charges:

1. On-site Wastewater Management Report

- a) The report is to be prepared by an appropriately qualified and experienced wastewater consultant.
- b) The report shall provide a detailed site and soil assessment which takes into account the climate, topography, geology, hydrology and vegetation.
- c) The report shall recommend the most appropriate on-site sewage management facility to accommodate daily wastewater flows.
- d) The report shall recommend the location and size, including dimensions, of the most appropriate type of land application.

2. Site Plan

- a) Drawn to scale of 1:200 or larger
- b) Showing the distances of buildings and other structures from all boundaries
- c) Showing the position of all fittings and drainage lines
- d) Showing the position of the on-site sewage management facility
- e) Showing the position and dimensions of the land application area

3. Manufacturers Specifications & Accreditation Certificate

- a) Full specifications of the on-site sewage management facility to be installed
- b) Certificate of accreditation from the NSW Health Department

2.3 Commercial, Tourist and Agricultural Developments with Occupancies Greater than 10 persons.

On-site Wastewater Management Systems proposed for developments of this nature must produce effluent quality of at least a secondary standard.

A development application within these categories will require a detailed on-site wastewater management report that addresses the following:

- The type and configuration of system proposed for the development including tank capacities, the method of construction of tanks and the like.
- Information including calculations as to how the system will cater for the proposed loading. The information must reference hydraulic and solid capacities in the system design.
- Provide a water balance analysis for the site.
- Advise of the expected influent quality.
- Advise of the proposed outputs and quality of the effluent prior to disposal.
- Advise of any adverse chemical or biological inputs into the system and how the treatment device will process these inputs and achieve the accepted effluent quality.
- Demonstrate that the on-site sewage management system meets the objectives of this plan and related legislation.
- Provide a design including sizing calculations and construction methods regarding the land application area.
- Detail the mitigative measures proposed regarding protection of the system in the event of flood if the land is susceptible.
- Additional detailed calculations and assessment required if the system is within the buffer distances outlined in this plan.
- Conclusions and recommendations about the feasibility of the site and soil to accept and dispose of effluent.

2.4 Pressure Sewerage Systems

Properties within close proximity to Council's existing sewer services may be required to install a pressure sewerage system. Pressure sewer systems are installed as an economic alternative to the traditional gravity feed sewer.

A pressure sewer system is particularly useful where it would be difficult to install the traditional gravity mains such as areas that are hilly, extremely flat, of environmental significance, built up, or where minimum disruption is required.

The pressure sewerage system is installed at each home where sewage is collected, macerated and pumped under pressure to its destination.

Council's Pressure Sewer System policy specifies the installation, operation and maintenance guidelines of pressure sewerage systems within Gloucester.

3.0 SYSTEM SELECTION

3.1 Conventional septic tank

Traditionally, in unsewered areas, effluent from dwellings has received primary treatment in a conventional septic tank before being absorbed in underground trenches. This system has relied on the soil completing the treatment process

as the effluent moves through the strata. Not all soils or sites are suitable for absorption trenches, particularly in village areas with small blocks and soils with poor soil structures.

Even on large allotments, the soils must have the correct characteristics to satisfactorily treat the effluent. Unsuitable landscapes may cause effluent to reach the surface and/or groundwater and adversely affect receiving water bodies. Certain landscapes within the Gloucester Local Government Area do not have the characteristics necessary to treat effluent from septic tank systems without having a cumulative adverse impact on the receiving environment.

3.1.1 How does a septic tank work?

A septic tank system usually comprises two chambers. These chambers can be separate or within the one tank. The first or primary chamber allows some of the solids to settle to the bottom of the tank and oils and fats to rise to the surface to form a scum layer.

The solids that have settled to the bottom of the primary chamber undergo anaerobic bacterial digestion producing sludge. During this bacterial action the composition of the effluent changes producing lower levels of chemicals and pathogens.

The second chamber or holding well accumulates smaller amounts of solids and scum prior to the effluent leaving the tank for discharge to the land application area (LAA). To ensure that solids do not reach the LAA an approved in tank filter must be installed in such a manner to enable easy removal for cleaning on a regular basis. The tank must provide a retention time of at least 24 hours so that the effluent undergoes adequate anaerobic bacterial digestion and the flow of effluent to the LAA is controlled to avoid flooding. A cross section of a septic tank is depicted below.

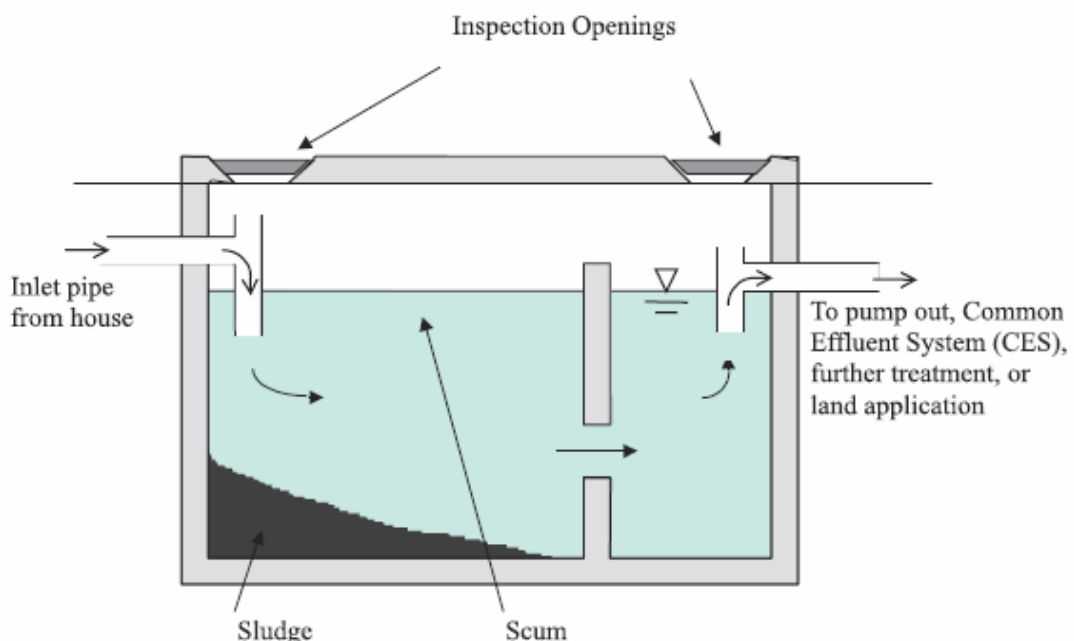


Figure 1: Cross-section of Septic Tank

The wastewater from a septic tank is not disinfected and has high nutrient levels therefore it poses a health risk and is environmentally hazardous. As the discharge is hazardous all primary treated effluent is disposed of below ground. It is therefore important to maintain and monitor your LAA to ensure that wastewater from the trench or transpiration area does not resurface.

