

## **SECTION 23 – ON-SITE SEWAGE MANAGEMENT SYSTEMS**

### **INTRODUCTION**

All developments that have the potential to generate sewage must be connected to an approved sewage system. In the case of land that can not be connected to the Council's sewage system, a system of on-site sewage management is required. This Section of the DCP outlines how Muswellbrook Shire Council implements the relevant legislation, guidelines and standards for developments that have the potential to generate sewage but are not proposed to connect to the Council's sewage system.

This Section of the DCP should be read in conjunction with:

- Local Government Act 1993
- Local Government (General) Regulation 2005
- AS/NZ 1546.1:2008 On-site domestic wastewater treatment units, Part 1 – Septic tanks
- AS/NZ 1546.2:2008 On-site domestic wastewater treatment units, Part 2 – Waterless composting toilets
- AS/NZ 1546.3:2008 On-site domestic wastewater treatment units, Part 3, Aerated wastewater treatment systems
- AS/NZ 1547:2012 On-site Domestic Wastewater Management
- AS/NZS 3500.5:2000 National Plumbing and Drainage Domestic Installations
- Environment & Health Protection Guidelines for On-site Sewage Management for Single Households (1998) (EHP Guidelines).
- Muswellbrook Shire Council 2010 On-site Sewage Management Strategy or as amended and any other prescribed guideline.

This Section contains the following subsections:

- OBJECTIVES AND CONTROLS
- 23.1 - LEGAL REQUIREMENTS
- 23.2 - APPLICATION
- 23.3 - PERMISSIBLE TREATMENT SYSTEMS
- 23.4 - PERMISSIBLE DISPOSAL SYSTEMS
- 23.5 - TEMPORARY FACILITIES
- 23.6 - COMMERCIAL, TOURIST, AGRICULTURAL & DESIGNATED DEVELOPMENT
- 23.7 - APPENDICIES

### **OBJECTIVES AND CONTROLS**

#### **Objectives:**

- Ensure that development including rezoning, subdivision and single lot developments are not approved unless there is sufficient suitable land for the disposal of effluent on-site.
- Ensure all new applications are adequately assessed in accordance with the guidelines.
- Identify areas of future development for Council's sewer network.
- Discourage the use of above ground irrigation in areas where environmental harm is likely to result.

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- To outline the requirements as set out in the 2010 On-site Sewage Management Strategy.
- To provide clarity where existing guidelines or standards do not clearly set out requirements.
- To promote the sustainable use of water and waste resources.

**Controls:**

- i. On-site sewage management systems are not permitted on properties which are less than 1200m<sup>2</sup> in area.
- ii. Disposal areas for dwellings must account for wastewater disposal of a minimum of 5 person equivalent population.
- iii. All developments that will require a new on-site sewage management system that are to be constructed or installed must be the subject of a Wastewater Treatment Application on Council's approved form at the time of application.
- iv. Temporary facilities for the purposes of construction works, public events, camping on land where consent is not required and mine crib facilities are approved without an application where the prescribed conditions are met.
- v. Developments must set aside an area of land with suitable soil and site properties to allow the development to receive the estimated wastewater loading AND a reserve area of equivalent to 50% of the assessed capacity.
- vi. The area set aside must not breach the EHP Guideline buffer distance in relation to water bodies, boundaries and buildings.
- vii. Disposal methods proposed must not include surface irrigation where the EHP Guideline buffer distance in relation to water bodies, boundaries and buildings is breached.
- viii. A Construction Certificate may not be issued until an adequate effluent disposal area is identified and approved by Council.

**DEVELOPMENT CONTROL ELEMENTS**

**23.1 LEGAL REQUIREMENTS**

The lawful disposal of sewage for any development will be either into a sewer of Council, a waste treatment device, a human waste storage facility or a drain connected to any such device or facility. Facilities that are not Designated under the Environmental Planning and Assessment Act or Scheduled under the Protection of the Environment Operations Act are regulated under the Local Government Act.

In considering an application for rezoning, subdivision or development, it is appropriate to ensure that a system of sewage management can be installed and constructed on the site, or an existing system can be modified, to adequately service the development.

