On-Site Sewage Management Policy

Date Adopted: 20 February 2020

Version: 2.1

Policy Objectives

The purpose of this On-site Sewage Management (OSSM) Policy is to provide the framework to:

- Assess & regulate the design, installation and operation of on-site sewage management systems in the Maitland Local Government Area (LGA)
- Protect and enhance public health and the environment in terms of on-site sewage management impacts
- Assist Council in prioritising resources for the efficient regulation and monitoring of on-site sewage management systems by implementing a risk-based approach to inspection and regulation.

Policy Scope

This policy applies to all on-site sewage management facilities in operation within the Maitland LGA.

Policy Statement

In implementing the OSSM Policy, Council will endeavour to:

- Maintain a current database of all on-site sewage management systems
- Educate landholders, system operators, users and service providers on the operation and management of on- site sewage management and wastewater systems
- Encourage a partnership approach with households and service agents to support ongoing maintenance of on- site sewage management
- Liaise with householders to develop site specific OSSM plans that resolve any identified problems
- Utilise a combination of self-assessment surveys, records of inspection and maintenance, and known site constraints (soil type, proximity to water courses, land availability, type of OSSM system installed etc) to inform and prioritise a regulation program based on risk management factors
- Establish an inspection schedule and fee structure for the operation of OSSM systems in line with the relevant risk management factors identified
- Achieve a target 90% operational compliance of all known systems within a period of five (5) years from the date of adoption of the OSSM Policy

1. Background

In 2000, Maitland City Council adopted a strategy for on-site sewage management which included various objectives including:

- Registration of all systems
- Creation of a data base of on-site sewage management facilities (OSSMF)
- Review of applications
- Compliance requirement
- Monitoring of performance and impacts
- Audits of systems and locations
- Implement rectifications/improvements

This On-site Sewage Management Policy supersedes the Maitland City Council (MCC) On–site Sewage Management Strategy (May 2000) and replaces the MCC DCP chapter 'On-site Sewage Management Systems. In addition to implementing additional objectives, the OSSM Policy introduces the framework for a risk-based fee structure and requirements.

2. Legislation

The Local Government Act 1993 (NSW) and the Local Government Regulation (General) Regulation 2005 (NSW) require both a one-off approval to install / alter an On-Site Sewage Management Facility (OSSMF), and a separate approval to operate an OSSMF.

Under section 103 of the Local Government Act an approval lapses after five years from the date of approval, although Council can vary (reduce or increase) the period of the approval, which in turn will influence the frequency of renewal.

The objectives of the OSSM Policy are aligned with on-site sewage performance standards as set out in the Local Government (General) Regulation 2005 (NSW) which provides that a system of sewage management must be operated in a manner that achieves the following performance standards:

a. The prevention of the spread of disease by micro-organisms
b. The prevention of the spread of foul odours
c. The prevention of contamination of water
d. The prevention of degradation of soil and vegetation
e. The discouragement of insects and vermin
f. Ensuring that persons do not come into contact with untreated sewage or effluent (whether treated or not) in their ordinary activities on the premises concerned
g. The minimisation of any adverse impacts on the amenity of the premises and surrounding lands
h. If appropriate, provision for the re-use of resources (including nutrients, organic matter and water)

3. Environmental Review

The Maitland Local Government Area (LGA) is located within the Lower Hunter region and comprises a range of vegetation and soil types from river flats rising to vegetated hills. The Hunter and Paterson rivers dominate the LGA with numerous interconnected watercourses throughout.

Given that the LGA has approximately 1850* on-site sewage management facilities (OSSMFs) installed and that many of these systems are located within the catchments of watercourses and rivers, there is a real potential for both environmental and/or public health impacts from the operation of ineffective OSSMFs.

