



**Supplementary information to the
WSAA Sewerage Code of Australia
Melbourne retail water agencies edition**

Version 2 WSA 02-2014-3.1

For land development

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NOTE: THE CLAUSE AND SECTION NUMBERS MATCH THOSE THAT ARE USED IN THE MELBOURNE RETAIL WATER AGENCIES VERSION OF THE WSAW SEWER RETICULATION CODE (WSA 02-2014-3.1)

GENERALLY, BARWON WATER ADOPTS SOUTH EAST WATER'S DESIGN LIMITATIONS TO THE CODE.

Supporting documentation – Sewerage Code

Introduction

Barwon Water's design and constructions requirements for sewer mains required for the provision of services to subdivisions and other land development works is the Water Services Association of Australia Sewerage Code of Australia WSA 02-2014-3.1 Retail Water Agencies Edition Version 2 with the exceptions listed in this supplement.

General

This supplementary documentation describes Barwon Water's specific requirements for sewerage works additional to those detailed in the *WSAA Sewerage Code of Australia 02-2014-3.1 - Melbourne Retail Water Agencies Edition - Version 2*.

The Supplementary section of the Sewerage Water Reticulation Code contains:

- Table of contents to the supplementary Documentation
- Description of Barwon Water requirements where required or different to the WSAA Code

Operation

The clause numbering of this supplementary document matches the WSAA Code.

Innovative solutions

WSAA Sewerage Code of Australia and this supporting documentation provide 'deemed-to-comply' solutions for the creation of all water agency sewerage assets. Alternative solutions, practices, equipment and methodologies will continue to evolve and offer opportunities to improve the creation of these assets. Barwon Water encourages use of any innovation that offers enhanced productivity and serviceability, but Barwon Water's input should be sought before any new system is designed.

Responsibilities

Designers and constructors are responsible for their respective aspects of the design and construction process. It is the designer/constructor's responsibility to justify any variation from the requirements set out in the Sewerage Code of Australia (including the attached Barwon Water conditions) and/or the Barwon Water Construction Drawings – plus any specific directions given by Barwon Water for a particular project. The designer/constructor is to obtain Barwon Water endorsement for any variation.

Part 1: Planning and design

5. Detail design

5.2.8 Easements

Adopt requirements of MRWA-S-111.

Easements in Municipal or other Reserves to be as follows:

- 2.5 m for sewer pipes \leq DN225
- 6.0 m for sewer pipes $>$ DN225

5.5.5. Maximum ET for reticulation sewers

The table shown below is to be used to determine the grades for DN300 sewers. For DN375 and DN450 are to be design specific and approved by Barwon Water.

Size: DN300

Grade	Minimum Lots	Maximum Lots
1 in 80	100	3100
1 in 100	120	2800
1 in 120	140	2500
1 in 150	170	2300
1 in 180	225	1950
1 in 200	280	1750
1 in 250	335	1600
1 in 300	390	1500
1 in 400	450	1350

5.6.3 Minimum Cover over sewers

Adopt MRWA-S-201 with the following qualifications:

- Private residential property non-trafficable – 600 mm.
- Public Land non-trafficable – 750 mm.

5.6.4.4 Partial Lot Service

Restriction to be placed on design drawings as well as plan of subdivision.

6. Property connection

6.2 Limitations of connections to sewers

- For connections to sewers \geq DN300, gas check manholes (double manholes with intermediate water trap) are required.

6.3 Methods of the property connection

- For property connections to sewers \geq DN300 involving 1 or 2 lots or $<1000\text{m}^2$, gas check manholes are not required. Use Boundary traps and Reflux valves.
- For property connections to existing sewers greater than 4m deep, connections are to be into a manhole or maintenance chamber.

6.3.4 Typical layouts of sewers and general arrangements for property connection sewers

- All property connection points shall be installed at a maximum depth to invert of less than 1.5m.
- Connection points to be terminated at 500mm inside the property boundary in lieu of 300mm where nominated on drawings MRWA-S-106 to MRWA-S-111.

6.4 Number of Property Connection Points

- For cut-in on live sewers, only stainless steel junction clamps are allowed. Refer to standard MRWA-S-104A Figure 104-B.

7. Maintenance structures

7.1 Types of maintenance structures

Maintenance Chambers are only permitted for connections to existing sewers greater than 4 meters deep and for property connections arrangements listed in standard MRWA-S-104A Table 104A.

Backfill type (applicable to all types of maintenance structures): 3% stabilised sand.

7.3 Spacing of Maintenance Structures

- The maximum permitted spacing between maintenance holes (MH) is 150m.
- For others comply with requirements of MRWA 2014 Table 7.1.

7.6.2 Types of MH construction

- Construction to be concrete cast in-situ or approved plastic manhole.
- Plastic Manholes depth are limited to 5m.

7.6.3 Design parameters for MHs

Precast manholes will be considered on a case specific basis and additional requirements may apply.

Precast concrete manholes are not approved for use in the conditions:

- Trafficable areas, Industrial areas, water surcharged ground;
- At depths greater than 6m and or on surcharged sewers, and
- Locations subject to surcharge.

7.9 Maintenance Structure Covers

- Trafficable areas – Solid top ductile iron Type D.
- Non Trafficable areas – Solid top ductile iron Type B.
- Concrete infill covers are not permitted.
- Gatic covers with locating pins or bolted down lids are not permitted.
- Bolted down lids are subject to Barwon Water’s approval in existing systems where there is a risk of sewer surcharge.
- Rectangular lids are not permitted.

8. Ancillary structures

8.8.2 Water seals and gas check maintenance holes (MH)

For connections to sewers \geq DN300, gas check manholes (double manholes with intermediate water trap) are required.

8.4 Ventilation

Refer to Barwon Water Drawings BW-SD-S042 R0 Sewer Vent Stack Design Details and BW-SD-S043-R0 Sewer Venting Stack Replacement Details available on Barwon Water’s website under the Business – Products and Standards – Standard Drawings.

9. Structural Design

9.4.4 Pipe Embedment

Standard MRWA-S-202, Table 202B, Item d Recycled Glass Sand is not permitted.

Part 2: Construction

23. Connection to existing sewers

Refer to the Terms and Conditions for Developer Works available on Barwon Water's website.

25. Work as constructed details

Refer to the survey manual located on Barwon Water's website.

All as constructed records must be provided to Barwon Water within 10 working days of the completion of the works.