For Council to be able to approve the installation of a septic tank the applicant must supply the NSW Health's certificate of accreditation. In addition the tank itself must clearly indicate the day, month and year of manufacture, the manufacturers name or registered trademark and the capacity of the unit in litres.

3.1.2 What Size does my septic tank have to be?

The Hunter and Central Coast Region of Council's require a 3000 litre tank as a minimum for a three-bedroom dwelling.

The following equation can be used to determine a specific tank size relevant to the number of persons (max) residing in your dwelling.

$$STC = HLR \times N + BA$$

Where:

STC = Septic tank capacity (litres)

BA = Basic allowance for sludge = 1550 litres

HLR = Hydraulic loading rate (litres /person /day)

N = Number of persons (max) in dwelling

3.2 Do I need a Filter in my septic tank?

To ensure that solids do not reach the Land Application Area an approved in tank filter must be installed in such a manner to enable easy removal for cleaning on a regular basis. A number of in tank filters are currently available on the market. The preferred type device is a conical filter that has an aperture of not greater than 1mm and is fitted to the outlet square of the tank. It is recommended that the filter be cleaned at 6 monthly intervals.

3.3 Soil absorption systems

There are two types of soil absorption systems commonly used to dispose of effluent from a septic tank. They are Absorption Trenches and Evapo-transpiration areas. These are outlined below.

3.4 How Does an Absorption Trench Work?

The absorption trench receives primary treated effluent from the septic tank. The role of the trench is to evenly discharge this effluent to the subsoil. The subsoil then filters the effluent as it percolates through.

Absorption trench installations are generally limited to sites where the surrounding soil has relatively well draining characteristics. However, because of the potential for contamination of groundwater, absorption trenches may not be suitable for sites with soil permeability in the upper ranges (ie. Where soils

are too well or rapidly draining) or where the seasonal or permanent watertable is less than 1500mm below the base of the trench.

Absorption trenches have a limited effective life span which will depend on many factors including water usage, soil characteristics, presence or absence of oils, grease and fats and the management regime of the septic tank.

Assessment for the suitability of sites for absorption trenches shall be determined by an on-site wastewater management system installation report, prepared by a suitably qualified wastewater expert.

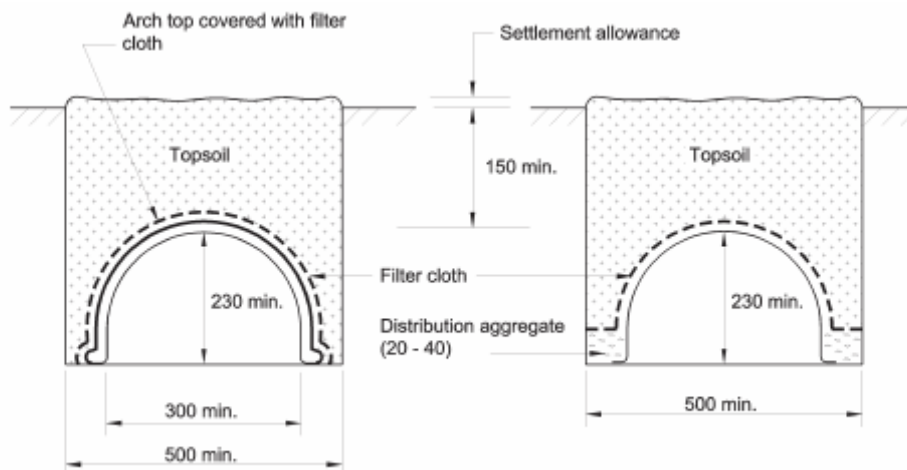
If the site conditions are not within the parameters suitable for absorption trenches the effluent may impact on the health and amenity of the environment.

3.4.1 What Size Does My Absorption Trench Have To Be?

The overall length/area required will be dependant upon the estimated daily volume of effluent to be applied and the assessed design loading rate (DLR) of the receiving soil. The on-site sewage management assessment report shall determine the required length/area of an absorption trench in accordance with Australian Standard 1547:2000.

3.4.2 Absorption Trench Construction

Absorption trenches shall be constructed in accordance with the requirements of Australian Standard 1547:2000. The figure below illustrates a typical absorption trench design.



On sloping sites, surface water and sub-surface seepage shall be diverted away from the absorption trench by means of raised mounds, diversion drains and/or agricultural drains, as may be applicable for the site.

Effluent shall be discharged as close to the mid point of the trench as possible. Effluent should be uniformly distributed across the full area of the trench by means of employing suitable distribution techniques.

Trenches shall be located parallel with the contours of the land, with the base of the trench and finished gravel layer being made level along its entire length.

A layer of fabric (eg. geotechnical fabric or similar) must be placed directly above the gravel/aggregate and below the overlying soil to prevent soil intrusion into the absorption trench. For absorption trenches utilising domed tunnel trenches, the high domed profile is recommended and end caps shall be fitted at the end of each completed length of tunnel trench.

In soils containing clay type foundation material, the permeability of the soil may be improved by applying gypsum and/or agricultural lime in suitable proportions (0.5 – 1.0kg/m²) spread evenly throughout the area of the trench.

3.5 How Does an Evapo-Transpiration Area Work?

Evapo-Transpiration Areas generally have a large surface area to depth ratio and are designed to utilise evaporation and plant transpiration losses together with absorption through the soil as the methods of disposal.