*Known data as at August 2015

4. Examples of on-site sewage management facilities

a. Conventional (septic tank with disposal trenches)

Traditionally, in un-sewered areas effluent from a dwelling has received primary treatment in a conventional septic tank before being absorbed in an underground trench. This system has relied upon 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. In some cases, a pump out system may have been provided where the effluent is pumped off-site by a road tanker and then transported and treated at a sewage treatment works. A pump-out system will not be approved unless there is no other alternative.

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 with the potential to adversely affect the receiving waters (groundwater, surface water, streams, dams etc).

A septic tank system is usually comprised of two chambers. These chambers can be separate (two tanks) or within the one tank separated by a divider. 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. This bacterial action changes the composition of the effluent, lowering the 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 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.

The wastewater from a septic tank is not disinfected and has high nutrient levels therefore it poses a potential health risk and may be environmentally hazardous. It is essential to maintain and monitor the LAA to ensure surface ponding does not occur.

The minimum septic tank capacity as recommended in AS 1547:2000 is 3000 litres serving 1–5 persons. Higher capacities are recommended where the number of persons exceeds 5.

Type and sizing of disposal areas will depend on site conditions and are to be calculated in accordance with the recommendations of AS 1547 (On-site Domestic Wastewater Management).

b. Aerated Wastewater Treatment Systems (AWTS)

The aerated wastewater treatment system is an alternative to the conventional septic system. This effluent is treated to a level known as secondary treatment with the effluent undergoing disinfection by chlorination or ultra violet light in various chambers of a tank to remove bacteria and other 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 considered as great.* The exception is when an aerated waste treatment system (AWTS) is not properly maintained by a suitably qualified person and significant public health and pollution problems may eventuate.

All AWTSs are required to have NSW Health accreditation and have a 10 person capacity. An AWTS of this size will cater for most residences. Should a system for a higher number of persons be needed a special design would be required.

There are several options for AWTS disposal areas which include fixed sprinklers, sub-surface irrigation and movable sprinklers. Each individual site will need to be assessed for the appropriate disposal method. Disposal recommendations and methods for AWTS are found in AS 1547.

c. Composing Toilets

Composting toilets rely on both wet and dry composting. They function with a no-flush toilet pedestal or alternately with moisture from cistern flushing. In these systems, toilet wastes pass from the pan down a chute and into a chamber of similar in size to a conventional septic tank. All faecal matter and other compostable matter produced in the dwelling may be disposed of to this system where it is broken down into compost by natural decomposing organisms. When fully broken down, the compost may be used in gardens but must be buried and covered.

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 in dry composting toilets.

These systems treat only toilet wastes, and all other liquid wastes from the shower, kitchen and laundry (sullage wastes or 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 manufacturer's specifications.

d. Alternate Systems

Alternate on-site sewage management facilities continue to be developed. Council will only approve installation of 'off-the–shelf' waste treatment devices, manufactured off-site, if the device is accredited by NSW Health.

Individual designs/installations are assessed on their merits in terms of satisfying the performance standards as described in Section 2 of this policy. The Local Government (General) Regulation 2005 (NSW) provides that:

1. The council must not approve the installation or construction of a sewage management facility to which the legislation applies unless the council is satisfied that the facility is to be installed

or constructed to a design or plan that is the subject of a current certificate of accreditation from the Director-General of the Department of Health.

2. Subclause (1) does not apply to or in respect of a sewage management facility:

   a. That is to be installed or constructed as a model for the purposes of testing, or

   b. That is designed, and is to be constructed, by the owner or occupier of the premises on which it is to be installed, or

   c. That is designed, by a person other than the owner or occupier of the premises on which it is to be installed, specifically and uniquely for those premises.

e. Grey Water

Grey water means waste water from washing machines, laundry tubs, showers, hand basins and baths but does not include waste water from kitchens, toilets, urinals or bidets.

On properties that are serviced by an on-site sewage management facility, grey water diversion requires the consent of Council and any grey water treatment device must be accredited by NSW Health.

On properties that are serviced by sewer infrastructure grey water diversion may be carried out without prior Council approval subject to meeting the relevant requirements of the Local Government (General) Regulation.

