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Water Supply Procedure 2021

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Glossary of Terms

ADWG	Australian Drinking Water Guidelines
AS	Australian Standard
Aus Spec	Australian Specification - standards for construction and design for water supply
augmentation	to increase capacity of a treatment plant
DSP	Development Servicing Plan
kL	kilolitre (1,000 litres)
kPa	kilopascals
LGA	Local Government Area
mg/L	milligrams per litre
ML	Megalitre (1 million litres)
PPP	Plan, Pot-Hole and Protect
PCA	Plumbing Code of Australia
PMHC	Port Macquarie-Hastings Council
potable water	drinking water
RPZD	Reduced Pressure Zone Device
water	Refers to both potable and recycled water unless specified
WSAA	Water Services Association of Australia
WTP	Water Treatment Plant

1. Water Supply Services

1.1 Water Supply Schemes

Port Macquarie-Hastings Council (PMHC) operates and maintains water supply schemes in the areas of Port Macquarie, Wauchope, Camden Haven, Telegraph Point, Comboyne and Long Flat:

1.1.1 Hastings Bulk Water Distribution Scheme

This scheme includes the integrated bulk water supply pumping station, off-creek storage dams and trunkmain network to Wauchope, Port Macquarie and the Camden Haven region. Up to a maximum of 105ML per day of raw/untreated water can be pumped from the Hastings River at Koree Island (5km south-west of Wauchope) depending on river conditions. The raw water is treated with lime and carbon dioxide (water conditioning) to increase alkalinity and stabilise the pH level. Fluoridation and chlorination are also completed at the Rosewood Reservoir site, prior to the water being stored in Rosewood No. 2 and No. 3 Reservoirs. The water in Rosewood Reservoir No. 2 and No. 3 is then gravity fed (i.e. without pumps) to the 2,500ML Port Macquarie and 10,000ML Cowarra Off-Creek Storage Dams. Water is distributed via 37 reservoirs, 19 water pumping stations, 832km of watermains.

1.1.2 Telegraph Point Water Supply Scheme

This scheme is sourced from the Wilson River and serves approximately 250 properties. Water is treated at an ultra-filtration plant and pumped to a storage reservoir before being distributed to customers via 16.8km of reticulation pipelines.

1.1.3 Comboyne Water Supply Scheme

This scheme is sourced from the Thone River and serves approximately 136 properties. Water is treated at an ultra-filtration plant and pumped to a storage reservoir before being distributed via 4.8km of reticulation pipelines.

1.1.4 Long Flat Water Supply Scheme

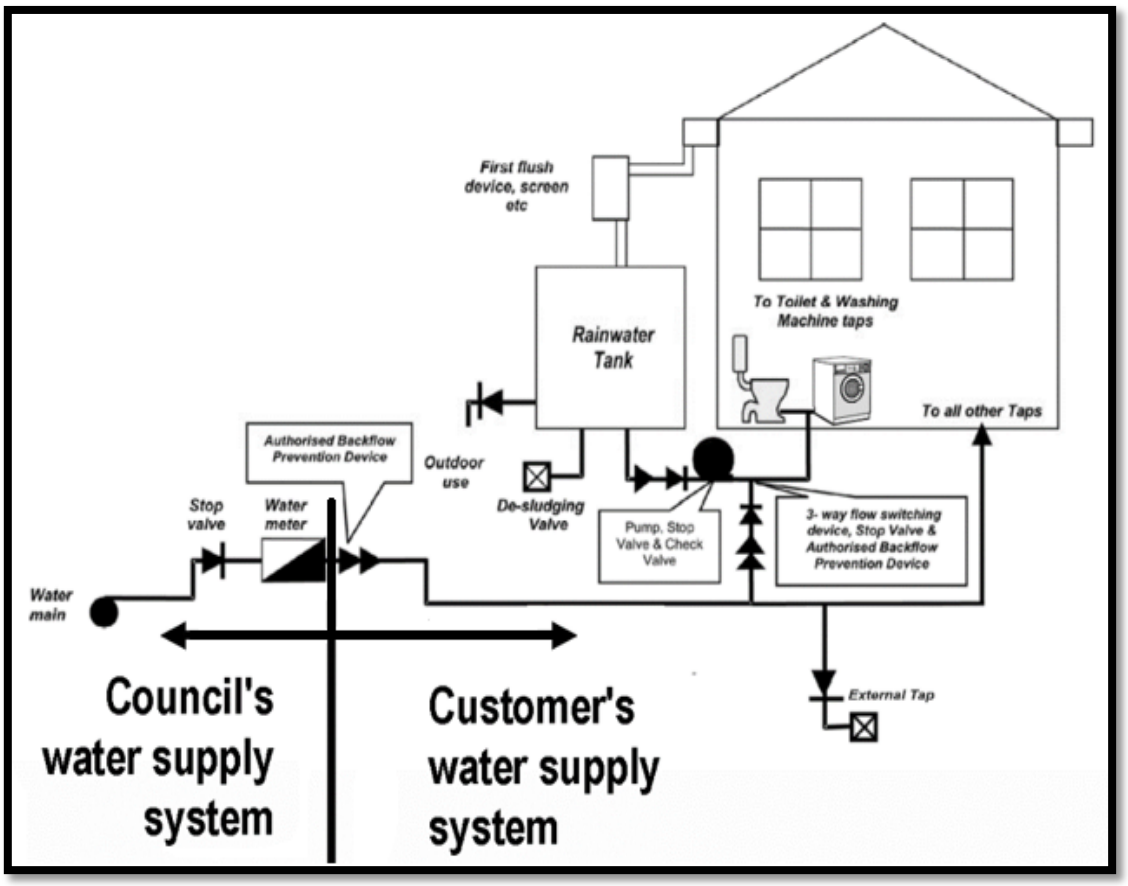
This scheme is sourced from the Hastings River and serves approximately 68 properties. Water is treated at an ultra-filtration plant and pumped to a storage reservoir before being distributed to customers via 4.2km of reticulation pipelines.