Similar to absorption systems, they have a limited effective life span which will depend on many factors including water usage, soil characteristics, presence or absence of oils, grease and fats and the management regime of the septic tank.

Assessment for the suitability of sites for Evapo-Transpiration Areas shall be determined by an on-site wastewater management system installation report, prepared by a suitably qualified wastewater expert.

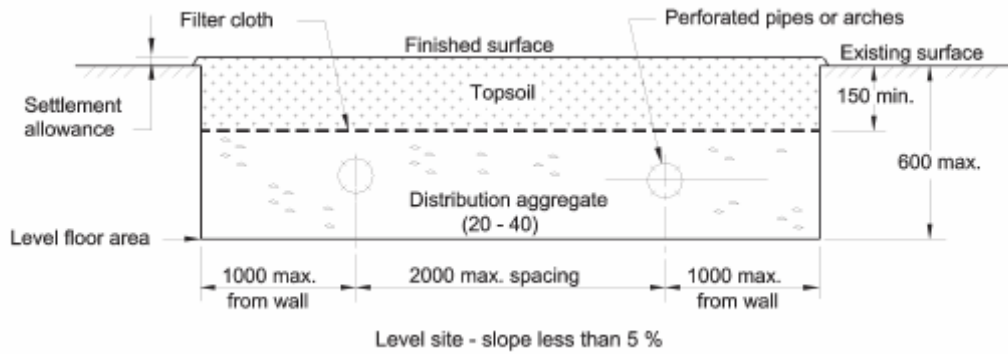
3.5.1 What Size Does My Evapo-Transpiration Area have to be?

The overall area required will be dependant upon the estimated daily volume of effluent to be applied and the assessed design loading rate (DLR) of the receiving soil. The size of the Evapo-Transpiration Area will also depend on the average amount of rainfall and evaporation applicable for the area in which they are to be installed.

The on-site sewage management assessment report shall determine the required area of an Evapo-Transpiration Area by conducting a full water balance calculation in accordance with Australian Standard 1547:2000.

3.5.2 Evapo-Transpiration Area Design

Evapo-Transpiration Areas shall be constructed in accordance with the requirements of Australian Standard 1547:2000. The figure below illustrates a typical Evapo-Transpiration Area design.



As wet weather may adversely affect the efficiency of Evapo-Transpiration Areas, surface water and sub-surface seepage must be diverted away from the disposal area by means of raised mounds and diversion drains.

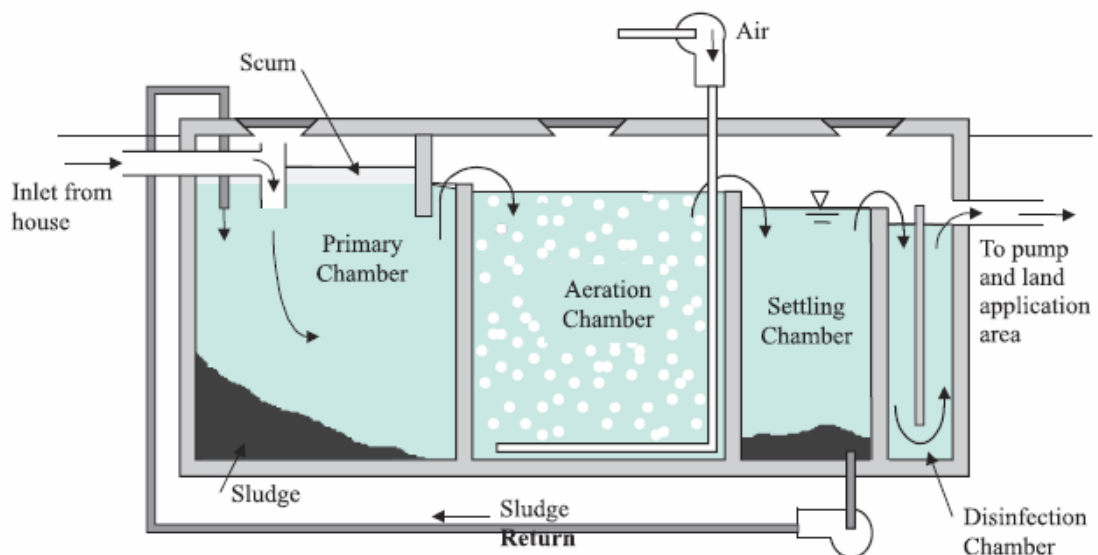
Evapo-Transpiration Areas should be distributed with effluent in equal proportions by means of suitable distribution techniques.

3.6 Aerated Wastewater Treatment Systems (AWTS)

The aerated wastewater treatment system (AWTS) is an alternative to the conventional septic system. This effluent is treated to a level known as tertiary treatment with the effluent undergoing disinfection by chlorination or ultra violet light in various chambers of a tank to remove bacteria and micro-organisms.

Because the effluent is treated to a higher standard than the conventional septic tank, it contains fewer potential harmful pathogens and as such its impact on the health and amenity of the local environment is not as great. This level of treatment allows the effluent to be spray irrigated above ground or discharged in a shallow sub surface bed, in most situations without any major health risk.

The exception is when an AWTS is not regularly maintained. Without regular maintenance by a suitable qualified person, significant public health and pollution problems can eventuate.



Due to the likelihood of potential pathogens, treated effluent shall not be used for the irrigation of fruit or vegetables. Although to a lesser extent, effluent from an AWTS may also be directed to other land disposal systems including absorption trenches, Evapo-Transpiration Areas and raised sand mounds.

3.6.1 What size does my aerated wastewater treatment system have to be?

All AWTS are required to have NSW Health accreditation. All AWTS accredited in NSW have a 10 person capacity (expressed as a 10 EP system). An AWTS of this size will cater for most residences. Should your situation require a system greater than 10 EP a special design would be required.

3.6.2 Does my aerated wastewater treatment system need a filter?

As with septic tank absorption systems a filter is required to be installed to all AWTS to restrict solids and sludge from finding its way to the disposal nozzles whether they be sprayers, drippers, or the like. Should solids find their way to these nozzles they will block causing localised inundation of the disposal area and irrigation pump burn out. It is also essential to ensure that the filter does not block, as blockage will also result in the same problems.

