POLICY NAME:	**WATER METERING**
POLICY REF:	**W02**
MEETING ADOPTED:	**24 August 2017** **Resolution No. 240817/22**
POLICY HISTORY:	**280416/23; 230212/34; 250107/023**

TABLE OF CONTENTS

OBJECTIVE

The purpose of this policy is to develop a standard water meter assembly policy. The policy defines Council, owners and plumbing contractors' responsibilities for installations, maintenance, disconnections, reading and monitoring of water meters.

POLICY

Introduction

This Policy is intended to provide information and legal requirements for Customers connected to Council's drinking water and recycled reticulated water supplies in the Ballina Shire Council Local Government Area.

All water and recycled water services must comply with this policy and will be controlled by Council's *Water & Wastewater Section, Civil Services Group.*

Disclaimer

An application for Water Service under this policy does not negate the need for the applicant/developer/property owner to submit to Council the following for assessment and approval when required:

- Section 68 Application for the proposed works prior to works being undertaken.
- A Development Application (DA) if required
- A Complying Development Certificate (CDC) if required
- Any other application deemed necessary by legislation or Council policy.

The submission of an application does not guarantee that an approval to connect will be granted.

Responsibilities

- Ballina Shire Council exercises its water supply functions under Division 2 Part 3 Chapter 6 of the *Local Government Act 1993*:

- Ballina Shire Council (BSC) is responsible for the pricing and installation of water meter assemblies for the provision of potable water and recycled water. BSC is responsible for the water service from the water main to the outlet of the meter and/or the backflow prevention device and isolation valve as required.

- BSC is responsible for the pricing and installation of water service assemblies for the purpose of fire protection. This includes the water service from the water main to the backflow prevention device and or by-pass detector meter assembly up to and including the downstream isolation valve as required.

- BSC is responsible for the installation and maintenance of pipe work, meter, and valves from the water main to the private property, to a distance of no greater than 1000mm into the private property. The maintenance of water pipes greater than 1000mm from the property entry point is the responsibility of the property owner regardless of where the meter or water assembly is located.

- Only Council staff are permitted to work on Council infrastructure. Misuse of or tampering of Council infrastructure including meters and valves may result in costs to investigate and rectify being charged to the Customer.

- For developments on unpressurised mains the developer is responsible for house connections to the reticulated main. As per Council's standard drawing design *SP066* which is available from Council on request. The service connection is to be terminated inside the property boundary with a service isolation valve inside a termination box and fitted with an approved corrosion resistant magnet for locating purposes.

  When the main becomes live and a water meter is required the developer/builder/owner shall make an application for water service to Council. Council will complete the installation by providing a riser and water meter. Developers, plumbers or any other entity are not permitted to work on or connect to Councils pressurised mains.

- For development sites fronting pressurised mains the developer/builder/owner will make an application to Council for a house connection. As per standard drawing design *SP066* which is available from Council on request Council will terminate the service inside the property boundary with a service isolation valve inside a termination box. When a water meter is required the builder/owner shall make an application for water service to Council. Council will complete the installation by providing a riser and water meter.

- Ongoing service and maintenance of backflow prevention devices are the responsibility of the property owner as per the Plumbing Code of Australia (PCA) Australian & New Zealand Standards AS/NZS 3500

- Costing will be provided to the applicant in the form of an estimate only. Quotes cannot be provided to the applicant. Estimates are subject to change and are current for 60 days only.

- The licensed plumbing contractor is responsible for providing connection from the private property side of the water service to the meter assembly.

- The licensed plumbing contractor is responsible for providing permanent structural support to all water meter assemblies when connecting the private property side of the water service.

- The applicant is responsible for clearly marking the desired position of the water meter assembly on the application form within the space provided, or with a site plan along with measurements and details required.

- Council's connection to the main will be installed perpendicular to the meter assembly location. Council recognises that certain situations may not allow this.

Conditions

1. Completeness

Water Service Applications are to be completed in full and submitted with the necessary design details or plans. Applications with inadequate detail will not be assessed or priced by Council. Council's Customer Service staff will not accept incomplete, or unsigned applications.

2. Where Hydraulic Designs are required

The following will require hydraulic design provided by a suitably competent and qualified person, (COP 2.2.8), which will need to be accompanied by a design/compliance certificate by a suitably qualified person to the satisfaction of Council's *Water & Wastewater Strategic Engineer*:

- Any fire service assembly, including Fire Hose Reels, and/or
- Unit demand of 3 units and greater, and/or
- 32mm assemblies or greater.
- Or when requested by Council

A *Section 68* Application under the provisions of the *Local Government Act* must be submitted to and approved by the appropriate section of Council prior to the issue of a Construction Certificate and/or work being undertaken.

Such application must be accompanied by suitable hydraulic plans and associated detail of drinking water services, fire services, and any recycled water services.

3. Applications and Tendering

- Prices will not be provided by Council to plumbers or contractors for the tendering process.
- The owner of the property or the plumber commissioned for the job (the applicant) only may make a request for water services and an estimate may then be provided.
- Properties with a body corporation or multiple owners must have the written permission of the owner's corporation, or the property's entire owner's which must accompany the submitted application.
- Applicant's wishing to convert a single metered multi unit or duplex property to individual meters must show that a NSW licensed plumber has undertaken satisfactory investigation into the altering of the private owned component of the properties water service, and that these alterations are able to be carried out.

