

Sub-meter guidelines

**For councils, plumbers, builders,
developers, water service providers
and community title managers**

A guideline on the requirements for sub-meters in new multi-unit developments.

November 2013

Table of contents

| | | |
|-----|---|----|
| 1. | Introduction | 3 |
| 2. | Important notes | 3 |
| 2.1 | QPW code | 3 |
| 2.2 | Terminology and definitions | 4 |
| 2.3 | Alternative or new materials | 5 |
| 3. | Associated legislation..... | 5 |
| 4. | Standards..... | 5 |
| 5. | Sub-meters for new premises | 6 |
| 5.1 | General | 6 |
| 5.2 | Performance requirements | 6 |
| 5.3 | Meterable premises | 6 |
| 5.4 | Location of sub-meters | 7 |
| 5.5 | Ownership of sub-meters | 7 |
| 5.6 | Tampering with water meters | 8 |
| 6. | Role of the water service provider | 8 |
| 6.1 | General | 8 |
| 6.2 | Approval of sub-meters | 8 |
| 6.3 | Location of sub-meters | 8 |
| 6.4 | Powers of entry | 8 |
| 6.5 | Installation of sub-meters | 8 |
| 6.6 | Connection to the water service provider's infrastructure | 9 |
| 6.7 | Contact with the council | 9 |
| 7. | Role of the plumber..... | 9 |
| 7.1 | General | 9 |
| 7.2 | Plans | 9 |
| 7.3 | Installation | 9 |
| 8. | Role of the council | 10 |
| 8.1 | General | 10 |
| 8.2 | Assessment of plans | 10 |
| 8.3 | Compliance assessment | 10 |
| 9. | More information | 10 |
| | Appendix 1—Part 4 of the Queensland Plumbing and Wastewater Code..... | 11 |
| | Water meters for new premises | 11 |
| | Appendix 2—Classes of buildings prescribed in the National Construction Code..... | 12 |

1. Introduction

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

These changes were introduced due to the severe drought conditions that were being experienced in Queensland, to secure Queensland's future water supply. Other measures were also included, such as expanded use of treated greywater and introducing blackwater re-use trials.

A new part of the QPW code, 'Part 4 – Water meters in new premises' was created to provide acceptable solutions for the installation and maintenance of water meters. This includes the installation of 'sub-meters', the common term used to describe individual water meters within multi-unit complexes. The term also differentiates from 'master meters' that measure the supply of water to a complex as a whole.

The purpose of this guide is to assist councils, plumbers, builders and developers to understand the technical and regulatory requirements for installation of sub-meters.

A full copy of the QPW code is available on the Department of Housing and Public Works' website at www.hpw.qld.gov.au

2. Important notes

This document should be used as a guide to interpreting Part 4 of the QPW code and be read in conjunction with the QPW code.

All terms referred to in this guide have the same meaning as defined in the *Plumbing and Drainage Act 2002* (PDA), *Plumbing and Drainage Regulation 2003* (PDR), *Standard Plumbing and Drainage Regulation 2003* (SPDR) or a relevant Australian/New Zealand Standard. If a definition given in a relevant standard is inconsistent with the PDA, PDR, SPDR or the QPW code, the legislation prevails.

All relevant Australian and New Zealand Standards are applicable, unless otherwise outlined in the QPW code. Where there is an inconsistency, or the QPW code has additional requirements, the QPW code prevails.

2.1 QPW code

The QPW code has been designed to provide performance solutions to meet the statutory requirements of the PDA. This maintains the standards set by the QPW code while allowing for innovation in materials and methods.

The current version of the QPW code was published on 15 January 2013. It replaces the previous version which commenced on 6 May 2011.

Part 4 of the QPW code provides the details on requirements for 'water meters in new premises'. Although these parts are generally designed to work together, in this instance the other parts of the code are not relevant to the installation of sub-meters.

2.2 Terminology and definitions

The following is a guide to definitions relevant to Part 4 of the QPW code, however these are a guide only and the precise wording of the definition in the QPW code or PDA should always be consulted.