3.6.3 Surface or subsurface irrigation area?

The irrigation area is the area chosen through the site assessment process that is the most appropriate space to dispose of effluent on site. The treated effluent is generally disposed via surface or sub-surface irrigation techniques in areas located away from buildings, pedestrian traffic and recreational areas.

In the past the most common method of land application from AWTS was surface irrigation by way of sprayers or sprinklers. However, there are some public health and environmental concerns about surface irrigation. Whilst they maximise losses via evaporation, there is the risk of direct or indirect contact with treated wastewater which, dependent upon the presence of pathogens and the susceptibility of the receiving host, may lead to adverse health effects. There is also the potential for surface run-off, especially during periods of wet weather.

Given these inherent problems, sub-surface irrigation is arguably the safest, most efficient and effective method of effluent disposal/utilisation for AWTS units and should therefore be favoured over that of the surface irrigation system type.

Sub-surface irrigation techniques may include covered surface drip irrigation and shallow sub-surface drip irrigation systems. When selecting sub-surface irrigation systems, consideration must be given to the long-term performance of the system including the potential for maintenance problems due to plant root intrusion blockages and effluent discharges at lower lying areas within the irrigation system.

Recent and developing technologies have resulted in the inclusion of chemicals to inhibit root intrusion into the pipe work and bacterial growth inside the line. Pressure compensating line used for effluent disposal can be identified by a pink stripe along its length. It is essential that the pressure compensating line is situated at the right depth being 150mm below the surface.

Blockages should be prevented by means of installing suitable in-line filters within the main distribution line conveying wastewater to the irrigation system. Provision for the flushing of irrigation lines should also be provided.

Effluent discharges at low lying areas may be avoided by ensuring that each part of the irrigation system is level throughout or alternatively by providing suitable devices within the irrigation system so that the pressure and flow rate within the system is regulated to ensure uniform distribution of effluent throughout.

3.6.4 What size does my surface irrigation area have to be?

The size of the irrigation area will generally be dependent upon the adopted design irrigation rate (DIR) of the receiving soil, the estimated amount of wastewater to be applied and the localised weather conditions.

Council requires a land capability assessment to confirm the geotechnical characteristics of the site. The land capability assessment report shall determine the required irrigation area and disposal technique in accordance with Australian Standard 1547:2000.

3.6.5 AWTS Maintenance Requirements

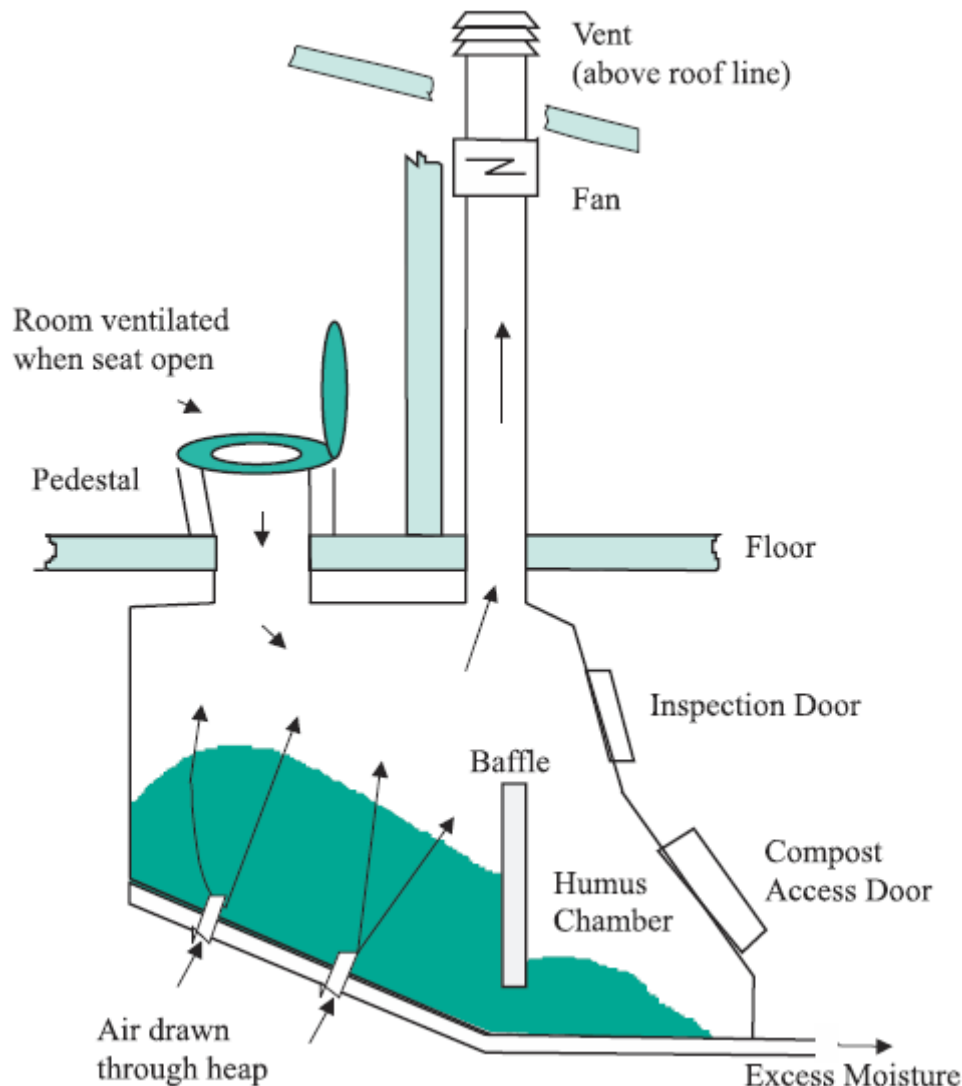
As a condition of accreditation by the NSW Department of Health and Council's installation approval, these systems are serviced quarterly by recognised service providers. A copy of the service record sheet shall be forwarded to Council after each service (i.e. every three months) for the life of the AWTS.

