

Policy 4.02 Onsite Sewage Management

Directorate	Community, Environment and Planning
Responsible Officer	Manager Certification and Compliance

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1.1 Introduction

1.1.1 Scope

Onsite Sewage Management Systems (OSM) capture and treat wastewater in unsewered areas. Failure of OSM can result in contamination of water supplies, land and aquaculture, with subsequent public and environmental health impacts. Regulation of these systems is therefore aimed at prevention of public health risk, protection of land and community amenity, protection of surface waters and groundwaters, and conservation and reuse of resources.

Bega Valley Shire Council is the regulatory authority for domestic and unlicensed onsite sewage management systems within its local government area. The *Local Government Act 1993* specifies Council's responsibilities with regard to approval of new systems, and inspection and ongoing approval of existing systems.

This policy applies to all domestic and unlicensed onsite sewage management systems in the Bega Valley Shire Local Government area, with the exception of National Parks as outlined in the Department of Local Government Circular 99/59.

This includes but is not limited to:

- septic tanks, aerated wastewater treatment systems, package treatment plants, worm farm, pit and composting systems, unless the system is required to be licensed under the *Protection of the Environment Operations Act 1997 Schedule 1*
- effluent pump out systems
- domestic greywater treatment and reuse systems
- greywater disposal systems.

1.1.2 Purpose

The purpose of this policy is to:

- ensure design and performance of onsite sewage systems to current legislative requirements, AS/NZ Standards, and recommended practices
- protect and enhance the quality of public health and amenity within the shire
- protect and enhance the environment within the shire, including surface water, groundwater, land, and flora and fauna
- provide sustainable options for wastewater management
- provide guidance to industry and property owners in preparing onsite sewage management applications to Council.

1.2 Definitions

Word or Terminology	Description
OSM	Onsite sewage management system – a system for treating human excreta and other wastewater
SCA	Sydney Catchment Authority

Greywater	Wastewater from baths, showers, basins and laundries
Blackwater	Wastewater from a kitchen, toilet, urinal or bidet
Suitably qualified servicing agent	<p>A suitably qualified servicing agent must:</p> <ul style="list-style-type: none"> • have completed a course on servicing and maintenance of the system; and have some supervised servicing experience, or extensive unsupervised servicing experience • not perform electrical work or enter confined spaces unless qualified to do so • be either employed or authorised by the manufacturer • must service the system in accordance with the manufacturers service requirements specified in the service manual

1.3 Legislation

This policy should be read in conjunction with the latest editions or revisions of the following:

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

Standards and Guidelines:

- *NSW Health Wastewater System Accreditation Certificates*
- *AS/NZ 1546: 1-3 Onsite domestic wastewater treatment units*
- *AS/NZ 1547:2012 Onsite domestic wastewater management*
- *AS/NZ 3500:2012 Plumbing and Drainage*
- *Plumbing Code of Australia 2016*
- *Environment and Health Protection Guidelines: Onsite Sewage Management for Households ('the Silver Bullet')* NSW Department of Local Government, 1998
- *Healthy Estuaries for Healthy Oysters Guidelines, NSW Department of Primary Industries, 2017*
- *Neutral or Beneficial Effect on Water Quality Assessment Guideline (NorBE), Sydney Catchment Authority, 2015*
- *NSW Guidelines for Greywater Reuse in Sewered, Single Household Residential Premises, NSW Department of Energy, Utilities and Sustainability, 2008*
- *NSW Health Servicing of Single Domestic Sewage Management Facilities, Advisory Note 5*
- *Water Sensitive Design Guide for Rural Residential Subdivisions, Sydney Catchment Authority, 2011*
- *NSW Health Advisory Note 3 – May 2006: Destruction, Removal or Reuse of Septic Tanks, Collection Wells, Aerated Wastewater Treatment Systems, and other Sewage Management Facility Vessels*

1.4 Implementation

1.4.1 Onsite Sewage Management

Council will assess all applications to install, alter and operate an onsite sewage management system in accordance with the stated policy purpose and referenced legislation, guidelines and standards.

1.4.1.1 Performance Standards

The following performance standards apply for the design, installation and construction methods for applications to install/alter and operate an onsite sewage management system.