Domestic grey water diversion relates to diverting grey water from residential premises to gardens and lawns but does not include manual collection and re-use of grey water (ie by means of buckets).

5. Standards applying to on-site sewage management facilities

The following standards apply to OSSMF:

- NSW Local Government Act & Regulation
- Protection of the Environment Operations Act & Regulation
- NSW Plumbing Code (Volume 3 National Construction Code Series)
- AS 3500 Plumbing & Drainage
- AS 1546 On-site Domestic Wastewater Treatment Units
- AS 1547 On-site Domestic Wastewater Management
- AS 4419 Soils for Landscaping and Garden Use
- AS 3000 Wiring Rules

6. New subdivisions

Subdivision applications in non-sewered areas, irrespective of proposed lot yield, shall include a comprehensive report prepared by a suitably qualified person/organisation that addresses the land application suitability for on- site sewage disposal, including but not limited to the following data:

- Geotechnical analysis and determination of suitability of soil type for on-site disposal.
- Minimum disposal area sizing based upon a 4 bedroom dwelling and soil suitability.

- Contour plan.
- Exposure of site/s to wind/sun.
- Flood height data based upon a minimum 1/20 year event.
- Location of water courses, water bodies (both permanent and non-permanent)
- Recommendations for on-site sewage management methodology (eg AWTS) Note that AWTS is the preferred method for new applications.
- Recommended disposal area envelopes within each proposed lot.
- Recommended bunding or diversion earthworks.
- Cumulative environmental impact assessment for multi lot subdivisions.

7. Requirements to install a new on-site sewage management facility

Construction or alteration of a waste treatment device or human waste storage facility requires approval pursuant to Section 68 of the Local Government Act. The following information is to be submitted with the application to install an On-site Sewage Management Facility:

- Site report
- Site plan (buffer distances, bores, waterways, primary and reserve disposal area/s & stormwater diversion)
- Design plans of the system
- Accreditation detail
- Any maintenance agreement
- Calculations for the disposal area sizing
- Geotechnical information as relevant

The initial approval to operate shall only be issued after the final inspection and prior to commissioning the OSSMF. All new sanitary drainage lines are to be inspected by Council irrespective of who the certifying authority is for the associated dwelling construction.

For any new OSSMF, Council will inspect the following:

- Field check associated with the site inspection once the application is received
- All plumbing & drainage prior to backfilling
- Sub-surface works associated with sub-surface irrigation & trenching. The extent of sub-surface works to be inspected will be dependent on the type of disposal method
- Final inspection

8. Approval to operate an existing on-site sewage management facility

The Local Government Act & Regulations require that where an On-Site Sewage Management Facility (OSSMF) is installed, the owner of the property must apply for an approval to operate that OSSMF. Approval to operate is not transferable to new owners and must be renewed within a period of 3 months after the date on which the land is transferred or otherwise conveyed to another owner.

In the Maitland LGA approvals to operate an OSSMF and the schedule for renewal are assessed and issued on the basis of risk. A high risk category is issued a 2 year approval to operate, a medium risk category is issued a 4 year approval to operate and a low risk category is issued a 5 year approval to operate. For all risk categories, random inspection by Council may be undertaken as appropriate.

Approval to operate an OSSMF is issued upon satisfactory inspection of each facility or where the service history indicates the system is regularly serviced and is in good working order.

Existing system owners may continue to use their OSSMF without approval until Council determines or has inspected the facility.

Remember, an approval to construct/install a new OSSMF differs from an 'approval to operate' – you need to have both approvals to operate an OSSMF in the Maitland LGA.

9. Criteria for risk based assessment

During 2014-15 residents were asked to complete a self-audit of their OSSMF. These results along with the type of system, location, and local environmental factors are used to assign an initial risk category. Risk categories will be monitored over time and may change dependent on each systems maintenance and management.

