

## CHAPTER 3.3 ONSITE SEWAGE MANAGEMENT

### 3.3.1 INTRODUCTION

Under the *Local Government Act 1993* and specifically the *Local Government (General) Regulation 2005*, section 29, Central Coast Council must consider health and environment protection matters when assessing developments which require an onsite sewage management systems (OSSM).

This Chapter applies in areas that are not serviced by Council's reticulated sewerage system for both domestic and commercial developments.

#### 3.3.1.1 Relationship to other Chapters and Policies

This Chapter relates directly to the Council Onsite Sewage Management Strategy and the following other chapters in this Development Control Plan (DCP):

- Chapter 2.1: Dwelling Houses, Secondary Dwellings and Ancillary Development
- Chapter 2.4: Subdivision
- Chapter 2.7: Tourism Development
- Chapter 2.8: Caravan Parks
- Chapter 3.1: Floodplain Management
- Chapter 3.11 Water Catchment Areas

Reference is made to the following Australian standards and best practise guidelines for use when designing onsite sewage management systems:

- *AS1547:2012 Onsite domestic wastewater management.*
- *Sydney Catchment Authority (SCA), (2012) Designing and Installing Onsite Wastewater Systems, A Sydney Catchment Authority Current Recommended Practise.*
- *Department of Local Government, (1998) Environment and Health Protection Guidelines Onsite Sewage Management for Single Households.*

#### 3.3.1.2 Development in Unsewered Areas

New development in unsewered areas requires an onsite sewage management system which is designed in accordance with the relevant standards and guidelines or demonstrates best practice solutions for constrained sites. Where there is an existing onsite sewage management system and further development is proposed the applicant is required to demonstrate that the system is suitable or can be upgraded to meet the requirements of the relevant standards and guidelines.

Types of development which require assessment of onsite sewage management options include, but are not limited to:

- Single dwellings
- Dual occupancy
- Alterations and additions including bedrooms and/or rooms that can be used as a bedroom without structural modification.
- Secondary dwellings
- Ancillary development which may add additional load to an existing OSSM system (e.g. studios,)
- Subdivision
- Commercial development
- Agricultural (staff amenities).

## OBJECTIVE

To ensure sewage from development on unsewered properties is disposed of in a manner that minimises impacts on the natural environment, built environment and public health.

## REQUIREMENT

- a The development application must include a wastewater management report which demonstrates that an onsite sewage management system can be accommodated on the site. The wastewater management report must be prepared in accordance with the minimum requirements as set out in Table 1.

### 3.3.1.3 Ancillary Development in Unsewered Areas

Development in unsewered areas that does not involve additional bedrooms/study or alterations to an existing onsite sewage management system must demonstrate that there will be no impacts on the existing system.

Types of development which require an assessment of onsite sewage management options include:

- Swimming pools
- Alterations and additions (excluding additional bedrooms, studies)

## OBJECTIVE

To ensure sewage from development on unsewered properties is disposed of in a manner that minimises impacts on the natural environment, built environment and public health.

## REQUIREMENTS

- a The development is to be supported by a site analysis plan which identifies all site features, the proposed development and the existing onsite sewage management system and land application area, which must demonstrate buffer distance allowances in accordance with *AS1547:2012 Onsite domestic wastewater management*.
- b If the proposed development is likely to impact on the existing onsite sewage management system and land application area a wastewater consultant will be required to justify a suitable alteration to the system to ensure it complies with the relevant standards and guidelines. Contact should be made with Council's Environmental Health Officer to determine the level of justification required.
- c Where lot size is limited and there is extensive existing development, an applicant must demonstrate sufficient land application area is available for a future upgrade of the OSSM, should the existing system fail. A wastewater management report may be required to demonstrate the design and available land application area. The wastewater report is required to be prepared in accordance with Table 1, even where there is no additional load on the system from the proposed development.

### 3.3.1.4 Development within Drinking Water Catchments which are unsewered

This section relates directly to those areas identified as a catchment area, in Chapter 3.11 Water Catchment Areas.

## OBJECTIVES

- To protect water quality from contamination within the drinking water catchment.
- To ensure sewage from development on unsewered properties is disposed of in a manner that minimises impacts on the natural environment, built environment and public health.

## REQUIREMENTS

- a The applicant is to include a wastewater management report which demonstrates an onsite sewage management system can be accommodated on the site in accordance with the requirements as set out for a High Risk site, in Table 1.

