



# Community Wastewater Management Systems Code

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## Glossary and Terms

All wastewater	The combined blackwater and greywater from a dwelling or premises.
AS/NZS	Australian/New Zealand Standard (latest version).
Blackwater	Wastewater discharged from either a toilet or urinal.
Community wastewater management system (CWMS)	As defined by the Wastewater Regulations: a system for the collection and management of wastewater generated in a town, regional area or other community, but does not include – (a) SA Water sewerage infrastructure; or (b) after 1 July 2015—a system with a capacity that exceeds 2000 EP.
DHA	Department for Health and Ageing.
Effluent	The liquid discharged from a wastewater treatment system.
Greywater	The domestic wastewater from baths, showers, basins, laundries and kitchen sinks/dishwashers specifically excluding water closet and urinal wastes. Also see wastewater.
Infrastructure	That part of the CWMS under the care and control of the relevant authority and includes the connection point provided to each property.
The Minister	The Minister of the Crown to whom the administration of the <i>South Australian Public Health Act</i> is for the time being committed (the Minister for Health and Ageing).
On-site Wastewater Systems Code	A prescribed code under the Wastewater Regulations which sets out the procedures and technical requirements for design, approval, installation and operation of on-site wastewater systems and, where applicable, their connection to a CWMS. The Code also includes the minimum requirements for product approval for an on-site wastewater system.
Pressure sewerage system (PSS)	A type of CWMS in which macerated sewage is conveyed under pressure generated by pumping units located on each property to a sewage treatment facility or another sewerage system.
Prohibited substance	<ul style="list-style-type: none"> <li>&gt; Substances (such as fibrous material, large solid particles, materials likely to polymerise) that could block or otherwise be detrimental to the operation of the wastewater system</li> <li>&gt; Substances (such as volatile solvents) that could generate hazardous gases or vapours in the wastewater system</li> <li>&gt; Chlorinated hydrocarbons</li> <li>&gt; Discrete oil or other materials that are immiscible with water</li> <li>&gt; Any other substance or matter not permitted to be discharged to the wastewater system by the relevant authority.</li> </ul>
Property connecting drains or apparatus	Any part of a wastewater system located on private or public property/premises that is under the care and control of the property owner, occupier of the premises or other agency and is deemed by the relevant authority not to be part of the CWMS infrastructure.
Relevant authority	For determination of the relevant authority, see the Wastewater Regulations.
Rising main	A pipe operating under pressure which conveys the discharge from the pump outlet and discharges to a point usually higher than the pump.
SA Water	As defined by the <i>Water Industry Act 2012</i> : South Australian Water Corporation established under the <i>South Australian Water Corporation Act 1994</i> .

SA Water sewerage infrastructure	As defined by the Wastewater Regulations: sewerage infrastructure (within the meaning of the <i>Water Industry Act 2012</i> ) owned or operated by SA Water.
Septic tank	A single or multiple chambered tank through which wastewater is allowed to flow slowly to permit suspended matter to settle and be retained, and that organic matter contained therein can be partially decomposed (digested) by anaerobic bacterial action. The term covers the tanks that are used to treat all wastewater, greywater and blackwater.
Septic tank effluent	The resultant discharge from a septic tank following primary treatment or settlement of blackwater or greywater.
Septic tank effluent drainage scheme (STEDS)	A type of CWMS which generally incorporates a gravitational septic tank effluent collection system, a treatment system and a reuse/disposal system.
Septic tank effluent pumping scheme (STEPS)	A type of CWMS incorporating a pumped discharge of septic tank effluent from each property served by the scheme to a common pressurised rising main which transports the effluent to a treatment and reuse/disposal facility.
Setback	The distance that a wastewater system or land application system must be situated from any building, boundary, watercourse, body of water or other components of the wastewater system.
Sewage	Material collected from internal and other building drains. Includes faecal waste and urine from toilets, shower and bath water, laundry water and kitchen water.
Sewerage system	A type of CWMS that receives sewage from multiple locations and transports it to a central treatment and reuse/disposal system.
Trade waste	Any liquid or solid waste conveyed as wastewater in a water carriage system from any commercial, industrial, manufacturing, or other similar premises.
Vacuum sewer system	A type of CWMS that uses vacuum to convey wastewater from each connection to a vacuum station. Wastewater is then pumped to a treatment facility and reuse/disposal system.
Wastewater	The used water arising from domestic activities in dwellings, institutions or commercial facilities consisting of all wastewater, greywater or blackwater, or as approved by the relevant authority.
Wastewater engineer	As defined by the Wastewater Regulations: an engineer who— (a) is a member of the Institution of Engineers Australia of the category “Chartered Professional Engineer” or is registered on the National Professional Engineering Register administered by that institution; and (b) has experience in wastewater system or geotechnical engineering.
Wastewater system	As defined by the Wastewater Regulations: (a) an on-site wastewater system; or (b) a CWMS.
Watercourse	As defined by the <i>Natural Resources Management Act 2004</i> : a river, creek or other natural watercourse (whether modified or not) in which water is contained or flows whether permanently or from time to time and includes — (a) a dam or reservoir that collects water flowing in a watercourse; (b) a lake through which water flows; (c) a channel (but not a channel declared by regulation to be excluded from the ambit of this definition) into which the water of a watercourse has been diverted; (d) part of a watercourse; (e) an estuary through which water flows; (f) any other natural resource, or class of natural resource, designated as a watercourse for the purpose of this Act by an NRM plan.