1.2 Delineation of Responsibility

The property owner owns and is responsible for maintaining all pipes and fittings, including backflow prevention devices, between PMHC's water system and the buildings and taps on the property. This is referred to as 'the customer's water system'.

PMHC retains ownership of the water meter through a rental agreement. The property owner is responsible for any costs associated with maintaining the water meter and accompanying pipes and fittings. This includes any maintenance or replacement costs. The owner is responsible for any damage to, or theft of the water meter or damage caused by a failure in the customer's water system.

Figure 1: Diagram showing Ownership and Responsibility



1.3 Water Supply Services

1.3.1 All water through an independent house service pipe

All properties that have a direct street frontage to PMHC's water supply system, must be connected to the PMHC's Water infrastructure by an independent house service pipe (refer *Local Government (General) Regulation 2005 clause 152*).

1.3.2 All water connections to be metered

All water services within the PMHC LGA are to be individually supplied and metered in an approved manner in accordance with the current *Plumbing Code of Australia* and *AS 3500*. A water meter measures the water supplied directly from PMHC's water supply mains system.

Water meters remain the property of PMHC. It is an offence under the *Local Government Act 1993* to remove, tamper or interfere with the installed meter. Any person found removing, tampering or interfering with the meter may be subject to legal action.

It is the property owner's responsibility to ensure that the water meter connected to a property is not used to measure the quantity of water supplied by the PMHC to any other premises (refer *Local Government (General) Regulation 2005 clause 156*).

1.3.3 Supply of drinking water

PMHC will supply a customer with drinking water to meet a customer's reasonable health and amenity requirements, except:

- in the case of planned or unplanned interruptions;
- in the case of severe drought or major operational difficulty;
- where PMHC is entitled to restrict or discontinue supply; or
- in the case of events beyond PMHC's reasonable control. Commercial

1.3.4 Cutting off or restricting water supply

PMHC may cut off or restrict the supply of water to premises (refer *Local Government (General) Regulation 2005 - clause 144*) if:

- any water meter used to measure that supply is out of repair or, in the opinion of PMHC, incorrectly registers the supply of water, or
- the water meter is used to measure use of water on another premises, or
- any charges in respect of the water supplied to the premises are unpaid, or
- in the opinion of the PMHC, that action is necessary because of severe drought or other unavoidable cause or any accident, or
- the owner or occupier or person requiring a supply of water fails to comply with a lawful order or requirement of PMHC as to installing water meters or instruments for measuring the quantity of water supplied, or
- the owner or occupier or person requiring a supply of water fails to comply with a lawful order or requirement of PMHC to repair or alter water connections, pipes, fittings or fixtures connected to PMHC's water supply system, or
- the occupier of the premises contravenes a provision of *Local Government (General) Regulation 2005, Part 6, Division 2* or fails to comply with any PMHC order or public notice requiring consumers of water to economise its use in time of drought or scarcity of supply.