### 3.3.1.5 Development on flood prone land

#### OBJECTIVES

- To prevent the spread of pollution from on-site sewage management systems during periods of flood
- To assist in the ongoing operation of on-site sewage management systems during periods of flood

#### REQUIREMENTS

- a The treatment tank/holding device is to be located above the 1% AEP flood contour.
- b The land application area is to be above that 5% AEP flood contour except in defined drinking water catchments where systems are not to be located on land below the 1% AEP flood contour.

### 3.3.1.6 Pump out Systems

Pump out systems will only be considered where existing onsite systems are no longer suitable due to failure, and it is demonstrated that there is no other alternative for onsite disposal. The use of pump out systems is not a solution for over development of a site.

#### OBJECTIVES

- To protect public health and the environment from the discharge of untreated effluent to stormwater.
- To minimise long term costs of owning an unsewered property.
- To ensure sewage from development on unsewered properties is disposed of in a manner that minimises impacts on the natural environment, built environment and public health.

#### REQUIREMENTS

- a The development of vacant land for residential use based on an effluent pump out system (tanker removal) will not be permitted.
- b Subdivision of land which relies on installation of effluent pump out system will not be permitted. Approval for the installation of an effluent pump out system (tanker removal) will only be granted where an existing dwelling/building is operating an onsite sewage management system which is failing and there is limited area available for a replacement onsite sewage management system; or there is no viable alternative solution.

### 3.3.1.7 Minimum Requirements for Wastewater Management Reports

Wastewater management reports are required to support development on the Central Coast where reticulated sewer is unavailable. The preparation of a wastewater management report shall be required for development in unsewered areas and should demonstrate that onsite sewage management can be sustained on the site in accordance with the relevant standards, guidelines and legislation.

#### OBJECTIVE

To ensure consistency in the level of detail required for wastewater management reports.

## REQUIREMENTS

- a The wastewater management report must be prepared by a suitably qualified professional consultant experienced in wastewater management. Specifically, consultants must be able to demonstrate they meet the minimum requirements as set out in Section 3.3 and 3.4 of *AS1547:2012 Onsite domestic wastewater management*.
- b All unsewered lots within the Central Coast LGA have been allocated a risk rating (High, Medium and Low) depending on the site constraints, including but not limited to soil type, soil depth, proximity to surface water, groundwater, slope, and location within a drinking water catchment. The risk rating forms the basis for the level of detail required for a wastewater management report. A property's risk rating can be obtained by contacting Council's Environmental Health Officer.
- c The table below outlines the level of detail required in a wastewater management report for each risk rating; all wastewater reports will be required to address the parameters in Table 1.

Report Element	Minimum Standard	Low Risk	Medium Risk	High Risk
<b>1. Introduction and Background</b>	1.1 Report summary/ executive summary.	✓	✓	✓
	1.2 Confirmation of risk class.	✓	✓	✓
	1.3 Name, contact details and qualifications of author.	✓	✓	✓
	1.4 Site location and owner.	✓	✓	✓
	1.5 Allotment size.	✓	✓	✓
	1.6 Number of bedrooms and occupants.	✓	✓	✓
	1.7 Proposed/existing water supply.	✓	✓	✓
	1.8 Availability of sewer.	✓	✓	✓
	1.9 Locality map showing the site in relation to surrounding region.	✓	✓	✓
<b>2. Site and Soil Assessment</b>	2.1 Broad overview of locality and landscape characteristics	✓	✓	✓
	2.2 Details and date, time and assessment methodology.	✓	✓	✓
	2.3 Site assessment that considers all of the parameters of Appendix B and D of AS1547:2012	✓	✓	✓
	2.4 Minimum of two soil test pits within the available land application area or per lot, with additional test pits required for more than one soil type (multiple soil landscapes).	✓	✓	✓
	2.5 Soil assessment that considers all of the parameters of Appendix C, E and F of AS1547:2012.		✓	✓
	2.6 Detailed review of available published soils information for the Site. Soil landscapes and different soil facets should be mapped on the site plan.		✓	✓
<b>3. System Selection and Design</b>	3.1 Design wastewater load.	✓	✓	✓
	3.2 Description of existing system (if applicable)	✓	✓	✓
	3.3 Discussion regarding the applicable setback distances in Table R1. Variations should be justified in accordance with Table R2 of AS1547:2012.	✓	✓	✓
	3.4 Available land application area and preferred treatment system positioning.	✓	✓	✓