Any person servicing an AWTS unit within the Gloucester LGA must be duly authorised by Council and have undertaken appropriate training and gained formal qualifications that demonstrate their competence in servicing such systems.

3.7 Composting Toilets

There are two types of composting toilets currently available in New South Wales, dry composting and wet composting. They function with a no flush toilet pedestal.

In these systems, toilet wastes pass from the pan down a chute and into a chamber similar in size to a conventional septic tank. All faecal matter and other compostable matter produced in the dwelling, such as toilet paper and food scraps, may be disposed of to this system where it is broken down into compost by natural decomposing organisms.



A fan connected to a vent pipe produces negative air pressure within the composting chamber. The fan aims to draw odours away from the toilet pan and evaporate excess liquid from the composting chamber.

These systems treat only toilet wastes, and all other liquid wastes from the shower, kitchen and laundry (grey water) must be disposed of via a separate grey water system.

These systems discharge to subsurface disposal areas such as absorption trenches or evapo-transpiration areas. The dry composting toilet itself produces only a small amount of liquid wastes where operated in accordance with the manufactures specifications.

Maintenance is the responsibility of the owner or occupier and is not normally subject to a maintenance contract. The owner or occupier must be committed to the principles of composting. Maintenance varies among systems, and the maintenance requirements need to be specified clearly in a manual.

3.8 Constructed Wetlands - Reed Beds

Constructed wetlands and reed beds are purpose-built areas that may be incorporated in the design and installation of on-site sewage management

facilities. They are not a disposal system on their own but are used to reduce the quantity of wastewater to be disposed and to improve the quality of the effluent.

Sub-surface flow reed beds normally consist of impermeable ponds (usually membrane lined) which are filled with media such as rock, gravel or coarse sand. The media supports the root system of emergent vegetation (ie. reeds). As wastewater flows through the media the root systems of the reeds remove some nutrients and uptake moisture via transpiration.

Periodic harvesting of the reeds is required and the wastewater exiting the reed bed requires land disposal via an approved method (eg. sub-surface irrigation, absorption trenches, evapo-transpiration areas).

3.8.1 Design and Sizing of Constructed Wetlands - Reed Beds

The design and sizing of reed beds shall be determined by persons appropriately qualified and/or experienced to do so. The construction of the system will be undertaken by an appropriately qualified person in accordance with the construction plans and specifications approved by Council.

3.9 Sand Mounds - Sand Filters

Sand mounds and filters can be used further to treat wastewater that has undergone primary or secondary treatment before land application.

Sand mound and filter systems consist of an impermeable lined sand filter bed into which wastewater from septic tanks or other treatment systems is periodically distributed (by pump) for further treatment. Under the influence of gravity, wastewater moves down through the filter sand where mechanical filtering and microbial treatment improves effluent quality.

Depending on the design of the system the wastewater may be recirculated to further improve effluent quality. Recirculating systems generally produce final effluent having a much higher quality than a single pass system.

Wastewater exiting from sand mounds and filters requires land disposal via an approved method (eg. sub-surface irrigation, absorption trenches, evapo-transpiration areas).

3.9.1 Design and Sizing of Sand Mounds and Filters

The design and sizing of sand mounds and filters shall be determined by persons appropriately qualified and/or experienced to do so. The construction of the system will be undertaken by an appropriately qualified person in accordance with the construction plans and specifications approved by Council.

3.10 Amended Soil Systems

Amended soil systems may be used to further treat wastewater that has undergone primary or secondary treatment before land application.

Systems are constructed in an impermeable membrane containing granular material (amended soil) into which the wastewater from a septic tank or other

wastewater treatment is applied. As the cell is isolated from the environment by an impermeable liner, wastewater retention time within the system is increased, generally resulting in more complete bacterial breakdown of the applied effluent.

3.10.1 Design and Sizing Amended Soil Systems

The design and sizing of amended soil systems shall be determined by persons appropriately qualified and/or experienced to do so. The construction of the system will be undertaken by an appropriately qualified person in accordance with the construction plans and specifications approved by Council.

3.11 Alternative Solutions

The provisions of this plan should not be construed as preventing the installation of alternative domestic wastewater treatment and effluent disposal systems not specifically mentioned herein. Should an alternative system be proposed, Council will consider each alternative on a case by case basis.

4. GREY WATER TREATMENT AND DISPOSAL

Grey water for the purposes of this plan is domestic wastewater excluding toilet waste and includes wastewater arising from a hand basin, bath, shower and laundry. Kitchen wastewater is heavily polluted physically with food particles, oils, fats, and other highly pollutant waste and is often more pollutant than black water or raw sewage. Kitchen wastewater is unsuitable, without some form of treatment, for direct discharge to a land application system.

When grey water is stored it will also turn septic giving rise to offensive odours and provide conditions for micro-organisms to multiply. Thermotolerant coliforms have been found to multiply by 10 to 100 times during the first 24 to 48 hours of storage. It is concluded that grey water must not be stored unless adequately treated. Grey water can be infectious, and without disinfection it must not be used above ground.

4.1 Grey water Diversion

Grey water diversion devices do not treat grey water. Depending on the grey water source, before grey water can be utilised directly into the soil it must, as a minimum, be coarse screened to remove materials that may clog pumps, block pipes or place too great a pollutant load in the soil for its treatment.

Grey water Diversion Devices and there associated land application area do not require installation approval from Council. However, they do require 'approval to operate' from Council. It is strongly suggested that the 'approval to operate' is obtained from Council prior to the installation of the system.

4.2 Gravity Diversion Devices

A gravity diversion device incorporates a hand activated valve, switch or tap which is fitted to the outlet of the waste pipe of the plumbing fixture such as a laundry tub. The plumbing diversion device can be switched by the householder to divert grey water from the laundry tub by gravity directly to the diversion line and the dedicated land application system. Remember that grey water must not be stored

and that gravity diversion devices must not be installed below the “S” bend on any plumbing fitting as it would allow sewer gasses to enter the home.