1.3.5 Drinking water quality

PMHC is committed to supplying high quality drinking water that consistently meets or exceeds the Australian Drinking Water Guidelines 2011 (ADWG), our customer's expectations and regulatory requirements. To achieve this, in partnership with our customers, NSW Health, NSW Office of Water and other relevant government agencies, PMHC will:

- understand, maintain, implement and work to continuously improve a Drinking Water Quality Management System that is consistent with the ADWG 2011, and to the satisfaction of NSW Health;
- use a risk-based approach in which all potential risks to water quality are identified and effective measures are taken to minimise any threat to drinking water quality at all points along the delivery path from catchment to tap;
- conserve and enhance our water supply catchments so our source water is adequately protected;
- manage water quality at every point from the source to the consumer;
- undertake accurate, timely, and meaningful monitoring and reporting to supply prompt and relevant information to our customers and regulators that supports confidence in our drinking water supply;
- ensure effective incident and emergency response plans are in place, reviewed and executed as required;
- ensure all water supply staff and contractors involved in the supply of drinking water are aware of the importance of maintaining drinking water quality at all times, including the provision of regular water industry training and qualification in these areas;
- welcome customer feedback on water quality issues and respond effectively to meet customer concerns and needs;
- engage in the development of industry regulation and guidelines, and undertake targeted research and development aimed at better understanding and improving drinking water quality;
- use a Total Water Cycle Management approach to identify issues and inform long-term planning and strategy;
- continually review and improve our work practices by assessing the performance of our water supply against criteria including the ADWG 2011 (for health and aesthetic), considering our customers, our regulators, and our business drivers;
- incorporate our stakeholder needs into our water quality planning and management activities;
- maintain effective disinfection of the water supply distribution system

The principles in the ADWG 2011 are:

- multiple barriers are required to protect drinking water quality
- the most effective barrier is the protection of source waters
- source water should be protected to the maximum practical degree
- water quality should be maintained at the highest practicable quality, and
- water quality should not be degraded even if it complies with guideline values by a safe margin.

PMHC has adopted a risk management approach to the management of water quality in its water catchment areas and source waters. We conduct drinking water quality assessment studies to determine the water quality risks and hazards present, by using the following approach:

- a hazard is identified
- objectives are created for managing known hazards
- management strategies are employed

- risks associated with the hazard are assessed
- processes become better understood
- management objectives are reviewed, and
- indicators are measured.

Some drinking water quality variations will exist within the Port Macquarie and Camden Haven water supply schemes, which are unfiltered water supplies.

1.3.6 Drinking water pressure

PMHC will endeavour to ensure that drinking water is supplied to properties at a minimum pressure of 200 kilopascals (20 metres head of water) at the point of connection to PMHC's water supply main, under normal operating conditions.

A number of designated low water pressure areas have been identified in various locations due to the ground elevation of the affected properties. In these locations, property owners are required to install and maintain approved private break tank and booster pump arrangements.

1.3.7 Life support/Dialysis

Premises connected to the public water supply that require water to operate a home-based life support machine are requested to notify PMHC. PMHC will ensure all practical steps are taken to provide an uninterrupted water service and advance notification of any planned interruption to the water supply service can then be arranged. In addition, PMHC will endeavour to contact the resident as soon as possible in the event of any unplanned interruption and make alternative arrangements for supply. For customers on a home dialysis machine requiring water supply to operate, PMHC has also agreed to a reduction in the usage component of the annual water account.

1.3.8 Fire hydrants and other fittings

PMHC installs and maintains hydrants in its water mains at convenient distances and places for the ready supply of water to extinguish fires and for operational purposes. Hydrants are installed in accordance with AS 2419.

Members of Fire & Rescue NSW and the NSW Rural Fire Service and PMHC's water supply staff are the only persons approved to access or operate fire hydrants. PMHC's water supply staff are the only persons approved to access or operate all other water supply fittings. It is an offence under the *Local Government Act 1993* to remove, tamper or interfere with PMHC water infrastructure without prior approval from PMHC's Water and Sewer Planning section.

Where a development requires a private hydrant for fire coverage, an annual test report is required for each private in-ground hydrant installation.

