

ON-SITE SEWAGE MANAGEMENT AND GREYWATER RE-USE POLICY

PURPOSE OF THIS POLICY

- To provide a consistent approach in the assessment and approval process of on-site sewage management systems.
- To ensure that new on-site sewage management systems are only installed on sites that are suitable for effluent disposal.
- To provide information to the community so they can make an informed decision on the most suitable method of effluent disposal for each particular site.

Always read this policy in conjunction with the Related Documents identified below:

Policy Statement	<p>It is Council's responsibility to determine whether proposed on-site sewage management systems are suitable for the site where they are to be installed.</p> <p>This policy outlines the design criteria to achieve sustainable on-site sewage management practices within the Shire.</p> <p>In order to make an informed assessment as to the suitability of a proposed system the design criteria, outlined in this policy, must be demonstrated prior to Council approving the systems installation.</p>
Scope	Councillors, Officers, Employees, Wastewater Contractors, Service Agents
Related Procedures	<ul style="list-style-type: none"> • <i>Nil</i>
Related Documents	<ul style="list-style-type: none"> • <i>Designing and Installing On-site Wastewater Systems</i>, Water NSW (2019) • <i>Australian/New Zealand Standard AS1547:2012 On-Site Domestic Wastewater Management</i> • <i>Environment and Health Protection Guidelines: On-site sewage management for single households</i> New South Wales Department of Local Government (1998) (aka 'Silver Book') • <i>Neutral or Beneficial Effect on Water Quality Assessment Guideline (NorBE)</i>, Sydney Catchment Authority, (2015). • <i>NSW Guidelines for Greywater Reuse in Sewered, Single Household Residential Premises</i>, New South Wales Department of Energy, Utilities and Sustainability (2007) • <i>Water Sensitive Design Guide for Rural Residential Subdivisions</i> Sydney Catchment Authority (2011)

	<ul style="list-style-type: none"> • <i>Environmental Guidelines – Use of Effluent by Irrigation</i>, NSW Department of Environment & Conservation (2004) • <i>Sewage Management Facility Vessel Accreditation Guideline</i>, NSW Health (2016). • <i>Wollondilly Development Control Plan 2016</i>
Compliance Requirements	<ul style="list-style-type: none"> • <i>Local Government Act 1993</i>; • <i>Local Government (General) Regulation 2005</i>; • <i>Environmental Planning and Assessment Act 1979</i>; • <i>Environmental Planning and Assessment Regulation 2000</i>; • <i>Plumbing and Drainage Act 2011</i> • <i>Protection of the Environment Operations Act 1997</i> • <i>State Environmental Planning Policy (Drinking Water Catchment) 2011</i>.
Policy Owner	<i>Manager Health & Regulatory Services</i>
Adoption Date	TBA
Next Review Date	TBA <i>Every 3 years unless legislative requirement differs</i>

1. PRINCIPLES

1.1 The Wollondilly Local Government Area has one of the highest number of on-site sewage management systems within New South Wales. There are currently approximately 8000 systems, with this number increasing as more development occurs in the rural and semi-rural areas.

Sydney Water provides and manages the reticulated sewer system within the Wollondilly Shire. This sewer system is available to most small residential lots within the towns and villages of the Shire. Areas where the sewer is unavailable are generally larger lots on the fringes of these towns, semi-rural and rural areas, the villages of Menangle, Yanderra, Nattai and Mount Hunter and isolated streets where Sydney Water's sewer has not been provided.

A large part of the Shire lies within the Sydney Drinking Water Catchment, with the region being the main source of water for Sydney. As such, it is important that we protect our waterways from potential pollution from effluent disposal. To do this, Council must manage and monitor the cumulative environmental impacts and reduce the risk of failing or inadequately designed on-site sewage management systems.