Report Element	Minimum Standard	Low Risk	Medium Risk	High Risk
	3.5 Description of wastewater treatment system options		✓	✓
	3.6 Target effluent treatment quality.			✓
	3.7 List of land application area options and detailed description of preferred option. Land application area to be sized on the most limiting balance as detailed below.	✓	✓	✓
	3.8 Monthly water balance sizing the preferred land application area. All inputs, results and justification to be shown in the report.	✓	✓	✓
	3.9 Annual nutrient balance sizing the preferred land application area. All inputs, results and justification to be shown in the report.		✓	✓
	3.10 Construction assessment, detailed design and installation plan.		✓	✓
<b>4. Mitigation Measures</b>	4.1 Storm water management			✓
	4.2 Soil amelioration			✓
	4.3 Vegetation establishment and management			✓
<b>5. Site Management Plan</b>	5.1 Description of ways to improve wastewater system performance for residents' reference.			✓
	5.2 Operation and management plan			✓
<b>6. Cumulative Impacts</b>	6.1 Assessment of the existing condition of the receiving environment and sensitivity to system impacts, i.e. environmental significant overlays, groundwater bores, water supply catchments.			✓
	6.2 Viral die-off modelling.			✓
<b>7. Conclusion</b>	7.1 Conclusion summarising all the important design, sizing and mitigation requirements to ensure sustainable wastewater management.	✓	✓	✓
<b>8. Site Plan Requirements</b>	8.1 Site address, including lot number and street number	✓	✓	✓
	8.2 Site boundaries	✓	✓	✓
	8.3 Council zoning and environmental significant overlays		✓	✓
	8.4 Type of catchment (i.e. potable or other supply catchment)			✓
	8.5 North arrow	✓	✓	✓
	8.6 Location of groundwater bores	✓	✓	✓
	8.7 Contour lines (maximum 2m intervals)	✓	✓	✓
	8.8 Direction of slope	✓	✓	✓
	8.9 Location of soil test pits or auger holes	✓	✓	✓
	8.10 Location of any significant site features i.e. rock outcrops or waterlogged regions	✓	✓	✓
	8.11 Location of intermittent and permanent surface waterways (dams, creeks, reservoirs and springs)	✓	✓	✓
	8.12 Location of 1% and 5% Annual Exceedance Probability flood level contours lines (if applicable)		✓	✓
	8.13 Vegetation cover (can use aerial image as base map)	✓	✓	✓
	8.14 Relevant setback distances	✓	✓	✓

Report Element	Minimum Standard	Low Risk	Medium Risk	High Risk
	8.15 Proposed storm water drains	✓	✓	✓
	8.16 Location of existing and proposed buildings, sheds, driveways, paths and any other improvements.	✓	✓	✓
	8.17 Available land application area	✓	✓	✓
	8.18 Location of proposed land application area (sized to scale)	✓	✓	✓
	8.19 Location of proposed OSSM system	✓	✓	✓
	8.20 Location of reserve area (size to scale)	✓	✓	✓
<b>9. Appendices</b>	9.1 Copy of the monthly water balance calculations.	✓	✓	✓
	9.2 Copy of the annual nutrient balance calculations.		✓	✓
	9.3 Figures	✓	✓	✓
	9.4 Site Plan	✓	✓	✓
	9.5 Soil bore logs for all test pits.	✓	✓	✓
	9.6 Raw laboratory results for soil analysis		✓	✓
	9.7 Viral die-off modelling			✓
	9.8 Building plans	✓	✓	✓

**Table 1 Wastewater Management Report Checklist**

### 3.3.2 DEFINITIONS / GLOSSARY

**accreditation** all domestic onsite wastewater treatment systems installed in NSW must be accredited by NSW Health.

**aerated wastewater treatment system** a system used to treat wastewater using primary treatment for settlement of solids and secondary treatment by aeration followed by disinfection prior to discharge to the land application area.

**buffer distance** the distance from a sensitive site feature to a land application area for an onsite wastewater treatment system.

**drinking water catchment** as identified in the Water Catchment Areas chapter of this DCP.

**land application area** the area used for disposal of treated wastewater from an onsite wastewater treatment system.

**onsite sewage management system** a system used to treat wastewater onsite where no reticulated sewer is available.

**pump out system** storage of wastewater for collection by tanker on a frequent basis.

**septic tank** a tank which provides primary treatment of wastewater.

**sewered** reticulated sewer which is conveyed by pipes to a centralised sewerage treatment plant.

**wastewater management report** a report prepared by a suitable qualified consultant recommending the design and type of onsite sewage management system for a site.

**wastewater** all waste water from the bathroom, laundry and kitchen, includes toilet waste.

**unsewered** an area where reticulated sewer is not available.