

**Program:** Water & Sewerage Infrastructure Planning  
**Date of Adoption:** 22 March 2023  
**Resolution Number:** ORD-2023-63  
**Review Date:** 22 March 2026

## Scope

This policy relates to sub-metering requirements for new Multiple *Unit* Premises (MUPs) and some non-residential premises and provides for the mandatory requirements described in Part B1.2 of the Queensland Plumbing and Wastewater Code 2019 (QPW Code).

## Objective

To establish, in accordance with legislation, a formal Mackay Regional Council (MRC) position in relation to the requirement of *sub-meters* on a *meterable premises*. *Sub-meters* are required in all Multiple Unit Premises and some non-residential developments. These premises must be fitted with a device (water meter) to measure the amount of water supplied to the premises, as described in the QPW Code and the Mackay Regional Council's Guideline – Sub Metering (Potable Water Supply).

## Policy Statement

The *water supply* to a *meterable premise* must be fitted with a device (*water meter*) to measure the amount of water supplied to the premises in accordance with the QPW Code and the Mackay Regional Council – Sub Metering (Potable Water Supply) Implementation Guideline.

This policy must be read in conjunction with MRC Guideline – Implementation Sub-Metering Installations (Potable Water Supply).

Council 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.

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

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## 1.0 Principles

The QPW Code (Version 1:2019) extends that all new meterable premises require sub-metering water metering requirements beyond Class 1 buildings to include all *meterable premises* (see definition).

Owners of *existing developments* which would have a *master meter* but not *sub-meters* may choose to comply with the new *sub-metering* requirements at their own costs however, the owners do not have to comply with the new requirements.

Queensland State legislation the *Standard Plumbing and Drainage Regulation 2019* Section 2 Part 11 'Complying with Queensland Plumbing Wastewater Code and prescribed PCA provision – Act, s 9' requires compliance with the QPW Code and states as follows:

- 1) For section 9(4) of the Act, plumbing or drainage work, or a plan for plumbing or drainage work—
  - (a) complies with the Queensland Plumbing and Wastewater Code only if the work complies with all relevant performance requirements for the work under the code; and
  - (b) complies with a prescribed PCA provision only if the work complies with all relevant performance requirements for the work under the provision.
- (2) Compliance of the work with a relevant performance requirement under the Queensland Plumbing and Wastewater Code or a prescribed PCA provision can be achieved by—
  - (a) a deemed-to-satisfy solution for the performance requirement under the code or provision; or
  - (b) a performance solution for the performance requirement under the code or provision; or
  - (c) a combination of the solutions mentioned in paragraphs (a) and (b).

In particular, the QPW Code, Part B1.2 'Water meters for new premises', Section P1 specifies the following criteria;

*'The water supply to a meterable premise must be fitted with a device (water meter) to measure the amount of water supplied to the premises'.*

Sections P2, P3 and P4 further define requirements relating to metering a meterable premise.

## 2.0 Complaints

Any complaints in relation to this service 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](mailto:complaints@mackay.qld.gov.au)

In person at the following Council 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:

**Classes 1 to 10** has the same meaning as provided in the National Construction Code (NCC)

**Council** shall mean all elected representatives including the Mayor of Mackay Regional Council.

**Existing Developments** shall mean any development for which a Plumbing Compliance Certificate has been issued, or a request for such has been lodged, prior to 1 January 2008.

**Integrated Meters** shall mean a complete one part unit capable of measuring flow, on-board recording of water usage data, and wireless data transmission.

**Master Meter** shall mean a meter upstream of sub-meters and used to register the bulk consumption of the complex.

**Meterable Premises** shall mean:

- (a) all class 1 buildings and each unit duplex; and
- (b) each lot within a community title scheme, including the common property, in a Water Service Provider's area; and
- (c) the sole-occupancy unit of a class 2, 4, 5, 6, 7 or 8 building in a Water Service Provider's area; and
- (d) each storey of a class 5 building in a water service provider's area where the building consists of more than one storey and sole-occupancy units are not identified at the time of the building's plumbing compliance assessment.

**MRC** shall mean Mackay Regional Council.

**Multiple Unit Premise (MUP)** shall mean new developments with multiple units on the property.

**Sub-metering** shall mean the installation of individual water meters to measure water consumption to individual houses, units, flats or apartments that form part of a complex.

**Unit** shall mean a house, flat, lot of land or an apartment within a complex.

**Water Meter** shall mean a device, and related equipment for measuring the volume of water supplied to premises.

**Water Supply** shall mean the plumbing supplying water to *meterable premises* from a water service.

**Water Service Provider** for premises, means the person registered under the *Water Supply (Safety and Reliability) Act 2008*, Chapter 2, Part 3, as the Water Service Provider for retail water services for the premises.