4.3 Pump Diversion Devices

A pump diversion device incorporates a surge tank to cope with sudden influxes of grey water for distribution by a pump to a sub-surface land application system. The surge tank must not operate as a storage tank.

The grey water should be screened as it enters a surge tank for distribution by a pump to the sub-surface land application system. The coarse screens must be cleaned regularly and the surge tank flushed periodically.

4.4 Grey water Treatment Systems

Grey water Treatment Systems collect, store, treat and may disinfect all or any of the sources of grey water to the standards specified in the NSW Health Accreditation Guidelines. Where the treated grey water is not disinfected it may only be utilised in a properly designed subsurface irrigation area.

Where the treated and disinfected grey water meets a 30 cfu thermotolerant coliform / 100mL disinfection criteria it may be utilised by surface irrigation in a properly designed land application area.

Where the treated and disinfected grey water meets a 10 cfu thermotolerant coliform / 100mL disinfection criteria it may also be used for toilet and urinal flushing and laundry use.

Grey water treatment systems are defined as a waste treatment device and the owner of the premises must obtain an approval to install construct or alter a waste treatment device under Section 68 of the Local Government Act 1993 and the Local Government (Approvals) Regulation prior to installation of both the grey water treatment system and the associated land application area from Council.

Grey Water Treatment Systems requires a certificate of accreditation from NSW Health Department. Council will only approve the installation of accredited grey water treatment systems in the Gloucester Local Government Area.

Grey water Treatment Systems also require ‘approval to operate’ from Council.

4.5 Assessment and Design of Grey water Land Application Areas

It is essential that land application systems for grey water reuse be designed properly. To do this a wastewater audit may need to be done to determine wastewater usage. The table below provides an approximate usage guide.

Wastewater Type	Total Wastewater (L/day)	Total Grey water (L/day)
Toilet	186	-
Hand Basin	28	28
Bath / Shower	193	193
Kitchen	44	44
Laundry	135	135
Total	586	400

Source: NSW Health: Grey water reuse in sewerred single domestic premises.

The site then needs to be evaluated for the land application system requirements. It may be appropriate to engage a geotechnical engineer or soil scientist to prepare the site assessment and application to Council for approval to install / operate the grey water system.

5. RESPONSIBILITIES

5.1 Council Responsibilities

Gloucester Shire Council responsibilities include:

- Ensuring approval is sought for the implementation and operation of on-site sewage management systems within the Gloucester LGA
- Assessing approvals and proposed systems
- Identifying all on-site sewage management systems within the LGA
- Supervising and monitoring the operating performance of each individual system by on-site inspections
- Development and maintenance of a register of on-site sewage management systems within the LGA
- Identifying the potential risk posed by systems and classifying systems, as well as identifying sensitive areas
- Enforcing compliance with operational standards, to protect public health and the environment, including orders and penalties for non-compliance
- Determining renewal of approvals to operate an on-site sewage management system
- Responding to complaints and pollution incidents
- Considering long term goals and solutions for enhanced protection of public health, the environment, and community amenity
- Monitoring and reporting on the overall impact of on-site sewage management systems within the LGA through State of the Environment reporting
- Guiding system operators toward obtaining further information and assistance
- Striving for ESD through appropriate strategies

5.2 Owner Responsibilities

The individual owner is responsible for:

- Seeking approval from Council for the operation of an on-site sewage management system
- The maintenance and operation of their on-site sewage management system
- Determining the regular maintenance that is required for their system and gaining knowledge regarding the processes required to extend the life of their system, including the land used for the disposal area. This also includes implementing conservative use of water and avoiding strong chemicals so as to maintain efficient system performance, and as a result extend the operational life of the system
- Ensuring that their system is operating effectively and complies with approval conditions and statutory requirements, including not allowing wastewater to be discharged onto non-designated areas

- Ensuring that no wastewater is discharged to any watercourse, neither permanent nor intermittent
- Ensuring that manufacturer's instructions for use and maintenance of the system are followed to ensure effective and efficient system operation
- In the case of Aerated Wastewater Treatment Systems, owners must ensure that maintenance and service contracts are current and operational, as well as ensuring that the system is visited by a service provider every 3 months and a copy of that service report is forwarded to Council
- Ensuring that occupants are provided with the necessary information and support to successfully operate and maintain their on-site sewage management system, in the case of absentee owners
- Providing relevant information to Council as requested

6.0 INFORMATION

6.1 On-site Sewage Management Systems Register

Council records include a register of all on-site sewage management systems that have undertaken registration within the LGA as required under the Local Government Act. Under the Act the register is to include:

- the serial number that identifies the application for the approval
- the date on which the application for the approval was made to the council
- the amount of any fee payable in connection with the application
- the date or dates on which any such fee, or any part of it, was paid to the council
- the date from which the approval operates
- the name and address of the person to whom the approval is granted
- the name or address of any place in relation to which the approval is granted
- a brief description of the subject-matter of the approval
- any conditions to which the approval is subject
- the duration of the approval
- whether the approval has been revoked or modified

7.0 REGISTRATION & APPROVAL

The owner of an on-site sewage management system is required to register their system and obtain approval to 'operate a system of sewage management'.

7.1 Existing Systems

The owner of an existing operating system must register their system with Council. The system owner is required to apply for approval to 'operate a system of sewage management', at which point the application will be assessed, and the system placed into a risk category of High, Medium, or Low. These categories refer to the potential for the system to adversely affect public health or the environment.

Approval to 'operate a system of sewage management' will be issued to the system owner upon completion of an initial inspection by Council. The approval will be subject to conditions of consent as determined by Council. The system may continue to be operated until such time as the 'approval to operate' expires. Upon which time the owner shall make application for renewal of Council approval.

Council may take legal proceedings against the owner of any property that has an on-site sewage management operating without a current 'approval to operate'.

7.2 New Systems

The installation and operation of new on-site sewage management systems must obtain prior approval of Council through the Local Approvals process.

The application will be processed by Council and a determination issued to the applicant with installation and operating conditions.

New systems are also subject to risk classification and 'approval to operate' periods. Upon expiration of the 'approval to operate' the owner shall make application for a renewal of Council approval.