High Risk Criteria *(2 year renewal)*

a. The disposal area is less than 100m from permanent surface waters

b. The disposal area is less than 250m from a well or bore used for domestic purposes

c. The disposal area is less than 40m from non-permanent water ways (gullies, drains, swales etc)

d. The disposal area is located on a property less than 1500m2 in area

e. The system and disposal area are flood liable

f. The system is an AWTS that does not have a satisfactory service history or has a disposal area in poor condition

g. The property has a history of problems associated with on-site sewage

h. The system is not a conventional or AWTS type

i. The disposal area demonstrates failure, such as surface ponding

j. The disposal area is unfenced from stock and/or not regularly mown/slashed

k. The system is pump-out with an unsatisfactory history

Medium Risk Criteria *(4 year renewal)*

a. The system is operating in accordance with the performance objectives of this policy

b. The system is not flood liable

c. No surface ponding is evident

d. The system has a satisfactory history, or the system has had problems rectified and a precautionary principle applies

e. The disposal area is located on a property greater than 1500m2

f. The distance from the disposal area and disposal technique to the property boundary is considered adequate such that the disposal will not impact upon adjoining property

g. The disposal area is greater than 100m to surface waters

h. The disposal area is greater than 40m from non-permanent water ways

i. The disposal area is greater than 250m from a well or bore used for domestic purposes

j. The disposal area is fenced off as appropriate and regularly mown/slashed

k. The system is pump to sewer

Low Risk Criteria *(5 year renewal)*

a. The system is an AWTS with a satisfactory history and regular service reports

b. The disposal area is greater than 100m from surface waters

c. The disposal area is greater than 40m from non-permanent water ways

d. The disposal area is greater than 250m from a well or bore used for domestic purposes

e. The disposal area is in good condition with no ponding or excessive dampness, and is fenced and regularly mown/slashed

f. The system is not flood liable

g. The system meets the performance objectives of this policy

h. The owners demonstrate full understanding of the system maintenance

i. The disposal area is set back from property boundaries such that no impact can occur on neighbouring property

l. The system is pump to sewer with no known problems

10. Implementation of the policy

Council will, as resources allow:

a. Continue to maintain and update the database of all on-site sewage management facilities in the Maitland LGA based on confirmation of risk factors identified in Section 9 above

b. Identify potential high risk systems based on location, soil type and self-audit responses from property owners *(*Council will periodically request owners of existing OSSMFs to complete a basic self-audit survey and return their responses to Council. A well maintained and serviced OSSMF is less likely to result in public health and/or environmental concerns.)*

c. Implement a staged inspection regime based on the risk category allocated to each OSSMF

   i. In the initial stage, high risk OSSMFs will be inspected with a view to ensuring compliance with identified performance objectives prior to any approval to operate an OSSMF being issued

   ii. The second stage of the inspection program will focus on medium risk OSSMFs to achieve compliance with the identified performance objectives prior to issue of any approval to operate an OSSMF. Four (4) year approvals may be issued without inspection where a satisfactory service history is demonstrated.

   iii. The third stage of the inspection program will focus on low risk systems. Provided there is evidence of a sufficient service history, it may only be necessary to undertake inspections on random basis as appropriate. If records of the service history are incomplete it may be necessary to undertake an inspection prior to issue of any approval to operate the OSSMF

11. Inspection/regulatory procedures

Ongoing frequency of random inspection of OSSMFs will occur in accordance with the relevant approval to operate, i.e. high risk every 2 years, medium risk every 4 years and low risk every 5 years.