#### 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 Act 2000*
- *Water Regulation 2016*
- *Water Supply (Safety and Reliability) Act 2008*
- *Local Government Act 2009*
- *Building Act 1975*
- *Building Regulation 2021*
- *Planning Act 2016*
- *Plumbing and Drainage Act 2018*
- *Standard Plumbing and Drainage Regulations 2019*
- *Public Health Act 2005*
- *Water Efficiency Labelling and Standards Act 2005*
- Building Code of Australia
- Plumbing Code of Australia
- Queensland Plumbing and Wastewater Code
- Mackay Regional Council – Sub-Metering (Potable water Supply) Implementation Guideline.
- National Construction Code 2019

**6.0 Attachments**

1. Mackay Regional Council – Sub-Metering (Potable water Supply) Implementation Guideline.

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Version Control:

Version	Reason / Trigger	Change	Endorsed / Reviewed	Date
2	Review of Policy	Amendment to Document	Council	11.11.15
3	Review of Policy	No amendments	Council	10.10.18
4	Review of Policy	Amendments	Council Adoption	22.03.23



# **IMPLEMENTATION GUIDELINE SUB-METERING INSTALLATIONS (Potable Water Supply)**

**Adopted by Council: 22 March 2023**

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## 1 INTRODUCTION

From 1 January 2008 the Queensland Plumbing and Wastewater Code (QPW Code) required *sub-meters* to be installed in all new *multi-unit properties (MUPs)*. The current QPW Code version is dated March 2019. This document provides guidelines and technical information relating to the processes and works required to fulfil the requirements of the Mackay Regional Council (MRC) Council Policy 055 - 'Sub-metering (Potable Water Supply)'.

*Sub-meters* to all applicable properties within the MRC area are to be installed in keeping with these guidelines.

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## 2 DEFINITIONS

In this document the following terms shall have the corresponding meanings.

**Accessible** shall mean easily reached without having to overcome obstructions for water meter reading, maintenance and replacement purposes, within reasonable times (between 7 am and 5 pm), with the *sub-meters* where applicable being located in a non-locked enclosure requiring non-key access. For this purpose, conforming PIN access shall be considered non-key access as long as an access PIN has been formally supplied to the Water Service Provider.

**Act** shall mean the *Water Supply (Safety & Reliability) Act 2008*.

**AMR** shall mean Automatic Meter Reader device.

**Billing Meter** shall mean a *water meter* (whether a *master meter* or a *sub-meter*), the consumption recorded on which, is used to generate a *water notice* to the owner of the property. Billing meters will always be the property of the *Water Service Provider*.

**Body Corporate** shall mean a corporation or body of persons or even an individual, with a legal existence distinct from the individual person(s) making up the corporate entity, created under the Body Corporate and Community Management Act 1997 for a Community Titles Scheme.

**Boundary** shall mean the line demarcating the property from adjoining properties, external streets and pathways, or depicted by legal title.

**Common Area** shall mean an area available for use by many or all *sole-occupancy units* within a complex.

**Common Property** shall mean freehold land in a complex, forming part of the complex land, but not forming part of a lot/unit included in the scheme/complex.

**Community Title Scheme (CTS)** shall mean a single community management statement recorded by the registrar identifying land (the scheme land); and the scheme. See Section 10 of the *Body Corporate and Community Management Act 1997*.

**Complex** shall mean a Community Titles Schemes and multi *sole-occupancy units* of a class 2, 4, 5, 6, 7 or 8 building and each storey of a class 5 building.

**Complying Valve** shall mean a device incorporated as part of the *water meter*, installed upstream of the *water meter*, which a *Water Service Provider* can use to securely restrict the flow of water, either partially or fully, to the *meterable premises*.

**Deed** shall mean Community Title Scheme

**Developer** shall mean a person or entity, who builds a development in which the houses/units form part of a *complex* and can be rented or sold to individual *occupiers* or *owners*.

**Horizontal Developments** shall mean a development consisting of free standing or attached *sole-occupancy units*.

**Integrated Meters** shall mean a complete one-part unit capable of measuring flow, on-board recording of water usage data, and wireless data transmission.

**Internal Master Meter** shall mean a *water meter* which has its own set of *sub-meters*, but is downstream of the *master meter* to the overall property.

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**Lot** shall mean a *sole-occupancy unit*, an area of exclusive use within the property.

**Management** shall mean person or entity managing a complex which can be a Body Corporate of a *Community Title Scheme* or a representative body of a multi *sole-occupancy unit*.

**Master Meter** shall mean a *water meter* upstream of *sub-meters* used to register the total consumption of a *complex* including the total sum consumption of all its *sub-meters*.

**Meterable Premises** means;

- (a) all class 1 buildings; and
- (b) each *lot* within a Community Title Scheme, including the common property, in a Water Service Provider's area; and
- (c) the sole-occupancy unit of a class 2, 4, 5, 6, 7 or 8 building in a *Water Service Provider's* area; and
- (d) each storey of a class 5 building in a Water Service Provider's area where the building consists of more than one storey and sole-occupancy units are not identified at the time of the building's plumbing compliance assessment.

**MPE** shall mean a Maximum Permissible Error which a *water meter* is allowed to operate within.

**MRC** shall mean the Mackay Regional Council

**Multi-unit Premises (MUP)** shall mean a property with more than one occupancy unit.

**Occupant** shall mean the person(s) occupying a *sole-occupancy unit* within a complex, whether as a lessee, tenant or other occupier to the exclusion of any other occupier(s). An *occupant* may also be the *owner*.

**Owner** shall mean the person or entity owning a *sole-occupancy unit* within a complex. An *owner* may also be the *occupant*.

**Private Meter** shall mean a *water meter* that is not a *billing meter*. A *private meter* will provide information on the consumption for the applicable *meterable premises*.