Council may take legal proceedings against the owner of any property that has installed an on-site sewage management without prior approval from Council.

7.3 Renewal of Council Approval

Approvals will be renewed at varying increments, depending on the risk classification of the individual system. Renewal of approval to 'operate a system of sewage management' will occur as follows:

- **High** risk systems – every two **(2)** years.
- **Medium** risk systems – every four **(4)** years
- **Low** risk systems – every six **(6)** years

These time frames are in alignment with the inspection times for each risk category. Conditions of consent relating to the approval to operate, may be altered by Council at the time of renewal of that approval. In each case the conditions of approval set by Council will be influenced by specific system design, site conditions, as well as risks posed by the system.

Approximately one (1) month prior to the expiration of an 'approval to operate' Council will notify the property owner and request that they renew their 'approval to operate' for a further period, of which is determined by the risk category.

Where owners do not renew their approval to operate by applying to Council and paying the associated fees, Council may take legal proceedings against the owner, including the issuing of penalties for operating a system of on-site sewage management without approval.

7.4 Transfer of Ownership

Approvals to operate on-site sewage management systems are granted to the owners of properties with these systems installed. Intending purchasers of land should ensure that on-site sewage management systems are registered and have a current 'approval to operate' with Council.

It is the new owner's responsibility to register the system in their name, as well as their responsibility to operate the system to the required performance standards.

The Regulation provides that a person who purchases land, on which any sewage management facilities are installed, may continue to operate such a system, for a period of three months from the date of purchase without the approval of Council.

It is further provided that, if a person who purchases, or otherwise acquires land on which an on-site sewage management system is installed, applies for an approval within two months of the transfer of ownership, they may continue to operate the system until such time as a final determination has been made by Council.

It should be noted that an approval to 'operate a system of sewage management' extends to all owners of the land (or occupiers of the land), regardless of the name in which the system is registered.

8.0 MONITORING PROGRAM

8.1 Risk Assessment and Classification

In order to enhance the effectiveness of the monitoring process, a classification system has been developed, which includes categories of Low, Medium, and High risk posed by on-site sewage management systems, to public health and the environment.

8.2 Preliminary Classification

Council will complete a desk-top audit to determine the preliminary classification of an on-site sewage management system. This will be followed by an on-site inspection and review of classification.

In order to determine the preliminary classification of an individual system, Council will utilise a site assessment checklist, including recommended buffer distances. Any other potential hazards that can be identified will also be noted and taken into consideration by the assessing Council officer.

8.3 On-site Inspection

Council will inspect all on-site sewage management systems within the Gloucester Shire Council LGA. Individual systems will be assessed on their performance and risk to public health and the environment.

The minimum performance requirements for on-site sewage management systems are:

- The prevention of the spread of disease by micro-organisms
- The prevention of the spread of foul odours
- The prevention of the contamination of water
- The prevention of the degradation of soil and vegetation
- The discouragement of insects and vermin
- Ensuring that persons do not come into contact with untreated sewage or effluent in their ordinary activities on the premises concerned
- The minimisation of adverse impacts on the amenity of the premises and surrounding lands

- If appropriate, provision for the reuse of resources including nutrients, organic matter, and water

The on-site inspection and review of classification will assess the cumulative impact of potential hazards, including those determined by the preliminary assessment, as well as those identified on-site. The on-site inspection will assess parameters such as site drainage, run-on and upslope seepage, erosion potential, operating performance of the system, and any other identifiable signs of potential hazard.

Inspection frequency varies for on-site sewage management systems, depending on the risk classification of the individual system. The inspection time frame will be as follows:

- **High** risk category – every two years (**2 yrs**)
- **Medium** risk category – every three years (**4 yrs**)
- **Low** risk category – every six years (**6 yrs**)

8.4 Risk Assessment Criteria

Once inspected on-site sewage management systems will be placed into one of three (3) levels of risk classification. This is based on the following criteria:

High Risk

- The system is clearly located within:
 - 100 metres to permanent surface waters (river, creek, stream, lake)
 - 40 metres to other waters (dam, intermittent waterway, drainage depression)
 - 250 metres to a domestic groundwater bore/well
- System is located on a property with a total land area less than 8000m²
- Located in an area prone to flooding in a 1:100 year flood event
- The system is not operating in accordance with:
 - the performance objectives of this plan
 - the conditions of accreditation imposed by the NSW Health Department
 - any installation or operating conditions imposed by Council

Medium Risk

- The system is predominantly located outside the recommended buffer distances as indicated in this plan
- System is located on a property with a total land area greater than 8000m²
- The major components of the system are operating in accordance with:
 - The performance objectives of this plan
 - The conditions of accreditation imposed by the NSW Health Department
 - Any installation or operating conditions imposed by Council

Low Risk

- The system is clearly located outside the recommended buffer distances as indicated in this plan
- System is located on a property with a total land area greater than 8000m²
- All parts of the system are operating in accordance with:
 - The performance objectives of this plan
 - The conditions of accreditation imposed by the NSW Health Department

- Any installation or operating conditions imposed by Council

Council maintains the ability to conduct on-site inspections at any time where it is deemed appropriate or necessary for the protection of public health and the environment.

Prior to an inspection being carried out by a Council officer, written notification will be provided. Inspections by Council officers will only be made at a reasonable time during the day or during business operating hours.

Property owners will be charged for on-site sewage management inspections in accordance with Council's Fees and Charges. An invoice will be raised and forwarded to the property owner within one (1) of the inspection being conducted.

8.5 Content of Inspection

The Council Officer conducting an inspection will utilise a site assessment checklist to assist with the determination of risk classification, and identification of risks associated with the system.

During an inspection of an on-site sewage management system, a Council officer may:

- Open ground and take any necessary reasonable measures to determine the type, condition or location of the sewage management system
- Require any person at the premises to answer questions or to provide information in relation to the sewage management system
- Take samples or photographs in connection with the assessment of the sewage management system
- Carry out additional functions sanctioned by a condition of an approval or by an agreement with the owner

8.6 Re-classification

The classification of an on-site sewage management system may be altered during an assessment, as well as at other times as Council deems appropriate. A system classification may be amended to a higher or lower risk category as determined by the assessing Council officer. The implementation of upgraded systems may result in a lower risk category being assigned to a particular system, which will reduce costs on the owner in relation to monitoring fees.

