



muswellbrook shire council

On-Site Sewage Management Strategy

Dated 30 June 2010

**Assembled by
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**Adopted By Council
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1. ABBREVIATIONS AND DEFINITIONS

Abbreviations

AS/NZS 1547:2000/ The Standard – Australian/ New Zealand Standard 1547:2000
On-site domestic wastewater management
ATO – Approval to Operate
AWTS – Aerated Wastewater Treatment System
DECCW – Department of Environment, Climate Change & Water
DLG – Department of Local Government
EP – Equivalent Persons
EPHG / Guidelines – Environment & Health Protection Guidelines. On-site Sewage Management for Single Households
OSMS – On-site Sewage Management System
SOE – State of the Environment Report
Strategy – Muswellbrook Shire Council On-site Sewage Management Strategy

Definitions

AWTS	Aerated Wastewater Treatment System – Treatment system providing aerobic secondary treatment and disinfection of sewage.
Biological Filter (bio-filter)	Treatment system that uses other biological means to achieve secondary treatment.
Black Water Effluent	Sewage from toilet and kitchen sinks. Liquid wastewater discharged from a treatment system.
Effluent Disposal Area (EDA)	Land where effluent is applied for disposal. Includes absorption trench, evapotranspiration bed, sub-surface and surface irrigation
Grey Water	Sewage from laundry, shower and bath. Kitchen wastewater is not classified as Grey Water due to high suspended solids
Land Application Area	Another name for EDA.
Septic Tank	Concrete or plastic tank (complying with AS/NZS 1546.1) used for primary treatment of sewage prior to disposal.
Sewage	Water discharged from toilets, baths, showers, kitchen sink and washing machines.
Sub-soil Disposal	Used for non-disinfected effluent disposal. Must be greater than 300mm below the soil surface. Includes absorption trench & Evapo-Transpiration Absorption (ETA) Bed. Can include deep sub-surface irrigation for secondary treated effluent.
Sub-surface Irrigation	Used for disinfected, secondary treated effluent. Disposal method allowed up to 100mm of soil surface. Usually 100-300mm deep.
Surface Irrigation	Used for disinfected, secondary treated effluent. Disposal method allowed within the top 100mm of soil or above ground.
Wastewater Treatment System	The facility that treats the wastewater to a primary or secondary level. May include a septic tank, AWTS, bio-filter, sand filter, etc
Wastewater	Sewage or Effluent, can include black water and grey water.

The following are examples of on-site sewage management systems:

- Septic tank and absorption trenches
- Septic tank and evapotranspiration absorption bed
- Septic tank and mound system
- Septic tank and reed bed/sand filter/ peat filter etc.
- Aerated wastewater treatment systems
- Septic tank to pump out
- Dry composting toilets and greywater treatment systems
- Wet composting toilets and subsurface application systems
- Any other system that stores, treats and/or disposes of sewage and wastewater on site, that is accredited by NSW Health.

2. INTRODUCTION

2.1 Context

On-site sewage management systems (OSMS) are used by approximately 250,000 households throughout NSW. There have been increasing concerns that these systems are not correctly maintained to adequately treat and dispose of wastewater to prevent pollution of waters, risks to public health and environmental degradation.

Legislation was developed in 1998 to create a framework of management of OSMS through Local Government and the Department of Health. The Local Government Act 1993 and the corresponding Regulations were updated. The Department of Local Government (DLG) has taken a lead role in overseeing these Regulations. The DLG with the cooperation of other agencies developed the Environmental and Health Protection Guidelines (the Guidelines) in 1998.

Under the current legislation, householders are required to obtain approval to install, construct or modify, and operate systems of sewage management in accordance with the Local Government (General) Regulation 2005 (the Regulation).

Muswellbrook Shire

Muswellbrook Shire is located in the Upper Hunter Valley of New South Wales, approximately 130 km north-west of Newcastle on the New England Highway. The Shire covers a large area (3402 km²) much of which is rural, with only two sewered communities; Muswellbrook (population around 10 000) and Denman (population around 1500). The main water-course in the Shire is the Hunter River, which is regulated upstream by Glenbawn Dam. Tributaries entering the Hunter within Muswellbrook Shire include the Goulburn River, Dart Brook, Sandy Creek, Muscle Creek, Martindale Creek, Baerami Creek and Widden Brook.

Around 3600 people in the Shire reside in areas that rely on OSMS for wastewater treatment. A large proportion of industrial developments are also located on sites that are not connected to reticulated sewer. Council records indicate that at least 1300 systems are operated in the LGA however as many as 1800 systems may exist. Many systems were installed many years ago without formal Council approval.

In 1998 Muswellbrook Shire Council called for the registration of all OSMS. In 2003, and following years, an audit of all systems was carried out to ensure that registered systems were installed and operated to an adequate standard. Many systems were subsequently upgraded or replaced.

The On-site Sewage Management Strategy, developed at that time, outlined the need for Approvals to Operate; however, did not develop any processes or procedures for managing these approvals in the long term.

This 2010 On-site Sewage Management Strategy seeks to provide a framework in which the ongoing management of OSMS throughout the Shire can be managed to protect human health and the environment and provide a suitable cost recovery model for that management.

The registration process in 1998 did not consolidate other records already held by Council and some duplication occurred as a result. This overlap as well as continuing new applications has resulted in two independent records systems that require consolidation and review to ensure Council's records are up to date, complete and readily retrievable.