1.3.9 Reliance on water supply

Where sites are heavily dependent on a continuous supply of water (e.g. a manufacturing or operational process), it may be prudent to consider contingency arrangements independent of the town water supply in the event of a water supply interruption. Any such arrangements would be at the cost of the individual site owner and would require PMHC approval.

1.4 Factors affecting Water Supply Service and Infrastructure

1.4.1 Unplanned interruptions

Every effort is made by PMHC to ensure a reliable water supply service however in the event of an unplanned interruption, PMHC will minimise inconvenience by:

- restoring the service as quickly as possible;
- providing as much information as practicable based on the best information available at the time;
- providing an alternative supply of bottled drinking water during such events; and
- flushing the water supply system to reduce the impacts of possible dirty water caused by such events.

Unplanned interruptions include water main breaks and supply interruptions. If problems with the water supply are experienced, customers can contact PMHC on (02) 6581 8111 (business hours) or (02) 6583 2225 (after hours).

1.4.2 Planned interruptions

Planned interruptions to water supply services are necessary to allow for routine maintenance of the water supply system.

PMHC will endeavour to inform affected customers of the expected time and duration of any planned interruption, prior to the work being undertaken.

1.4.3 Repairs and maintenance

PMHC will leave work areas and immediate surrounds as near as possible to the state which existed prior to the works being undertaken, unless otherwise agreed with the property owner.

1.5 Water Supply Levels of Service

1.5.1 PMHC's targeted Levels of Service

The target levels of service for the PMHC water supply system are summarised in Table 1. These levels of service are targets that PMHC aim to achieve and as such are not considered a formal customer contract.

Table 1: Targeted Levels of Service

Description	Unit	Level of Service
Availability of Supply		
Normal Quantity Available		
Annual Tier 1 allowance, 20mm meter (refer to Section 3.1.1 Tariff Structure)	kL/property/year	270
Fire Fighting	% of service area	100%
Compliance with Building Codes and Fire & Rescue NSW requirements		
Pressure		
Minimum pressure *(measured at a flow rate of 0.15 L/s per tenement at PMHC's watermain adjacent to property boundary)*	Metres head	20
Maximum static pressure	Metres head	90
Restrictions to Supply (refer to Section 6 of this document)		
Interruptions		
Planned Interruption		
Notice to domestic customers	Hours	24
Notice to commercial customers	Days	2
Notice to industrial customers	Days	7
Notice to special customers	Days	7
(Special customers include schools, nursing homes and home dialysis patients and are given a personal notice.)		
Maximum duration	Hours	8
Maximum frequency	Customers/year	1
Unplanned Interruption		
Maximum duration during working hours	Hours	6
Maximum duration after hours	Hours	18
Maximum frequency	Number/year	2
Response Times		
Supply Interruptions		
Working hours	Hours	1
After hours	Hours	2
Minor problems/general inquiries		
Oral	Working days	1
Written	Weeks	3
Time to provide new connection in serviced area		
for 80% of requests	Working days	20
Water Quality		
Microbiological	% of samples	100%

1.5.2 Catchment areas, pumping stations and reservoirs

Public access to PMHC owned land, including catchment areas surrounding the water supply off-creek storage dams, is restricted and strictly controlled in order to ensure the quality of drinking water supplied to consumers. Similarly, public access to other water supply sites and infrastructure including river intakes, pumping stations, water treatment plants and reservoirs is restricted and strictly controlled at all times.

PMHC maintains an extensive network of telemetry equipment to operate the water supply network. Approaches by external providers for installation of equipment on PMHC telemetry installations or reservoirs will not be considered.

2. Water Supply for Development

2.1 New Water Connections

2.1.1 Water services installation

An application is required to connect to PMHC's water supply system. Refer to 'Water Meter Hire Agreement' on PMHC's website.

The type and location of the connection is at the sole discretion of PMHC.

The minimum water service for individual residential and some small business connections is 20mm. Commercial/business connections require a hydraulic assessment to confirm the service size is adequate. The minimum water service size for industrial premises must be 25mm unless justification is provided in the form of hydraulic calculations by a suitably qualified hydraulic consultant.

Unless an alternative is approved by PMHC, connection pipework from PMHC's water supply system to the meter assembly must be in copper pipe Type A to AS 1432 or PE100 PN16 polyethylene pipe (refer to PMHC Aus Spec).

All pipes, valves, devices, and fittings connected to PMHC's water supply system are to be rated for a safe working pressure of at least 1200kPa (120 metres pressure head) and shall be fit for purpose in accordance with the relevant Australian Standard.

