TENTERFIELD SHIRE COUNCIL

POLICY STATEMENT

HEADING: **On-Site Sewage Management**

MEETING ADOPTED AND RESOLUTION NO.: **23 August 2017 168/17**

HISTORY OF DOCUMENT PREVIOSLY ADOPTED:

27 July 2000	**645/00**
26 April 2002	**269/02**
15 May 2013	**156/13**
20 May 2015	**138/15**

1. Introduction

Approximately 250,000 households throughout New South Wales use "on-site sewage management systems" (OSSM systems) for their wastewater needs. Recently there have been increasing concerns that these systems are failing to adequately treat and dispose of wastewater leading to pollution of waters and unhealthy conditions.

Within the Tenterfield Shire Local Government Area (LGA) there are upwards of 1500 on-site sewage management facilities many of which are older style septic tank and trench systems. The number of OSSM systems is increasing as more development occurs in rural and semi-rural areas.

Effective management of domestic sewage and wastewater is an important consideration for the public health of residents in the Tenterfield Shire Area and the environment. It requires the active involvement of both the Council and landholders.

This Policy is an updated version of the Tenterfield Shire "On-site Sewerage Management" (*Policy Statement)* Adopted on the 27 July 2000, and last amended on the 26 April 2002. The Policy has been updated to reflect changes in legislation and operational procedures.

This Policy has been developed to help Tenterfield Shire Council assess, regulate and manage the selection, design, installation, operation and maintenance of OSSM systems. The Policy is a useful resource for rural homeowners, developers and others who wish to install and operate an OSSM systems within the Tenterfield Shire Council area.

This Onsite Sewage Management Policy draws upon the principles; technical data and overall advice contained in the publication *"Environment and Health Protection Guidelines - On Site Sewage Management for Single Households."*

2. Aims

The aims of the On-site Sewage Management Policy are to:

- Guide landholders towards sustainable on-site management of domestic/business/commercial sewage and wastewater.

- Protect and enhance the quality of public health and the environment in the long term within the Tenterfield Shire Area.

- Co-ordinate environmental assessment, data collection and monitoring which is related to On-Site Sewage Management.

- Assist Council to prioritise resources for the efficient regulation and monitoring of on-site sewage management systems within its area

3. Scope

This Policy applies to all fixed on-site sewage management systems in the Tenterfield Shire area that are not directly connected to the public sewage system.

The systems covered by this Policy include a wide range of public, commercial and domestic sewage management facilities.

The following wastewater treatment devices are all classed as on-site sewage management systems –

- Septic tank and absorption trenches
- Septic tank and evapotranspiration areas
- Aerated wastewater treatment systems
- Septic tank to pumpout
- Dry composting toilets and greywater treatment systems
- Wet composting toilets and subsurface application systems
- Septic tank and constructed wetlands
- Septic tank and soil mound systems
- Any other system that stores, treats and/or disposes of sewage and wastewater onsite

State legislation specifies that all on-site sewage management facilities in the Local Government area are required to be registered (by way of lodging an application for approval to operate the OSSM systems) with the Tenterfield Shire Council. This applies to both new and existing systems.

4. Objectives

The objectives of this On-Site Sewage Management Policy are –

- **Prevention of public health risk –** sewage contains bacteria, viruses, parasites and other disease causing organisms. Contact with effluent must be minimised or eliminated, particularly for children. Residuals, such as composted material, must be handled carefully. Treated or untreated sewage must not be used on edible crops that are consumed raw. Unacceptable public health risks associated with the operation of any OSSM systems must not occur;

- **Protection of surface waters** – OSSM systems must be selected, sited, designed, constructed, operated and maintained so that natural or artificial surface waters are not contaminated by any flow from sewage or wastewater treatment systems and/or land application areas;

- **Protection of groundwaters** – OSSM systems must be selected, sited, designed, constructed, operated and maintained so that unacceptable risks of groundwater contamination do no occur;

- **Protection of lands** – OSSM systems should not cause deterioration of land and vegetation quality through soil structure degradation, salinisation, waterlogging, chemical contamination or soil erosion;

- **Protection of community amenity** – OSSM systems must be selected, designed, sited, constructed, operated and maintained so that they do not unreasonably interfere with quality of life, and, where possible, so that they add to the local amenity. Special consideration should be given to aesthetics, odour, dust, vectors and excessive noise;

- **Conservation and reuse 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;

- **Ecologically sustainable development** – OSSM systems should be selected, sited, designed, constructed, operated and maintained using, conserving and enhancing the community's resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future can be increased.