4. Location of Water Meters

- Generally the meter(s) will be installed approximately 500mm to 1000mm inside the property boundary. The maximum distance being 1000mm from

the front and side boundaries typically at 90° to the road/front boundary. Further fees may apply if an alternative location is required.

- Meters must be readily accessible for reading, maintenance or removal and be clear of obstacles. New meters should not to be installed below ground, in locked cabinets or behind high fences.
- If a new or existing meter requires relocating the costs shall be at the expense of the applicant.
- When it is impractical or there are 3 or more meters required to serve a property; remote metering will be required if signal is available at that location. (See 11 of this Policy)

5. Backflow Protection

- All backflow prevention devices to comply with AS 2845.1
- All backflow prevention shall comply with Ballina Shire Council's *Backflow Prevention Policy 2012*
- All services are to have a minimum of a dual check device
- The type of backflow for individual, zone and containment protection is as per AS/NZ 3500 appendix F table F1-F3
- Registered break tanks, air gaps, pressure-type vacuum-breakers, reduced-pressure-zone devices and double check valves require a test frequency not exceeding twelve months (AS 2845.3), and are the responsibility of the property owner
- Testing of any Backflow Prevention device shall comply with Council's *Backflow Prevention Policy 2012,* and will be at the property owner's expense.
- Only NSW Licensed plumbers with *NSW TAFE Backflow Prevention Certification* may install, test, maintain, or certify backflow prevention devices.

6. Fire Services

- Fire services are required for buildings based on floor area, building levels as per the Building Code of Australia
- An application for a fire pressure certificate from Council's *Water and Wastewater Strategic Engineer* is required
- After receiving the pressure certificate, hydraulic details prepared by a qualified hydraulic consultant are to be submitted to Council with a compliance/design certificate for Council assessment
- Above ground isolation valves shall be a full flow outside screw and yoke wheel, resilient seated gate valve or approved butterfly valve closed by rotating the handle clockwise

- Below ground isolating valves shall be resilient seated key operated sluice valves

- The plumbing contractor is responsible for labelling and securing all fire services as per Australian Standards.

6.1 Where Inline Meters are not Permitted

- Where the metering of water used for fire protection is required, in line meters shall not be installed. The preferred method is a metered bypass across a double check detector assembly (COP 6.5). This includes Fire hydrants installed in accordance with AS 2419.1, Booster pumps (AS 2419.1) sprinkler services (AS 2118.1), window or wall drencher systems.

- Window or wall drencher systems must be separate and distinct from all other services (AS 2118.1 cl 4.4.1). Large/complex installations will require metering across a double check detector assembly.

6.2 Where Inline Meters are permitted

- Hose Reels shall be connected to a metered service (COP 2.2.2), which can be inline metered. The minimum size service for a single hose reel is 25mm.

- A 32mm service is normally provided to allow for pressure and flow fluctuations. Where fire hose reels are connected there shall be no line strainer provided prior to the water meter (AS 3500 cl 4.6.1).

- Where practical it is preferred that all fire hose reels come off the domestic service to reduce tapings to the main and standardise installations.

7. Urban Rainwater Tanks

It is extremely important for the health and wellbeing of all Ballina Shire Council residents and visitors to ensure that Council's reticulated drinking water supply is protected from contamination from outside sources. One of the greatest risks of contamination of the drinking water supply is from cross connections with rainwater tanks.

Whilst the majority of rainwater tanks are well cared for it only takes one poorly managed or maintained rainwater tank to infect the drinking water supply which could cause sickness or even possibly death.

7.1 Where rainwater tank installations have been designed and installed so as to allow a top up connection with the drinking water supply the following is required:

a) Zone Protection – zone protection shall also be provided by installation of an authorised backflow prevention device, suitable for the degree of hazard and sized to suit the water service. The

backflow prevention device shall be fitted immediately upstream on the drinking water service at the point of connection.

Where a hot water service is fed by a rainwater supply, or any alternative water supply (e.g. bore or dam water), or a temperature control device is installed and connected to the mains drinking water supply, then a suitable backflow prevention device shall be fitted upstream on the drinking water service at the point of connection.

b) Containment protection – where a rainwater tank is to be connected (either directly or via an air gap), with the on-site drinking water supply, the mains supply shall be protected by installation of an authorised backflow prevention device, suitable for the degree of hazard and sized to suit the water service, fitted immediately downstream of the water meter or integral with the water meter.

c) Council may permit a non-testable backflow prevention device to be used as zone protection for above ground rainwater tanks and a water meter with an

d) Integral dual check valve for containment if the drinking water service is DN 20 - DN 25.

e) Council shall permit a non-testable (Vented Dual Check Valve (VDCV)) backflow prevention device to be used for containment protection and a no-testable device for zone protection for any fully or partially buried rainwater tank(s) installation.

f) Council reserves the right to require greater backflow prevention or to disallow cross–connection if rainwater tanks or any other fixture within the property is are not installed or operated in strict compliance with Council requirements.

g) Where any sides of the rainwater tank are buried, or have soil or other such material in contact with the walls of the tank, the tank shall be treated as a fully buried tank for backflow prevention requirements.

h) For a tank to be above ground it must be clear of any embankment, fill or the like.

i) All water supply systems for rainwater tanks shall be installed as per the Plumbing Code of Australia (PCA) Australian & New Zealand Standards AS/NZS 3500

j) Any top up mechanism shall incorporate a device to limit the flow rate to 4.0 litres per minute.

k) The connection to the rainwater tank shall be by a visible air gap external to the tank, or an approved auto change over device.

l) Manual changes over devices are strictly not permitted.

m) Any topping up from a non-drinking water supply (if permitted) shall be clearly marked/labelled and visible.

n) All permitted outlet points supplied by the rainwater tank shall be clearly marked/labelled as *"Rainwater"*.