Common area—means an area of common property (as defined in the *Body Corporate and Community Management Act 1997*). This could include an area of the common property that is leased to another person.

Complying valve—means a device incorporated as part 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, installed upstream of a water meter.

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.

Product code authorisation and certification—means product authorisation and certification under the National Construction Code (the Plumbing Code of Australia is volume 2).

Public area—a public area means an area which the public have access too. This is an inclusive definition, i.e. it is not limited to the footpath and may include public car parks, walkways etc, provided the public ordinarily has access to them.

Sole occupancy unit—in relation to a building, means:

- 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, for example:
 - i. a dwelling; or
 - ii. a room or suite of associated rooms in a building classified under the National Construction Code as a class 2, 4, 5, 6, 7 or 8 building; or
- b. any part of the building that is a common area or common property.

Storey—means a 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. It does not include a space that contains only a lift shaft, stairway or meter room or a bathroom, shower room, laundry, water closet, or sanitary compartment or accommodation intended for not more than three vehicles or combination, or a mezzanine.

Water meter—a device, including equipment related to the device, for measuring the volume of water supplied to premises. Related equipment could include a pulse meter or an automatic meter reader and associated technology or similar devices. The purpose is to ensure the water service provider controls the equipment necessary to ensure the accurate reading of the device for billing purposes.

Water service—has the meaning given in the *Water Supply (Safety and Reliability) Act 2008*.

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.

Water supply—means the plumbing supplying water to meterable premises from a water service.

2.3 Alternative or new materials

The QPW code has been designed to foster innovation and creativity. It should not be interpreted in a manner which prevents the use of materials or products not specifically referred to.

3. Associated legislation

Sub-meter requirements of the QPW code should not be considered in isolation. Other Commonwealth, State, and local laws or referenced standards may be relevant. The following is a list that should be considered, but it is not a comprehensive list.

- *Body Corporate and Community Management Act 1997*
- *Building Act 1975*
 - *Building Regulation 2006*
- *Sustainable Planning Act 2009*
 - *Sustainable Planning Regulation 2009*
- *Plumbing and Drainage Act 2002*
 - *Plumbing and Drainage Regulation 2003*
 - *Standard Plumbing and Drainage Regulation 2003*
- *Public Health Act 2005*
- *Water Act 2000*
 - *Water Regulation 2002*
- *Water Efficiency Labelling and Standards Act 2005*
- *Water Supply (Safety and Reliability) Act 2008*
- National Construction Code (formerly Building Code of Australia)
- Plumbing Code of Australia
- Australian and New Zealand design standards
- Australian technical specifications

4. Standards

The following standards are referenced in the QPW code in relation to sub-meters:

- AS3565.1:2004 Meters for Water Supply—Cold water meter
- AS3565.2:2004 Meters for Water Supply—Combination meters
- AS3565.3:2004 Meters for Water Supply—Water meters with integral dual check valves

- AS3565.4:2004 Meters for Water Supply—In-service compliance testing
- AS3565.5:2004 Meters for Water Supply—Water meters with two integral single check valves

5. Sub-meters for new premises

5.1 General

Since 1 January 2008 it has been mandatory to install sub-meters in all new multi-unit developments and some non-residential premises. From this date, all new premises within a reticulated water supply area require a sub-meter for each separate lot and common property in a community title scheme (CTS) or for each sole occupancy unit in the building. This requirement does not apply to the retrofit of existing buildings.

This enables water service providers to directly charge the owners of separate lots in new buildings for their actual water consumption. For multi-unit buildings under single title, this also enables itemised billing based on sub-meter readings, so that the owner can pass the cost of water on to the individual user.

The *Water Supply (Safety and Reliability) Act 2008* contains requirements for water service providers to ensure consistent standards statewide for billing content and billing cycles. The standardised billing content must include graphical information on water consumption, comparisons of average daily water consumption with previous billing periods and the local area average and messages about water savings and consumption targets.

5.2 Performance requirements

The performance requirements for sub-meters are specifically dealt with in Part 4 of the QPW code 'water meters for new premises' (see Appendix 2).

