

SUB-METERING PROCEDURE

1. Scope

The Sub-metering Procedure (this 'Procedure') applies to complexes constructed in the declared water service area from 1 January 2008.

The owners of complexes constructed prior to 1 January 2008 may elect to install sub-meters in accordance with this Procedure, at their cost.

2. Purpose

The purpose of this Procedure is to:

- enhance the effectiveness of Council's water charging system by facilitating a 'user pays' system for all consumers;
- increase awareness of water consumption and the contribution that individual consumers can make to the conservation of this natural resource; and
- ensure compliance with B1.2 of the Queensland Plumbing and Wastewater Code.

3. Related Documents

Primary

Retail Water and Sewerage Service Provider – Management and Functions Policy

Legislative reference

Body Corporate and Community Management Act 1997 ss 10, 20, 195

Livingstone Shire Council Corporate Plan (Natural Livingstone)

Plumbing and Drainage Regulation 2019 pts 5, 6

Water Supply (Safety and Reliability) Act 2008 ss 44, 676

ch 2 pt 3 div 2

ch 2 pt 4 div 4

ch 2 pt 5 divs 2-4

Related documents

AS/NZS 3500.1:2021: Plumbing and drainage Part 1: Water services

AS 2700-2011: Colour standards for general purposes

AS 3688:2016: Water supply and gas systems – Metallic fittings and end connectors

AS/NZS 4020:2018: Testing of products for use in contact with drinking water

CMDG Standard Drawing No CMDG-W-091

National Construction Code – Volume Three 'Plumbing Code of Australia'

Queensland Plumbing and Wastewater Code B1.2 Water meters for new premises

Requirements for water meters in new developments – Guideline under the *Plumbing and Drainage Act 2018* – January 2020

4. Definitions

To assist in interpretation, the following definitions shall apply:

AMR	Automatic Meter Reader.
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As Constructed Plans	Plans showing the dimensions and location of the constructed asset.
Body Corporate	As defined in the <i>Body Corporate and Community Management Act 1997</i> .
CMDG	Capricorn Municipal Development Guidelines.
Common Property	As defined in the <i>Body Corporate and Community Management Act 1997</i> .
Communal Hot Water System	A common system used to supply hot water to a complex.
Complex	A development with two or more meterable premises but does not include dual occupancy.
Council	Livingstone Shire Council.
Declared Water Service Area	The area declared by Council (at its meeting on 9 September 2014) as a retail water service area pursuant to s 676(2) of the <i>Water Supply (Safety and Reliability) Act 2008</i> and any subsequent amendments pursuant to s 161(6).
Dual Occupancy	As defined in the Livingstone Planning Scheme 2018.
Licensed plumber	A plumber who holds a Queensland Building and Construction Commission Plumbing and Drainage Trade Contractor Licence.
Master Meter	The primary meter installed on the line between the property's water connection to the retail water service and the sub-meters (used to register the total water consumption to a complex).
Meterable Premises	As defined in the Queensland Plumbing and Wastewater Code but excludes secondary dwellings.
MPE	Maximum Permissible Error is 5% (+ or -) of the actual quantity of water passing through a water meter.
Owner	A registered proprietor of land, a body corporate or a developer acting on behalf of the registered proprietor or body corporate.
Premises	As defined in the <i>Plumbing and Drainage Act 2018</i> .
Private Works Agreement	<p>A contract between a customer and Council for Council to undertake works on the customer's behalf.</p> <ul style="list-style-type: none"> - Non-urgent work will generally be undertaken within 20 working days. - Urgent work such as repairing damaged infrastructure (referred to as an Emergency Private Works Agreement) will generally be undertaken within one working day.
Secondary dwelling	As defined in the Livingstone Planning Scheme 2018.
Storey	As defined in the Queensland Plumbing and Wastewater Code.
Sub-meter	A water meter and related equipment (including AMR) within a complex that measures the supply of water to a meterable premises.
Water Meter	As defined in the Queensland Plumbing and Wastewater Code.