Water industry entity	As defined by the <i>Water Industry Act 2012</i> : (a) a person licensed under Part 4 of the <i>Water Industry Act</i> ; or (b) a person recognised by the Minister under section 4 subsection (4) of the <i>Water Industry Act</i> as a water industry entity for the purposes of the <i>Water Industry Act</i> , and includes (where the context requires) a person who has been licensed under Part 4 of the <i>Water Industry Act</i> whose licence has been suspended or cancelled or has expired or a person who is to be treated as a water industry entity under the <i>Water Industry Regulations</i> .
Water protection area	A part of the state for the time being declared by proclamation to be a water protection area under the <i>Environment Protection Act 2003</i> . The River Murray Protection areas defined under the <i>River Murray Act 2003</i> are also water protection areas.

## 1 Introduction

This Community Wastewater Management Systems Code (The Code) has been developed pursuant to the provisions of the *South Australian Public Health Act 2011* (SAPH Act) and the regulations made under that Act dealing with wastewater (Wastewater Regulations). The SAPH Act requires the Department for Health and Ageing (DHA) and the South Australian Public Health Council (SAPHC) to keep public health legislation under review for the purpose of accommodating the changing community needs and practices, facilitating the day-to-day administration of the legislation and protecting public health.

Community wastewater management systems (CWMS) include septic tank effluent drainage schemes (STEDS), septic tank effluent pumping schemes (STEPS), sewerage systems, pressure sewerage systems and vacuum sewerage systems as well as any associated wastewater treatment facilities and recycled water reuse schemes.

This Code has been compiled to assist the relevant authorities in providing information for applications to install a CWMS.

The Code provides information to assist consultants, local councils, developers, builders and plumbers, property owners and occupiers on:

- > The technical requirements to be considered in the planning stages of a CWMS
- > The requirements for design of the CWMS
- > The procedures and required information for the submission of applications to the DHA for assessment of a proposed CWMS
- > Ongoing operation and maintenance requirements for a CWMS.

In accordance with the Wastewater Regulations, this Code is a prescribed code; non compliance with its provisions is deemed to be an offence and the relevant authority may issue penalties or institute legal proceedings.

This Code should be read in conjunction with the Wastewater Regulations and the relevant prescribed codes contained therein.

## 2 Design Requirements

### 2.1 Infrastructure design, construction and operation criteria for CWMS including reuse/disposal systems

Under the Wastewater Regulations, the Minister is the relevant authority for approval of a CWMS, any associated treatment and reuse/disposal system as well as any extensions to a scheme. Persons wishing to install such systems are required to submit an application with the appropriate fee and obtain an approval from the Minister prior to any installation work taking place.

For the infrastructure design, construction, operation and maintenance of a CWMS, the following codes, standards and guidelines are to be followed unless otherwise permitted by the relevant authority:

- > The following Water Services Association of Australia Codes of Practice:
  - > WSA 02, Sewerage Code of Australia and any SA Water supplementary documentation
  - > WSA 03, Water Supply Code of Australia
  - > Dual Water Supply Systems First Edition Version 1.2. A Supplement to the Water Supply Code of Australia WSA 03-2002
  - > WSA 04, Sewage Pumping Station Code of Australia
  - > WSA 06, Vacuum Sewerage Code of Australia
  - > WSA 07, Pressure Sewerage Code of Australia.
- > AS/NZS 1546 On-site domestic wastewater treatment units
- > AS/NZS 3500 Plumbing and drainage
- > The National Construction Code (NCC) Volume 3 Plumbing Code of Australia (PCA)
- > The South Australian Variations and/or Additional Provisions as listed in Appendix A of the PCA
- > Standard Form, Technical Specification for Construction of Septic Tank Effluent Drainage Schemes. Department of Health and Local Government Association of South Australia
- > Septic Tank Effluent Drainage Scheme Design Criteria. Department of Health and Local Government Association of South Australia
- > South Australian Biosolids Guidelines for the Safe Handling, Reuse or Disposal of Biosolids. Environment Protection Authority
- > South Australian Recycled Water Guidelines. Department for Health and Ageing
- > Australian Guidelines for Water Recycling: Managing Health and Environmental Risks (Phase1). Natural Resource Management Ministerial Council, Environmental Protection and Heritage Council, Australian Health Ministers' Conference
- > Any other relevant codes, guidelines, standards and supporting technical information as required by the relevant authority.