5. Goals

It is planned that through the development of Council's On-Site Sewage Management Policy, certain short and medium term goals can be achieved to improve the function and effectiveness of this Policy. These goals include-

- Maintain and update the database of all existing on-site sewage systems

- To develop and implement a cost effective supervision program for on-site sewage management systems.

- To adopt a partnership approach with householders and service agents to support continual improvement of on-site systems

- To provide education and information for operators of on-site sewage management systems

- To ensure that all onsite systems are inspected at regular intervals and are desludged and maintained as required

- To ensure that all residents with Aerated Wastewater Treatment Systems consult with service agents and submit quarterly maintenance reports

- To ensure that all land application areas comply with environment and health protection standards as well as Council operating requirements.

- To review council development standards and approval criteria for subdivision, development and building to ensure that appropriate provision is made for on-site sewage management when residential development occurs in non-sewered areas.

6. Operational Programs

6.1 Information Database

Information provided to Council as part of the application to operate an onsite sewage management facility will form the basis of the information database. Information collected during the inspection will be included to provide a comprehensive record of each OSSM system.

6.2 Education/ Promotion

It is important that owners of OSSM system understand how their system operates and the possible consequences of a faulty or mismanaged system. Older houses with on-site systems may have been bought and sold a number of times and current owners may not even know where the system is located.

Council recognises its responsibility to provide appropriate information to owners. This will be through Council's inspection program. This program will include informal education of owners on site and distribution of information and fact sheets. It may also involve the education of service contractors to ensure a consistent approach in inspection and certification.

6.3 Inspection of Onsite Sewage Management Systems

Council officers will audit individual sewage management facilities having regard to the performance standards specified in AS/NZS 1547:2012 – On-site Domestic Wastewater Management, and the Environment and Health Protection Guidelines for *"On-Site Sewage Management for Single Households".*

Information will be recorded about the location, type and condition of the system in operation and Council may direct the property owner to carry out rectification works on the system to achieve compliance with the relevant statutory requirements for on-site wastewater management.

AS/NZS 1547:2012 provides the requirements for primary and secondary treatment units and associated land application systems. The Standard gives specific details for septic tanks for domestic wastewater, and for land application and absorption systems including:

- Conventional trenches and beds;
- Evapo-transpiration systems;
- Mound systems;
- Surface and sub-surface irrigation systems.

Information regarding system selection and sizing, site and soil evaluations, and general management of on-site domestic wastewater systems (including operation and maintenance) is also covered in the Standard.

7. Approval to Operate a System of Sewage Management

Item 5 of Part C of the Table to s68 *Local Government Act 1993* identifies operating a system of sewage management as an activity that requires the approval of Council. This means that an *"Approval to Operate"* a system of sewage management must be obtained from Council.

The nature of the particular sewage management facilities in use is a relevant matter for consideration. However, it is the activity of sewage management, not the facilities, which are the subject of the approval. The design and construction of sewage management facilities and land application areas is properly regulated by the requirement to obtain either development consent under the *Environmental Planning & Assessment Act 1979*, or activity approval under the *Local Government Act 1993*. Facility upgrading requirements are properly dealt with by an order under s124 *Local Government Act 1993*.