2. ROLES AND RESPONSIBILITIES

Role	Responsibility
COUNCILLORS	<ul style="list-style-type: none"> To be aware of the risks associated with On-site Sewage Management Systems
CEO	<ul style="list-style-type: none"> To be aware of the risks associated with On-site Sewage Management Systems
DIRECTOR	<ul style="list-style-type: none"> To be aware of the risks associated with On-site Sewage Management Systems
MANAGER Health and Regulatory Services, and MANAGER Planning and Development	<ul style="list-style-type: none"> To support staff in the implementation of programs to manage On-site Sewage Management within the Shire and to provide adequate resourcing
STAFF -EHOs -Building Surveyors -Planners -Administration Staff	<ul style="list-style-type: none"> EHOs, Building Surveyors and Planners to assess, evaluate and inspect On-site Sewage Management Systems, as required, to ensure their adequate operation and to reduce risk to the environment, and Administration staff to oversee Approvals to Operate On-site Sewage Management Systems and to follow up systems that may require maintenance
CONTRACTORS	<ul style="list-style-type: none"> To provide regular servicing and reporting of Aerated Wastewater Treatment Systems
WASTEWATER CONSULTANTS	<ul style="list-style-type: none"> To consider the contents of this policy when making decisions about adequate On-Site Sewage Management Treatment and wastewater disposal options

3. APPLICABILITY

- 3.1 This Policy applies to **all** developments with on-site sewage management systems, not serviced by a reticulated sewerage system in the Wollondilly Local Government Area.
- 3.2 This Policy applies to **all** unsewered land within the Wollondilly Local Government Area.
- 3.3 The following systems are all classified as on-site sewage management systems under this policy:
- i. Aerated Wastewater Treatment Systems (AWTS)
 - ii. Septic tank and absorption trenches or beds
 - iii. Septic tank and evapotranspiration/absorption areas
 - iv. Pump-out/collection well systems
 - v. AWTS and sand mound/eco-max systems
 - vi. Grey water treatment systems
 - vii. Composting toilet systems

- viii. Any other system that stores, treats or disposes of wastewater on-site, accredited by NSW Health
- ix. Packaged Treatment Systems.

4. PERFORMANCE OBJECTIVES

- 4.1 Each on-site sewage management system must be considered on its own merit. The system must be appropriate for long term use on the site and meet the following performance objectives:
- i. **Prevention of Public Health Risk** – sewage contains bacteria, viruses, parasites and other disease-causing organisms. Contact with effluent should be minimised or eliminated, particularly for children. Residuals, such as composted material should be handled carefully. Treated sewage should not be used on any edible crops.
 - ii. **Protection of lands** – on-site sewage management systems should not cause deterioration of land and vegetation quality through soil structure degradation, salinization, water-logging, chemical contamination or soil erosion.
 - iii. **Protection of Surface Waters** – on-site sewage management systems should be selected, sited, designed, constructed, operated and maintained so that surface waters are not contaminated by any flow from treatment systems and land application areas (including effluent, rainfall run-off and contaminated groundwater flow).
 - iv. **Protection of Ground waters** – on-site sewage management systems should be selected, sited, designed, constructed, operated and maintained so that ground waters are not contaminated by any flow from treatments systems and land application areas.
 - v. **Conservation and re-use of resources** – the resources in domestic wastewater (including nutrients, organic matter and water) should be identified and utilised as much as possible within the bounds posed by the other performance objectives. Water conservation should be practiced and wastewater production should be minimised.
 - vi. **Protection of community amenity** – on-site sewage management systems should be selected, sited, designed, constructed, operated and maintained so that they do not unreasonably interfere with quality of life. Where possible, so that they add to local amenity – special consideration should be given to aesthetics, odour, dust and excessive noise.

5. GUIDELINES

Domestic On-site Sewage Management

- 5.1 The installation and operation of any new on-site sewage management system requires an approval. For approval to be granted, the owner of the property must apply to Council.

5.2 All applications to install or alter on-site sewage management systems shall include-

- A site plan with the following:
 - The location of the effluent disposal area(s) with amount of land available.
 - The location of the sewage management system.
 - The location of all current and/or proposed buildings.
 - Distances to buildings, property boundaries, driveways, swimming pools, paved areas, and market gardens (where applicable). Distances to any environmentally sensitive areas e.g. rivers, creeks, bores, drainage depressions, dams etc.
- Details/specifications of the sewage management system proposed to be installed.
- Certificates of Accreditation from Ministry of Health for the system to be installed.
- Floor plans clearly showing the number of bedrooms in the dwelling and any other habitable rooms that may be used or converted into a bedroom. (Where a secondary dwelling is to be installed on the same property as a principal dwelling – floor plans are to be provided for both the secondary dwelling and the principal dwelling).