Current Status

At present a systematic program of regular inspections is being implemented. Systems come to Council's attention most often through requests for information from conveyancers representing purchasers, redevelopment applications, service reports and complaints. A process of managing Approvals to Operate commenced in July 2009 where systems are progressively included in the new ATO process in accordance with the Strategy.

Where systems do not meet the Regulation's performance standards, remedial action is requested. Notices, Orders and Penalty Notices are considered as appropriate to circumstances and in accordance with Council's Enforcement Policy.

Aging systems are prone to problems such as cracks in the tank and failure of absorption trenches, due to overloading with phosphorus and sodium. Failure to de-sludge tanks ensures that they fill up and no longer effectively remove solids from the effluent before it is disposed, leading to further problems, such as failure of absorption trenches.

Many property owners take their OSMS for granted, believing that they are effectively treating their waste and that there is no human health or environmental hazard.

If effluent is not being effectively absorbed into the soil, it can temporarily pond on the surface where it is accessible to children and pets, putting them into contact with potentially harmful bacteria and viruses. Rainwater runoff from effluent-saturated areas can reach waterways, carrying the contamination downstream to other users and increasing the nutrient loading. Hence effective monitoring of domestic OSMS is vital to community and environmental health.

3.0 AIMS AND OBJECTIVES

3.1 Scope

This Strategy applies to all properties in non-sewered areas where sewage wastewater is generated.

3.2 Aims

To maintain on-site sewage management systems throughout the Shire to the legislative standard for the protection of human health and the environment.

- To provide a framework to manage and regulate the impact of on-site sewage management systems in the area and ensure community accountability; and
- To coordinate data collection, system approval, monitoring and environmental assessment.

3.3 Objectives

1. Ensure all systems within the Shire have up to date records;
2. Ensure Council retains sufficient staff with appropriate qualifications and training;
3. Ensure that rezoning and development applications properly consider the requirements of any on-site sewage management;
4. Ensure all new applications are adequately assessed in accordance with the Guidelines;
5. Develop an inspection regime that ensures all systems are inspected regularly by Council and performance standards are met;
6. Ensure all systems have a valid and documented Approval to Operate;
7. Ensure all systems are maintained through appropriate regular servicing as may be required;
8. Educate the users of systems to the proper use, maintenance and health hazards;
9. Set a fee structure that enables cost recovery and considers the costs to the users;
10. Identify areas of future sewerage development;
11. Better control the use of above ground irrigation; and
12. Set out requirements for non-manufacturer servicing.

3.4 On-site Sewage Management System Performance Objectives

In managing the OSMS of the Shire, Council aims to minimise the impact of any given OSMS on the environment and public health. Council will work together with householders, developers, plumbers and service agents to ensure well-managed and efficiently performing OSMS, through correct installation and regular monitoring in order to achieve the following:

- a) *Prevention of public health risk* – sewage contains pathogens such as bacteria, viruses, parasites and other disease causing organisms. Contact with sewage effluent should be minimised or eliminated. Insects can also act as vectors for disease where they have access to sewage effluent.
- b) *Protection of community amenity* – OSMS should be selected, sited, designed, constructed, operated and maintained to ensure that they do not unreasonably interfere with quality of life or the environment. Where possible, such systems

should enhance the local amenity – special consideration should be given to groundwater pollution, aesthetics, odour, dust, disease vectors and excessive noise.

- c) *Protection of land and vegetation* – OSMS should be selected, sited, designed, constructed, operated and maintained to ensure that on-site disposal of effluent minimises soil structure degradation, salination, waterlogging, chemical contamination and soil erosion.
- d) *Protection of surface water and groundwater* – OSMS should be selected, sited, designed, constructed, operated and maintained to ensure surface and ground waters are not contaminated by any flow from treatment systems or land application areas. Buffer distances to water bodies should be as stated in the Environmental and Health Protection Guidelines (EHPG) as developed by the Department of Local Government (DLG)1998.
- e) *Conservation and re-use of resources* – the resources in wastewater, such as the water and nutrients should be utilised in the best possible way within the bounds posed by these performance objectives. Water conservation should be practised and wastewater production should be minimised.
- f) *Ecologically sustainable development* – OSMS should be selected, sited, designed, constructed, operated and maintained to ensure that the principles of Ecological Sustainable Development impacts directly on any consideration of on-site sewage management.

4.0 LEGISLATIVE FRAMEWORK

4.1 Background:

In 1998 the Local Government Act was amended to include requirements to obtain approval to install, construct, modify and operate systems of sewage management. In rural areas where there is no municipal sewer to connect to, OSMS are utilised.

NSW councils were required to develop an On-site Sewage Management Strategy to manage these systems throughout their LGA to prevent serious environmental harm.

4.2 Local Government Act (1993)

The Local Government (General) Regulation 2005 commenced on 1st September 2005 and operates in terms under the Local Government Approvals in Chapter 7 of the Local Government Act 1993. The Regulation:

- Prescribes the operation of a system of sewage management for the purposes of Council approval under section 68 of the Local Government Act 1993
- Specifies performance standards for on-site sewage management
- Clarifies the accreditation roles and responsibilities of NSW Health.
- Makes provision for the charge of inspection fees under section 608 authorised by:
 - Part (2) – providing a service in connection with the exercise of the council's regulatory functions
 - Part (3) – inspecting premises that are reasonably required to be inspected in the exercise of council's functions, whether or not the inspection is requested or agreed to by the owner or occupier of the premises

The primary effects of the Regulation are:

- The operation of a sewage management facility is subject to Council approval under section 68 of the Act.
- Council must develop a strategy for on-site sewage management.
- Council must consider applications for approval to operate an OSMS and implement appropriate supervision.
- Council may charge application, renewal and inspection fees to recover the cost of supervising systems which are subject to an operating approval.
- Council must not approve a commercially distributed system unless plans are provided and a certificate of accreditation is in force.
- Council must apply the prescribed performance standards when determining applications for approval.
- Council must consider guidelines or directions issued by the Director General of the Department of Local Government in relation to the prescribed performance standards when determining applications for approval.