- Letters will be sent to property owners advising that inspections will occur during a specific month. Where no- one is home at the time of the officer's arrival at the property, notification will be left in a prominent location on the property requesting the owner contact the officer to arrange access. No access to the property beyond normal entry routes will be made by the officer without the consent of the owner.
- In the case of investigation of complaints, Council's officer may exercise relevant powers of entry to a property pursuant to the provisions of the Local Government Act & Regulation and serve Orders under the provisions of the Protection of the Environment Operations Act or Local Government Act & Regulation as necessary.
- Where rectification works are required, the owner of the subject property will be advised on site and in writing of what rectification work is required and the time frame within which that work is to be completed.
- When necessary, an application form to 'alter the existing OSSMF' will be included with the rectification advice and will require relevant detail to be provided to Council in respect of the proposed rectification method.
- If the owner is unable to complete any required works due to financial hardship, then Council will exercise appropriate discretion by balancing the risks posed and the timeframe given for compliance.
- Property owners will be notified at least one month prior to the expiry of an approval to operate period.

- If an OSSMF has failed and the property is located within 75 metres of sewer infrastructure, Council may require connection of sanitary drainage to the sewer infrastructure, as necessary, under the provisions of the Local Government Act.
- Where ongoing defective systems are detected, site specific management plans will be formulated with the owner/occupier to resolve relevant issues. Where these measures fail, Orders for compliance may be served on the owner under the provisions of the Local Government Act & Regulation.
- Where Council determines that the owner or occupier of a system has deliberately or wilfully altered any part of the system that causes pollution of the environment, or there is an immediate threat to public health, Council may issue a clean-up notice under the provisions of the Protection of the Environment Operations Act.
- Where a Notice or Order has been issued and not complied with, Council may issue a Penalty Infringement Notice and any further actions as deemed necessary or appropriate under the provisions of the Local Government Act & Regulation.

12. Fees and charges

Council is able to raise revenue to implement on-site sewage management programs through the following methods:

- Fees for inspections as applicable.
- Annual administration fees.
- Infringement revenue.

The broader financial objective of this policy is implementation of a least cost regulation for property owners who have OSSMF and nil cost to the remainder of property owners who do not have OSSMF.

Fees will apply for inspections conducted that result in rectification requirement and/or clean up notices. General auditing inspections will not attract any fees.

Annual administration fees will apply to all property owners with OSSMF and will be a minimal amount to address the costs associated with internal administration of service reports and approvals.

Council has the statutory provision to charge for services under Section 608 of the Local Government Act.

The fee structure is administered as follows:

- Initial inspection to assess risk, approval to operate or respond to complaint.....no fee applicable
- Inspection associated with future approvals to operate (1year, 3-5 years, 5 years).....fee applies
- Re-inspection fee where defects encountered.....fee applies
- Annual administration fee.....applies to all systems
- Pre-purchase inspection.....fee applies

*Current fee amounts are available within Councils adopted fees & charges.

Policy Definitions

AWTS Aerated wastewater treatment system

LAA Land application area

LGA Local Government Area

Policy: A plan or course of action, as of a government, political party, or business, intended to influence and determine decisions, actions, and other matters

OSSM On-site sewage management

OSSMF On-site sewage management facility

Policy Administration

Business Group:	City Planning
Responsible officer:	Director City Planning
Council reference:	Ordinary Council Meeting 27 October 2015 – Item 10.4
Policy review date:	Three (3) years from date of adoption
File number:	127/1
Relevant legislation	• Local Government Act 1993 (NSW) • Local Government (General) Regulation 2005 (NSW) • Protection of the Environment Operations Act & Regulation • NSW Plumbing Code (Volume 3 National Construction Code Series) • AS 3500 Plumbing & Drainage • AS 1546 On-site Domestic Wastewater Treatment Units • AS 1547 On-site Domestic Wastewater Management • AS 4419 Soils for Landscaping and Garden Use • AS 3000 Wiring Rules •
Related documents	• Nil

Policy History

VERSION	DATE APPROVED	DESCRIPTION OF CHANGES
1.0	27 October 2015	New policy that replaces the On-Site Sewage Management Strategy (2000)
2.0	10 February 2020	Policy reviewed, no changes required. ELT approved renewing policy as is.
2.1	-	Updated to new branding and alignment to organisation structure. No change to content.