Performance Criteria	Acceptable Solutions																	
<p>P1 Proposed system complies with clauses 40, 41 and 44 of the <i>Local Government (General) Regulation 2005</i></p>	<p>A1</p> <p>a) The system has NSW Health accreditation, or</p> <p>b) Is exempt under the Regulation and NSW Advisory note 1, and Is approved by NSW Fair Trading as an alternative solution</p>																	
<p>P2 The development is consistent with the requirements of any BVSC instrument on title under Part 6, Division 4 of the <i>Conveyancing Act 1919</i></p>	<p>A2</p> <p>a) Effluent management area is identified on the title and is consistent with the proposal, or</p> <p>b) Where the Instrument is to Council's benefit, that an equal or superior solution is presented</p>																	
<p>P3 Proposal is for an effluent pump out system</p> <p><i>NOTE: Development relying on pump-out systems is not a viable option in the long term. They may be considered on a case-by-case basis where acceptable solutions are demonstrated</i></p>	<p>A3</p> <p>a) Area is proposed to be connected to reticulated sewer in the near future; or</p> <p>b) Existing lot cannot support full on-site effluent disposal, and</p> <p>c) Partial on-site wastewater disposal has been considered, and</p> <p>d) Collection well(s) fitted with an alarm, and</p> <p>e) Collection wells sized as per Table 2. of the 'Designing and Installing On-site Wastewater Systems (SCA, 2012)' below:</p> <table border="1" data-bbox="582 1339 1423 1713"> <thead> <tr> <th rowspan="2">Number of bedrooms</th> <th colspan="2">Collection well size (litres)</th> </tr> <tr> <th>Tank water</th> <th>Reticulated/bore water</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>10,000</td> <td>16,000</td> </tr> <tr> <td>4</td> <td>14,000</td> <td>21,000</td> </tr> <tr> <td>5</td> <td>16,000</td> <td>24,000</td> </tr> <tr> <td>6</td> <td>18,000</td> <td>26,000</td> </tr> </tbody> </table> <p>f) Development where an increase in the intensity of occupancy is proposed (eg single to dual occupancy) shall not rely solely on an effluent pump out system</p>	Number of bedrooms	Collection well size (litres)		Tank water	Reticulated/bore water	3	10,000	16,000	4	14,000	21,000	5	16,000	24,000	6	18,000	26,000
Number of bedrooms	Collection well size (litres)																	
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Performance Criteria	Acceptable Solutions
<p>P4 The proposal is for a subdivision</p>	<p>A4</p> <ul style="list-style-type: none"> a) Assessment is undertaken in accordance with Appendix C in AS/NZS1547:2012 b) Chapter 3 in the 'Water Sensitive Design Guide for Rural Residential Subdivisions' (SCA, 2011) has been used for effluent management areas and loadings c) An effluent management area of 1600m² will generally be required for nominated sites d) Minimum loadings of 1200L/d (reticulated/bore water) or 800L/d (tank water) are to be used for calculated hydraulic disposal areas e) All proposed subdivision developments must demonstrate a sustainable onsite sewage management option for each proposed lot
<p>P5 Site and soil assessment have been undertaken</p>	<p>A5</p> <ul style="list-style-type: none"> a) Assessment has been undertaken in accordance with Section 2 of 'Designing and Installing Onsite Wastewater Systems' (SCA, 2012) and/or AS/NSZ 1547:2012 b) Appropriate design loading rate (DLR) or design irrigation rate (DIR) is used according to the soil description as per either Table L1, M1, or N1 of AS/NZS 1547:2012 depending on proposed method of disposal c) Water balance is calculated in accordance with local median rainfall and evaporation records where available, or using the data in Table 1 (at end of Performance Standards)