Sub-Metering Procedure

Adopted/Approved: Approved, 7 June 2024
Version: 6.0

Portfolio: Infrastructure
Business Unit: Water and Waste Operations

5. Procedure

On 1 January 2008, the Queensland Plumbing and Wastewater Code was amended to introduce requirements for installing water meters for new premises.

B1.2 'Water meters for new premises' provides deemed-to-satisfy solutions for the installation and maintenance of water meters including the installation of sub-meters. The Code requires:

- 1) 'The water supply to a meterable premises must be fitted with a device (water meter) to measure the amount of water supplied to the premises'; and
- 2) The water meter is to measure only the water supplied to that meterable premises.

5.1 Installation

Master meters and sub-meters are to be installed generally in accordance with Appendix 1.

1) Master Meter

- a) Under a private works agreement, Council will install a master meter on the property boundary as a component of the water connection to measure the water supply entering a complex.
- b) The master meter remains the property of Council who will be responsible for its maintenance, verification, calibration and replacement.

2) Sub-meters

- a) The owner is responsible for obtaining plumbing approval, installing sub-meters and supplying all equipment and materials.
- b) Sub-meters must be installed by a licenced plumber and approved by Council.
- c) All sub-meters are to:
 - i) be fitted with an anti-tampering device (e.g. seal);
 - ii) have an identification tag or suitable alternative that identifies the meterable premises it is associated with; and
 - iii) be of the same make and model within a complex (alternatives may be proposed where different size connections are required).
- d) Sub-meters are to be housed in approved meter-boxes or enclosures located at an accessible side of the building or in the common property (stairwell landing, beside the elevator shaft, etc) on the ground floor in a location that does not pose a safety risk.
- e) Alternatively, if the area is paved, Council may approve installation in a meter-box below ground subject to it being sufficiently sized and easily accessible.
- f) If sub-meters are located in a fire cabinet enclosure, the fire and safety rating must not be compromised. and the enclosure must be adequately drained to prevent seepage.
- g) Enclosures must be marked clearly with:

WATER SUB-METERS

The marking must use a minimum letter height of 25mm in the centre on the outside of the enclosure door.

3) Sub-meters In-Ground

- a) The meter assembly must be installed in a suitably sized prefabricated meter-box with a non-slip lid in accordance with CMDG Drawing No CMDG-W-091.
- b) The lockable control valve handle must point in the direction of flow when the valve is in the open position and must have the ability to be locked in the closed position by the alignment of two 6mm diameter holes.
- c) All pipe work must be flushed and free of debris before final installation of the sub-meter.
- d) All fittings must comply with AS/NZS 4020:2018.
- e) Male and female threaded end connectors are to comply with AS 3688:2016.

5.2 Certification Inspection

- 1) An Application for Sub-meter Certification and appropriate fee must be submitted electronically through Online Services on Council's website.
- 2) Following approval of the final plumbing inspection, Council will conduct a sub-meter certification inspection and will record the reading on each sub-meter and verify that:
 - a) the sub-meters are accessible for reading, maintenance and replacement between 8am – 5pm;
 - b) the serial number on each sub-meter matches the serial number shown on the 'As Constructed Plans';
 - c) each sub-meter is correctly installed and only measuring flow to the meterable premises being tested (verification will be done by physical testing); and
 - d) tagging details such as sub-meter numbers and identification of the meterable premises is accurate.
- 3) If the inspection reveals any sub-meter has not been correctly installed the owner is required to:
 - a) carry out the necessary modifications;
 - b) prepare new 'As Constructed Plans'; and
 - c) apply and pay for another inspection.

5.3 Ownership and Maintenance

- 1) Council:
 - a) assumes ownership of sub-meters after it has certified the installation;
 - b) assumes ownership of AMR technology that has passed a system audit;
 - i) system audit is conducted by Council prior to expiry of 12 month defects liability period.
 - ii) if AMR technology fails the system audit, the owner must rectify issues prior to Council assuming ownership.
 - c) is responsible for reading and testing sub-meters during the defects liability period; and
 - d) may replace, upgrade or reconfigure sub-meters (including AMR), at its expense after it assumes ownership.