It is divided into four performance criteria and four acceptable solutions, which have been designed to be simple and easy to read.

Performance criteria P1 requires the water supply to a meterable premises to be fitted with a device (water meter) to measure the amount of water supplied to the premises.

Acceptable solution A1 provides a method of complying with this through the use of water meters. The water meter must be approved by the water service provider, and must comply with any relevant requirements of the water service provider that may be imposed under the *Water Safety (Supply and Reliability) Act 2008*. An alternative solution can be formulated but it must be at least equivalent to the acceptable solution.

5.3 Meterable premises

Meterable premises only apply to premises located in a water service provider's area, i.e. those supplied with reticulated water.

Lots in a community titles scheme must be individually metered, including usage from common areas. This is to ensure that the body corporate (which manages the common property) also receives water usage information and separate billing, e.g. for pools, watering gardens etc.

Sole occupancy units of certain classes of buildings (i.e. classes 2, 4, 5, 6, 7, and 8) which are exclusively occupied must be provided with sub-meters. For example, where a shop is split into multiple shops to become sole occupancy units then the premises must be fitted with sub-meters.

At the time of construction it may be difficult to identify the areas of a class 5 multi-storey building which are going to be leased out, i.e. the sole occupancy units. In this case a sub-meter must be fitted on each storey of the building.

Where individual sole occupancy units have not been identified in a class 5 building, the relevant council will send a bill to the owner of the building, i.e. the person recorded in the council's land record as the owner of the land.

Individual councils may have specific billing arrangements for these types of buildings. The bill will then be apportioned as it would under the respective lease or tenancy agreements. Parties may choose to agree separately on the water usage based on the water used per floor.

Each floor can then be supplied with information on water use which will assist tenants to gauge their water use and measure the effectiveness of water reduction methods and devices on a floor by floor basis.

5.4 Location of sub-meters

Performance criteria P2 of the QPW code requires that the sub-meter be located so it is easy to read and maintain. Acceptable solution A2 further provides that it must be easy to read and maintain from the common area, common property or public area. Furthermore, where the meter is located in a public area it must be less than three metres from the property boundary.

Both 'public area' and 'common area' are further defined in the QPW code. A public area means an area which the public have access too. This is an inclusive definition, i.e. it is not limited to the footpath and may include public car parks, walkways etc., provided the public ordinarily has access to them.

The location of the meter is important because it must be located in a place where the water service provider can easily access it to conduct readings.

5.5 Ownership of sub-meters

From 1 January 2008 all water meters located in community title schemes created and requiring compliance under the PDA will be owned by the water service provider supplying water to the scheme. Prior to this, the *Body Corporate and Community Management Act 1997* provided that utility infrastructure (including sub-meters) was 'common property' that was owned by the body corporate, unless it fell within an exclusion.

Water service providers will be responsible for maintaining and replacing the sub-meters rather than being owned and maintained by the body corporate for the community title scheme.

A sub-meter must be installed and maintained by a plumber with an appropriate Plumbing Industry Council licence.

5.6 Tampering with water meters

From 1 January 2008, it is an offence to tamper with water meters or related equipment. Related equipment includes devices that assist in measuring or reading the volume of water supplied to the premises. Automatic meter reading equipment is considered to be equipment related to the meter.

People found guilty of tampering with water meters or related equipment face an on-the-spot fine of 7 penalty infringement notice points per offence.

6. Role of the water service provider

6.1 General

Water service providers which provide retail water services will own the meters and be responsible for reading and charging customers accordingly. They will also be responsible for maintaining and replacing meters as necessary.

6.2 Approval of sub-meters

Sub-meters must be approved by the water service provider. As water service providers will have different requirements in terms of choice of meter and reading equipment, there is no limitation or restriction on the type of sub-meter that can be used.

For example, some service providers may wish to use automatic meter reading equipment which can be read in a wireless manner. This will require specific sub-meters to be installed in their service area.