7.2 Above ground rainwater tanks are to have as a minimum a Dual Check Valve (DCV) as zone and containment protection as required under the Plumbing Code of Australia (PCA) Australian & New Zealand Standards AS/NZS 3500

For a tank to be above ground it must be clear of any embankment, fill or the like.

7.3 Fully or partially buried rainwater tanks are to have as a minimum a Testable Double Check Valve (TDCV) or a Vented Check Valve (VCV) as zone and containment protection, as required under the Plumbing Code of Australia (PCA) Australian & New Zealand Standards AS/NZS 3500

Where any sides of the rainwater tank are buried, or have soil or other such material in contact with the walls of the tank, the tank shall be treated as a fully buried tank for backflow prevention requirements.

7.4 Council does permit the interconnection of rainwater tanks with the potable or non-potable water supplies. The New South Wales department of health does not recommend consumption from rainwater tanks where a potable water supply is provided.

7.5 Rainwater tanks installed in areas with a reticulated recycled water supply (e.g. Cumbalum Heights etc), are not permitted to have any type of top up device for the rainwater tank. This must be strictly complied with and all top up devices from any water supply, be it drinking water or recycled water, shall not be permitted.

7.6 Interconnection from a rainwater tank to any other water supply or plumbing fixture is not permitted in areas with a reticulated recycled water supply (e.g. Cumbalum Heights etc).

8. Rural Connections and allotments without access to reticulated water mains

- Rural areas are defined, in this case, as areas (or allotments) where no standard urban reticulation systems are present.

- Trunk mains are not standard urban reticulation systems. The reasons Council do not allow connections to trunk mains are as follows. Council can shut down trunk mains for periodic maintenance without prior notification to customers. Trunk mains are generally between two reservoirs hence the need for additional protection of the potable water supply. Pressure fluctuations are not regulated to the same extent as urban reticulation systems.

- A written submission is required for Council's consideration for a rural connection detailing any special considerations. It is at the sole discretion of the Council on a case by case basis as to whether a rural connection will be granted or not.

9. If Council Approves a Rural Connection

The following conditions apply:

- All rural connections must have backflow protection to Council's satisfaction.
- Any property with its own Onsite Sewage Management System (OSSMS) or Greywater Treatment System (GTS), or a Grey Water Diversion Device (GDD) must comply with BSC's *Backflow Prevention Policy 20124*, and have as a minimum a testable backflow prevention device installed at the water meter assembly at the owner's expense.
- 20mm connections only are permitted as the water supply is for domestic purposes.
- Council makes no guarantee as to the quality and quantity of supply.
- A storage tank and pressure pump system to distribute the water supply to the dwelling is required. The owner's water supply line from the meter must only discharge into this storage tank. The discharge can be via a visible air gap or in the case of an internal discharge point, with a registered air gap as per AS 2845 and AS 3500. There will be no connections in between the water meter and the storage tank.
- The tank shall be cleaned and disinfected at no greater than 2-year intervals.
- No headwork's charges will be levied, as this connection is not a guaranteed service to Council's service level standards for potable water supply.
- Where an extension of the main is required a meter will be installed just prior to the endpoint of the main. The owner is responsible for the running of appropriate pipe from this point and is responsible for its maintenance.
- Where the pipe is to be run along the Council road reserve a proposed pipe layout is required showing depth of pipe (minimum 600mm) and route for Council's consideration. It is the applicant's responsibility to obtain all required approvals, check to ensure other services will not be disrupted or damaged and that the public and any workers health and safety are not put at risk.
- If a private contractor is engaged Council will need a copy of their public liability insurance, Workers compensation policy and OWH&S policy. If the applicant is performing the works on their own. Public liability insurance only will be necessary.
- A traffic control or management plan is to be provided.

- Consult with Council's risk management officer before applicant is advised to proceed.

10. Recycled Water Installations

Recycled water connections will service various uses approved by Council, and must comply with the following:

- Where reticulated Recycled water supply is provided Ballina Shire Council will install both the potable and re-claimed water meter for the same fee as a single potable connection.
- Only a 20mm Recycled water service will be provided for domestic purposes.
- All internal recycled water fittings must be identified with appropriate signage as required and lilac in colour. The recycled water meter will also be coloured lilac.
- Rainwater tanks installed in areas with a reticulated Recycled water supply (e.g. Cumbalum Heights etc), are not permitted to have any type of top up device for the rainwater tank. This must be strictly complied with and all top up devices from any water supply be it drinking water or Recycled water shall not be permitted.
- Interconnection from a rainwater tank to any other water supply or plumbing fixture is not permitted in areas with a reticulated Recycled water supply (e.g. Cumbalum Heights etc).
- Interconnection from any Recycled water supply, water service, fixture, or storage tank to any other water supply or plumbing fixture is not permitted in areas with a reticulated drinking water supply, (e.g. Cumbalum Heights, etc).
- Commercial/industrial requirements must be sized to suit demand upon application and the associated hydraulic designs. All costs of the installation will be provided as an estimate for the commercial/industrial property owner.
- The potable water meter must be installed with the appropriate backflow prevention device as per Council requirements at the applicants expense. This meter will be located closest to the side property boundary.
- All external tap outlets on the potable supply shall also be lilac in colour and fitted with hose connection vacuum breakers and appropriate signage.
- All external tap outlets on the Recycled supply shall be as per AS 3500, Plumbing Code of Australia (PCA) Australian & New Zealand Standards AS/NZS 3500 and Ballina Shire Council guidelines.
- The lilac coloured Recycled water meter will be installed beside the potable water meter with at least 100mm separation between the two meters.

- All plumbers contracted to do works where Recycled services are available can be provided with a *Plumbers Information Pack.*

- Where the numbers of meters at the boundary become impractical see *remote metering* below.

11. Master / Subtract Meters

Where a property has multiple tenancies / services with the boundary of the property then each tenancy / service will be individually metered (called a Subtract Meter).

In this case there will also be a single, metered, connection between the internal water supply and Council's water distribution infrastructure (called the Master Meter).

By design all normal flow through a Master Meter should also be metered through a Subtract Meter, such that the sum of flow through the master meter minus the sum of flow through the subtract meters is zero (plus or minus meter inaccuracies, leakage and fire hose usage).

The Master Meter will have no access charge levied but will be used to capture leakage or inappropriate fire hose usage. Standard consumption charges will apply.

12. Automatic Meter Reading (AMR)

Automatic Meter Reading is to be installed in all new commercial, industrial and residential connections for drinking water and wastewater of the following type;

- Where there is more than two metered services on the property (except for residential dual reticulation services in which case where there are more than four

- All connections that are greater than 20mm

- Any location that has a master/subtract meter reading arrangement

- Any location that has a Category 2 or 3 liquid trade waste agreement.

- Any metered wastewater discharge

Where required to be installed for the reasons above, the applicant will be responsible for all costs to install and commission the devices.

Council may install AMR devices on any other new or existing water meter upon request for Smart Metering Services and payment of fee as per Council's fees and charges.

From time-to-time (say during trade waste approvals renewals); existing connections may be required to convert to AMR services to comply with these new requirements. In this case, once a condition of consent has been issued with the requirement to install the devices then they will be provided at full cost,

prior to the consent being issued the subsidised cost via Smart Metering Services is available.

Council may install AMR devices on any existing water meters for operational reasons.

Each AMR water meter would incur the appropriate water access charge as per Councils fees and charges.

The plumber contracted to install AMR water meters must call Council with a minimum of 48 hours' notice for a commissioning inspection upon completion of installations.

All meters & AMR devices will be provided by Council to the developer. Arrangements are to be made with Council as to how the meters can be collected for installation. All items supplied by Council must be taken possession of by the applicant's representative. Once handover and possession of items has occurred the items become the responsibility of the applicant. The cost to install the remote metering equipment, including any supplementary fittings or materials, is at the expense of the applicant/developer.

The applicant's NSW Licensed plumber is responsible for installing the remote read transducers to each sub-meter within the property to Councils satisfaction. Council can be contacted for instruction.

All meters with remote metering devices shall be located so they are easily located, accessible for reading, and able to be maintained or replaced and clear of obstacles.

AMR devices shall not be installed in locations that adversely impact on the ability of the device to transmit adequate signal strength back to Council's receivers.

Plans must be submitted to Council with the locations of all AMR water meters clearly identified.

Any missing items, stolen, misplaced or otherwise are the responsibility of the applicant after handover. Replacement items are at the cost to the applicant.

AMR water meters located on private property if found to be faulty must be replaced by the property owners' NSW Licensed plumber. The plumber is to contact Council to arrange for a replacement water meter. The old water must be returned to Council and exchanged for the new replacement water meter. The cost to install the new meter and refit the remote metering equipment, including any supplementary fittings or materials, is at the expense of the applicant/developer.

AMR devices will be analysed by Council's Rapid Customer Leak Detection algorithms. This algorithm will run once per week and generate a list of connections with suspected leaks. The timing and detail of those algorithms are subject to improvement and change without notice. Council will endeavour to notify customers of suspected leaks in their property once the leaks are detected. Council accepts no liability for being able to detect any leaks or informing customers once detected.

13. Disused Services and Demolitions

Where a service or part of a service becomes disused it shall be disconnected.

Where a property or part of a property is approved (or otherwise confirmed) for demolition, any service or part of a service that becomes disused must be disconnected prior to commencement of any demolitions works on site.

14. Disconnection from Council Reticulated Water Mains

Persons that require disconnection from Councils reticulated water services may apply to do so. Only property owners and or their representatives may apply to disconnect a water service.

All costs associated with disconnection of the water service are to be borne by the applicant and paid up front prior to Council undertaking works.

15. Damaged Water Meters

Where meters are damaged, these will be repaired by Council and an invoice for the costs incurred will be issued to the customer.