8.7 Aerated Wastewater Treatment Systems (AWTS)

Inspections of AWTS installations will also be carried out under this Strategy. The inspections will focus on the adequacy of the treated effluent application areas and as to whether the required quarterly servicing of such systems is being carried out. These systems have a greater opportunity to be placed in lower risk categories due to private servicing occurring in addition to Council inspections.

8.8 Financial Hardship and Upgrading Failing Systems

During all inspections of sewage management systems, Council officers will discuss options and time frames for repair, operation or maintenance of defective

or failing sewage management systems with owners. Council officers will attempt to establish a compliance period suitable for the landowner if the risk to public health and the environment is able to be satisfactorily limited. It can be assumed that in some circumstances this negotiation will not be sufficient and some owners will not be financially capable of carrying out the required repairs.

In these situations, which will each be assessed on their merit, Council may agree that only measures and upgrading that are needed to bring a system to manageable standards are carried out until:

- sale of the property
- change in occupancy
- change in financial status

When sale of the property, change in occupancy, or change in financial status does occur, the appropriate repairs will be required.

9.0 RESOURCES

Fees associated with approvals to operate systems of sewage management, and the monitoring of these systems, will be structured so that income from the program equals costs, therefore rendering the program revenue neutral.

9.1 Funding

Council was supplied with a grant from the Department of Local Government, which funded the establishment of a register of on-site sewage management systems within the Gloucester Shire LGA. Now that the register has been established, fees associated with OSMS approvals and monitoring programs will be utilised to cover resulting costs.

9.2 Fees

Fees associated with the OSMS and subsequent monitoring are in accordance with Council's Fees and Charges.

10. Complaints about On-site Sewage Management Systems

Any member of the public that has a problem with the operation of an on-site sewage management system can make a complaint in person or in writing to Council. Council will investigate the complaint in accordance with its complaints handling procedure. Please note: Council may not act on anonymous complaints.

11. Duty to Notify of Pollution Incidents

Under the relevant provisions of the Protection of the Environment Operations Act where a pollution incident occurs in the course of an activity (ie. operation of an on-site sewage management system) where harm to the environment is caused or threatened the person must, as soon as practicable after the person becomes aware of the incident, notify the appropriate regulatory authority.

Failure to notify the relevant authority and provide sufficient details of the incident could lead to significant penalties.

12. Enforcement Procedures

There are a number of mechanisms available to Council to enforce on-site sewage management performance standards and requirements.

Council will only consider enforcement action when other approaches have failed or there is an immediate risk to public health or the environment.

Council's enforcement procedures as outlined below are aimed at giving the property owner/occupier every opportunity to comply with Council's requests prior to enforcement proceedings being instigated.

Under the Local Government Act 1993 and Local Government General Regulation 2005, Council may prosecute the owner or occupier for the following offences:

- Installing, constructing or altering a waste treatment device or human waste storage facility without approval (s626(3));
- Failing to comply with an approval to install, construct or alter a sewage management facility (s627(3));
- Operating a sewage management system without prior Council approval (s626(3));
- Operating a system of sewage management otherwise in accordance with the terms of approval (s627(3));
- Failing to comply with the conditions of an exemption from approval to install, construct or alter or to operate a system of sewage management (s626(4));
- Failing to comply with an order (s628(2)).

12.1 Inadequate or Failing On-site Sewage Management Systems

If following an inspection or investigation by Council the system is found to be inadequate or failing to meet environmental and public health objectives the following procedures will be undertaken:

- 1) The property owner will be issued with a letter requesting an upgrade of the system and that an application to install/alter/convert an on-site sewage management system be submitted within sixty (60) days;
- 2) If an application has not been received within sixty (60) days another letter will be sent requesting the application within fourteen (14) days to prevent an Order being issued. The Order will require an application be submitted and specify a time period for the system to be upgraded. A Prevention Notice under the POEO Act may also be issued depending on the risks.
- 3) If no application has been received an Order or Notice will be issued and followed up according to the time period stated in the Order or Notice.
- 4) If the owner fails to comply with the Notice or Order the Council may take one or more of the following courses of action and/or repeat the process:
 - Issue penalty infringement notices
 - Undertake the work required and recover costs against the property
 - Prosecute the owner in the local court

12.2 Outstanding Approval or Inspection Fees

Where approval or inspection fees remain outstanding in relation to an on-site sewage management system the following procedures are undertaken:

- 1) A letter will be sent, with copy of original invoice, requesting payment of all outstanding fees within fourteen (14) days.
- 2) If payment is not made another letter is sent, with copy of original invoice, warning that legal action will commence if outstanding fees are not paid within fourteen (14) days.
- 3) If payment is still not made a summons is made to the Local Court for the outstanding fees plus any legal or processing costs.

12.3 Local Government Orders

Under the Local Government Act 1993 Council may take action against the owner of the premises using an on-site sewage management system for various offences

Under Section 124 of the Local Government Act 1993 Council may order the owner or occupier to do or refrain from doing the following:

- a) To store, treat, process, collect, remove, dispose of or destroy waste which is on land or premises in the manner specified in the order.
- b) Not to use or permit the use of a human waste storage facility on a premises after a specified date if it is necessary for the purpose of protecting public health.

If a person fails to comply with an order the Council may take one or more of the following courses of action:

- Issue penalty infringement notices
- Undertake the work required and recover costs against the property
- Prosecute the owner in the local court

13. Buffer Distances for On-site Sewage Management Systems

The buffer distances provided in Appendix I are those recommended and adopted by the Environmental and Health Protection Guidelines.

Where the buffer distances set by this table can not be achieved, in the case of existing on-site sewage management systems, and are considered to be impracticable, unwarranted or unjustified, given the circumstances of the case, a lesser buffer distance acceptable to Council may be applied.

However for new installations on land not previously burdened by the installation of an approved OSM facility, the buffer distances provided within the table shall be strictly adhered to.