- 2) The owner:
 - a) is responsible for defects in materials and equipment and ongoing maintenance for a defects liability period of 12 months after the date of certification; and
 - b) owns the pipes between the master meter and the sub-meters and is responsible for their maintenance, replacement and the cost of water loss due to leaks.

5.4 Water Meter Reading and Billing

Council will read the master meters and sub-meters of meterable premises quarterly and issue water usage notices as follows:

- The owner/s of separate lots within a complex - for water consumption supplied through the sub-meters.
- The owner of a complex (under a single title) - for water consumption supplied through the master meter.
- The body corporate of a complex - for water consumption supplied through the master meter to the common property (determined by subtracting the sum of the usage registered on the sub-meters from the master meter).

5.5 Communal Hot Water Systems

Where hot water is supplied from a communal hot water system, a sub-meter must be installed on the supply to all meterable premises.

5.6 Automatic Meter Reader Installations

- 1) An AMR system that utilises a data reading panel to obtain sub-meter data must be installed in an approved enclosure in the common property approved by Council if the complex is three-stores or greater.
- 2) The master meter and all sub-meters must be linked to the AMR system to enable all meter reading data to be collected from the data reading panel.
- 3) The AMR must be for the exclusive measurement of water and is not to be utilised to provide readings for other utilities.
- 4) AMR enclosures must comply with the following:
 - a) Must have:
 - i) hinged enclosures with a latch that can be opened by hand;
 - ii) a minimum of 2m² of free working space available in front of the enclosure;
 - iii) adequate lighting;
 - iv) doors which open completely and are able to be held in the open position; and
 - v) a 240 volt general power outlet for Council use (to be installed by the owner).
 - b) Must not be classifiable as a confined space for entry purposes.
 - c) Must be:
 - i) positioned to enable access without any additional aids;
 - ii) weather resistant;
 - iii) drained to stormwater to prevent seepage;

iv) suitably vented to allow for purging of any heat created by internal equipment or external weather factors; and

v) marked clearly with:

WATER METER ENCLOSURE

The marking must use a minimum letter height of 25mm in the centre on the outside of the enclosure door.

- d) Must allow the data reading panel to be no lower than 1200mm from the floor and no higher than 1800mm and require no aids to assist in reading;
- e) The data reading panel and data equipment must be installed in a totally enclosed self-supporting structure;
- f) External enclosures:
 - i) must be corrosion resistant and have a structural design similar to that of electrical enclosures;
 - ii) be made from material which is either a minimum 2mm thick 316 grade stainless steel or 3mm 5251 or 5083 alloy aluminium powder coated colour X43 Beige in accordance with AS 2700-2011 or matched to suit building architecture; and
 - iii) Must have door(s) with:
 - a 3-point locking system (locking bars to be fitted with rollers);
 - profile locking swing handles (capable of exerting sufficient pressure to ensure proper contact of the sealing medium all around the door);
 - lift off type hinges; and
 - a chrome plated solid brass body (80mm minimum length) with stainless steel hinge pins.

5.7 Testing

- 1) At its expense, Council may undertake testing of sub-meters to ensure they are working within the MPE over different flow rates.
- 2) The testing may be undertaken on-site or a selection of sub-meters taken for laboratory testing.
- 3) Based on the testing results, Council may:
 - a) conduct further testing on other sub-meters;
 - b) test all sub-meters;
 - c) replace some or all sub-meters; or
 - d) leave the existing sub-meters if found to be operating within the MPE over different flow rates.

6. Changes to this Procedure

This Procedure is to remain in force until otherwise amended/replaced or by the General Manager Infrastructure.

7. Repeals

This Procedure repeals Livingstone Shire Council Procedure titled 'Sub-metering Procedure (v5.0)'.

