

Program: Water and Sewer Infrastructure Planning
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Scope

This policy applies to developers, builders, contractors, Mackay Regional Council (MRC) officers and property owners installing new service utility assets and structures, for which MRC approval has been granted prior to the Planning Scheme Policy – Water & Sewerage – CTM Water Alliance (CTM Code). The policy applies also for the design and construction of water and sewer mains to existing third party assets approved prior to the CTM Code.

Objective

MRC will utilise a consistent approach for the approval of all new service utility assets and structures, to comply with clearance requirements. This also applies to the design and construction of new water and sewer mains that will connect to existing third-party assets.

Policy Statement

This policy was developed to provide a framework for developers, contractors and MRC staff regarding clearance requirements pertaining to water and sewerage assets prior to the CTM Code.

MRC considers that to the extent this policy engages and limits, or potentially limits, any human rights, that limitation is reasonable in that it is proportionate and justified.

This process to remain in force until otherwise determined
by Mackay Regional Council

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1.0 Principles**1.1 Water Mains****1.1.1 *Clearances to Utility Assets/Works***

The clearance between service utility assets/works to MRC's mains is to be maximised wherever possible, however shall not be less than that provided in Table 1.1 below.

TABLE 1.1 – MINIMUM CLEARANCE TO UNDERGROUND WATER MAINS			
Utility (Existing or proposed)	Minimum horizontal clearance (mm)		Minimum vertical clearance ¹
	New main size NB		New main size NB (mm)
	≤ 200	> 200	
Water Mains ≤ 300 mm	300 ³	600	150
Water Mains ² > 300 mm	600	600	300
Gravity Sewers ≤ 300 mm	1000 ⁵ /600	1000 ⁵ /600	500 ⁴
Gravity Sewers > 300 mm	1000 ⁵ /600	1000 ⁵ /600	500 ⁴
Sewers – Pressure	1000 ⁵	1000 ⁵	500
Sewers – vacuum	300	600	500
Gas Mains	300 ³	600	500 ⁴
Telecommunication conduits & cables	300 ³	600	300
Electricity conduits & cables	500	1000	500 ⁴ & ⁷
Stormwater drains ≤ 300 mm	300 ³	600	150 ⁴
Stormwater drains > 300 mm	300 ³	600	300 ⁴
Kerbs	150	600 ⁶	150 (where possible)

NOTES:

1. Vertical clearances apply where water mains cross one another and other utility services, except in the case of sewers where a vertical separation shall always be maintained, even when the main and sewer are parallel. The main should always be located above the sewer to minimise the possibility of backflow contamination in the event of a main break.
2. Water mains includes mains supplying drinking water and non-drinking water.
3. Clearances can be further reduced to 150 mm for distances up to 2 m where mains are to be laid past installations such as concrete bases for poles, pits and small structures, providing the structure will not be destabilised in the process. The clearance from timber poles should be at least 200 mm and preferably 300 mm.
4. Water mains (including water services and fire hydrant offtakes) should always cross over sewers, stormwater drains, gas mains and electrical conduits unless written approval is obtained from MRC. For cases where there is no alternative and the water main must cross under other services, the design shall nominate an appropriate trenchless construction technique in accordance with Clause 5.5 of CTM Code or other proposed water main construction and protection treatment to be approved by MRC.
5. Where a parallel sewer is at the minimum vertical clearance lower than the water main (500 mm), maintain a minimum horizontal clearance of 1000 mm. This minimum horizontal clearance can be progressively reduced to 600 mm as the vertical clearance is increased to 750 mm.
6. Clearance from kerbs shall be measured from the nearest point of the kerb. For water mains \leq DN 375 clearances from kerbs can be progressively reduced until the minimum of 150 mm is reached for mains \leq DN 200.
7. An additional clearance from high voltage electrical installations should be maintained above the conduits or cables to allow for a protective barrier and marking to be provided.

Clearance shall be taken as the nearest point of the service/works to the outside of the water main.

Services shall cross water mains at 90 degrees where possible but not less than 45 degrees.

Where the designer proposes underpinning, bridging, or other works to protect the water main, these shall be detailed on the water main design. While the location and type of these works will be subject to approval from MRC, the structural design remains the responsibility of the designer.

Watermains should always cross over stormwater drains. For cases where there is insufficient clearance, the water main may be constructed under the stormwater drain in accordance with standard drawing SEQ-WAT-1211 of the Water Supply Code or as per MRC approval.