The frequency of issuing approvals for operating on-site sewage management facilities will largely depend on the level of risk **(high or low)** to public and environmental health and may be issued every 1-3 years, or every 5-7 years. In determining the risk classification, and subsequently the approval period for each sewage management facility, Council has taken into consideration the following factors:

- Land Capability Assessment and Site Evaluation Procedure as specified in initial geotechnical report.
- Practical experience (e.g. investigation of complaints, site inspections);
- Size of allotment;
- Environmental sensitivity (i.e. Water Catchment Areas, creeks and rivers, etc.)
- Purpose for which land is used (i.e. residential, commercial or industrial).

Note: On-site sewage management facilities located in designated water catchment areas and on residential allotments will be subject to a greater number of random and routine audits due to the increased risk they pose to public and environmental health.

7.1 New Systems

All On-Site Sewage Management Systems currently require approval in accordance with Item 5 of Part C of the Table to s68 *Local Government Act 1993*. Each site is to be assessed by the determining Environmental Health and Building Surveyor and appropriate conditions of approval imposed. Fees associated with this approval process are outlined in Council's Delivery and Operational Plan - Fees and Charges.

All new systems shall be designed by a Geotechnical Engineer/Engineer/Hydrological Consultant or a person with extensive experience in designing these systems. Design plans submitted will be assessment by Environmental Health and Building Surveyor.

Applicants must submit an Application to Install an On-site Sewage Management System (Appendix 1) accompanied by:

a) Site plan indicating, buffer distances from, the dwelling, boundaries, swimming pool, paths, groundwater bores and waterways, primary and reserve disposal area and stormwater diversion drains.
b) Specifications of the system
c) Operation and maintenance requirements including any maintenance agreement
d) Site assessment
e) Details of number of persons to reside on the premises and other factors relevant to the capacity of the system.
f) Any additional information required by Council to enable assessment in accordance with the Environmental and Health Protection Guidelines and AS/NZS 1547:2012.

All new systems shall not be used until Council has given the applicant notice of approval in writing.

Council shall not approve a system that does not have a current accreditation from the Director-General of the NSW Department of Health.

Aerated systems shall continue to have quarterly services from an appropriately qualified service contractor with all reports and documentation held together on site and copies submitted to Council.

7.2 Existing Systems

All existing OSSM systems are required to be registered and receive the relevant approval from Council.

Clause 42 *Local Government (General) Regulation 2005*, provides the definition of "*operating a system of sewage management*". The definition includes all systems that result in the disposal of effluent on site, and systems that hold or process sewage that is subsequently discharged into a public sewer, such as pump out systems.

Clause 44 *Local Government (General) Regulation 2005*, also outlines the performance standards which a system of sewage management must be operated in accordance with, prior to the issue of an 'Approval to Operate'.

Operating an OSSM system does not include any use of sewage or sewage by-products after their discharge into a public sewer (Clause 42 3b).

7.3 Upgraging of Failing Systems:

System failure is deemed to have occurred when a system fails to achieve prescribed performance standards and conditions of approval that may result in adverse impacts on public health or the environment.

Where a system failure is identified, Council may take one or more of the following actions:

- Provide advice and educational material to the system owner and/or operator as to the best practice in operating and maintaining the sewage management system. This may include advice on the use of water saving devices, stormwater diversion, desludging etc (this will be Councils preferred course of action);
- Council may require action or works to be carried out through section 124 of the *Local Government Act 1993* where it may issue Order to carry out specific work; and

There are a number of social considerations which may be relevant in the on-site sewage management issue, including:

- The financial implication for property owners who may be required to carry out substantial system upgrading works or complete system replacement;
- The introduction of "pump out" arrangements as an alternative to on-site disposal also has substantial financial implications for property owners; and
- The significant ramifications that may arise to property owners if their allotment is considered to be of insufficient size to achieve sustainable on-site effluent disposal.

The above issues require consideration when decisions are made, particularly for existing sewage management facilities. In some circumstances, where there is a serious threat to the environment or public health, it may be necessary for Council to consider undertaking the work required, recovering the cost through a property debt.