16. Water Service Compliance

All water service installations downstream of the property service meter shall be installed in compliance with the Building of Australia, Australian Standards, Plumbing Code of Australia (PCA) Australian & New Zealand Standards AS/NZS 3500, and Ballina Shire Council's requirements & Guidelines as necessary.

All Council water meters must be installed by Council approved staff only. Meters must be Council supplied and meet the relevant Council standards. Persons other than Council approved staff, must not alter, tamper with or install their own or any other meter.

On new blocks that have not been occupied or are vacant; any components of a Council water service (meter, valves, connection kits etc.), that go missing or are stolen, are the responsibility of the applicant/property owner/developer after installation by Council. Replacement items are at the cost to the applicant. Council will not take responsibility for such instances.

Action may be taken by Council under Council's Enforcement Policy and to recover costs where Council's water service infrastructure is tampered with.

17. Council Adoption of Private Water Meters

Application can be made for private meters to be read and maintained by Council on a case-by-case basis given the following conditions are met:

- Meters are at the boundary and are readily accessible for reading or Automatic Meter Reading Devices are installed.

- Meters are in good condition, of suitable quality and have the appropriate level of backflow prevention. If not, meters can be upgraded though Council at the applicant's cost.

18. Meter Inaccuracies

Any suspected meter inaccuracies must be reported to Council by the property owner as soon as practicable. Council will investigate and if the meter is proven to be inaccurate the meter will be replaced. Any water billing anomalies will be considered by Councils' Rates section.

Council shall not be responsible for water leaks in private pipework, fittings or fixtures not the responsibility of Council. Any resulting costs as a result of excess water use or from the water leak in private property pipework, fittings, or fixtures are the property owners' responsibility, and shall be paid for by the property owner.

19. Meter Replacement Criteria

Council will manage its meter fleet through an ongoing meter replacement process to replace old and faulty meters.

20. Temporary Connections

Council will assess all requests for temporary water service connections on a case by case basis. Some examples of temporary water services that Council has approved are:

- Visiting Australian Navy Vessels
- Visiting circuses, carnivals, etc.

All temporary services must still meet the requirements within this and other Council policy. Costs shall be at the applicant's expense.

21. Exemptions

Council operations generally must comply with this and all other related policy for all water related connections. Some exemptions may apply as allowed for under legislation and Council requirements.

22. Work Health & Safety requirements private property

All water services and associated components that are the responsibility of the Council such as the water meter, isolation valves, or any other relevant fitting must be kept in such a way by the property owner so as to meet the following:

- Clear of encroachment by long grass, bushes, etc.
- Not covered by soil, gardens or any other item.
- Not damaged by motor vehicle movements
- Not painted over and not covered unless by a Council approved method
- Easily accessed for meter reading and maintenance purposes
- Not tampered with or altered by the owner of plumber.
- Able to be fitted with a safety electrical continuity strap during meter replacement

23. Smart Metering

Council provides detailed customer information to subscribed customers who have AMR devices fitted in the following way;

- Information is provided automatically via email at a frequency nominated by the subscribed customer (eg fortnightly)
- The performance target for automatic provision of data is 95% within 24 hours of due date
- The format is as developed by Council and will include the raw data and visualisations of;
  - Hourly data
  - Daily data
- Ad-hoc data requests will not be serviced unless the customer has undertaken works to fix leaks and would like a more timely provision of confirmation that the leak is fixed (where the customer cannot easily inspect the water meter).

The timing and details of information provided is subject to improvement and change without notice.

BACKGROUND

This 2016 version is a review and update of Councils previously adopted Water Meter Policy 2012, Resolution No. 230212/34.

DEFINITIONS

Back Siphonage	A condition where the water or other contaminated/polluted liquid enters the potable water supply by siphonage caused by a negative pressure (vacuum or partial vacuum) in the reticulation system. Back siphonage can be created when there is a stoppage of the water supply due to fire-fighting, repairs or breaks.
Back Pressure	A condition where the pressure downstream of the cross connection becomes greater than the pressure upstream of the cross connection, thus allowing water or other contaminated/polluted liquid to reverse its normal flow and enter the potable supply.
Council (BSC)	Ballina Shire Council
LWU	Local Water Utility (for the purposes of this policy, Ballina Shire Council).

GDD	Greywater Diversion Device; a device installed sewered areas used to divert greywater to an approved subsurface or subsoil disposal area within the property.
OSSMS	Onsite Sewage Management System.
GTS	Grey water Treatment System.
Water Meter	A device connected inline to a premises water supply usually at the front of the property to measure the amount of water used for billing purposes.
Back Flow Prevention Device	A device used to protect a water supply by preventing contaminated water from either *back siphoning* or being *back pressured* from a premise back into the water main.
Greenfield Developments	A term used in construction and development to reference land that has never been used (e.g. green or new), where there is no need to demolish or rebuild any existing structures.
WH&S	Work Health & Safety
Urban Rainwater Tanks	Rainwater tanks located in a city, town, village, estate or other area supplied with a Council reticulated drinking water supply. These areas may or may not be sewered.
Topping up	Term used to describe the physical method of re-filling or topping up a rainwater tank with another water source.
Valve	A device used to turn off or on, or regulate up or down, or open and close the flow of water in a pipe.
Recycled Water	Wastewater that has been restored to a state that will allow it to be beneficially reused. This water is not for human or animal consumption or general contact.
Unpressurised Mains	Water mains that are being newly constructed and installed by developers/contractors and which have not been pressurised and/or handed over to Council.
Pressurised Mains	Water mains which have been handed over to Council and/or are pressurised or under Council control.
Automatic Meter Reading (AMR)	the automated, remote collection of meter reads.
'Smart Metering'	the provision of detailed water consumption information to the customer
Rapid Customer Leak Detection	The periodic review of detailed customer consumption patterns for signs of leakage in the customer service