### 2.2 Individual connections to a CWMS

Approvals of sanitary plumbing and drainage and connection to CWMS for all premises are to be by the relevant authority in accordance with the On-site Wastewater Systems Code.

### 2.3 Trade waste connections

Individual trade waste connections to a CWMS are addressed in the On-site Wastewater Systems Code. The On-site Wastewater Systems Code shall be used in the design of a system and determination of requirements for connection of a trade waste system to a CWMS unless otherwise permitted by the relevant authority.

### 2.4 Setback distances

Setback distances for various system components (including treatment plants and irrigation areas) shall be in accordance with DHA requirements. These may include:

- > Reference to existing codes, standards and guidelines as well as other agencies' requirements
- > Other supporting information including provision of a risk management strategy.

### 3 Information and Enquiries

Any enquiries concerning requirements of this Code should be directed to the DHA, which can:

- > Advise on the procedures and information to be followed in submitting an application including the appropriate fee
- > Provide information on possible approval conditions as well as indicating who may carry out the work
- > Advise of any changes associated with an application and subsequent inspections as well as other relevant information
- > Provide information on an existing CWMS where possible, as well as the conditions applicable to extending/upgrading the scheme.

Note: Requirements for individual connections to a CWMS can be found in the On-site Wastewater Systems Code.

The DHA can be contacted as follows:

The Department for Health and Ageing  
Citi Centre Building  
11 Hindmarsh Square  
ADELAIDE SA 5000  
Postal Address:  
PO Box 6,  
RUNDLE MALL SA 5000  
Telephone enquiries: (08) 8226 7100

## 4 Legal Requirements

### 4.1 *South Australian Public Health Act 2011* and regulations

The *South Australian Public Health Act 2011* (SAPH Act) and the regulations made under that Act dealing with wastewater detail the legislative requirements to be satisfied with regard to installation, operation and maintenance of wastewater systems such as a CWMS.

### 4.2 Relevant authority

For the purpose of this Code, the relevant authority with regard to the approval for installation, extension or upgrade of a CWMS is the Minister.

### 4.3 *Local Government Act 1999*

The *Local Government Act 1999* contains sections relevant to the administration of matters relating to a CWMS including details on application of service rates.

### 4.4 Other legislation

Persons or agents facilitating the design, installation and operation of a CWMS must ensure compliance with the requirements of other regulatory authorities.



## 5 Applications

Prior to commencing work on any part of a CWMS, it is necessary to submit an application to and receive approval from the DHA.

### 5.1 Application forms

Application for approval must be made on a form as specified by the Minister. Contact the DHA for further information.

### 5.2 Application information

Information to be provided with the application includes:

- > Application fee (payable to the Department for Health and Ageing – may be subject to change each new financial year)
- > Completed application form
- > Concept report of the project
- > Risk management plan (see below)
- > Description and technical details of the proposed system and its components
- > Engineering calculations regarding the design and sizing of all the components of the system
- > Technical specifications for all the components within the scheme
- > Soil and site assessment for the various aspects/components of the scheme
- > Engineering report and/or calculations regarding the structural soundness of the scheme
- > A set of scaled A3 size plan-view engineering drawings<sup>1</sup>
- > A set of scaled A3 size cross-sectional engineering drawings<sup>1</sup>
- > A set of A3 schematic plans of the overall system<sup>1</sup>
- > A copy of the servicing manual/details
- > A copy of the operation manual/details
- > Contingency measures for malfunctions of the system
- > Laboratory analysis reports (NATA registered) (where available)
- > Additional information as required by DHA.

#### Risk management plans

Risk management plans (RMP) will be required for all CWMS involving use of recycled water. Information on the formulation of an RMP can be found in the South Australian Recycled Water Guidelines, Department for Health and Ageing. Contact the DHA for further information.

<sup>1</sup> The DHA reserves the right to request A1 size plans as necessary.



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**Preface**

This Code has been prepared as the "Community Wastewater Management Systems Code" pursuant to the South Australian Public Health (Wastewater) Regulations 2013