2.1.2 Water meter installation

Water meters are to be located within the property boundary, at the discretion of PMHC. The property owner must ensure the meter is accessible to PMHC's water meter readers at all times, which may include to provision of boundary fences and wall recesses and/or fence setbacks.

Installation of a bollard may be required to protect the water meter as directed by PMHC. For cluster housing or multiple dwellings on a single site, single location central metering is permitted with appropriate easements provided for services and vehicle access.

The charge for a new, single 20mm meter installation is set each year in PMHC's Fees and Charges document. For multiple services or for water meter sizes greater than 20mm, the charge will be the actual cost of installation.

PMHC staff may enter private property to effect any necessary alterations, repairs to or replacement of the water service or water meter. Only PMHC staff may install water meters.

2.1.3 Large water services

All applications for services larger than 25mm are to include:

- hydraulic calculations that address flow, pressure and velocity requirements of AS3500.1;
- a plan, to a scale of not less than 1:100 that clearly indicates the position of the water meter on the property, the type of materials and nominal size of all water service pipes, the position of all stop valves, stop taps, backflow prevention devices and other valves, any water storage to be provided, including air gap requirements, overflow pipe arrangement and any booster pumps; and
- complete details of any fire service, booster pump or irrigation system installed.

2.1.4 Properties previously not rated for water supply

Properties that can be provided with a water service but have not been charged for water supply historically will be charged a connection fee will be levied equivalent to the headworks contribution applicable at the time of application, less the amount previously paid in water access charges, plus the quoted cost of the installation.

2.1.5 Strata and multi-residential developments

Multi-residential developments include multi-storey, Strata, Community Title, Manufactured Home Estate, and integrated housing developments. Each occupancy within a multi-residential development must have their own individual isolation valve and an individual meter located in a position approved by PMHC (refer to the current *Plumbing Code of Australia and AS3500).*

All individual residential units are to be provided with a separate external (i.e. located at the property boundary) or internal water meter to register water usage for each unit with a master meter at the boundary.

The location of internal water meters will be in foyer areas, secure and accessible for meter reading, otherwise a remote reading display facility shall be provided by the property owner, at an approved central location, easily accessible by PMHC water meter readers.

2.1.6 Torrens Title developments

The following water meter arrangements are to be provided for Torrens Title developments:

- individual water meters are to be provided at the property boundary of each Torrens Title with the exception of lots designated for future subdivision (i.e. parent lot of large developments);
- individual water meters are to be provided at the property boundary to separate residential and commercial water services within the development site and/or building;
- internal water meters are to be provided for each residential and/or commercial unit and a central meter readout station is to be provided adjacent to PMHC's water meters; and
- a single fire service connection point is to be provided for each building (if required).

2.1.7 Non-connection to PMHC's water supply system

Where a property has an alternative onsite water supply source which meets all statutory and guideline requirements including those of NSW Health and Fire & Rescue NSW, the property will only be levied the minimum water 'Access Charge' (i.e. residential 20mm or business/industrial 25mm water 'Access Charge').

Application of the water 'Access Charge' is based on the following provisions:

- fire-fighting coverage and protection is still available and provided by PMHC's hydrants within the street frontage to the property; and
- the area is within the designated water service area and PMHC has made a capital investment to provide the opportunity to connect to town water.

Should a water supply service connection be required in the future, the applicable water supply headworks and distribution charges are required to be paid. The amount is credited with any previous payments for headworks and distribution and/or annual water access charges.

2.1.8 Water connections in rural areas

Where a property does not have frontage to PMHC's water supply system, property owners can apply to PMHC to extend the water main. If a property owner wishes to proceed and the application is approved, payment for the extension of PMHC's water supply system (i.e. water main) to an agreed point within the road reserve is required and is to be paid for by the applicant. Applicable headworks charges, as approved in PMHC's Development Servicing Plan and any other fees and charges, as calculated and/or set each year by PMHC through ***Fees and Charges***, will apply.

Individual water services traversing parallel to the road are not permitted without formal approval from PMHC's Water and Sewer Engineering Planning Manager.

2.1.9 Designated private supply lines

PMHC no longer supports these types of connections, and new applications will not be considered.

A number of existing private supply lines have been allowed in the past. In these cases the property residence is located a long distance from the PMHC main and water meter, and is generally not in a defined water supply service or residential area. Private supply lines may also have been permitted to pass through a number of properties by agreement with adjoining owners.