SCOPE OF POLICY

This policy applies to:

- Property owners
- Water customers
- Sewer customers
- Council employees
- Community members
- Committees of Council
- Consultants/Contractors
- NSW Licensed Plumbers
- Commercial enterprises/businesses, and residential premises in the Ballina Shire that require fire, drinking water, and/or recycled water services.

RELATED DOCUMENTATION

Related documents, policies and legislation:

- Local Government Act 1993 (NSW)
- Local Government (General) Regulation 2005
- Environment Planning and Assessment Act 1979 (NSW)
- Public Health Act 2010 (NSW)
- Public Health Regulation 2012
- Water Management Act 2000
- Water Management (General) Regulation 2011
- Protection of the Environment Operations Act 1997 (NSW)
- Protection of the Environment Operations Regulation (General 2009) (Waste 2005) (Administration 2012) (NSW)
- National Wastewater Source Management Guideline 2008 - Water Services Association of Australia (WSAA)
- Integrated Water Cycle Management Guidelines for NSW Local Water Utilities 2004 - NSW Department of Energy, Utilities and Sustainability (DEUS)
- Plumbing Code of Australia (PCA) Australian & New Zealand Standards AS/NZS 3500
- Liquid Trade Waste Regulation Guidelines 2009 - NSW Department of Water and Energy
- NSW Government's Best-Practice Management of Water Supply of Sewerage Guidelines, 2007
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Ballina Shire Council documents:

- Ballina Shire Urban Water Management Strategy
- Community Strategic Plan 2010-2025
- Urban Water Quality Policy 2015 (BSC)
- Backflow Prevention Policy 2014 (BSC)
- Drinking Water Management System (BSC)
- Recycled Water Management System (BSC)
- Dual Water Supply Plumbing Policy 2013 (BSC)
- BSC Liquid Trade Waste Fact Sheets No's 1 – 5.
- Enforcement Policy 2013 (BSC)

REVIEW

The Water Metering Policy is to be reviewed every four years of the election of a new Council.

POLICY NAME: WATER AND WASTEWATER CONNECTIONS

POLICY REF: W02

MEETING ADOPTED:

Resolution No.

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TABLE OF CONTENTS

1 OBJECTIVE

The purpose of this policy is to detail water and wastewater connection eligibility, define the connection requirements for new developments, provide information on connection and access costs and clarify ownership and maintenance responsibilities of water and wastewater connections within the Ballina Shire Council (Council) local government area.

2 POLICY

2.1 General

All drinking and recycled water connections are to be metered.

Unless specified, water refers to both drinking water and recycled water.

This policy excludes wastewater connections made via a low pressure sewer system.

2.2 Connection Eligibility

2.2.1 Urban Water Connections

Properties within the urban water reticulation system paying a *Not Connected* access charge and/or those within 225 meters of a Council water reticulation main via public access road or easement in Council's favour are eligible to connect to Council's water supply.

2.2.2 Urban Allotments without Access to Reticulation Water Mains and Rural Water Connections

Properties not eligible to connect to Council's urban water reticulation system (see Section 2.2.1) may still be eligible to connect to Council's water trunk mains under certain conditions:

- A minimum water pressure of 120 kPa is available at the supply point;
- The supply point is within 225 meters of a Council water trunk main via public access road or easement in Council's favour;
- The connection is not expected to negatively impact on flow rates and pressure of surrounding water customers or the current trunk main service areas.
- The connection is not expected to negatively impact any future planned augmentation works or future trunk main service areas.

Water service connections of this nature are made direct to the trunk mains and therefore are not of the same standard as an urban reticulation water connection supplied by reservoirs. Council may need to shut down trunk mains for maintenance and repairs without prior notification to customers and variations in pressure and a lack of supply may be experienced at times.

Additional conditions apply to rural connections. These are detailed in Section 2.8.4.

2.2.3 Wastewater Connections

Properties within the urban wastewater collection system paying a *Not Connected* access charge and/or those within 75 meters of a Council gravity wastewater main via public access road or easement in Council's favour are eligible to connect to Council's

wastewater network where the connection can be achieved via gravity. Where a gravity connection is not possible, a property may be eligible for a pressure sewer connection. Refer to Council's *Pressure Sewer* Policy for low pressure sewer system requirements.

2.3 Connection Costs

2.3.1 Installation Costs

Costs for single 20mm water service connections that are made directly to the reticulation main or property connection and do not require under-boring are listed in Council's Fees and Charges. For all other water connections an estimate is provided upon application. The estimate is based on full cost recovery and is valid for 60 days.

2.3.2 Capital Contributions

Water and Wastewater head-works charges apply to any new connection(s) that result in an increase in demand or load on the network.