1.1.2 Clearances to Structures

The 45 degree 'Zone of Influence' of any structure including wall, post, foundation or similar shall be clear of the water main so as to prevent excessive loads being imposed. The clearances must provide:

- Sufficient width and drainage capacity to minimise the risk of consequential damage in the event of a main's failure.
- Sufficient width for access for construction/maintenance.
- Additional access to allow for future upsizing, if appropriate.

MRC's agreement shall be obtained in writing for minimum clearance to water mains > DN375 and any above ground mains.

Clearance shall be taken as the nearest point of the structure to the water main.

1.2 Sewer Mains & Maintenance Holes

1.2.1 Clearances to Utility Assets/Works

The clearance between service utility assets/works to MRC's sewers (including MH's) shall be maximised wherever possible, however shall not be less than that provided in Table 2.1 below.

TABLE 2.1 – MINIMUM CLEARANCE TO UNDERGROUND SEWERS			
Utility (Existing or proposed)	Minimum horizontal clearance (mm)		Minimum vertical clearance ¹ (mm)
	New sewer size NB		
	≤200mm	>200mm	
Water Mains ≤ 375	1000 ⁵ /600	1000 ⁵ /600	500 ⁴
Water Mains > 375	1000 ⁵ /600	1000 ⁵ /600	500 ⁴
Gravity sewers ≤ 300mm	300	600	150 ² /300

Gravity sewers >300mm	600	600	300
Sewers- pressure	300	600	500
Sewers- vacuum	300	600	500
Gas Mains	300 ³	600	500 ⁴
Telecommunication conduits & cables	300 ³	600	300
Electricity conduits & cables	500	1000	500 ⁴
Stormwater drains ≤ 300mm	300 ³	600	150 ⁴
Stormwater drains >300mm	300 ³	600	300 ⁴
Kerbs	150	600 ⁶	150 (where possible)

NOTES:

1. Vertical clearances apply when sewers cross one another, except in the case of water mains when a vertical separation shall always be maintained, even when the sewer and main are parallel. The sewer should always be located below the main to minimise the possibility of backflow contamination in the event of a main break.
2. A minimum vertical clearance of 300 mm applies if the size of either the existing service or proposed sewer is >DN 300.
3. Clearances can be further reduced to 150 mm for distances up to 2 m where mains are to be laid past installations such as concrete bases for poles, pits and small structures, providing the structure will not be destabilised in the process.
4. Sewers should always cross under water mains and stormwater drains. For cases where there is no alternative and the sewer must cross over a water main, construction shall be in accordance with Standard Drawing SEQ-WAT-1211 of the Water Supply Code.
5. When the sewer is at the minimum vertical clearance below the water main (500 mm) maintain a minimum horizontal clearance of 1000 mm. This minimum horizontal clearance can be progressively reduced to 600 mm as the vertical clearance increases to 750 mm.
6. Clearance from kerbs shall be measured from the nearest point of the kerb.

MRC's agreement shall be obtained in writing for minimum clearance to existing sewer mains of > DN375, any above ground mains and proposed services not covered in Table 2.1.

The clearance shall be measured between the two closest parts of sewer and the other underground service e.g. collar to socket.

A minimum horizontal clearance of 1500 mm to above ground obstructions shall be provided around maintenance structures clear of the opening to facilitate maintenance.

Services shall cross sewer mains at 90 degrees where possible but not less than 45 degrees.

Where a stormwater drain \geq 600 mm crosses over a sewer, the stormwater drain shall be supported by a bridge structure that spans the sewer trench.

Where the designer proposes underpinning, bridging, or other works to protect the sewer, these shall be detailed on the sewer design. While the location and type of these works may be subject to agreement with council, the structural design remains the responsibility of the designer.

1.2.2 Clearances to Structures

Clearance between buildings/structures to MRC's sewers and system components shall be in accordance with Planning Scheme Policy – Water and Sewerage (CTM Water Alliance) Appendix A2, Section 4.4.4 Clearance from Structures

1.3 Sewer Pressure Mains

1.3.1 Clearances to Utility Assets/Works

For normal trenching and trenchless technology installation, clearance from other service utility assets shall not be less than (and preferably exceed) the minimum vertical and horizontal clearances shown in Table 3.1. Written agreement on reduced clearances and clearances for shared trenching shall be obtained from the MRC and the Service Owner.