The approval of the installation, construction or modification of any subsequent system of sewage management must comply with the:

- The Local Government Act 1993
- Local Government (General) Regulation 2005
- Council's On-site Sewage Management Strategy and Policy

## **23.2 APPLICATION**

This section of the DCP applies to all land where sewage wastewater may be generated and a connection to Council's sewer is not available.

### **23.2.1 REZONING AND SUBDIVISION**

**In assessing applications to rezone or subdivide land where connection to Council's sewage system is not proposed the following information must be provided:**

- ✓ A site and soil assessment in accordance with the Guidelines and AS/NZS 1547:2012
- ✓ A plan of the land to be rezoned/subdivided clearly showing land that is suitable for effluent disposal in relation to:
  - Homogenous soil capability types
  - EHP Guideline buffer distances from water courses, boundaries and roads
  - Soil permeability classes
  - Soil depth and depth to groundwater where it is a moderate or major limitation
- ✓ The disposal areas should be sized relative to the treatment system proposed and soil type and shall take into account limiting factors. Where a nominal area is provided, an appropriately sized polygon should also be marked on the plans to indicate that sufficient area is available.

#### **Consideration of application:**

Applications will not be approved unless the consent authority is satisfied that the lots are of sufficient size and the soils are of appropriate quality for the effective on-site disposal of domestic sewage and waste water.

Consent must not be granted to subdivide land for a purpose that is likely to generate sewage, unless the consent authority is satisfied that:

- I. each lot to be created by the subdivision has an adequate area and is suitable for the disposal of effluent on site, and
- II. the use of on-site sewage management systems will not contribute to an adverse cumulative impact on soils and water in the area.

### **23.2.2 SINGLE LOT DEVELOPMENT**

**In assessing development proposals for single lots that may generate sewage the following shall be provided:**

- ✓ A site and soil assessment in accordance with the EHP Guidelines and AS/NZS 1547:2012  
The assessment may be the same as that used for a rezoning or subdivision application where it meets the requirements listed above.

Where a suitable site and soil assessment relevant to the property has not already been prepared, the following information shall be provided as a minimum.

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A plan to scale, showing the location of:

- a) the sewage treatment facility proposed to be installed or constructed on the premises;
- b) any related effluent application areas including 50% reserve area, 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 pipe work (whether natural or constructed) located within 100 metres of the sewage management facility or related effluent application areas.

Sufficient information to confirm the size of area required for effluent application areas including reserve area with reference to soil, climate and wastewater flow rate and effluent quality.

Please note that in some cases the information required to determine a Development Application, may be equivalent to the information required for an application under Section 68 of the Local Government Act to install, construct or alter a system of on-site sewage management. A Wastewater Application may be lodged at the same time as the Development Application for consideration.

Where the site layout or the potential to generate sewage is revised or modified, updated information will also be required.

### **Consideration of application**

The application will not be approved unless the consent authority is satisfied that:

- a) the development provides an adequate area of land that is suitable for the disposal of effluent on site, and
- b) the use of on-site sewage management systems will not contribute to an adverse cumulative impact on soils and water in the area.

In addition the proposal should nominate the location and size of the effluent disposal area and a 50% equivalent reserve area. The area should have regard to and provide for the relevant buffer distance specified in the EHP Guidelines specifically distances to water courses and boundaries.

Where the precise location of the effluent disposal area is not specified, a consent may be conditioned to require an approval to install as deferred commencement or prior to the issue of a Construction Certificate.

### **23.3 PERMISSIBLE TREATMENT SYSTEMS**

The installation of the following treatment systems is permitted with the approval of Council:

- Septic tanks
- 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

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- Reed beds or constructed wetlands
- Sand filters
- Greywater treatment systems
  - AS/NZ 1546.2:2001 *On-site domestic wastewater treatment units, Part 2 – Waterless composting toilets*
  - AS/NZ 1546.3:2001 *On-site domestic wastewater treatment units, Part 3, Aerated wastewater treatment systems*
- 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)

Council will not approve the installation or operation of conventional pit toilets, cease pits or long drop toilets.