**QPW Code** shall mean the Queensland Plumbing and Wastewater Code.

**Sole-occupancy Unit**

- (a) a room or other part of the building for occupation by one or a joint owner, lessee, tenant, or other occupier to the exclusion of any other owner, lessee, tenant, or other occupier, including:
  - (i) a dwelling; or
  - (ii) a room or suite of associated rooms in a building classified under the Building Code of Australia as a class 2, 4, 5, 6, 7 or 8 building; or
- (b) any part of the building that is a common property.

**Storey** shall mean the space within a building which is situated between one floor level and the floor level next above, or if there is no floor above, the ceiling or roof above, but not –

- (a) a space that contains only –
  - (i) a lift shaft, stairway or meter room; or
  - (ii) a bathroom, shower room, laundry, water closet, or sanitary compartment; or
  - (iii) accommodation intended for not more than 3 vehicles; or
  - (iv) a combination of the above; or
- (b) a mezzanine.

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**Sub-meter** shall mean an individual water meter measuring the water supply to a meterable premises or a common area within a complex. The term also differentiates from master meter that measures the supply of water to a complex as a whole.

**Sub-metering** shall mean the installation of individual water meters to measure water consumption to meterable premises that form part of a complex.

**Unit** shall mean a dwelling, flat, lot of land or an apartment within a complex.

**Water Meter** means a device, and related equipment, for measuring the volume of water supplied to premises.

**Water Notice** shall mean the bill issued by Mackay Regional Council, in keeping with standard Mackay Regional Council billing practices, for the water consumption and/or other water related charges, to property owners.

**Water Service Provider (WSP)** for premises, means the person registered under the Water Supply (Safety and Reliability) Act 2008, Chapter 2, Part 3, as the water service provider for retail water services for the premises.

### 3 DOCUMENT REFERENCES

#### 3.1 Queensland Legislation

- *Building Act 1975*
- *Building Regulation 2021*
- *Electrical Safety Act 2016*
- *Planning Act 2016*
- *Plumbing and Drainage Act 2002*
- *Public Health Act 2005*
- *Standard Plumbing and Drainage Regulations 2019*
- *Water Act 2000.*
- *Water Efficiency Labeling and Standards Act 2005*
- *Water Regulation 2016*
- *Water Supply (Safety & Reliability) Act 2008*
- *Work, Health and Safety Act 2011*

#### 3.2 Australian Standards

All materials and equipment used for *water meters* shall be new and in accordance with the following Australian Standards.

**Table 1 : Relevant Australian Standards**

AS 2419.1- 2021	Fire Hydrant Installations - System Design, Installation and Commissioning
AS3000: 2018	Electrical Installations (known as the Australian/New Zealand Wiring Rules)
AS 3500.1: 2021	Plumbing and Drainage - Water Services
AS 3565.1:2010	Meter for cold and heated drinking and non-drinking water supplies – technical requirements (Reconfirmed 2021)

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### 3.3 Codes of Practice

- *Queensland Plumbing and Wastewater Code*
- *Building Code Australia*
- *Plumbing Code of Australia*

## 4 QUEENSLAND PLUMBING AND WASTEWATER CODE

Part 4 'Water meters for new premises' of the *QPW Code* requires that *sub-meters* be installed in all new multi-unit properties (*MUPs*) within the *Water Service Provider's* area supplied with reticulated water. The requirement is that water use of each *meterable premises* must be metered based on the following performance criteria and corresponding acceptable solutions detailed in B1.2 of the Queensland Plumbing and Wastewater Code 2019 shown below.

### B1.2 Water meters for new premises

#### Performance requirements

- P1 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.
- P2 A water meter must be located so it is easy to read and maintain.
- P3 A water meter must be properly maintained.
- P4 The installation of a water meter includes a device which allows for the restriction of the flow of water from the water service to the water meter.

#### Deemed-to-satisfy solutions

D1 Each water supply to a meterable premises is to be fitted with a water meter which:

- (a) measures only the water supplied by that water supply to that meterable premises; and
- (b) is approved by the water service provider; and
- (c) complies with relevant requirements of the water service provider that may be imposed under the Water Supply (Safety and Reliability) Act 2008.

## 5 PROPERTY & SUB-METERING CONFIGURATIONS

This section details the sub-metering configurations required for different land uses and types of developments.

### 5.1 Dual Occupancy Lots

Each sole occupancy dwelling/unit under the following building classes must be provided with a private sub-meter. The Lot will have a billing master meter.