The legislation provides that a system of sewage management must be operated in a manner which 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 minimising of any adverse impacts on the amenity of the premises and surrounding lands; and
- h) If appropriate, provision for the reuse of resources (including nutrients, organic matter and water).

4.3 Environment and Health Protection Guidelines (DLG 1998)

The Environment and Health Protection Guidelines – On-site Sewage Management for Single Households was released to Councils in 1998 to assist local Councils to assess, regulate and manage the selection, design, installation, operation and maintenance of single household OSMS. The Guidelines address:

- The regulatory framework of Council's operations
- Development of local on-site sewage management strategies
- On-site sewage system options
- Methodologies of applying treated wastewater to land
- Site evaluations

These Guidelines were specified for the purposes of the Local Government (Approvals) Regulation 1999 and are still relevant to the Local Government (General) Regulation 2005. The Guidelines are a matter for consideration by Council in relation to:

- Applications for approval to install, construct or alter a relevant waste treatment device or human waste storage facility
- Applications for approval to operate a sewage management system.

4.4 Australian/New Zealand Standards

The primary standard relevant to this Strategy and the installation, modification and operation of OSMS is AS/NZS 1547:2000 (the Standard). It specifies means of compliance with the performance criteria under:

- Site & soil evaluation
- Land application systems
- Wastewater treatment units
- Other wastewater systems
- Construction and installation

4.5 Review and update of Guidelines and Standards

Both the Guidelines and the Standard have been reviewed however the updated versions have not been released. Once any updates are released, Council will review the updates and determine if substantial revision of this Strategy is required.

5.0 STRATEGIC ACTIONS

	Actions
Records Management	<ul style="list-style-type: none"> • Consolidate all records, files and information systems into one register. • Ensure all properties and systems have a Works as Executed drawing. • Document procedures for record keeping.
Staff training	<ul style="list-style-type: none"> • Maintain staff capacity to effectively manage on-site sewage management system.
New Applications	<ul style="list-style-type: none"> • Revise the DCP 2009 Section 23 to reflect the objectives of the Strategy • Develop a policy for the implementation of Guidelines for applications and operation of systems • Revise the application forms to reflect the information required for adequate assessment • Provide guidance notes on the correct completion of forms • Website to host all forms and information with links to statutory documents and Standards • Maintain a list of consultants and other professionals that are able to assist applicants in completion of the forms • Ensure all applications are complete before assessment • Require a Wastewater Management Plan for the users of the system • Ensure full reference to the DCP for Development and Sub-division Applications • Document procedures for new applications.
Inspections	<ul style="list-style-type: none"> • Revise the risk categories and inspection regimes for all systems • Formulate new inspection checklist form • Inspections to be undertaken in accordance with relevant time frames • Inspections to confirm Approval to Operate (ATO) being complied with • Document procedures for inspections
Approval To Operate (ATO)	<ul style="list-style-type: none"> • Ensure all records have a valid ATO expiry date • Develop ATO renewal procedures to ensure renewal sent out prior to expiry • Develop procedures for renewals for transferred properties • Follow-up with regulatory action where ATO is not renewed • Document procedures for ATO
System Maintenance	<ul style="list-style-type: none"> • Develop a policy for accepting non-manufacture servicing of systems • Develop a system of tracking Service Reports to ensure regular servicing is taking place • Follow-up on unsatisfactory system service reports • Ensure systems are repaired or upgraded as a result of unsatisfactory inspections
Education	<ul style="list-style-type: none"> • Develop on-site sewage management education initiatives in conjunction with other Council Community Education initiatives • Ensure that the Wastewater Management Plan for each system contains adequate information. • Provide information to new residents new to on-site sewage

	management.
Setting Fees	<ul style="list-style-type: none"> • Develop a fee structure that recovers costs and considers the cost to users managing their own on-site sewage management system. • Develop fee structure for commercial and multiple system properties that reflects relative cost to Council.
Future Sewer Network Development	<ul style="list-style-type: none"> • Prepare maps of existing and planned sewer distribution by 2020.

6.0 ON-SITE SEWAGE MANAGEMENT POLICY

6.1 Objectives

- To implement the Environment and Health Protection Guidelines in relation to the approval to install, construct or alter and operate a system of on-site sewage management.
- Ensure that the intention of the Performance Standards of the Local Government Regulation and the Environment and Health protection Guidelines are met for on-site sewage management systems in Muswellbrook Shire Council
- Ensure that the appropriate guidance is provided for applications relating to non domestic situations.
- That Council provides a reference for the public in relation to how appropriate surveillance of on-site sewage management systems is carried out.

6.2 Policy Statement

Council will assess applications to install, construct, modify and operate systems of on-site sewage management in accordance with the Local Government Act 1993 and (General) Regulation 2005, the Environment and Health Protection Guidelines: On-site Sewage Management for Single Households and the Australian Standard AS/NZS 1547:2000 On-site domestic-wastewater management and with reference to the controls and limitations listed below.