Private supply lines are the responsibility of the owner to maintain, including payment of excess water accounts due to failure of the private line.

2.1.10 Fire services

Generally, PMHC's water mains are located on a public road, public reserve/pathway or water supply reserves. A property owner will normally be required to install a private water hydrant (or hydrants) wherever an existing or proposed development is out of the reach of a street hydrant and has a fire compartment exceeding 500 square metres in floor area.

New urban residential release areas shall have hydrants installed to comply with Fire & Rescue NSW's guideline *Fire Hydrants for Minor Residential Development (2016).* The maximum design spacing for hydrants is 60 metres.

Where fire service coverage from a street fire hydrant is not practical, either a private fire service or a tank storage alternative acceptable to PMHC's Development and Environment Division, Fire & Rescue NSW and NSW Rural Fire Service will be required.

All proposed fire services plans and requests must be submitted to PMHC after they have been certified by a suitably qualified hydraulic consultant and either Fire & Rescue NSW or NSW Rural Fire Service as relevant.

All fire hose reels shall be connected to a metered service (refer to the current *Plumbing Code of Australia*). Where this is not currently the case, PMHC will consult with property owners with the view to installing a complying connection, at the owner's cost.

2.1.11 Water Pressure Certificate

PMHC can provide a water pressure certificate for the hydraulic design of fire service installations, after receipt of the PMHC application form with the nominated flow rate and payment of the applicable fee, as set each year by PMHC through ***Fees and Charges***.

2.1.12 Cross-connection control

A backflow prevention device is used to protect water supplies from contamination and may include (but is not limited to) a break tank, registered air gap, pressure vacuum breaker, reduced pressure zone device (RPZD) or testable double check valve.

All backflow prevention devices are the **responsibility of the property owner**.

Property owners may need to install a backflow prevention device as part of their connection to PMHC's water supply system.

All new connections where activities carried out on the property could endanger health or potentially cause death, must have a backflow prevention device installed in accordance with the current *Plumbing Code of Australia* and *AS 3500.*

All medical-related facilities are to have an RPZD as a minimum backflow protection.

PMHC may require existing premises connected to PMHC's water supply system to be provided with a backflow prevention device for containment at the property boundary. All backflow prevention devices installed for the purpose of site containment must be registered with PMHC, with payment of the applicable fee, as set each year by PMHC through ***Fees and Charges***.

Backflow prevention devices shall be installed on the customer's side of the water meter with no connections between the water meter and the device. On a separate hydrant and sprinkler fire service on a non-residential property, the device shall be installed close to where the water service crosses the property boundary, prior to any booster assembly.

All backflow prevention devices must be tested on an annual basis with a '*Backflow Prevention Inspection Testing and Maintenance Report'* submitted to PMHC. PMHC can undertake this work after payment of the applicable fee, as set each year by PMHC through ***Fees and Charges.***

If PMHC determines that the backflow prevention device is unsatisfactory, the owner will be required to repair, maintain, test or replace the backflow prevention device, at the owner's expense.

Backflow prevention devices may reduce the pressure and flow rate of the water supply to the premises. It is the owner's responsibility to undertake, at their cost, any works on the premises necessary to provide adequate water flow rate and pressure for their needs. A licenced plumber shall carry out any works related to the house water supply system.

2.1.13 Easement for water service

The location of water services in easements other than a vehicular access-related easement for the property being served will not be permitted due to the risk of undetected interference with the water service. This can happen in the form of damage, contamination or illegal connection if the easement is not in an area fully accessible to and able to be overseen by the serviced property owner.

2.1.14 Private water hydrants

Where a property owner installs a private water hydrant within their internal water system, all associated maintenance costs are the responsibility of the property owner. This includes the backflow prevention device (single detector-check), gate valves, pipework and associating coating (i.e. maintaining red paint).

Where underground hydrants are installed in a private water system, they shall be spring type, manufactured to AS 3952, with an approved thermal-bonded coating to AS 4158 and installed in accordance with AS 2419.

Private water hydrants must be located on land under the control of the property owner, who will be responsible for all water charges. The hydrant is not to be located in easements or Rights of Carriageway.

Testing requirements for these services is outlined in section 1.3.8.

2.2 Water Metering

This section outlines information and requirements for water meters in the PMHC Local Government Area - this is applicable to both potable and recycled water meters. Note there are further specifications around recycled water fittings detailed in the Recycled Water Information and Guidelines 2021.