#### **23.4 PERMISSIBLE DISPOSAL SYSTEMS**

The installation of the following disposal systems is permitted with the approval of Council:

- Absorption trench or Evapo-Transpiration Absorption (ETA) Beds as per AS/NZS 1547:2000
- Sub surface irrigation
- Mound Systems

Surface irrigation will be permitted only where site and soil limitations are minor and where the EHP Guideline buffer distances can be achieved.

#### **23.5 TEMPORARY FACILITIES**

##### **a). Construction sites**

The installation and operation of temporary facilities for the purpose of amenity for 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 a lawful 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 Department of Health approvals are complied with.

**b). Associated with caravan or tent**

The installation and operation of temporary facilities for the purpose of amenity for 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 in another on-site sewage management system.

**c). Temporary events**

The installation and operation of temporary facilities for the purpose of amenity for 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 a lawful wastewater facility;
6. there are no spills or leaks of sewage;
7. the performance standards set out in the Local Government (General) Regulation are met;
8. appropriate standards and NSW Department of Health approvals are complied with.

**d). Crib facilities on mining sites**

The installation and operation of temporary facilities for the purpose of amenity for 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. 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 a lawful 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 Department of Health approvals are complied with.

### **23.6 COMMERCIAL, TOURIST, AGRICULTURAL & DESIGNATED DEVELOPMENT**

On-site sewage management systems proposed for developments of this nature which are proposed to cater for more than 10 persons, must produce effluent quality of at least a secondary standard however they shall be classified as medium risk systems. Prior to the lodgment of an application for these types of systems, it is advised that the applicant consult with Council to determine any other additional information that may be required.

A development application for development within these categories will require a report addressing the following matters:

- Outline the type and configuration of the system proposed for the development including tank capacities and specifications;
- Provide information including calculations as to how the system will cater for the proposed loading and effluent disposal. The information must reference hydraulic and soil capacities in the system design;
- Provide a water balance analysis for the site;
- Advise of the expected wastewater quality;
- Advise of any adverse chemical or biological inputs into the system and how the treatment device will process these inputs and achieve the accepted effluent quality;
- Demonstrate that the proposed system meets the objectives of this DCP, guidelines and related legislation;
- Provide a design including sizing calculations and construction design regarding the system and effluent disposal area which also includes the details of nearest potential receptors;
- Provide a copy of the service agreement or contract for the ongoing maintenance and servicing of the system. If the system is proposed as a pump out system then a procedure for identifying the need to pump out is required;
- Detail the mitigation measures proposed regarding protection of the system in the event of flood if the land is susceptible.

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**23.7 APPENDICIES**

Appendix A: Required Buffer Distances For Onsite Wastewater Management Systems

System	Required Buffer Distances
All land application areas	<ul style="list-style-type: none"><li>• 100m to permanent surface waters (e.g. river, streams, lakes etc.),</li><li>• 250m to domestic groundwater well,</li><li>• 40m to other waters (e.g. farm dams, intermittent waterways and drainage channels).</li></ul>
Surface spray irrigation	<ul style="list-style-type: none"><li>• 6m if area up-gradient and 3m if area, down gradient of driveways and property boundaries,</li><li>• 15m to dwellings,</li><li>• 3m to paths and walkways,</li><li>• 6m to swimming pools.</li></ul>
Surface drip and trickle irrigation	<ul style="list-style-type: none"><li>• 6m if area up-gradient and 3m if area down gradient of swimming pools, property boundaries, driveways and buildings.</li></ul>
Subsurface irrigation	<ul style="list-style-type: none"><li>• 6m if area up-gradient and 3 m if area down gradient of swimming pools, property boundaries, driveways and buildings.</li></ul>
Absorption System	<ul style="list-style-type: none"><li>• 12m if area up-gradient and 6m if down gradient of property boundary</li><li>• 6m if area up-gradient and 3m if area down gradient of swimming pools, driveways and buildings</li></ul>

*Source: Environment & Health Protection Guidelines – Onsite Sewage Management for Single Households 1998*