5.3 All new domestic applications are classified into categories determined by the amount of suitable effluent disposable area available. The categories determine the type of effluent management permissible. Each category varies in terms of the potential risk of installing an on-site sewage management system on that site and require different amounts of information to be submitted with the application to install.

NOTE - The suitable effluent disposal area does not include buffer distances, these must be provided in accordance with Section 5.8 of this policy.

All systems will be classified into one of the three categories shown below:

- Category 1 - Lots with 1500 m² or more of suitable effluent disposal area**
- Category 2 - Lots with between 300 m² and 1500 m² of suitable effluent disposal area**
- Category 3 - Lots with less than 300 m² of suitable effluent disposal area**

5.4 **Category 1 - Lots with 1500 m² or more of suitable effluent disposal area:**

- 5.4.1 Surface irrigation with a movable line is permissible.
- 5.4.2 Effluent disposal areas of this size are expected to be able to satisfactorily cope with domestic wastewater loads of up to 10 persons.
- 5.4.3 Only a minimum site assessment is required for sites in this category where an Aerated Wastewater Treatment System (AWTS) is proposed. A more detailed report may be requested by Council if considered necessary.

A detailed wastewater report prepared by a suitably qualified and experienced wastewater consultant outlining how the system will comply with the relevant legislation and guidelines is required if:

- 5.4.4 The land is located within the Sydney Drinking Water Catchment.

- 5.4.5 Sub-soil disposal systems (i.e. trenches, beds, mounds, etc.) are proposed.
- 5.4.6 Alternate systems such as biological filter systems, grey water treatment systems, or wet and waterless composting system are proposed.
- 5.4.7 The land is located on a steep slope (more than 10%).

5.5 Category 2 - Lots with between 300 m² and 1500 m² of suitable effluent disposal area:

- 5.5.1 A detailed wastewater report prepared by a suitably qualified and experienced wastewater consultant detailing how the system will comply with the relevant legislation and guidelines must be submitted.
- 5.5.2 A variety of land application methods may be permissible (depending on available space and soil type) and must be designed and installed in accordance with the latest version of AS/NZS 1547:2012 On-site domestic wastewater management, with the exception that the design daily flow calculations, based on the number of potential bedrooms in a dwelling are in accordance with s5.7 of this policy. Where possible, 100% reserve area should be provided. Each application will be assessed on its own merits and the potential impact of the proposed system on human health and the environment.
- 5.5.3 Sub-soil (trenches and beds) will not be permitted in Category 1, 2 and 3 soils (Gravel, sand and sandy loam), or Category 6 soils (medium to heavy clay).

5.6 Category 3 - Lots with less than 300 m² of suitable effluent disposal area:

- 5.6.1 Only pump-out systems are permissible.
- 5.6.2 A grey water treatment system may be installed; a detailed wastewater report is required for the installation of these systems.

Potential Bedrooms

5.7 For domestic systems the design daily flow calculations are based on the number of potential bedrooms, the following table is used:

Design Wastewater loading for each potential bedroom	Reticulated/bore Water	Tank Water
1-2 potential bedrooms	600 L/d	400L/d
3 potential bedrooms	900L/d	600L/d
4 potential bedrooms	1200L/d	800L/d
More than 4 potential bedrooms	1200L/d plus 150 L/d for each additional bedroom	800L/d plus 100L/d for each additional bedroom

NOTE - Council maintains the discretion to classify studies and other rooms that have the potential to be used as sleeping rooms as bedrooms.

Buffer Distances

5.8 The following buffer distances apply to all categories unless otherwise specified:

All land application Systems	<ul style="list-style-type: none"> • 100 metres to permanent surface waters (e.g. river, streams lakes etc.) • 250 metres to domestic groundwater well • 40 metres to other waters (e.g. farm dams, intermittent waterways & drainage channels etc.)
AWTS surface spray irrigation	<ul style="list-style-type: none"> • metres if area up-gradient & 3 metres if area down-gradient of driveways & property boundaries • 15 metres to dwellings • 3 metres to paths & walkways • 6 metres to swimming pools
AWTS surface drip & trickle irrigation	<ul style="list-style-type: none"> • 6 metres if area up-gradient & 3 metres if area down gradient of swimming pools, property boundaries, driveways & buildings
Subsurface irrigation	<ul style="list-style-type: none"> • 6 metres if area up-gradient & 3 metres if area down-gradient of swimming pools, property boundaries, driveways & buildings
Absorption systems	<ul style="list-style-type: none"> • 12 metres if area up-gradient & 6 metres if area down-gradient of property boundary • 6 metres if area up-gradient & 3 metres if area down-gradient of swimming pools, driveways & buildings.
Market Gardens	<ul style="list-style-type: none"> • AWTS only permitted with 20 metres if area is up-gradient & 10 metres if area is down-gradient of any market garden