2.2.1 Meter security

The owner of the premises on which the water meter is located must, if required by PMHC to do so, protect the meter by enclosing it in a lockable box constructed of metal, wood or other strong durable material.

The owner of the premises must, if PMHC so requires, deposit with PMHC the key to the water meter or, if it is enclosed in a meter-box, the key to the box immediately after the meter or box is installed.

If the property owner wishes to have a lockable meter valve installed, application is to be made to PMHC to carry out this work at the property owner's expense.

2.2.2 Meter replacements

PMHC has a water meter replacement program to ensure accurate recording of water usage through each water meter. PMHC will replace the meter at no cost to the property owner if the meter:

- is found to be defective
- can no longer be reasonably maintained, or
- is replaced as part of a meter replacement program.

PMHC will attempt to notify the property owner at the time of replacement and advise that a new meter has been installed. A mutually acceptable time will be negotiated with commercial customers for the replacement of meters.

PMHC can test your water meter if you feel it is not recording water usage accurately - please complete the application form on our website and make payment of the applicable fee, as set out each year by PMHC through ***Fees and Charges***. See clause 1.2.10 Meter Testing in PMHC Water Supply Tariff and Billing Procedure.

2.2.3 Meter relocation

All water service and water meter relocations are at the owner's expense.

2.2.4 Multiple meters

All water services connected to PMHC's water supply system must be through an independent house service pipe and a single water meter. PMHC will work with property owners whose water service connection does not comply with this requirement to install a complying connection at the owner's cost.

2.2.5 Upsizing/downsizing meters

The size of water meters is based on hydraulic considerations. If a property owner wishes to change the size of the installed water meter, an application, with payment of the applicable fee can be made to PMHC for a quote to undertake the works. The application must be accompanied by hydraulic calculations signed off by a suitably qualified hydraulic consultant.

The cost of changing the water meter will be at the owner's expense.

PMHC is not obliged to approve an application to change the size of the water meter.

Where residential customers have been required to install a 25mm water service (e.g. some battle-axe blocks), PMHC will work with the property owner to determine if they can be provided with a 20mm meter, as part of the water meter replacement program.

2.2.6 Water leakage investigation

PMHC can undertake an investigation of water leakage in private water systems, after the payment of the applicable fee, as set each year by PMHC through ***Fees and Charges***.

2.2.7 Private water meters

PMHC may permit the use of privately owned meters within the water system if they are of an authorised design and type (WaterMark certified).

If approved for use in a property owner's water system, PMHC sell in-house water meters for an applicable fee, as set each year by PMHC through ***Fees and Charges***.

PMHC can read private water meters for an applicable fee, as set each year by PMHC through ***Fees and Charges***. Reading of internal water meters will only be undertaken if the following criteria is met:

- The location of internal water meters is in foyer areas, secure and accessible for meter reading, otherwise a remote reading display facility shall be provided by the property owner;
- The meters can be easily accessible by PMHC water meter readers; and
- Installation meets the relevant Council and Australian Standards.

2.3 Augmentation of Water Supply System

2.3.1 Standards and Specification requirements

National Codes Initiative

The Water Services Association of Australia (WSAA) has developed a series of national codes of practice covering the design and construction of water infrastructure. Benefits of these national codes include:

- Facilitation of consistent national reform and regulation of the water industry;
- Provision of a transitional mechanism for sharing water-industry specialist expertise as internal water resources diminish;
- Provision of a common technical reference for the development of industry training and skills accreditation programs for private sector suppliers;
- Enhancement of the mobility of suppliers, e.g. designers and constructors, by reducing parochial technical impediments to trade; and
- Improvement of the Australian water industry's interface with international companies.

PMHC's Codes

With these benefits in mind, PMHC has progressively adopted the following codes as the foundation to its technical specification (Aus-Spec Design Specifications) for the design and construction of water assets in the PMHC LGA:

- WSAA Polyethylene Pipeline Code - WSA01-2004
- WSAA Water Reticulation Code of Australia - WSA03-2011 V3.1
- WSAA Pressure Sewerage Code of Australia – WSA07 – 2007 V1.1

PMHC is currently developing a Supplement to each Code, which will contain additional information to cover:

- PMHC's detailed requirements for specific matters, which the Code anticipates individual water agencies will address; and
- Variations to the Code where its requirements are not compatible with PMHC's specific requirements.