- class 1 – residential
- class 2 – residential
- class 4 – residential
- class 5 – residential
- class 6 – commercial

- class 8 – industrial

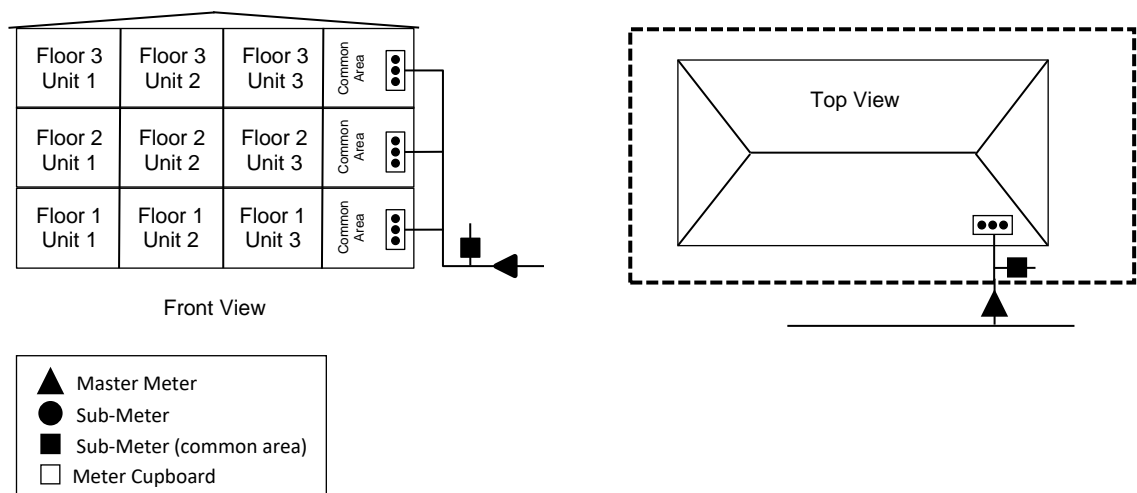
For full definitions of the different classes of building, please refer to the Building Code of Australia.

For properties subject to a material change of use, the requirements of the relevant building class will apply.

## 5.2 Apartment Buildings

Apartment building developments may consist of a number of meterable premises on each floor of a multistorey development. Each floor shall have a meter cupboard housing the sub-meters associated with each of the meterable premises on that storey. Refer to diagrams in Figure 5.1 below.

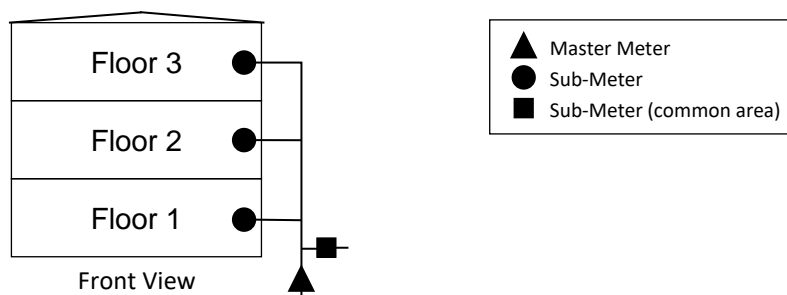
**Figure 5.1 : Sub-metering Configuration for Apartment Buildings**



## 5.3 Office Buildings

Office buildings will require at least one sub-meter per floor. If, at the time of design / construction, it is not possible to identify the areas of a class 5 multistorey building which are going to be leased out separately (i.e. Sole-occupancy Units), a sub-meter must be fitted to each storey of the building. Refer to Figure 5.2 below for one example of an office building sub-metering system.

**Figure 5.2 : Sub-metering Configuration for Office Buildings**



If at the time of design / construction, multiple *sole-occupancy units* are identified on a single *storey*, a *sub-meter* must be fitted for each such *sole-occupancy unit*, located in the cupboard housing the *sub-meters* on that *storey*. If this is the case, the meter configuration would be similar to that depicted in Figure 5.1, including the requirement for a meter cupboard in a common area.

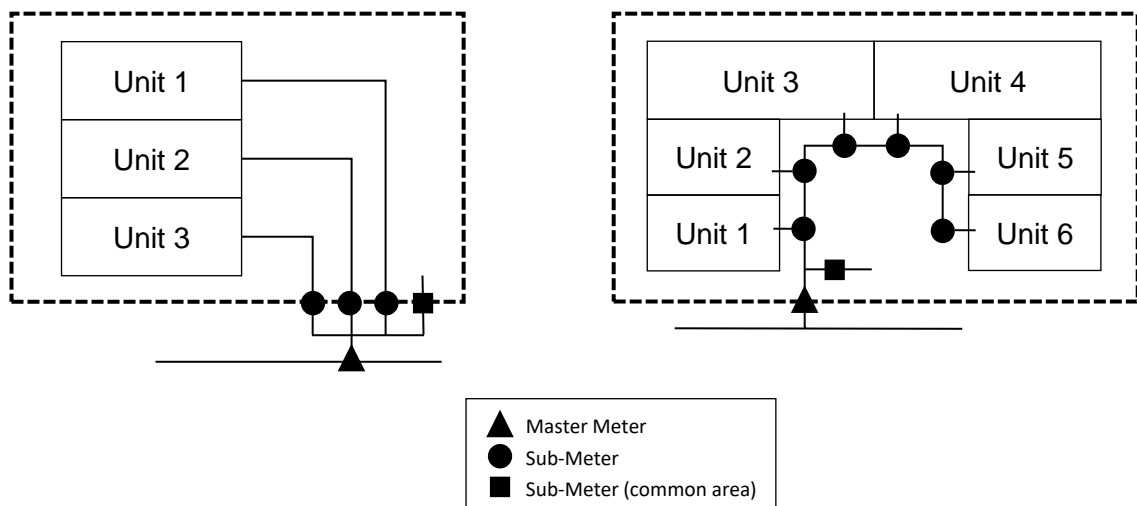
#### 5.4 Duplex, Community Title Schemes / Body Corporate Developments

Submeters must be provided for each sole occupancy and any common property.