5.8.1 Other buffer distances

Septic Tanks and Treatment Tanks

- i. A minimum buffer distance of 2.5 metres shall be provided between any septic and treatment tank(s) and any property boundary.
- ii. The septic and or treatment tanks must be located a minimum of 2.5 metres from any dwelling, habitable building or other structure NOTE: This figure is based on the assumption that the installation will be in clay soils where the angle of repose is 45 degrees, i.e. the base of the tank is equal to the distance to the base of the footings of the dwelling.
- iii. The location of the tank(s) are required to comply with the buffer distances as detailed in s5.8 of this policy, for permanent surface waters, groundwater wells and other waters.
- iv. The location of the tank(s) shall be located a minimum of 6 metres down slope of any in-ground water storage tank.

Residential Systems with more than 10 people and Commercial Systems

5.9 Any on-site sewage system not used for domestic purposes or that is expected to receive an equivalent daily wastewater volume between 10 EP and 2500 EP is typically regarded as a commercial sewage management system, or a package wastewater treatment plant.

These systems are to be designed by a suitably qualified and experienced wastewater consultant. Individual design, water quality details and calculation of peak flow and average flow rates must be submitted to Council as part of the application. Effluent disposal areas are required to be calculated in accordance with these flow rates.

Typically industrial premises are required to install a pump-out system due to the high level of chemical and physical contaminants.

Miscellaneous requirements

- 5.10 The requirements of this policy become applicable where property owners propose dwelling alterations or additions that increase the number of potential bedrooms or the existing effluent disposal area has been reduced.
- 5.11 Wastewater reports prepared for subdivision applications must evaluate wastewater irrigation areas for a minimum of a 5 bedroom dwelling.
- 5.12 Pump-out systems may be considered for existing unsewered building entitlements where a sustainable on-site sewage management option is not viable. Requests to use a pump-out must include written evidence of why other systems are impracticable, why a pump-out is deemed to be an acceptable alternative and how it will meet the objectives of this policy and relevant legislative requirements.

NOTE: Pump-out systems will not be considered as an acceptable means of wastewater disposal for new subdivisions.

- 5.13 Grey water diversion devices require the submission of a wastewater report in all unsewered area. If the property is connected to sewer a grey water device that has a Watermark licence and is listed by NSW Health can be installed without Council approval.
- 5.14 At the completion of installation, construction or alteration of a system, the system is not permitted to be operated until such time as the Council has issued an 'Approval to Operate'. To obtain an Approval to Operate a Notice of Works, Certificate of Compliance and Sewer Service diagram must be submitted to Council. Failure to obtain an Approval to Operate and comply with the conditions of the Approval is an offence and may result in prosecution.
- 5.15 It is a requirement that all AWTS are serviced on a regular basis and that an ongoing contract is maintained with a person who has appropriate qualifications and experience in monitoring, inspecting, servicing and maintenance. Any operational or water quality issues identified by the service technician will be required to be addressed by the owner. Failure to do so may lead to a breakdown and subsequent failure of the treatment and disposal system.

Any technician wishing to service AWTS's within the Shire is required to satisfy Council that they possess adequate skills and knowledge to maintain such systems. This can be done by providing appropriate documentation demonstrating satisfactory knowledge and skills. In accordance with the above, technicians must forward on all service reports to Council, within seven (7) days.

- 5.16 Where an on-site sewage management system is found to be functioning in a manner which Council deems to be unsatisfactory and is a risk to either public health or the environment, Council will take appropriate action under the relevant legislation to ensure that the issues are rectified and that the system is operating in a satisfactory manner.