6.3 Applications to Install, Construct or Modify

6.3.1 Applications and Accompanying Documents

Applications must be made on the form provided by Council at the Council's Administration Centre or available on Council's web site. Applications will only be accepted with the applicable fee. Any incomplete applications may be rejected.

Applications for on-site sewage management must comply with the Local Government (General) Regulation 2005 for matters to accompany applications for approval to install or construct sewage management facilities. The following matters are required.

(1) Plan

The application must be accompanied by a plan, to scale, showing the location of:

- (a) the sewage management facility proposed to be installed or constructed on the premises, and
- (b) any related effluent application areas, and
- (c) any buildings or facilities existing on, and any environmentally sensitive areas of, any land located within 100 metres of the sewage management facility or related effluent application areas, and
- (d) any related drainage lines or pipework (whether natural or constructed).

(2) Specifications

The application must be accompanied by full specifications of the sewage management facility proposed to be installed or constructed on the premises concerned.

(3) Site assessment

The application must be accompanied by details of the climate, geology, hydrogeology, topography, soil composition and vegetation of any related effluent application areas together with an assessment of the site in the light of those details.

(4) Statement

The application must be accompanied by a statement of:

- (a) the number of persons residing, or probable number of persons to reside, on the premises, and
- (b) such other factors as are relevant to the capacity of the proposed sewage management facility.

(5) Operation and maintenance

The application must be accompanied by details of:

- (a) the operation and maintenance requirements for the proposed sewage management facility, and
- (b) the proposed operation, maintenance and servicing arrangements intended to meet those requirements, and
- (c) the action to be taken in the event of a breakdown in, or other interference with, its operation.

Details of requirements for applications are included in the Guide for Completing Applications as available on Council's website and the Administration Centre.

6.3.2 Who may make an Application?

Applications may be made by any person; however they must have the owner's consent.

6.3.3 Site Assessments

Site assessments must be carried out by, or with the assistance of, suitably qualified persons. This includes, specifically, the appropriate determination of soil characteristics by a qualified person and, if necessary, laboratory analysis.

6.3.4 Preliminary Site Inspection

Council will inspect the site to ensure that the application includes all relevant information and to confirm site suitability.

6.4 Assessment of Applications to Install, Construct or Modify

Applications will be assessed as per the Regulation; however the following will also be considered.

6.4.1 Treatment Systems

The following treatment systems will be considered for installation or construction:

- Septic tanks AS/NZ 1546.1:2001
- Wet composting toilets
- Waterless composting toilets AS/NZ 1546.2:2001
- Incinerating toilets
- Aerated Wastewater Treatment Systems (AWTS) AS/NZ 1546.3:2001
- Bio filters
- Reed beds or constructed wetlands
- Sand filters

Greywater treatment system

Pump out systems will only be permitted on industrial sites.
Chemical closets are permitted under certain circumstances (see temporary facilities in the On-site Sewage Management Strategy and Policy)

Cesspits and long drop toilets will not be approved.

6.4.2 Alternative Systems

New and innovative systems will be considered by Council; however fully documented performance and effluent quality information must be provided. Compliance with relevant legislative requirements must be met in order for alternative systems to be considered.

6.4.3 Disposal Systems

The following disposal systems will be considered for installation or construction:

Absorption trench or
Evapo-Transpiration Absorption (ETA) Beds as per AS/NZS 1547:2000
Sub surface irrigation >100mm below ground level
Sub soil disposal >300mm below ground level
Mound Systems
Surface irrigation

Surface irrigation installations are required to:

1. Strictly comply with the Guideline buffer distances; and
2. Have a single fixed distribution point in the centre of any irrigation zone. The following may be connected to a distribution point:
 - a) An approved recycled water hose and single sprinkler that can be readily relocate only within the approved irrigation zone; or
 - b) A single sprinkler capable of distributing effluent evenly within the approved zone.

Effluent disposal area should allow for a reserve area. This will allow for another area to be utilised in the event that the initial area becomes overloaded. Zoning should also be considered in order to allow effluent disposal areas to dry out and minimise the build-up of any biological clogging layer.

Effluent Disposal Areas shall not be used for:

- recreational areas unless subsurface irrigation is proposed; or
- the regular grazing of livestock.

Use of effluent in ornamental gardens or fruit trees is permitted with sub surface irrigation. Estimations of water and nutrient balances should be provided for the plants being irrigated.

6.4.4 Flood Zones

Treatment systems should not be subject to inundation due to flooding.

All treatment systems should be constructed so that vents openings and electrical components are to be 200mm above the level of the 100 year Annual Recurrence Interval (ARI) to account for the predicted increasing recurrence of flood levels due to Climate Change.

Land Application Areas should have land surfaces at or above the 100 year ARI contour.

6.4.5 Definitions of terms for Site and Soil assessment:

Council considers the following definitions in relation to parts of the matters to accompany applications

Intermittent Waterway:

a land form, whether natural or man made, that allows the concentration of open water on the surface of the land. This includes contour banks, irrigation channels, diversion banks (except those installed to divert water away from disposal areas) as well as streams and flood ways.

A water course that flows intermittently is considered to not have flowing water during dry weather and will only flow after rainfall. Notations on topographic maps do not necessarily reflect the site conditions for the purpose of this policy. Geomorphic and vegetative assessment will be considered in determining intermittence.

Permanent: A water course that is not intermittent is considered to be permanent.

Waste water flow:

Standard Water Savings:

are considered to be achieved with a BASIX certificate for any proposed dwelling.