2.3.3 Water Access and Consumption Charges

Council has adopted a two-part water tariff structure comprising an access charge and a usage charge in accordance with state government best practice guidelines.

Under the guidelines, access charges are reflective of the customer's demand on the system in a full-cost recovery model. This demand is determined from the property's water meter size.

Charges apply to both Drinking Water and Recycled Water services. Where Dual Reticulation (i.e. both Drinking and Recycled Water) is supplied, only the highest access charge or highest combination of access charges from the same water service will be levied.

Where a property has a water meter installed that is larger than required for normal use due to the provision of a fire service, the water access charge will be based on the size of the meter required for normal usage, with the minimum meter size being 25mm. Normal usage shall be inclusive of fire hose reels unless the property owner can demonstrate the fire hose reels are restricted fire-fighting use only. Council requires a report from a suitably qualified hydraulic consultant to review and determine the required water service size. The hydraulic report must include a statement of compliance with AS3500.1, AS2419.1, Council's *Water and Wastewater Connections* policy, Council's *Containment Backflow Prevention* policy and any other relevant standards.

Dedicated fire service meters are not levied access charges.

2.3.4 Wastewater Access and Volumetric Charges

Residential properties are levied a standard wastewater access charge and are not subject to volume-based charges for wastewater.

Non-residential properties are levied an access charge based on the property's water meter size and volumetric charge estimated from water consumption. The access charge and volumetric charge is reduced through consideration of the property's sewage discharge factor (SDF).

A property's SDF is calculated based on the Liquid Trade Waste Regulation Guidelines applicable at the time of approval. Property owners may request Council to review the SDF allocated to their property.

Where a property has a water meter installed that is larger than required for normal use due to the provision of a fire service, the wastewater access charge will be based on the size of the meter required for normal usage, with the minimum meter size being 25mm. Normal usage shall be inclusive of fire hose reels unless the property owner can demonstrate the fire hose reels are restricted fire-fighting use only. Council requires a report from a suitably qualified hydraulic consultant to review and determine the required water service size. The hydraulic report must include a statement of compliance with AS3500.1, AS2419.1, Council's *Water and Wastewater Connections* policy, Council's *Containment Backflow Prevention* policy and any other relevant standards.

2.4 Connection Requirements

2.4.1 Section 68 Approval

Council Section 68 approval is required for all works to connect or disconnect to any of Council's water or wastewater systems or to carry out any work which may affect these systems.

Works that are a replacement of old for new works, involving no additional or relocated fixtures, or where there are no works required, such as an application for a private meter to be read by Council, do not require Section 68 approval.

2.4.2 Wastewater Connections

In general, developers, licensed plumbing contractors (plumbers) or any other entity will not be permitted to work on Council's wastewater mains.

For pressure sewer connections Council is responsible for nominating the connection point per Council's *Pressure Sewer* policy. The plumber engaged by the applicant is responsible for installing all works up to connection point with the connection to be supervised by Council officers.

For gravity sewer connections there will generally be a junction to service each existing property. If the plumber cannot find the connection, Council will investigate to verify and locate the connection. If no connection can be located then Council is responsible for cutting in a new junction at our cost.

For new gravity connections such as infill developments where a junction has not yet been installed, the plumber engaged by the applicant is responsible for installing the new wastewater connection with the connection to be supervised by Council officers.

2.4.3 Water Connections

Requests for a water service must be made by submitting a completed *Water Service Application*. The applicant must be the owner or plumber engaged by the owner. Properties with a body corporation or multiple owners must submit with the application the written permission of the Owners Corporation or all owners of the property.

All applications must contain:

- Details of the plumber undertaking the on-property works;
- Applicant and property details;
- Details of the installation and required connection size;
- A clear sketch of the desired position of the water meter assembly on a site plan along with measurements and any special details;
- Details of smart metering devices (where required - refer to Section 2.5)

The following connections will also require a certified hydraulic design provided by a suitably competent and qualified person:

- Any fire service assembly, including fire hose reels;
- Unit demand of 3 units and greater;
- Assemblies sized 32mm or greater;
- Or when requested by Council.

The property owner's plumber or hydraulic engineer is responsible for sizing the water meter(s) and the type of service(s) required for the property. Council does not make this determination.

In addition to Section 68 Approval requirements outlined in Section 2.4.1, an application for Water Service under this policy does not negate the need for the applicant to submit to Council the following for assessment and approval when required:

- A Development Application (DA) if required
- A Complying Development Certificate (CDC) if required
- Any other application deemed necessary by legislation or Council policy.

The submission of an application does not guarantee that an approval to connect will be granted.

2.4.4 Water Meter Installation – Most Cases

Council is responsible for the installation of water meter assemblies for the provision of potable water and recycled water, including meters installed for the purpose of fire protection. The water meter remains Council's asset and Council is responsible for the water service from the water main to the outlet of the meter.

Upon approval of the application and payment of the relevant fee, Council will connect the water service to the reticulation main and install the riser and water meter. Council's connection to the water reticulation main will be installed perpendicular to the meter assembly location wherever possible.

All properties connected to drinking water and/or the recycled water reticulation systems require a containment backflow prevention device and must comply with the site containment backflow requirements of AS/NZS3500. Containment backflow prevention shall comply with Council's *Containment Backflow Prevention* policy.