6.3 Location of sub-meters

A floor plan of the building must be provided with the council application showing the approximate location on the premises and specifications of each sub-meter for measuring the supply of water to any part of the premises.

This is critical to enable council to assess the plans and the location of the sub-meters. The water service provider must be given an opportunity to nominate where the sub-meters are to be placed within the common area, common property or public area. The plumber and water service provider should contact each other early in the process.

6.4 Powers of entry

Under section 746 of the *Water Act 2000* an authorised officer may enter a property to read, check the accuracy of, or replace a water meter. The entry power does not allow entry to any part of a place used for residential purposes and entry may only be made at a reasonable time.

6.5 Installation of sub-meters

Only a licensed plumber may install sub-meters. The decision on who will install the sub-meters is determined by the water service provider. This is to ensure the sub-meters can be accurately read and monitored.

In most cases, the water service provider will use plumbers contracted to or employed by the service provider, i.e. those persons specifically trained in installation. However, the water service provider may choose to utilise the plumber who has installed the plumbing in the building.

Plumbers must give water service providers written notice that sub-meters are to be installed. Notice must be given in writing at least two days prior to the cladding or lining covering the plumbing work being attached. This is must be given by the 'responsible person' for the work.

6.6 Connection to the water service provider's infrastructure

Approval to connect to the water service provider's infrastructure will remain a separate approval under the *Water Act 2000*.

6.7 Contact with the council

The water service provider may want to make contact with the council's plumbing inspector about a particular development. This may include advising the inspector of the approved sub-meter and the preferred location for the development.

Information supplied directly to the inspector will assist in the assessment of plans and compliance assessment for the work. As many service providers are part of council, this network should be set up between the business unit and department as early as possible.

7. Role of the plumber

7.1 General

The role of the responsible person for the job, i.e. the plumber, is to maintain a dialogue between the water service provider and the council. Failing to provide notification to the water service provider of the proposed installation can result in significant penalties.

7.2 Plans

It is important that the plumber contacts the water service provider as soon as possible to ascertain the water service provider's requirements so the location of the meters can be placed on the plans to be submitted to council.

7.3 Installation

Each service provider will have different requirements for the type of sub-meter, which will impact how the plumber leaves the plumbing open and ready for installation. By opening the dialogue with council the plumber will be aware of who to notify when the time comes for installation.

Only a licensed plumber may install sub-meters. If the plumber contracted to or employed by the water service provider, installs the water meter, that person must submit a *Form 7—Notification of responsible person* to council.

8. Role of the council

8.1 General

Installation and assessment of sub-meters will be managed through the compliance assessment process by local councils under the PDA.

8.2 Assessment of plans

When an application is made for a compliance permit (approval of plans for plumbing work required before work can commence) it must be accompanied by advice from the service provider about the sub-meters for that particular building.

Councils must assess what type of premises the water is being supplied to and the requirements for the installation of sub-meters. This will mean assessing the plan against the definition of 'meterable premises' in the QPW code to determine the requirements for the development. Council will also need to determine if all common property usage has been metered.

If the information required to be supplied by the service provider has not been received or additional information is needed to assess the application, then council must issue an information request seeking this information. Assessment of the application should stop until the information is received. Council may impose conditions on the compliance permit requiring that installation of sub-meters comply with the advice from the service provider, where this complies with the QPW code requirements.

The plumbing inspector may wish to contact the water service provider to establish a network for the flow of information. As many service providers are part of council this network should be set up between the business unit and department as early as possible.

8.3 Compliance assessment

As part of the inspection process, the council should check the approved sub-meter has been installed and the location conforms to the requirements of the water service provider, where consistent with the QPW code. As with other compliance assessments, council may wish to request 'as-constructed' plans to show the final location of the sub-meters.

Council should not issue the final approval of plumbing work (a compliance certificate) until the installation of sub-meters has taken place to the specifications of the water service provider, where this complies with the requirements of the QPW code.

In addition, the council should request additional forms from the plumber who installed the water meter, where that person did so as a contractor or employee of the water service provider. This will include submitting a *Form 7—Notification of responsible person*.