Full water reduction facilities:

shall include the use of 6/3 dual flush toilets, shower flow restrictor, aerated faucets and pressure control valves and front loading washing machine and minimum 4 star water efficiency appliances. OR grey water recycling for toilet flushing as per the Standard.

6.4.6 Minimum Requirements

The following minimum requirements should be satisfied for applications to install or construct or modify.

Equivalent Population	5 persons. Wastewater flow rate shall be determined for at least five persons in a dwelling situation.
Septic Tank Size	3000L
Lot Size	1200 m ²

Reserve Disposal Area to be sized as 50% of the size of the required Effluent Disposal Area

6.5 General Approval For Temporary Facilities

Temporary facilities includes “porta loos” and relocatable ablutions blocks used on construction sites and temporary events. The legislation requires the approval of Council for all of these facilities; however it is considered that these types of facilities are generally self contained and operated by commercial entities. Therefore; it is considered that routine regulation and inspection of these types of facilities is not warranted.

A general approval is provided for the purposes of compliance with the legislation and also allows Council to take regulatory action where a facility is not operated in accordance with the regulation.

General Approval is granted to install or modify temporary facilities that are installed and operated in accordance with the following conditions:

6.5.1 Temporary Facilities on Construction Sites

The installation and operation of temporary facilities for the purpose of the amenity of construction workers on construction sites are approved with the following conditions:

1. Provision of facilities is a condition of consent;
2. The facilities are self contained;
3. The facilities are not connected to the sewer;
4. The facilities are not on the site for more than 12 months;
5. The storage capacity is greater than the estimated volume of sewage generated in a normal two week period;
6. Sewage is collected on a weekly basis or more frequently as required;
7. Sewage is disposed of at or into a municipal or licensed wastewater facility;
8. There are no spills or leaks of sewage;
9. The performance standards set out in the Local Government (General) Regulation are met;
10. Appropriate standards and NSW Health approvals are complied with.

6.5.2 Temporary Facilities Associated with Caravan or Tent

The installation and operation of temporary facilities for the purpose of the amenity of people occupying a caravan, campervan or tent are approved with the following conditions:

1. The facilities are self contained;
2. The facilities are not on the site for more than 12 months;
3. The operation of the facilities are restricted to no more than 2 days at a time and no more than 60 days (in total) in any single period of 12 months;
4. Sewage is removed regularly;
5. Sewage is not disposed of into another on-site sewage management system.

6.5.3 Temporary Facilities for Temporary Events

The installation and operation of temporary facilities for the purpose of the amenity of patrons to a temporary event are approved with the following conditions:

1. The facilities are self contained;
2. The facilities are not connected to the sewer;

3. The facilities are not on the site for more than 7 days;
4. Sewage is collected at least at twice the frequency of the anticipated capacity;
5. Sewage is disposed of at or into a municipal or licensed wastewater facility;
6. There are no spills or leaks of sewage;
7. The performance standard set out in the Local Government (General) Regulation are met;
8. Appropriate standards and NSW Health approvals are complied with.

6.5.4 Crib Facilities on mining sites

The installation and operation of temporary facilities for the purpose of the amenity of mine workers on mine sites are approved with the following conditions:

1. Provision of facilities is a condition of consent;
2. The facilities are self contained;
3. The facilities are not connected to the sewer;
4. The facilities are not in one location for more than 12 months;
5. Sewage is collected at least at twice the frequency of the anticipated capacity;
6. Sewage is disposed of at or into a municipal or licensed wastewater facility;
7. There are no spills or leaks of sewage;
8. The performance standard set out in the Local Government (General) Regulation are met;
9. Appropriate standards and NSW Health approvals are complied with.

6.6 Approvals to Operate

An Approval to Operate is issued to the operator (owner) of a new system at the completion of a satisfactory final inspection. The Approval lasts for five years and will need to be renewed at the end of this period.

6.6.1 Who Can Apply for an Approval to Operate

The owner or operator of a system may apply for an approval to operate. However Council will not issue approvals to tenants of rented properties unless the term of the lease extends past the period of the approval.

The legislation provides for where the owner holds an approval, the approval extends to the operator, i.e. tenant of a rented property.

6.6.2 Renewals and Transfers

The approval to operate will expire at the end of five years or at the time of transfer of the ownership of the property.

Prior to the expiry of any approval to operate, or within two months of when a property is transferred, the owner or operator will be required to apply for a renewal of the approval. Council will also invite the approval holder or new owner to renew the Approval to operate. An invoice may be raised by Council in relation to the applicable fee.

Applications must be made on the form provided by Council at the Council's Administration Centre or available on Council's web site. Applications will only be accepted with the applicable fee. Any incomplete applications may be rejected.

Where the payment can not be made in full, an application will proceed if an arrangement to pay the fee by instalments is made with Council's finance department. At least one fifth of the five year approval fee must be paid before the application is considered.

It is an offence under the Local Government Act to operate a system of on-site sewage management without approval. Failure to apply for the approval may incur the corresponding fines.

Please note that approvals are not transferable however the legislation provides two months for a new owner to apply for an approval to operate without penalty.

An application for the approval to operate will include an inspection of the system if an inspection had not been carried out for some time or the operation is anticipated to have changed substantially, e.g. change of occupancy.

6.6.3 Inspections

Approvals to Operate are valid for five years and therefore every system shall be inspected every five years under this process. However, where a system is considered to pose a greater than normal risk to the environment or human health, more frequent inspections are warranted.