A development within a Community Titles Scheme requires all *lots* within the scheme to be metered. Therefore, a *master meter* at the boundary as well as an individual *sub-meter* for each unit and the common property (*meterable premises*) is required.

As illustrated in Figure 5.3 below, configurations may consist of *sub-meters* located either at the front property boundary in proximity to the *master meter* or closer to each *meterable premises*, as long as installation and access requirements are met.

**Figure 5.3 : Sub-metering Configuration for Community Title Schemes**



Short term accommodation uses such as motels do not require individual meters under the QPW Code. However, should the class of building change in the future and individual units be created then *sub-meters* will be required. Likewise, any restaurant or other facility within the motel that may be leased to another party will require a *sub-meter*. For these reasons, it is strongly recommended that *sub-meters* be installed, or allowances be made for future installations during construction, in order to not restrict the future use of the building.

#### 5.5 Mixed Use

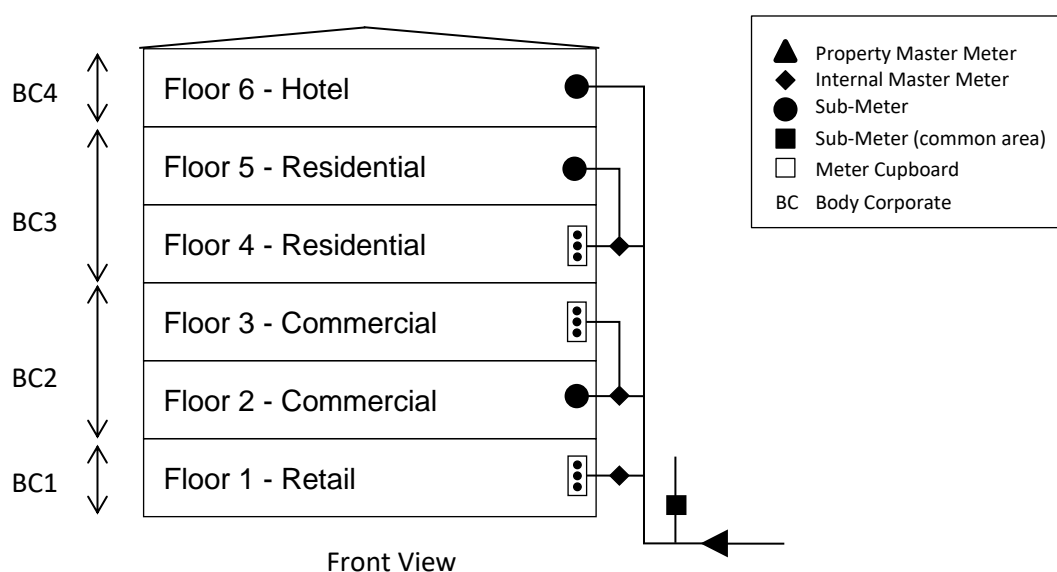
If a development is mixed use, then each land use shall follow the relevant sub-metering requirements. For example, as illustrated in Figure 5.4, a high rise building with retail on the ground floor, offices on intermediate floors, residential floors above commercial floors and a hotel on the top floor, the development would require:

- each retail tenancy to be sub-metered individually;

- each floor of commercial space (or each identifiable sole-occupancy unit) be sub-metered in keeping with paragraph 5.3;
- each residential apartment to be sub-metered separately, in keeping with paragraph 5.2; and
- a single sub-meter for the hotel water usage.

A master meter would be required for the property as a whole. In addition, if the building is to be managed by multiple body corporates, say based on type of use, the total water supply to each body corporate would need to be monitored via an internal master meter, covering the supply to each body corporate area.

**Figure 5.4 : Sub-Metering Configuration for Mixed Use Developments**



Note – Floor 2 and Floor 5 is assuming 1 tenancy per floor.

As indicated in Figure 5.4: Sub-Metering Configuration for Mixed Used Development, in relation to Floor 6 - Hotel it would be strongly recommended that *sub-meters* be installed, or allowances be made for future installations during construction, in order to not restrict the future use of the area.

## 5.6 Centralised Reticulated Hot Water Supply

For developments that are designed to have a centralised reticulated hot water supply, two sub-meters will be required each meterable premises, one monitoring the cold water supply and the other monitoring the hot water supply, thereby enabling the calculation of the total water consumption at each meterable premises. It is also strongly recommended that the cold water inlet to the hot water system has its own sub-meter.

Where a centralised hot water system is envisaged, it is strongly recommended that a discussion be initiated with MRC, prior to finalisation of plumbing plans, to ensure variations are not required at a later stage.



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## **5.7 Private Meters and Billing Meters**

The installation of a sub-meter does not necessarily mean that each such sub-meter will be used for purposes of issuing a water notice. For more details on the billing process please see paragraph 7.4.

Where a water meter (whether a master meter, internal master meter or a sub-meter), the consumption recorded on which is not used for issuance of Water Notices, such a meter would be considered a private meter. Any water meter, the consumption recorded on which, is used as the basis for generating a Water Notice to the property owner, will be considered a billing meter.