Sub-Metering Procedure

Adopted/Approved: Approved, 7 June 2024
Version: 6.0

Portfolio: Infrastructure
Business Unit: Water and Waste Operations

Version	Date	Action
1.0	10/06/2014	Procedure Endorsed by Council
2.0	18/04/2017	Amended Procedure Endorsed by Council
2.1	04/12/2018	Administrative Amendments – reflect organisational restructure
3.0	16/04/2019	Amended Procedure Endorsed by Council
4.0	15/03/2022	Amended Procedure Endorsed by Council
5.0	23/02/2023	Amended Procedure approved – section 3, Related Documents and section 4, Definitions updated, minor updates throughout the procedure to reflect definitions
6.0	07/06/2024	Amended Procedure approved – Related Documents, Definitions and section 5.2 updated

MICHAEL KRIEDEMANN
GENERAL MANAGER INFRASTRUCTURE

APPENDIX 1: Sub-metering Schematic Diagrams

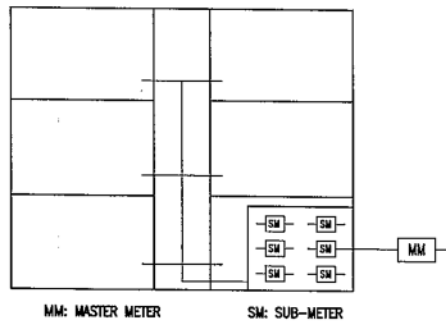


FIGURE.1-A SCHEMATIC DIAGRAM OF A LIMITED HIGH RISE DEVELOPMENT

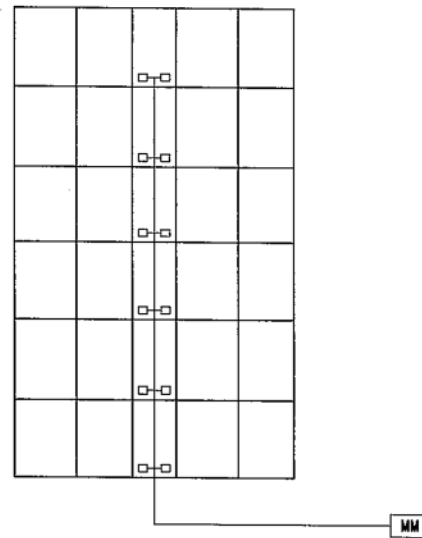


FIGURE.2-A SCHEMATIC DIAGRAM OF A HIGH RISE DEVELOPMENT(GREATER THAN 3 STORIES SHALL REQUIRE THE INSTALLATION OF AN AMR SYSTEM.)

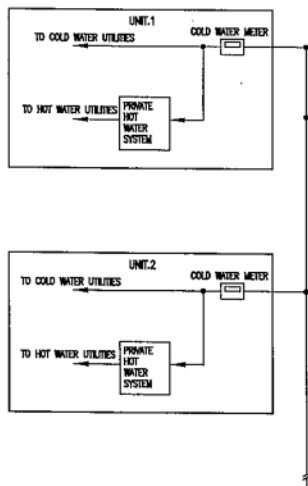


FIGURE.3- INDIVIDUAL HOT WATER SYSTEM ARRANGEMENT

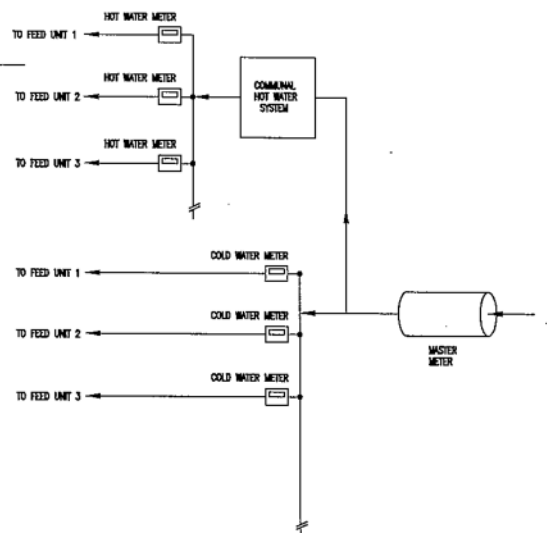


FIGURE.4-COMMUNAL HOT WATER SYSTEM(SUB METERING FOR HOT WATER SERVICE WITHIN UNITS)