7.4 Temporary Exemption for Purchasers of Land

Under Clasue 47 *Local Government (General) Regulation 2005*, a person who purchases (or otherwise acquires) land upon which an OSSM system is installed may operate the system without approval for a period of 3 months from the date the land is transferred.

Further, if an application is sought within the first 2 months from the date of transfer of the land, the new owner can continue to operate the OSSM system without approval until the application is determined.

8. Performance Standards

The Council must prescribe performance standards when determining applications for approvals to install or operate on-site sewage management facilities. Minimum performance standards are specified by the Division of Local Government under s44 *Local Government (General) Regulation 2005*, the Council cannot approve any application that will not comply with relevant Regulations. These minimum performance standards are listed below.

An on-site sewage management system must be designed, installed and operated to ensure that the following environmental and health performance objectives will continue to be met over the long term:

- 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.

9. Risk Classification System:

Each of the criteria is considered individually and a risk level determined for each. Council may choose to include additional criteria to reflect specific issues relevant to a particular area. Once the assessment has been undertaken and the weighting determined (which may vary from site to site) then the assessor determines the overall risk level of the site.

High Risk Areas

- Residential areas situated within the Tenterfield domestic water catchment areas;
- Dwellings where the on-site sewage management system is located within 100 metres of permanent surface waters (e.g. river, streams, lakes, creeks), or 40 metres of intermittent watercourses (e.g. farm dams, drainage channels, etc;
- Dwellings where the on-site sewage management system is located within 50 metres of a well or bore;
- Properties or areas which have been identified as having a history of system failure;
- Pump out systems located in residential areas (identified through Council records and audit);
- Environmentally sensitive areas as identified by Council and other regulatory authorities:

Low Risk Areas

- Dwellings where the on-site sewage management system is located more than 100 metres of permanent surface waters (e.g. river, streams, lakes, creeks), and more than 40 metres of an intermittent watercourses (e.g. farm dams, drainage channels, etc);
- Allotments with land area equal to or more than 4000m2 that do not meet the criteria outlined in 'High Risk Areas';
- Industrial / commercial zoned areas;
- Onsite sewage management systems are located in on good soil well away from waterways, drainage lines and sensitive environments:

Reinspections will be carried out at different intervals depending on the original assessment of the state of functioning of the OSSM system. OSSM systems that are

deemed to be **High Risk** will be reinspected between **1** to **3 years**, and those deemed **Low Risk** would be reinspected within **5** to **7 years**. An inspection fee may apply in accordance with Council's Delivery and Operational Plan.

Council officers may increase the inspection program of any installation if the risks are not appropriately addressed.

10. Buffer Distances

It is necessary, when installing on-site disposal systems, to ensure that sufficient viable land is left for such practices as clothes drying and recreation within the yard of each premise.

Associated with this are buffer zones around the disposal field to minimise impacts on the surrounding environment and to reduce the potential for human contact with wastewater.

The standard buffer zones under the guidelines for all systems are:

- 100 metres to a permanent surface water (e.g., river, streams, lakes etc);
- 50 metres to domestic ground water well;
- 50 metres to other waters (e.g., dams, intermittent waterways and drainage channels, etc);
- 1.5 metres from septic tanks to property boundaries:

- In addition; subsurface, subsoil, trickle irrigation and evapo-transpiration systems;

- 6 metres down gradient to swimming pools, property boundaries, and driveways and building;
- 3 metres up gradient to swimming pools, property boundaries, driveways and building;
- 1.5 metres from edge of disposal area to boundaries at same contour level as the disposal area:

Aerated waste water treatment systems and surface spray

- 6 metres down gradient it to swimming pools, property boundaries, driveways and building;
- 3 metres to paths and walkways and up gradient to driveways and property boundaries;
- 1.5 metres from edge of disposal area to boundaries at same contour level as the disposal area;
- 15 metres to dwellings

Absorption systems

- 12 metres if area up gradient of property boundary;
- 6 metres if area down gradient of property boundary;
- 6 metres if area up gradient of swimming pools, driveways and buildings;
- 3 metres if area down gradient of swimming pools, driveways and buildings;
- 1.5 metres from ends of trenches to boundaries at same contour level as trenches.