TABLE 3.1 – CLEARANCES BETWEEN PRESSURE MAINS AND UNDERGROUND SERVICES			
Utility (Existing or proposed)	Minimum horizontal clearance (mm)		Minimum vertical clearance ¹ (mm)
	New sewer size NB		
	≤200mm	>200mm	
Water Mains ≤ 300 mm	1000 ⁴	1000 ⁴	500

Water Mains ² > 300 mm	1000 ⁴	1000 ⁴	500
Gravity sewers ≤ 300mm	300 ²	600	500
Gravity sewers >300mm	300 ²	600	500
Sewers- pressure	300	1000 ⁵	500
Sewers- vacuum	300	600	500
Gas Mains	300 ²	600	500 ⁴
Telecommunication conduits & cables	300 ²	600	300
Electricity conduits & cables	500	1000	500
Stormwater drains ≤ 300mm	300	600	150
Stormwater drains >300mm	300	600	300
Kerbs	150	600 ⁵	150 (where possible)

Notes:

1. Vertical clearances apply when rising mains cross other utility services, except in the case of water mains when a vertical separation shall always be maintained, even when the rising main and water main are parallel. The rising main should always be located below the water main to minimise the possibility of backflow contamination in the event of a rising main break.
2. Clearances can be further reduced to 150 mm for distances up to 2 m when passing installations such as poles, pits and small structures, providing the structure is not destabilised in the process.
3. Rising mains should always cross over sewers and stormwater drains.
4. When the sewer is at the minimum vertical clearance below the rising main (500 mm), maintain a minimum horizontal clearance of 1000 mm. This minimum horizontal clearance can be progressively reduced to 600 mm as the vertical clearance is increased to 750 mm
5. Clearance from kerbs shall be measured from the nearest point of the kerb. For rising mains ≤DN 375 clearances from kerbs can be progressively reduced until the minimum of 150 mm is reached for mains ≤DN 200 mm.

Where the designer proposes underpinning, bridging, or other works to protect the sewer pressure main, these shall be detailed on the sewer pressure main design. While the location and type of these works may be subject to agreement with council, the structural design remains the responsibility of the designer.

Pipelines and services shall cross at 90° if practicable, but not less than 45°.

Sewer pressure mains should always cross under water mains. For cases where there is no alternative and the sewer pressure main must cross over a water main, the water main construction shall be in accordance with standard drawing SEQ-WAT-1211 of the Water Supply Code or MRC approved alternative.

1.3.2 *Clearances to Structures*

All rising mains shall be positioned with sufficient clearance to structures to allow for maintenance and operation activities and provide protection against damage from pipeline bursts. Where practicable, MRC's preferred clearances as shown in Table 3.1 shall be maintained.

2.0 Complaints

Any complaints in relation to a decision or a service relating from this policy will be assessed and managed in accordance with MRC's Administrative Action Complaints Policy, a copy of which can be found on MRC's website.

When an individual feels that they are the subject of MRC's failure to act compatibly with human rights, they can make a complaint directly to MRC. These complaints will be assessed against the Human Rights Act 2019.

Complaints may be made as following:

In writing to
Chief Executive Officer
Mackay Regional Council
PO Box 41
MACKAY QLD 4740

Via Email - complaints@mackay.qld.gov.au

In person at the following MRC Client Services Centres:

- MRC Mackay Office – 73 Gordon Street, Mackay
- MRC Sarina Office – 65 Broad Street, Sarina
- MRC Mirani Council Office – 20 Victoria Street, Mirani

3.0 Definitions

To assist in interpretation the following definitions shall apply:

CTM shall mean Planning Scheme Policy – Water and Sewerage (CTM Water Alliance)

Council shall mean all elected representatives of Mackay Regional Council.

DN shall mean *Diameter Nominal*.

MRC shall mean Mackay Regional Council.

SEQ-WAT-1211 means drawing number in water supply drawings of SEQ Water Supply Code.

Staff shall mean all persons employed by Mackay Regional Council on a permanent, temporary, or casual basis, or otherwise engaged by Mackay Regional Council including those under a contract of service or a volunteer program.

4.0 Review of Policy

This policy will be reviewed when any of the following occur:

- The related documents are amended or replaced.
- Other circumstances as determined from time to time by a resolution of Council.

Notwithstanding the above, this policy is to be reviewed at intervals of no more than three (3) years.

5.0 Reference

- *Water Supply (Safety and Reliability) Act 2008*, Chapter 2, Part 7
- NCC 2022 Volume Three – Plumbing Code of Australia
- Planning Scheme Policy – Water & Sewerage – CTM Water Alliance (CTM Code).

Version Control:

Version	Reason / Trigger	Change	Endorsed / Reviewed	Date
2	Review of Policy	Minor administrative amendments	Council	27.02.2019
3	Review into new template.		Council	27.09.2023