Muswellbrook Shire Council has set risk categories for systems in the Shire. The risk category should relate to the environmental and human health consequences of poorly maintained and operated systems. The following has been considered in setting the risk criteria:

(1) Adherence to Statutory Guidelines

It is considered that where a system is installed or constructed to meet the provisions of the Statutory Guidelines, the system should be considered Low Risk. This will relate to issues around buffer distances and sizing of the disposal area.

Where a system was installed prior to the Guidelines coming into effect, these factors will also be used to determine Risk Categories.

The Guidelines set out procedures for Site and Soil Assessment. Where limitations are identified and not satisfactorily addressed, a higher risk category may be imposed.

(2) Minimum Lot Size

Council's Local Environmental Plan sets a minimum lot size of 2000m² for Village zoned areas. It is considered that land sized less than 2000m² are likely to place significant limitations on the ability to adequately and safely dispose of effluent. Therefore it is proposed to set the lots smaller than 2000m² to Medium Risk and below 1200m² to High Risk.

The Development Control Plan indicates 1200m² is the minimum lot size that a new system will be approved for. Therefore no new application should be deemed High Risk due to lot size.

(3) Heavy Industry

The Muswellbrook Industrial Area along Thomas Mitchell Drive has brought significant challenges to on-site waste management for both sewage and trade waste water. Due to these challenges it is considered that this area will be deemed High Risk.

(4) Large Commercial Systems

Large Commercial systems treating greater than 5 000 litres per day are considered Medium Risk.

Table 1: Risk Category Assessment for On-site Sewage Management.

Criteria	Low	Medium	High
Buffer Distances	Meet or exceed the Guideline	Less than the Guideline	Less than half the Guideline
Number of Site and Soil Constraints	Up to one major limitation, which has been addressed	Two to four major limitations	More than five major limitations
Land Area	More than 2000m ²	1200m ² - 2000m ²	Less than 1200m ²
Heavy Industry			Muswellbrook Heavy Industrial Area
Treatment Capacity	Less than 5000 litres per day	More than 5000 litres per day	
Management options/ Controls			
Inspections period	5 years	2-3 years	1-2 years

The risk category will determine the frequency of inspections. Where Council has concerns about any given system, additional inspections may be carried out. All inspections will incur the inspection fee as set out in the current Council Schedule of Fees and Charges.

6.7 Setting Fees

Fees will be set each year in the Management Plan and Schedule of Fees and Charges. Fees are set to represent cost recovery of the regulatory work required to maintain the adequate administration and surveillance over on-site sewage management systems.

The fee to apply for approval to install, construct or modify a system will include an inspection of the site to confirm the application details. At this inspection Council may advise of alternative options to provide a better environmental outcome for the proposal. Factors such as buffer distances, and soil conditions will also be checked as possible.

After issuing the Permit to Install, a final inspection will be carried out to ensure that the installation is in accordance with the Standards and the Approval. Following a successful final inspection the initial Approval to Operate will be issued. All of this is included in the application fee.

For commercial systems a higher fee is imposed to reflect the additional work required in assessment of these applications.

Approvals to Operate are renewed after five years or when property ownership is transferred. The fee is payable on application for renewal. An inspection will be carried out at the time of application at no extra charge.

Where multiple systems are on a property, a discounted rate is applied to additional systems as the inspections can be carried out together. Property owners must be able to justify that the systems are related to the one property and the approvals to operate must be concurrent and expire at the same time.

Any inspection between the times of issuing and renewing the Approval to Operate will be charged the inspection fee current at the time of inspection. A discount applies to inspection on the same property.

A reinspection fee is charged when minor works need to be re inspected before an inspection is deemed to be satisfactory.

A pre purchase enquiry fee includes an inspection of a system and a copy of the current Approval to Operate.

6.8 Servicing Of Systems

The NSW Health accreditation for certain domestic treatment systems requires servicing of the system by the manufacturer's agent or a service agent acceptable to Council. It is the responsibility of the system owner or operator to ensure that the system is serviced as accredited as part of their Approval to Operate. Where a system is not adequately serviced or maintained to an appropriate standard, the holder of the Approval to Operate shall be held liable.

This Strategy sets out criteria for service agents to be considered acceptable to Council. System owners can apply the criteria to any service agent they seek to service their system. Council will also provide advice to residents on how to select a service agent and, if requested, will provide to any system owner the contact details of service agents that Council know meet the criteria.

The Council will randomly audit service providers against the criteria and test systems for effluent quality and other functions.

6.8.1 Service Agent Acceptable Criteria

A service agent shall be considered acceptable to Council where the following can be demonstrated:

- a) Experience: the principle or senior manager of the business or company shall have at least 2 years continuous field experience in servicing a range of AWTs and other relevant on-site sewage management systems.
- b) Training: all service personnel shall have a State or Nationally recognised qualification in the maintenance and servicing of the appropriate systems. Service personnel should also be trained in appropriate safe work practices for the equipment being worked on.

- c) Provision of service: the company or business shall provide 24 hour emergency breakdown service as a condition of service contracts with the system owner and provide access to manufacturer's service manuals and spare parts, in particular pumps, blowers and chlorine supplies for the systems they intend to service.
- d) Service report sheet or information should indicate that that the system is functioning correctly in the following aspects:
 - Aerators operational;
 - Pumps operational;
 - Alarms operational;
 - Disinfection (Presence of chlorine and residual chlorine concentration or Ultraviolet operation and condition);
 - Sludge and scum accumulation
 - Land application area – condition & ponding.
- e) Service Agents shall hold workers compensation insurance and be able to produce safe work method statements for the work carried out.
- f) Insurance: the company shall be able to provide a Certificate of Currency showing insurance for a minimum of \$10million Public and Product Liability for service activities.