11. Enforcement

Adequate powers exist under the provisions of section 124 of the *Local Government Act 1993*, to ensure compliance with this Policy, to require OSSM system owners to obtain approval to operate, and to require maintenance or upgrading of systems to an acceptable standard.

Council shall:

- Require action to be taken to bring a sewerage system into compliance with relevant standards or requirements (Order No. 5)
- Require owners or operators to do or refrain from doing such things to prevent environmental damage or repair environmental damage (Order No. 11)
- Require an activity on a premises (such as operating an OSSM system) where the activity is or may constitute a threat to public health or safety to cease (Order No. 15)
- Require action to maintain a premises in a healthy condition (Order No. 21)
- Control waste on premises where the waste is not being dealt with satisfactorily (Order No. 22)
- Require the connection to a public sewer where the sewer is within 75 metres and available for connection (Order No. 24)
- Require owner or operators to use or not to use a human waste storage facility (Order No. 25)
- Require compliance with an approval (Order No. 30) where considered necessary

Where pollution is likely to occur alternative action may be issued in accordance with the *Protection of the Environment Operations Act 1997* including Clean-up Notice or Prevention Notice.

12. Legislation

In implementing this Policy Tenterfield Shire Council take into consideration the:

- *Local Government Act 1993*
- *Local Government (General) Regulation 2005*
- *Environmental Planning & Assessment Act 1979*
- *Environmental Planning & Assessment Regulation 2000*
- *Protection of the Environment Operations Act 1997*

13. Standards Applying to On-site Sewage Management Systems

In implementing the On-site Sewage Management Policy Council will adhere to the following standards:

- All new human waste treatment devices shall be accredited by NSW Health Department;
- Environment and Health Protection Guidelines for *"On-Site Sewage Management for Single Households"* (also known as the Silver Book);
- AS3500 National Plumbing and Drainage Code;
- NSW Plumbing and Drainage Code;
- AS1546 On-site Domestic Wastewater Treatment Units (part 1 applies to septic tanks);
- AS1547 On- site domestic wastewater management;
- AS4419 Soils for Landscaping and Garden Use;
- AS2698 Plastic Pipes and Fittings for Irrigation and Rural Applications;
- AS3000 Wiring Rules – Electrical Installation – Buildings, Structures and Premises;
- AS1319 Safety Signs for the Occupational Environment.

14. Evaluation, Continuing Improvement and Review of the System

Council will maintain an on-going evaluation of the Policy. Results of the assessment, monitoring and evaluation may be included in Council's State of the Environment Report.

Tenterfield Shire makes a commitment to the continuing improvement in the regulation and operation of on-site sewage management systems. To that end, Council undertakes to regularly review this Policy to ensure that it reflects the needs and concerns of Council's residents as well as meeting the changing needs of the environment in which Council operates.

15. Definitions

Absorption: uptake of liquid into soil

Aerated wastewater treatment system (AWTS): a wastewater treatment process typically involving:
- Settling of solids and flotation of scum;
- Oxidation and consumption of organic matter through aeration;
- Clarification - secondary settling of solids, and;
- Disinfection of wastewater before surface irrigation.

Aerobic: dissolved or free oxygen is present

Anaerobic: dissolved or free oxygen is not present

Anaerobic digestion: decomposition of sludge in the absence of free oxygen

Best management practice: those approaches that have been developed to prevent or minimise water pollution at source, or as close to the source as practicable. They include those practices determined to be the most effective and practicable ways of preventing or reducing the amount of pollution generated by non-point sources to a level compatible with water quality goals

Desludging: withdrawing sludge, scum and liquid from a tank

Disinfection: a process that destroys, inactivates or removes pathogenic microorganisms

Domestic wastewater: wastewater arising from household activities, including wastewater from bathrooms, kitchens and laundries

Evapotranspiration: removing water from soil by evaporation and from plants by transpiration