The design of any augmentation works required is to be based on guidelines contained within the Aus-Spec Design (ASD) Specification. The ASD Specification currently consists of a supplement Code to accompany the WSAA Water Reticulation Code of Australia - WSA03-2011 V3.1 and includes a suite of ASD design drawings, which can be found on PMHC's website.

2.3.2 Headworks and distribution charges

Headworks and distribution charges are applicable as described in PMHC's Water Supply Tariff and Billing Procedure for any planned augmentation of PMHC's Water Supply System.

2.3.3 Development Consent conditions

Where a Development Consent requires a development to augment water supply infrastructure, the following conditions will apply:

- the design of the augmentation works required shall be based on guidelines contained within the Aus-Spec Design Specification;
- where the infrastructure is included in PMHC's Section 64 Water Supply Contribution Plan, the work may be completed by the developer and offset against the contribution for that development. PMHC may elect to undertake the work, in which case, the full contribution is required;

- where PMHC undertakes the work, the contribution required will be calculated by PMHC and paid by the developer prior to the work proceeding. Where the developer undertakes the work and a contribution offset is required, the design and the value of the work shall be approved and agreed upon prior to the work commencing;
- failure by the developer and/or consultant to obtain prior written design approval and cost agreement from PMHC will result in a nil offset being applied to the work; and
- where PMHC has identified potential future demand for infrastructure over and above that required by the development in question, PMHC may elect to increase the size of the infrastructure and meet the additional cost over and above the contribution calculated.

2.3.4 Extensions and additions to existing developments

All internal hydraulics not complaint with current *Plumbing Code of Australia* standards and/or presenting a health and safety risk, will be required to upgraded in line with current *Plumbing Code of Australia* and *AS 3500.*

2.3.5 Additional water mains in roads

Where a development results in the need to upgrade watermain pipework, the applicant is required to fund a new watermain capable of serving the proposed development as well as the existing watermain capacity.

Should PMHC request additional capacity, then PMHC will contribute to the approved additional cost.

2.3.6 Disconnection of existing services across boundaries

Where a parcel of land is subdivided, any internal plumbing from the original parent Lot subsequently passing into the annexed Lot, will be disconnected at the boundary.

2.3.7 Disinfection and pressure testing of new watermains

All new watermains that are to be connected to PMHC's water supply system will need to be pressure tested and disinfected prior to commissioning in line with PMHC requirements. Developers must apply to PMHC using the appropriate form and pay the applicable fees and charges for this work, as set each year by PMHC (through ***Fees and Charges***).

Connection to the PMHC water supply network is to be completed by PMHC staff or under PMHC supervision as agreed with the applicant. Every effort will be made by PMHC to provide isolation of watermains to permit interconnection at the date, time and for the period requested in this application. If this cannot be accommodated, the applicant will be advised and given notice on a suitable time and any extra charges that may apply.

2.3.8 Easement creation for watermains

In accordance with the Aus-Spec *Design Manual*, the location of watermains that will become part of PMHC's water system on private property is to be avoided. Where a watermain cannot be located in a dedicated public road reserve or access way, it may be located within an appropriately sized and registered easement, subject to PMHC's approval.

Where watermains are located in an easement in favour of PMHC they must be a minimum of five metres wide. Unless there are compelling reasons to the contrary the watermain shall be located in the centre of the easement. Where vehicular access is required along the water main route, the easement width is to be not less than 7.5 metres. Easements in rural zoned areas and steep terrain are generally to be 10 metres wide.

A Registered Surveyor shall survey easements and certify the location of pipelines within the easements.

2.3.9 Protection of pipelines and easements

The location and protection of water supply infrastructure remains the responsibility of the person and/or organisation undertaking any excavation or associated works. The 'PPP' approach of 'Plan, Pot-Hole and Protect' must be applied at all times when works are undertaken in the zone of influence associated with any water supply infrastructure.

Upon request, PMHC will provide plan details and/or onsite locations to assist with the location of water supply infrastructure including buried pipelines and associated fittings. PMHC also provides an online mapping application on our website which enables enquiry about our underground services. However, any damage and/or subsequent failure of these assets due to excavation or other site works will be rectified by PMHC and the cost of such rectification works will be charged to those identified as responsible for such damage and/or failure.

Special conditions including building, structures and excavation exclusion zones apply to all water supply pipelines and/or easements in favour of PMHC on public and private land.