Council will randomly audit service agents to ensure that the servicing standards are maintained.

Where an audit of a service agent does not meet the acceptable criteria, further action will be taken as appropriate.

Council will supply information to system owners about service agents that are acceptable to Council to provide owners with servicing options. The details of any service agent that is found not to meet the acceptable requirements outlined in this Strategy will not be provided to system owners.

6.8.2 Owner Servicing of Own System

Where a system owner wishes to service their own system only, they must satisfy the following requirements and gain Council's approval before completing any servicing:

- a) Satisfactory completion of a recognised AWTS servicing and maintenance training course. Current recognised courses include "Aerated Wastewater Treatment System Servicing and Maintenance," conducted by the Centre for Environmental Training. Other State or National accredited on-site sewage management system servicing training courses will be considered acceptable.
- b) Demonstrated agreement that backup servicing or repair can be arranged within 24 hours.
- c) Access to manufacturer's service manual for relevant system.
- d) Proof of access to spare parts, in particular pumps, blowers and chlorine supplies.
- e) Provide a risk assessment and demonstrate that appropriate safety measures are in place in regard to at least chemical storage and handling and confined spaces.
- f) Service reports to be completed in a format acceptable to Council.

- g) Council may collect and have analysed a grab sample from time to time, to verify that the treated effluent quality is maintained to standards required by the NSW Health accreditation for the system. The sample may be collected and analysed by a Council officer without prior notice and at the owner's expense.

6.9 Identifying Future Sewer Network Development

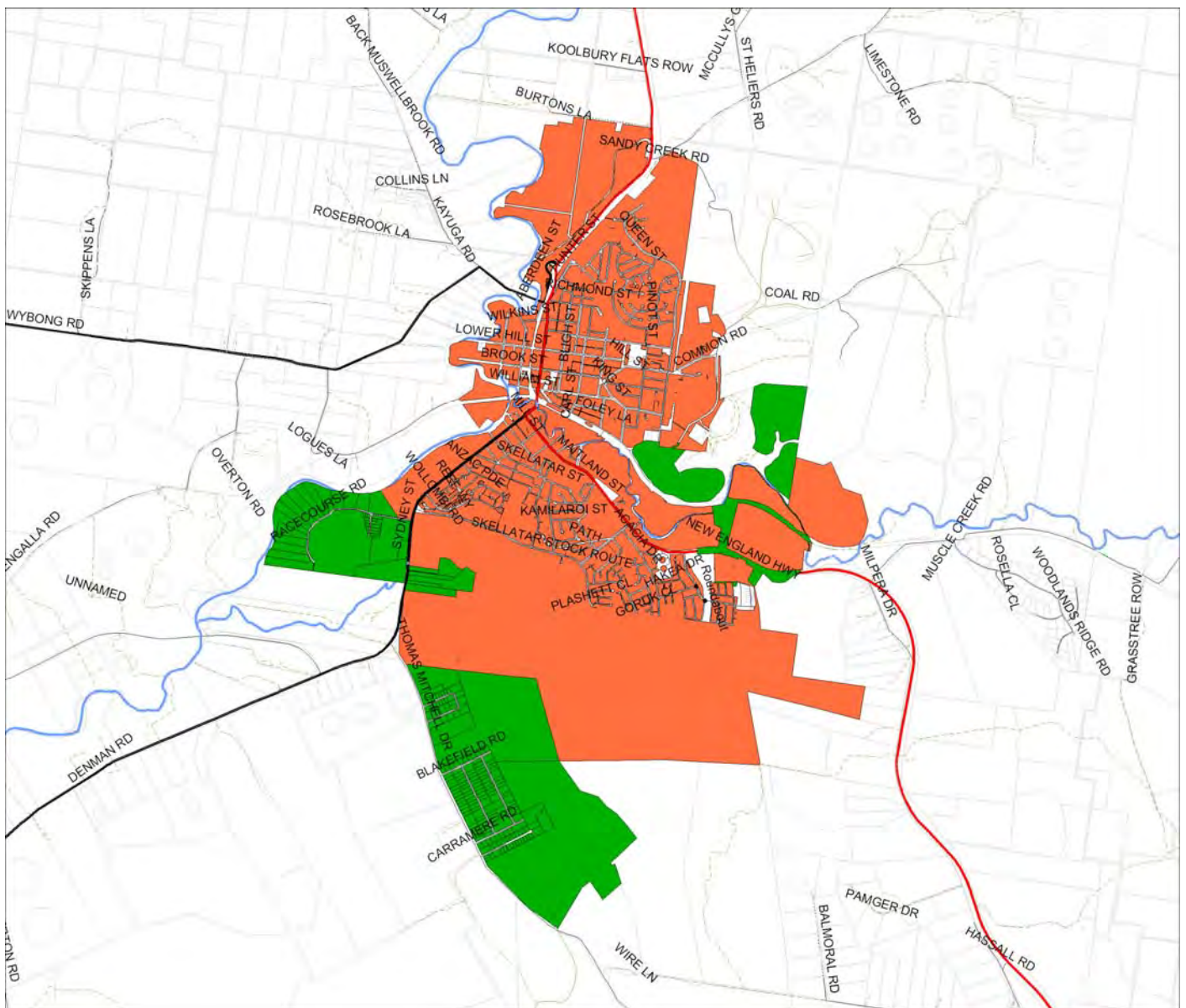
Muswellbrook and Denman townships are currently seweraged, however each town has areas where the existing sewer network can not effectively service some properties. As residential subdivisions are developed in accordance with the LEP, sewer services may become available.