Groundwater: all underground waters

Human waste treatment device (HWTD): device for treating human excreta and other wastewater, including a septic tank, aerated wastewater treatment system, septic closet, water closet, humus closet and combustion closet (from the *Local Government Act 1993*)

Land application area: the area over which treated wastewater is applied

Land application system: system that can consist of pumps, pipes, nozzles, or trenches designed to apply wastewater evenly over a land application area. Includes both irrigation systems and soil absorption systems

Local authority: examples are:
- Licence regulators in metropolitan areas
- Local councils in country NSW
- Water boards established for specific locations

Nutrients: chemical elements that are essential for sustained plant or animal growth; the major nutrients essential for plant growth are nitrogen, phosphorus and potassium; in excess, nitrogen and phosphorus are potentially serious pollutants encouraging nuisance growths of algae and aquatic plants in waters and (in the case of nitrate) posing a direct human health risk

Reticulated water supply: the provision by a water authority of water for potable and non-potable uses to households through a network of pipes

Scum: material that collects at the top of primary wastewater treatment tanks, including oils, grease, soaps and plastics

Septic tank: wastewater treatment device that provides a preliminary form of treatment for wastewater, comprising sedimentation of settleable solids, flotation of oils and fats, and anaerobic digestion of sludge

Sewage: waste matter that 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 1993*.

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.

Sludge: mainly organic semi-solid product produced by wastewater treatment processes

Soil absorption system: (includes leach drains, drain fields, absorption trenches, seepage beds and seepage pits) subsurface land application systems that rely on the capacity of the soil to accept and transmit the applied hydraulic load

Treated wastewater: (in these guidelines) wastewater that has received treatment via a human waste treatment device

Waterless composting toilet: (humus closet, biological toilet) waterless system that uses the principle of composting to break down human excreta to a humus-type material. The liquid fraction is evaporated or directed to an appropriate management system

Wet composting toilet: treats all household wastewater and putrescible household organic solid wastes such as food waste. Uses the principle of aerobic composting to break down the solid waste; the liquid component is directed to a land application system after passing through the pile of solids

TENTERFIELD SHIRE COUNCIL

ON-SITE SEWAGE MANAGEMENT APPLICATION	OSSM Application No._____

Note - On-Site Sewer Management Plans must be designed by a Geotechnical Engineer/Engineer/Hydrological Consultant & copy must be attached to this Application.

Location of Proposed On-Site Sewage Management

Site Address: _____

Lot: _____ Section: _____ Deposited Plan No.: _____

Frontage: _____ Depth: _____ Total Area of land: _____

Buildings to utilise on-site sewage treatment: _____
(Dwelling, Additions to Dwellings, etc)

Number of Occupants: _____

Install New System ☐ **Approval to Operate an Existing System** ☐

Upgrade Existing System ☐

Type of system proposed: Composting ☐ Standard Septic ☐

Pump-Out to Sewer ☐ Aerated ☐ Other ☐ _____

The following information relates to the proposed site

Area of land available for practical use: _____m². Distance from nearest dwelling: _____m.

Distance to adjacent boundaries _____m and _____m.

Distance from watercourse: _____m. Name of watercourse: _____

Land falls to the _____ (direction), and is/is not vegetated.

Geotechnical support information submitted/not required. Comments_____

Information to be included with application

Site plan, specifications, details of operation, maintenance and servicing requirements of system, erosion control and a statement of action to be taken in the case of a breakdown or interference with the operation of the system.

Owner/Applicant Details

Name of Applicant: _____ Phone No.: _____

Address: _____

Name of Plumber: _____ Phone No.: _____

Address: _____ Mobile No.: _____

Owner's Name and Address: _____

Owner's Signature: _____

(This signature hereby authorises power of entry for Council Employees to undertake inspections relating to the ongoing monitoring of the sewage management system.)

Application Fee: $ _____Receipt No: _____

Council Officer:_____

Related DA/CDC No._____ Assessment/Parcel No._____