On-site Sewage Management and Greywater Re-use – PLA0033

1. Policy Objectives

1.1 The purpose of this policy is to:

1.1.1 Provide a consistent approach in the assessment and approval process of on-site sewage management systems.

1.1.2 Ensure that new on-site sewage management systems are only installed on sites that are suitable for effluent disposal.

1.1.3 Provide information to the community so they can make an informed decision on the most suitable method of effluent disposal for each particular site.

2. Background

2.1 The Wollondilly Local Government Area has one of the highest number of on-site sewage management systems within New South Wales. There are currently over 5000 systems, with this number increasing as more development occurs in the rural and semi-rural areas. Sydney Water Corporation provides and manages the reticulated sewer system within Wollondilly Shire. This sewer system is available to most smaller 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.

2.2 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.

2.3 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. This policy outlines the design criteria to achieve sustainable on-site sewage management practices within the Shire. In order to make an informed assessment as to the suitability of a proposed system the following design criteria must be demonstrated prior to Council approving the systems installation.

3. Applicability

3.1 This Policy applies to **all** developments 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.

4. GUIDELINES

Domestic On-site Sewage Management

4.1 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.

4.2 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.
  - All property boundaries, driveways, gardens, paved areas etc.
  - Distances to any environmentally sensitive areas e.g. rivers, creeks, bores, drainage depressions, dams etc.

- ❑ Details 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.

4.3 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.

Please note - The suitable effluent disposal area does not include buffer distances, these must be provided in accordance with Section 4.8 of this policy.

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

- ❑ **Category 1 – Lots with 1500 m^2 or more of suitable effluent disposal area**

- ❑ **Category 2 – Lots with between 300 m^2 and 1500m^2 of suitable effluent disposal area**

- ❑ **Category 3 – Lots with less than 300 m^2 of suitable effluent disposal area**

4.4 **Category 1 - Lots with 1500 m^2 or more of suitable effluent disposal area:**

4.4.1 Surface irrigation with a movable line is permissible.

4.4.2 Effluent disposal areas of this size are expected to be able to satisfactorily cope with domestic wastewater loads of up to 10 persons.

4.4.3 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:

4.4.4 The land is located within the Sydney Drinking Water Catchment.

4.4.5 Sub-soil disposal systems (i.e. trenches, beds, mounds, etc.) are proposed.

4.4.6 Alternate systems such as biological filter systems, greywater treatment systems, or wet and waterless composting system are proposed.

4.4.7 The land is located on a steep slope (more than 10%).

4.5 **Category 2 - Lots with between 300 m^2 and 1500m^2 of suitable effluent disposal area:**

4.5.1 Only sub-surface irrigation is permissible.

4.5.2 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.

4.6 **Category 3 - Lots with less than 300 m^2 of suitable effluent disposal area:**

4.6.1 Only pump-out systems are permissible.

4.6.2 A greywater treatment system may be installed; a detailed wastewater report is required for the installation of these systems.

Potential Bedrooms

4.7 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. Council will assess each application based on its merits.

Buffer Distances

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

All land application Systems	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	6 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	6 metres if area up-gradient & 3 metres if area down gradient of swimming pools, property boundaries, driveways & buildings.
Subsurface irrigation	6 metres if area up-gradient & 3 metres if area down-gradient of swimming pools, property boundaries, driveways & buildings.
Absorption systems	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	AWTS only permitted with 20 metres if area is up-gradient & 10 metres if area is down-gradient of any market garden.

Residential Systems with more than 10 people and Commercial Systems

4.9 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

4.10 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.

4.11 Wastewater reports prepared for subdivision applications must evaluate wastewater irrigation areas for a minimum of a 5 bedroom dwelling.

4.12 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.

4.13 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.

4.14 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.

4.15 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.

5. RESPONSIBILITY/ACCOUNTABILITY

5.1 Manager – Compliance

5.2 Manager – Development

5.3 Team Leader – Compliance

5.4 Team Leader – Building Assessment

5.5 Senior Environmental Health Officer

5.6 Senior Building Surveyors

5.7 Building Surveyors

5.8 Assistant Building Surveyor

5.9 All staff providing information to the community in relation to on-site sewage management.

6. RELATED DOCUMENTS

This Policy Council will adhere to the following standards:

6.1 *Designing and Installing On-site Wastewater Systems,* Sydney Catchment Authority (2012)

6.2 *On-site Sewage Management Strategy,* Wollondilly Shire Council (2016)

6.3 The Australian/New Zealand Standard AS1547:2012 On-Site Domestic Wastewater Management

6.4 *Environment and Health Protection Guidelines: On-site sewage management for single households* New South Wales Department of Local Government (1998) (aka 'Silver Book')

6.5 *Neutral or Beneficial Effect on Water Quality Assessment Guideline (NorBE)*, Sydney Catchment Authority, (2011)

6.6 *NSW Guidelines for Greywater Reuse in Sewered, Single Household Residential Premises,* New South Wales Department of Energy, Utilities and Sustainability (2008)

6.7 *Water Sensitive Design Guide for Rural Residential Subdivisions* Sydney Catchment Authority (2011)

6.8 *Environmental Guidelines – Use of Effluent by Irrigation,* NSW Department of Environment & Conservation (2004)

6.9 *Sewage Management Facility Vessel Accreditation Guideline,* NSW Health (2016).

6.10 The *Wollondilly Development Control Plan 2016*

7. RELATED PROCEDURES

7.1 Nil

8. Related Legislation

This policy is to be read in conjunction with:

8.1 The Local Government Act 1993

8.2 Local Government (General) Regulation 2005

8.3 Environmental Planning and Assessment Act 1979

8.4 Environmental Planning and Assessment Regulation 2000

8.5 Plumbing and Drainage Act 2011

8.6 Protection of the Environment Operations Act 1997

8.7 State Environmental Planning Policy (Drinking Water Catchment) 2011.

9. Attachments

9.1 Definitions

10. Resources

10.1 Sydney Catchment Authority – Design and Installation of On-site Wastewater Systems manual (2012)

10.2 Environment and Health Protection Guidelines – On-Site Sewage Management for Single Households

10.3 Standard AS/NZS 1547:2012 “On-site Domestic Wastewater Management”

11. Implementation Statement

11.1 To ensure this policy is implemented effectively, Council will employ a variety of strategies involving awareness, education and training. These strategies will be aimed at Councillors, staff and council representatives and will involve:

11.1.1 Providing information sessions for the relevant staff who will directly use this policy in their duties.

12. POLICY HISTORY

12.1	Date First Adopted	16 May 2011
12.3	Most Recent Adoption	18 July 2016
12.4	Next Review Date	18 July 2019
12.5	Responsible Officer	Manager Compliance

Wollondilly Shire Council
PO Box 21 Picton NSW 2571
62-64 Menangle St Picton NSW 2571
Tel: 02 4677 1100 Fax: 02 4677 2339
Email: council@wollondilly.nsw.gov.au
Rural Living www.wollondilly.nsw.gov.au

ATTACHMENT 9.1

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 waste wastewater arising from household activities, including wastewater from bathrooms, kitchens and laundries, which includes sewage and greywater.