6. OPERATIONAL STRATEGY

Risk Classification System

6.1 Section 68 of the *Local Government Act 1993* prescribes the operation of a system of sewage management as an activity that requires Council Approval. Landowners must ensure that they have a current 'Approval to Operate an On-site Sewage Management System' (ATO). An ATO is current for 1, 3 or 5 years dependent on the risk category assigned to a particular system. The risk categories have been developed to assess and manage the potential for harm that the particular system could cause to public health and the environment. In determining the risk category, Council uses the following matrix:

HIGH RISK – 12 MONTH APPROVAL (1 YEAR)
<ul style="list-style-type: none"> Residential lots smaller than 4000m²
<ul style="list-style-type: none"> Lots in the Sydney Drinking Water Catchment
<ul style="list-style-type: none"> Effluent disposal areas located within 100m of a watercourse or 40m of intermittent watercourses
<ul style="list-style-type: none"> Properties with a poor performance history
<ul style="list-style-type: none"> Properties where sewer is available, however the property has not connected
<ul style="list-style-type: none"> All pump out systems
<ul style="list-style-type: none"> Schools, commercial and industrial development in unsewered areas
MEDIUM RISK – 3 YEAR APPROVAL
<ul style="list-style-type: none"> Lots between 4000m² and 10,000m² that do not meet the criteria of 'High Risk Areas'
LOW RISK – 5 YEAR APPROVAL
<ul style="list-style-type: none"> Lots equal to or more than 10,000m² that do not meet the criteria of 'High Risk Areas'
(NOTE: 10,000M ² = 1 hectare)

Information Database

- 6.2 Council maintains a register of all systems located within the Shire in accordance with the *Local Government (General) Regulation 2005*. The information collected on the “Approval to Operate” applications is contained within this register. Information stored includes system types, risk categories, maintenance regimes and the currency of Approval to Operates.

Fees

- 6.3 Operating a sewage management system is a prescribed activity under Section 68 (F10) of the *Local Government Act 1993*. This means that an Approval to Operate an On-Site Sewage Management System must be obtained from Council. The approval requires owners to meet environment and health performance standards when operating their systems and allows Council to monitor the systems within the Shire to ensure these standards are met.

The approval fee contributes to monitoring and assurance of water quality, better control of effluent discharge, supervision of service agents, education programs and practical support to assist land owners. Residents in seweraged areas also pay for monitoring to ensure environmental standards are met through sewerage levy charges paid to Sydney Water.

NOTE: Operating an on-site sewage management system without an Approval to Operate is an offence and may result in Council taking compliance action against you.

Monitoring/Inspection Program

- 6.4 Council is required to develop a monitoring program of existing systems and ensure that these systems meet the environmental and health performance objectives set out in this policy, and in the Environmental and Health Protection Guidelines over the long term. This program involves the monitoring of service documentation and routine on-site inspections. Due to the number of On-Site Sewage Management Systems located within the Shire (approximately 8000), it is not practical or economically viable to inspect each individual system.

Inspections are therefore conducted in the event of a complaint; at random and in accordance with Council’s risk classification system. General monitoring also occurs whilst Council Officers are undertaking duties in the area throughout the Shire or as part of a targeted program, which may occur from time-to-time such as the audit of pump out or commercial systems.

Complaint Response/Enforcement

- 6.5 Council investigates all complaints relating to system failures, or the incorrect use of a system. It is the responsibility of the owner or occupier of the property to ensure that on-site sewage management systems are operated in a way that prevents nuisance, damage, environmental harm, or risk to human health. Owners need to ensure that all occupiers are aware of the systems’ operation and maintenance requirements.

In circumstances where the sewage management systems are causing a risk to health and/or the environment, Council will take action using the most appropriate legislation for the circumstance. This may include the issue of Notices and Orders to require certain works to be undertaken, or the issuing of penalties in severe cases.

The two main Legislative Acts that Council use are as follows:

Local Government Act 1993

Where systems fail to achieve the required standards, then Council may require action or works to be carried out under section 124 of the *Local Government Act 1993* (LGA Act) where it may:

- Order the property to connect to the reticulated sewer where available, or
- Order the modification or upgrade of a system, or
- Order the conversion of a system to pump-out where on-site disposal is no longer safe/suitable.