Under Review

Performance Criteria	Acceptable Solutions															
<p>P6 Design daily loadings are appropriate for the development</p>	<p>A6</p> <p>a) Daily loadings per potential bedroom are as per Table 2.1 of <i>'Designing and Installing Onsite Wastewater Systems'</i> (SCA, 2012) below:</p> <table border="1" data-bbox="584 533 1485 949"> <thead> <tr> <th data-bbox="584 533 884 663">Design Wastewater Loading for each potential bedroom</th> <th data-bbox="884 533 1184 663">Reticulated/Bore Water (L/d)</th> <th data-bbox="1184 533 1485 663">Tank Water (L/d)</th> </tr> </thead> <tbody> <tr> <td data-bbox="584 663 884 723">1-2 potential bedrooms</td> <td data-bbox="884 663 1184 723">600</td> <td data-bbox="1184 663 1485 723">400</td> </tr> <tr> <td data-bbox="584 723 884 784">3 potential bedrooms</td> <td data-bbox="884 723 1184 784">900</td> <td data-bbox="1184 723 1485 784">600</td> </tr> <tr> <td data-bbox="584 784 884 844">4 potential bedrooms</td> <td data-bbox="884 784 1184 844">1200</td> <td data-bbox="1184 784 1485 844">800</td> </tr> <tr> <td data-bbox="584 844 884 949">More than 4 potential bedrooms</td> <td data-bbox="884 844 1184 949">1200 plus 150 for each additional bedroom</td> <td data-bbox="1184 844 1485 949">800 plus 100 for each additional bedroom</td> </tr> </tbody> </table> <p>b) Ancillary structure – refer to A7</p> <p>c) Separation of waste streams – greywater loading shall be taken as 65% of the total loading</p> <p>d) A potential bedroom is that defined in the <i>'Neutral or Beneficial Effect on Water Quality Assessment Guideline'</i> (SCA, 2015)</p>	Design Wastewater Loading for each potential bedroom	Reticulated/Bore Water (L/d)	Tank Water (L/d)	1-2 potential bedrooms	600	400	3 potential bedrooms	900	600	4 potential bedrooms	1200	800	More than 4 potential bedrooms	1200 plus 150 for each additional bedroom	800 plus 100 for each additional bedroom
Design Wastewater Loading for each potential bedroom	Reticulated/Bore Water (L/d)	Tank Water (L/d)														
1-2 potential bedrooms	600	400														
3 potential bedrooms	900	600														
4 potential bedrooms	1200	800														
More than 4 potential bedrooms	1200 plus 150 for each additional bedroom	800 plus 100 for each additional bedroom														
<p>P7 Proposal addresses all wastewater generated on the site</p>	<p>A7 Loadings from non-habitable serviced ancillary structures shall be calculated using Table H2 from AS/NZS 1547:2012</p>															
<p>P8 Proposed disposal method is appropriate for the slope</p>	<p>A8</p> <p>a) Is less than maximum slope requirements as outlined in Table K1 of AS/NZS, and</p> <p>b) Design includes methods of preventing surface water flow onto effluent management areas, and</p> <p>c) Subsurface irrigation DIR is reduced with increasing slope in accordance with Table M2 of AS/NZS 1547:2012</p>															
<p>P9 Buffer distances are appropriate to the development</p>	<p>A9</p> <p>a) Buffers meet those outlined in Table 2.4 of the <i>'Designing and Installing Onsite Wastewater Systems'</i> (SCA, 2012), and</p> <p>b) Buffers apply to the entire effluent management area, and</p> <p>c) Additional buffers to site specific factors may be applied (such as to significant vegetation); and Variations to buffers with assessment using Tables R1 and R2 of AS/NZS 1547:2012 may be considered</p>															

Performance Criteria	Acceptable Solutions															
<p>P10 The nominated system requires regular servicing</p>	<p>A10</p> <ul style="list-style-type: none"> a) An appropriately qualified service technician is available in the area for servicing and repairs, and b) All servicing and maintenance of the system, and any associated costs is the owner's responsibility, and c) Owners must be provided with adequate information on the operation and maintenance of the system 															
<p>P11 Where surface, shallow subsurface, or low pressure effluent distribution disposal is nominated, nutrients are contained onsite and within buffers</p>	<p>A11</p> <ul style="list-style-type: none"> a) The minimum area method as outlined in '<i>Environment and Health Protection Guidelines: Onsite Sewage Management for Single Households</i>' is preferred b) Where this method is not applied, the hydraulic irrigation area shall be sized in accordance with AS/NZS 1547:2012 and an area for the calculated nutrient uptake to be reserved downslope following the natural flow c) Where wastewater nutrient concentrations are not specified in the NSW Health Certificate of Accreditation for the system, then the design parameters as shown below shall be used: <table border="1" data-bbox="584 1122 1485 1447"> <thead> <tr> <th>Parameter</th> <th>Septic Tank Effluent</th> <th>Greywater Effluent</th> <th>AWTS Effluent</th> <th>Critical Loading Rate of Nutrient</th> </tr> </thead> <tbody> <tr> <td>Total Nitrogen</td> <td>55mg/L</td> <td>15mg/L</td> <td>30mg/L</td> <td>25mg/m²/d</td> </tr> <tr> <td>Total Phosphorus</td> <td>12mg/L</td> <td>10mg/L</td> <td>12mg/L</td> <td>2.8 mg/m²/d</td> </tr> </tbody> </table>	Parameter	Septic Tank Effluent	Greywater Effluent	AWTS Effluent	Critical Loading Rate of Nutrient	Total Nitrogen	55mg/L	15mg/L	30mg/L	25mg/m ² /d	Total Phosphorus	12mg/L	10mg/L	12mg/L	2.8 mg/m ² /d
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Total Phosphorus	12mg/L	10mg/L	12mg/L	2.8 mg/m ² /d												
<p>P12 Risk rating assessment has been undertaken</p>	<p>A12 The risk rating is determined on the potential of the system's impact to public health and the environment in accordance with the OSM Risk Categories detailed in the BVSC Onsite Sewage Management procedures</p>															