Billing meters will at all times remain the property of MRC and MRC will be responsible for their maintenance. Private meters will be owned by and be the responsibility of the property owner.

## **6 SUB-METERING PROCESS**

The sub-metering process consists of the following steps:

1. Developer reviews Development Approval to determine specific development requirements. Sub-metering conditions will identify requirements for the design and installation of sub-meters.
2. An application to be made by property owner, using MRC form "Application for 20mm Water Meter Connection/Replacement (Above Ground)" for the installation of the master meter. On application, MRC will provide a quotation for the installation of the master meter.
3. Where the intention is to sell each meterable premises to a separate owner, in which case each sub-meter will end up as a billing meter, a separate application shall be made by the property owner(s) using MRC's form "Application for Water Connection" for each individual meterable premises. In most instances (but not necessarily), these will be for developments described in paragraph 5.4.
4. Where the intention is to maintain a single ownership of all meterable premises within the property, in which case the sub-meters will be private meters, a single application for sub-metering can be made by the property owner using MRC's form "Application for Private Metering Solution (Water)".
5. MRC reviews the application and communicates decision (approve or request for revision) to applicant.
6. Developer notifies Water Service Provider of the details of the Responsible Person who will perform/oversee the installation of the sub-metering system. Form 7 – "Notification of Responsible Person" to be submitted. Form 7 is available from the Queensland Governments Department of Local Government and Planning website.
7. Construction commences. Sub-meters installed as part of construction. Progressive plumbing inspections take place.
8. Developer informs MRC when infrastructure is ready for the installation of the communications base station. If required, MRC installs base station.

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9. Construction completed and as-constructed information submitted to MRC. Information related to the sub-meters (meter numbers, AMR numbers, installation date time, stat read etc.) submitted to MRC as per MRC specified format.
  10. Final plumbing inspection to include verification of the sub-meter installations. If issues/faults identified, rectification notice issued, else Plumbing Compliance Certificate issued.
  11. Issuance of water notices, in keeping with standard billing practices of MRC, commences with the next billing cycle.

## **7 SUB-METERING REQUIREMENTS & SPECIFICATIONS**

### **7.1 Supply**

All *water meters* will be supplied by MRC, at the cost of the property owner. *Water meters* supplied by MRC will incorporate an *AMR* (either inbuilt into the meter or as an appended device) to facilitate remote reading of the meter.

MRC takes on the responsibility that *water meters* supplied comply with the dimensions described in Appendix D of AS3565.1.

All communications equipment required for the operation of the *AMR* devices will also be supplied by MRC.

### **7.2 Assembly**

Each *sub-meter* shall be installed with barrel union on both sides and valve on upstream side for shutting off the water supply and the safe and convenient removal of the *sub-meter*. These items are referred to collectively as the 'sub-meter assembly'.

The *sub-meter* assembly shall connect to the property plumbing on the upstream side and the *meterable premises* plumbing on the downstream side, both with male iron adaptors. For *internal master meters*, the plumbing on both sides will be property/*Body Corporate* plumbing.

### **7.3 Installation**

No water meters are to be installed until after an approval in response to the application(s). (See Section 2 of Part 6)

#### Installation of Water Connection & Master Meter

The property owner/developer to submit an "Application for Water Connection" to MRC, for the installation of a water connection from *WSP* infrastructure, which will include the *master meter*.

The installation of the *master meter* monitoring the flow of water from the *WSP* infrastructure to the property is the sole responsibility of the *WSP*. Any work carried out on the service connection or the said *master meter* by personnel other than MRC authorised personnel, will be considered as "tampering with *WSP* infrastructure", which is an offence under the Act.

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On submission of an “Application for Water Connection”, MRC will submit a quotation for the supply of material and installation of the water connection. On receipt of payment and the availability of downstream plumbing infrastructure (i.e. plumbing infrastructure within the property), MRC will make arrangements to make the cut in and installation. It is the responsibility of the applicant to inform MRC when site is ready for the installation of the connection, noting that lead times for such installation will vary depending on a variety of factors.

#### Installation of *Sub-meters & AMR Devices*

Depending on the type of development, the property owner/developer to submit multiple “Application for Water Connection” or an “Application for Private Metering Solution (Water)” to MRC for the installation of *sub-meters*, including *internal master meters* (if any).

All *water meters* and associated *AMR* devices shall be sourced from MRC. Any *water meters* and/or *AMR* devices/system installed that are not sourced from MRC will be considered unauthorised meters/devices, and will need to be replaced with MRC supplied *water meters* and *AMR* devices before a Plumbing Compliance Certificate is issued.

The property owner/developer may determine a party to install the *sub-meters*, including any *internal master meters* and the *AMR* devices. It is the responsibility of the property owner/developer to ensure appropriately qualified and licensed contractors are engaged. The owner developer may request MRC to carry out the installation work, which will be carried out as a commercial assignment for a separate fee. Whether or not to accept such an assignment will be at the sole discretion of MRC.

On receipt of the application(s) MRC will supply a quotation for the supply of *water meters* and *AMR* devices. Specifications and infrastructure requirements for the installation of the communications equipment for the operation of the *AMR* devices (where relevant) will accompany such quotation. If requested and agreed, the quotation will include installation.