When Council takes action under section 124 of the LGA Act, the following process will occur:

- Council issues a *Notice of Intention to Serve an Order*, stipulating works to be completed within a certain timeframe. This Notice allows a period of time for the landowner to make representation or to negotiate terms with Council.
- If the representation is not received within this timeframe, Council will proceed to issue the Order, with a specific date for completion.
- Failure to complete the required works by the given date will result in the issue of a Penalty Notice and the *Notice of Intention to Serve an Order* process will begin again.
- Should the Order not be complied with a second time, Council will take the system owner to Court to ensure that all of the required works are completed.
- In the event of major defects, emergencies/immediate risk to public health or the environment, or where previous action has been taken, Council may issue an Emergency Order or commence direct legal action.

Protection of the Environment Operations Act 1997

If the potential for environmental pollution is high, Council will use the powers of the *Protection of the Environment Operations Act 1997* (POEO Act), where it may do any of the following –

- Issue a Prevention or Clean-up Notice requiring work to be undertaken.
- Issue an administrative fee depending on the time spent by Council investigating.
- Issue a Penalty Notice for failure to comply with a Clean-up or Prevention Notice.
- Issue a Penalty Notice for pollution of land or waters.
- Commence action in the Land and Environment Court to require Clean-up action.
- Undertake Clean-up action and issue a Compliance Cost Notice to recoup expenses.

Education

- 6.6 Education is an important part of overall sewage management in the Shire and the education of on-site sewage management system owners is an important role of Council. Owners of on-site sewage management systems should understand how their system operates, and the possible consequences of a faulty or mismanaged system. Council undertakes many educational activities in relation to on-site sewage management systems including:

- Providing advice and guidance on the use, maintenance and operation of individual systems.
- Providing information and factsheets on Council's website including links to other Authorities such as Water NSW and NSW Health.
- Ongoing consultation with relevant stakeholders to ensure that all information and guidance is up-to-date with best practise management.
- Providing new owners with fact sheets on how to use their system correctly.
- Providing self-assurance checklists a part of the Approval to Operate process.

Resources

- 6.7 It is a statutory requirement that Council utilise funds from the processing of applications for Approval to Operate On-Site Sewage Management Systems, for the development and implementation of programs to further improve the overall management of such systems within Wollondilly Shire. As such, Council's Environmental Health Officers inspect and assess the performance of these systems. Council also employs an administration officer to process new and renewal applications for Approval to Operate Systems of On-Site Sewage Management.

7. DEFINITIONS

Aerated wastewater treatment system (AWTS): An aerated waste water treatment system treats all household waste water and involves the settling of solids, oxidation and consumption of organic matter, clarification of solids and disinfection using chlorination prior to irrigation.

Buffer Distance: A distance measured in metres that represent the length of separation between an effluent disposal area and features like property boundaries, buildings, driveways, swimming pools and water courses.

Effluent: Liquid discharge from a septic tank or aerated waste water treatment system.

Effluent disposal area: the area designated for the disposal water from on-site sewage management systems.

Groundwater: all underground waters

On-site Sewage Management System (OSSM): any facility that stores, treats and/or disposes of sewage and/or waste water on-site.

Run-off: rain water and/or irrigated effluent that becomes surface flow because it is not immediately absorbed into the soil

Run-on: surface water flowing on to an irrigation area as a result of run-off occurring higher up the slope

Septic tank: wastewater treatment device that provides a primary treatment of wastewater, where solids settle at the bottom, oils and fats float to the top and liquid passes through the system.

Sewage: waste matter which passes through sewers. Sewage includes any effluent of a kind referred to in paragraph (a) of the definition of waste in the Local Government Act.

Sewage management: any activity carried out for the purpose of holding or processing, or reusing or otherwise disposing of, sewage or by-products of sewage.

Soil absorption trench: Trenches are constructed below ground surface, from 300 to 900mm deep, and usually consist of a durable self-supporting arch, gravel or sand.

Sub-surface Irrigation: effluent dripper system with irrigation lines buried 100mm below the ground surface.

Suitable effluent disposal area – An area of land specifically designated for the application of effluent, this land complies with all buffer distances, slopes and all other criteria to allow wastewater disposal.

Wastewater: water that contains wastewater arising from household activities, including wastewater from bathrooms, kitchens and laundries, which includes sewage and greywater.