Performance Criteria	Acceptable Solutions
P13 Proposal includes separate greywater treatment/disposal	<p>A13</p> <p>a) Approval under s68 of the Local Government Act 1993 is required unless the property is exempt</p> <p>b) To be exempt, the property must be connected to sewer and a greywater diversion device is installed in accordance with clause 75A(2) of the Local Government (General) Regulation 2005 and the 'NSW Guidelines for Greywater Reuse in Sewered, Single Household Residential Premises' (NSW Government, 2008)</p> <p>c) All applications must include a full site and soil assessment as per P5 above</p> <p><i>Note: Greywater diversion cannot be used to reduce the hydraulic load used to calculate the size of the required effluent disposal system</i></p>

Where acceptable solutions in the Performance Standards are not adopted, the proponent must submit an alternate solution prepared by a suitably qualified and experienced person for assessment by Council. Any variation must demonstrate an equal or superior outcome to those detailed in the Performance Standards.

Table 1: Precipitation, Evaporation and Crop Factor

Month	Days Per Month	Daily Pan Evaporation (mm)	Median Rainfall (mm/month)	Crop Factor
January	31	6.3	75.3	0.8
February	28	5.7	66.7	0.8
March	31	4.7	40.7	0.8
April	20	4	54.9	0.8
May	31	3.1	55.8	0.7
June	30	2.9	47.8	0.6
July	31	3	34.3	0.6
August	31	4.1	27.9	0.6
September	30	4.9	44.3	0.7
October	31	5.7	57.7	0.8
November	30	6.1	63	0.8
December	31	6.7	58.5	0.8

1.4.1.2 System Risk Ratings

New sites shall be given a risk rating in accordance with BVSC risk classifications at time of approval, or in the case of an existing system, at the time of most recent inspection.

The risk rating shall determine the frequency of inspections, which are:

- Critical – inspected annually
- High – inspected every three years
- Low – inspected on complaint, or transfer of property ownership, or at time of BVSC area audit.

Details of risk classification are contained within the Onsite Sewage Management Procedure.

1.4.1.3 Onsite Sewage Management Inspection Program

Details of Council's routine inspection program, inclusive of enforcement procedures, are contained within the Onsite Sewage Management Procedure.

Council may undertake auditing programs from time to time to ensure the performance and servicing standard of the systems meets the required performance criteria contained in the system's NSW Health Accreditation Certificate.

Fees and charges relating to onsite sewage management are contained within Council's annual Fees and Charges document.

Well managed onsite sewage management systems are of benefit to the community and the environment. To this end, Council provides informal education to owners of systems onsite through the inspection program, distribution of factsheets, and Council's website.

1.4.2 Responsibilities

1.4.2.1 Elected Council

Determine any requests for variation to Development Control Plan reported to Council with reference to Onsite Sewage Management Policy. Consider sustainable onsite sewage management in strategies for future development.

1.4.2.2 Chief Executive Officer (CEO), Leadership Executive Group (LEG)

Assess strategic and/or development proposals with regard to implications for onsite sewage management.

1.4.2.3 Certification and Compliance

Review policy and procedures in light of future legislative changes and technical improvements. Provide with data and risk assessment to inform resource allocation for programs.

1.4.2.4 Environmental Health team

Assess and approve applications to install, alter or operate onsite sewage management systems. Inspect onsite sewage management systems within the Bega Valley Shire on risk based frequency, point of sale, and on receipt of complaint or occurrence of pollution incident. Provide education to owners and users of onsite sewage management systems to increase system performance.

1.5 Supporting documents

1.5.1 BVSC procedures that relate to this policy

Procedure No.:	Procedure Name	External or Internal Procedure
4.02.01	Approvals to operate and reinspection program	
4.02.02	Onsite Sewage Management Interpretations	Internal
4.02.3	Restricted development in unsewered villages	Internal

1.5.2 BVSC policies that relate to this policy

Policy No.:	Policy Name
4.12	Environmental and Public Health
3.07	Climate Change
4.07	Water and Sewerage Services
4.05	Enforcement and Compliance Policy
3.05	Environmental Sustainability for Council Operations
3.01	Development Administration
3.02	Environmental Management

Note: Policy details may change from time to time. To ensure you are viewing the most recent version please view Council's adopted policies and procedures on Council's website.