Where the installation of the *water meters* and *AMR* devices is to be carried out by a third party arranged by the owner/developer, MRC will provide instructions for the installation of the *AMR* devices and capture of related data. Communications equipment will at all times be installed by MRC or an authorised contractor.

In addition to the costs associated with the supply of materials and installation (if any), the property owner will also be billed an ongoing annual fee, as per MRCs adopted Schedule of Fees and Charges”, for the supply of data related to the *sub-meters*.

A single *sub-meter* shall capture all cold water entering each *meterable premises*. These *sub-meters* shall capture only the water entering the premises for which they are assigned. Where a centralised hot water system is envisaged for a *MUP*, an additional sub-meter shall capture the hot water supply to each *meterable premises*, enabling the calculation of the total potable water supply to a *meterable premises*. All *sub-meters* must contain a durable label (usually a metal or plastic tag with an inscription) attached to the meter, which clearly identifies the *meterable premises* that is supplied by that *sub-meter*.

Where the installation of *sub-meters* and *AMR* devices is carried out by a third party, it will be the responsibility of the property owner/developer to provide to MRC the

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installation data, in the format as specified by MRC. The installation will not be considered completed until such data is supplied to MRC and validated by MRC. Any invalidated data will need to be corrected.

#### Location of *Sub-meters*

For *sub-meter* configurations detailed in paragraphs 5.2, 5.3, and 5.5 all sub-meters, including internal master meters, shall be located in a meter cupboard. The meter cupboards and the installation of *water meters* within the cupboards shall conform to the following requirements:

- conforms to and comply with all standards and regulations applicable to such meter cupboards, including standards and regulations applicable to enclosures housing other devices if the enclosure is a shared enclosure housing *water meters* and other devices (e.g. fire hose reel)
- installed above ground with installations in basements or individual meters in underground pits to be avoided
- be installed in a common area (i.e. not inside the *meterable premises*), either in a single location when practical or in a common location on each floor/section
- clearly identified by the words “Water Sub-meters” on the outside of the door of the meter cupboard and where the meter cupboard is located in a separate room or structure, on the outside of the entry door to that room or structure
- constructed of material that permits the free passing of radio waves (not be constructed of metal)<sup>1</sup>
- where meter cupboard is located in a utility room or a separate structure or enclosure (i.e. shed) such structure/enclosure, including its doors, also to be constructed of material that permits the free passing of radio waves (not be constructed of metal)
- a minimum gap the size of the meter on either side of the meter
- a minimum 150mm gap, perpendicular to the direction of the pipes, between sub-meters
- a minimum 150mm gap between the outermost valves and the edges of the cupboard
- if the cupboard also houses other devices (e.g. fire hose reels, gas meters), the fire rating not be compromised
- the *water meters* are easily accessible and readable from floor level, unassisted by a ladder or other equipment
- the cupboard (and where it is located within a separate room or structure, that room or structure) not be classifiable as a confined space for entry purposes
- a minimum of two metres perpendicular to the meter cupboard doors, for the entire width of the meter cupboard or a width of one metre, whichever is greater, is available in front of the meter cupboard as free working space
- such space in front of the meter cupboard is clearly identified as an area not be obstructed, by placing of materials/equipment, parking of vehicles (where applicable) or placement/planting of vegetation (where applicable)
- adequate lighting is available at all times for manual reading of meters as well as carrying out maintenance work
- sufficient room for the cupboard door(s) to swing open completely and provision for them to be held open without compromising the free working space in front of the meter cupboard

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<sup>1</sup> Metal enclosures inhibit the transmission of radio waves, which is used by the AMR devices for transmission of meter readings to the communications equipment.

- a minimum 100mm deep bund at the opening if the meter cupboard is located inside a building
- sufficiently waterproof and drained to prevent seepage into the surrounding building structure in the event of a leak
- fastened with a latch, but not be locked as to restrict access.
- unrestricted access, from the property boundary to inside the meter cupboard to all *water meters* without having to use physical or electronic keys or make prior arrangements:
  - entry through a reasonable security process which is manned during normal work hours is not considered restricted access;
  - entry using a personal identification number (PIN) of no more than four numbers that is customisable by MRC is not considered restricted access.

For *sub-meter* configurations as detailed in paragraph 5.4, both the *master meter* and all *sub-meters* may be located at the front *boundary* of the property or alternatively, the master meter may be located at the front *boundary* of the property with the individual *sub-meters* located at the front *boundary* of each *lot* within the property. In such instances all *water meters* to be installed above ground in keeping with relevant MRC standard drawings.

In exceptional circumstances, *sub-meters* no larger than 25mm in diameter, may be installed in an underground pit provided prior concurrence of WSP is obtained. Where water meters are installed in underground pits, such pits and enclosure to conform to following requirements:

- the pit to be no more than 500mm from the front boundary of the *lot*
- the pit to be in an open area, not inside a building or structure
- water meter to be installed within an enclosure made of plastic material
- the top of the water meter to be no deeper than 150mm from ground level
- the enclosure cover (top lid) to be also made of plastic material
- access to the pit/enclosure to be unobstructed by structures, vegetation, equipment or materials at all times
- pit cover not to be locked
- A minimum work area of 2 square meters be available around the pit/enclosure

Where the *water meter* is larger than 32mm in diameter, there must be 10 times the diameter of straight pipe upstream of the *water meter* and 5 times the diameter of straight pipe downstream of the *water meter*, with all required valves and joints outside these sections. Where the *water meter* is 32mm or smaller in diameter, there should be 5 times the diameter of straight pipe upstream of the *water meter* and 3 times the diameter of straight pipe downstream of the *water meter*, with all required valves and joints outside these sections.