9. More information

More information is available from the Department of Housing and Public Works' website, www.hpw.qld.gov.au/construction/BuildingPlumbing/Pages/default.aspx

Appendix 1—Part 4 of the Queensland Plumbing and Wastewater Code

Water meters for new premises

| | Performance criteria | | Acceptable solutions |
|----|--|----|---|
| P1 | 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. | A1 | Each water supply to a meterable premise is to be fitted with a water meter which: <ol style="list-style-type: none"> 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 <i>Water Safety (Supply and Reliability) Act 2008</i>. |
| P2 | A water meter must be located so it is easy to read and maintain. | A2 | The water meter is: <ol style="list-style-type: none"> a. located so that it can be easily maintained and read from a common area, common property or public area; and b. installed: <ol style="list-style-type: none"> i. in a common area; or ii. in common property; or iii. less than 3m from a property boundary within a public area. |
| P3 | A water meter must be properly maintained. | A3 | A water meter is to be maintained in accordance with the relevant Australian Standards. |
| 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. | A4 | The water meter has a complying valve. |

Appendix 2—Classes of buildings prescribed in the National Construction Code

| | |
|-----------------|--|
| Class 1 | One or more buildings which in association constitute— <ol style="list-style-type: none"> a. Class 1a — a single dwelling being— <ol style="list-style-type: none"> (i) a detached house; or (ii) one of a group of two or more attached dwellings, each being a building, separated by a fire-resisting wall, including a row house, terrace house, town house or villa unit; or b. Class 1b — a boarding house, guest house, hostel or the like— <ol style="list-style-type: none"> (i) with a total area of all floors not exceeding 300 m² measured over the enclosing walls of the Class 1b; and (ii) in which not more than 12 persons would ordinarily be resident, which is not located above or below another dwelling or another Class of building other than a private garage. |
| Class 2 | A building containing 2 or more sole-occupancy units each being a separate dwelling. |
| Class 3 | A residential building, other than a building of Class 1 or 2, which is a common place of long term or transient living for a number of unrelated persons, including— <ol style="list-style-type: none"> a. a boarding-house, guest house, hostel, lodging-house or backpackers accommodation; or b. a residential part of a hotel or motel; or c. a residential part of a school; or d. accommodation for the aged, children or people with disabilities; or e. a residential part of a health-care building which accommodates members of staff; or f. a residential part of a detention centre. |
| Class 4 | A dwelling in a building that is Class 5, 6, 7, 8 or 9 if it is the only dwelling in the building. |
| Class 5 | An office building used for professional or commercial purposes, excluding buildings of Class 6, 7, 8 or 9. |
| Class 6 | A shop or other building for the sale of goods by retail or the supply of services direct to the public, including— <ol style="list-style-type: none"> a. an eating room, cafe, restaurant, milk or soft-drink bar; or b. a dining room, bar area that is not an assembly building, shop or kiosk part of a hotel or motel; or c. a hairdresser's or barber's shop, public laundry, or undertaker's establishment; or d. market or sale room, showroom, or service station. |
| Class 7 | A building which is— <ol style="list-style-type: none"> a. Class 7a — a carpark; or b. Class 7b — for storage, or display of goods or produce for sale by wholesale. |
| Class 8 | A laboratory, or a building in which a handicraft or process for the production, assembling, altering, repairing, packing, finishing, or cleaning of goods or produce is carried on for trade, sale, or gain. |
| Class 9 | A building of a public nature— <ol style="list-style-type: none"> a. Class 9a — a health-care building, including those parts of the building set aside as a laboratory; or b. Class 9b — an assembly building, including a trade workshop, laboratory or the like in a primary or secondary school, but excluding any other parts of the building that are of another Class; or c. Class 9c — an aged care building. |
| Class 10 | A non-habitable building or structure— <ol style="list-style-type: none"> a. Class 10a — a non-habitable building being a private garage, carport, shed, or the like; or b. Class 10b — a structure being a fence, mast, antenna, retaining or free-standing wall, swimming pool, or the like. |