In addition, investigations are currently being undertaken into the upgrading or relocation of the Muswellbrook Sewerage Treatment Plant as well as providing sewer services to the Muswellbrook Industrial Estate on Thomas Mitchell Drive. These factors should be taken into consideration when assessing applications for OSMS.

The following maps show the properties currently within 75 meters of an existing sewer. However, due to topographical features and easement provisions connection to the sewer may not be practically possible. Possible future provision of sewer services within a ten year timeframe are shown in green on the map.

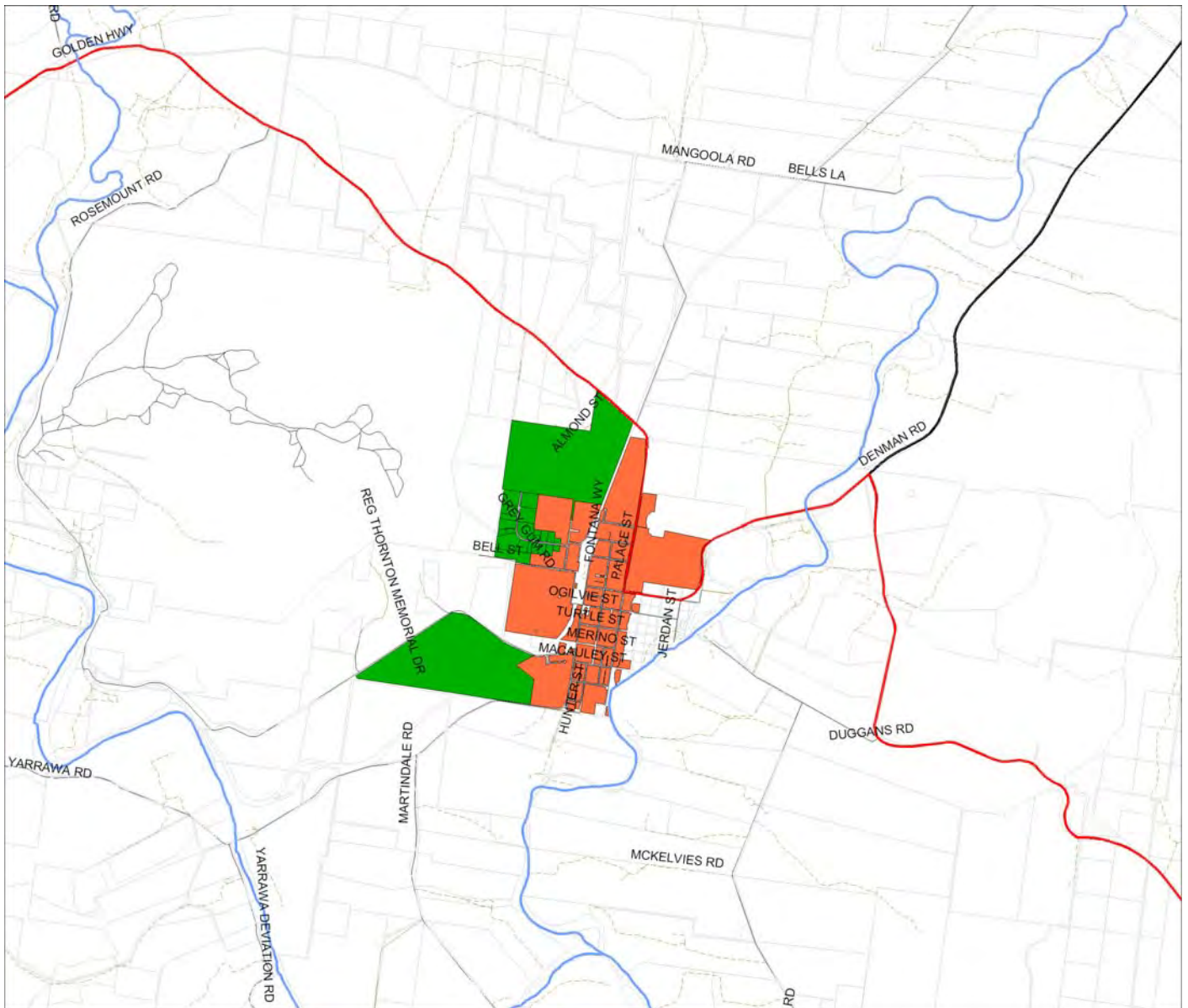
Any application for a system that is in the identified sewer extension area shall be referred to Water and Waste for comment on specific likelihood of future sewer availability. Where sewer is anticipated to be available to the specific site within five years, variations of relevant aspects of the Development Control Plan or Policy may be considered.

Figure 1: Proposed Sewered Areas 2020 – Muswellbrook



Key: Properties parcels coloured orange are currently sewered or are within 75 metres of a sewer connection point.
Property Parcels coloured Green are anticipated to be able to be connected to the sewer by 2020.
Property parcels not coloured are not anticipated to be connected to sewer in the foreseeable future.

Figure 2: Proposed Sewered Areas 2020 - Denman



Key: Properties parcels coloured orange are currently sewered or are within 75 metres of a sewer connection point.
Property Parcels coloured Green are anticipated to be able to be connected to the sewer by 2020.
Property parcels not coloured are not anticipated to be connected to sewer in the foreseeable future.