#### Location of AMR System

Where dedicated communications equipment is required to be located on-site<sup>2</sup>, the property owner will be required to provide the following at no initial or ongoing cost to MRC, to facilitate the automated capture of water meter reads from the *water meters* located on the property.

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<sup>2</sup> The need for on-site equipment will depend on the number of *sub-meters*, location of *sub-meters* and the complexity of the development from a radio communications viewpoint.

- location on a wall, out of direct sunlight and rain, for installation of the communications receiver station of a size no more than 500mm x 500mm x 250mm (depth), weighing no more than 20 Kg
- a dedicated, uninterruptable (on 24/7 with no switch that can be turned off by non MRC personnel) 240V AC power supply to the location of the receiver station
- a mounting pole (25mm NB medium duty steel pipe usually suffices), mounted in a manner conforming to all standards relevant to the Mackay region<sup>3</sup> for the location of the communications antenna weighing no more than 2.5 Kg, that will provide three (3) metres clear above the highest point of the roof or surrounding trees, whichever is higher
- a water proofed (as required) cable path from antenna to communications receiver station.
- Distance of cable path from location of receiver station to the top of the antenna mounting pole to be no more than 30 meters

Suitable locations for both the equipment and the antenna are to be discussed and agreed upon with MRC. The receiver station typically requires 25 watts of power.

Where dedicated equipment is required, the communications receiver station, the antenna, and the connecting cable(s) will be supplied by MRC, and included in the quotation supplied in response to the “Application for Private Metering Solution (Water)”.

The communications equipment will remain the property of MRC at all times. The property owner will be required to enter into a simple agreement with MRC for the location of the communications equipment on the property.

#### **7.4 Billing (*Water Notices*)**

MRC will issue a separate *water notice* for each individual assessment, for the water consumed by that assessment, in keeping with the rates contained within MRC’s Revenue Statement applicable to the period of the water notice. The *water notice* will be issued to the owner(s) of the property covered by the assessment number.

Where all *units* within a property fall under a single assessment with common ownership across the *units*, a single *water notice* will be issued based on the *master meter*.

Where the individual units within a property are not under common ownership (and have individual assessment numbers), separate *water notices* will be issued to the owner(s) of each unit. In such instances, the property will be required to register a *deed*, which determines the ratio in which water usage for common areas will be split between the owners of the *units*. Common consumption split between the owners, using the basis identified in the *deed* will consist of:

- water supplied to common areas within the property through a dedicated *sub-meter* or *sub-meters*
- residue calculated by deducting the sum consumption of all relevant *sub-meters* within the property from the consumption of the *master meter* of the property.

The *water notice* issued to owner(s) of each *unit* will be for the total consumption consisting of the specific consumption of the *unit* as determined by the *unit’s sub-*

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<sup>3</sup> It should be noted that the Mackay region is prone to cyclones and other forms of severe weather. Restoration of damages caused by weather events to the antenna and other communications equipment will be at the cost of the property owner.

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*meter(s)* and a share of the common consumption split between the units on the basis specified in the *deed*.

As a policy, all *water notices* for a given assessment is issued to the property owners. MRC does not issue *water notices*, including *water notices* for common consumption, to parties who are not property owners (e.g. body corporates).

The allocation of water consumption to individual *units*, for billing or information purposes, will be based on the *water meter* and *AMR* installation data provided by the property owner/developer to MRC, immediately after the installation. While MRC will take all reasonable steps to validate the data, liability for any billing errors due to data errors will be with the property owner/developer responsible for the supply of the installation data.

## **7.5 Maintenance Responsibilities**

The plumbing infrastructure (excluding the water meters), within the property will always remain the property of the property owners. As such, all maintenance responsibilities for such infrastructure will lie with the property owner(s) and/or their agents (e.g. body corporate). The cost of water consumed as a result of any failures in such infrastructure will lie with the property owner(s).

The master meter monitoring water flow from the WSP infrastructure to the property plumbing infrastructure will always remain the property of the WSP, and therefore the maintenance responsibility of, the WSP. The WSP will also be responsible for ensuring that such water meters continue to operate within the MPE.

Billing meters, will always be the property of the WSP, and therefore the WSP will be responsible for their maintenance, including ensuring that such meters operate within the MPE. Decisions on the replacement of WSP owned meters will be at the sole discretion of the WSP. Interfering with WSP owned infrastructure, including meters, is an offence under the Water Supply (Safety and Reliability) Act 2008.

Maintenance of private meters, including ensuring that they operate within the MPE, will be the responsibility of the property owner and/or their agent.

Due to a change in property ownership, in instances where a private meter subsequently becomes a billing meter, subject to assessing the condition and suitability, the WSP will assume ownership and maintenance responsibility for that meter.

As the supplier of the AMR devices and the related communications equipment, MRC will be responsible for meeting all warranty requirements on such devices and equipment, even the devices installed on private meters.