The plumber is responsible for connecting the private property side of the water service to the meter assembly including containment backflow prevention devices where required. The plumber is also responsible for providing permanent structural support to all water meter assemblies when connecting the private property side of the water service.

2.4.5 Water Meter Installation - New Developments

For developments where the main is not yet connected to the network (live) the developer is responsible for installing house connections from the reticulated main. The service connection is to be terminated within the property boundary with a service isolation valve inside a termination box and fitted with an approved corrosion resistant magnet or blue/lilac marker box for locating purposes.

Once the main becomes live and a water meter is required the developer/owner shall make an application for water service to Council (see 2.4.3). Council will complete the installation by providing a riser and water meter.

For development sites fronting pressurised mains Council will install the connection by initially terminating the service within the property boundary with a service isolation valve inside a termination box. Once a water meter is required the builder/owner shall notify Council to complete the installation by providing a riser and water meter. This is to minimise the likelihood of damage to the water meter during construction.

In general, developers, plumbers or any other entity will not be permitted to work on or connect to Council's pressurised mains. In the situation where developers require to connect new reticulation to Council's main (cut-in), Council will permit the works to be done by the developer with Council to undertake the network shutdown and supervise the cut-in. Application is made by completing a *Water Service Application* and paying the Network Connection Supervision fee no less than five (5) business days before the cut-in is required.

2.4.6 Location of Water Meters

Water meter(s) will generally be installed 500mm to 1000mm inside the front and side property boundaries perpendicular to the road/front boundary. Further fees may apply if an alternative location is required.

Water meters in new developments will be installed at the termination point left by developer. Any variations to this will incur charges additional to the standard water service connection charge, to be estimated based on the information provided in the application.

Meters must be readily accessible for reading, maintenance or removal and be clear of obstacles. Generally new meters will not be permitted to be installed below ground, in locked cabinets or behind high fences.

Approval to install a meter in a location that is not readily accessible will only be made as part of a Development Application or Section 68 Application. The water meter must be fitted with Council's smart metering device.

2.4.7 Relocation of Water Meters

Council may at its discretion relocate a water meter into another location or pit for safety or operational reasons.

Meter relocations are only permissible up to a distance of 600mm. Relocations in excess of this require a new connection (tapping).

Where meters are inaccessible for reading they are required to be fitted with Council's smart metering system.

The applicant is responsible for all costs to relocate the meter.

2.4.8 Disconnection from Council Reticulated Water Mains

Where a service or part of a service becomes disused it shall be disconnected.

Where a property or part of a property is approved (or otherwise confirmed) for demolition, any service or part of a service that becomes disused must be disconnected prior to commencement of any demolitions works on site.

Persons that require disconnection from Councils reticulated water services may apply to do so. Only property owners and or their representatives may apply to disconnect a water service.

All costs associated with disconnection of the water service are to be borne by the applicant and paid up front prior to Council undertaking works.

2.4.9 Change of Property Use and Associated Meter Size

Generally upgrades to water meters associated with a change in use are addressed through the Section 68 Application process (see section 2.4.1).
Council may instruct a property owner to obtain a hydraulic report for the purposes of increasing a meter size if Council deems that the meter is undersized. Council will review the hydraulic report to confirm the required meter size and where a larger meter is required, the applicant is responsible for costs to replace the meter and install a containment backflow device if required (Refer to Council's *Containment Backflow Prevention* policy. Access charges will be changed to reflect the new meter size. The hydraulic report must include a statement of compliance with AS3500.1, AS2419.1, Council's *Water and Wastewater Connections* policy, Council's *Containment Backflow Prevention* policy and any other relevant standards.

Council also requires a report from a suitably qualified hydraulic consultant where a customer seeks to reduce the water meter size. Where Council accepts that the meter size can be reduced and the current meter is 12 years or older, Council will update the access charge and replace the meter to the assessed size as part of the meter replacement program.

Where Council accepts that the meter size can be reduced and the current meter is less than 12 years old, Council will not immediately replace the meter to the assessed size. The access charge will be updated in Council's Rates system and the meter will be replaced as part of Council's meter replacement program when it reaches its normal replacement age and condition.

2.5 Smart Meter Reading (Smart metering)

2.5.1 Smart Metering for New Connections

Smart Meter Reading (Smart Metering) shall be installed in all new connections of the following type:

- For urban dual reticulation properties – where there are five or more metered services on the property;
- For all other properties - where there are three or more metered services on the property;
- Connections 32mm or greater;
- Master/subtract meter arrangements;
- Properties with a Category 2 or 3 liquid trade waste agreement;

- Any metered wastewater discharge.

Property owners may request a smart metering device on any other new water meter through Council's *Water Service Application* form.

All smart metering devices will be installed by Council following approval and payment of the fee per Council's fees and charges.

For master/subtract metering arrangements, the plumber is responsible for providing access to the water meters for Council to install the smart metering device. The plumber must notify Council's Water and Trade Waste Technical Officer within 24 hours of installing the subtract meters. The notification must be accompanied by plans clearly identifying for each subtract meter the:

- Meter location
- Associated property identifier (e.g. lot, unit)
- Meter serial number
- Installation date.

2.5.2 Smart Metering for Existing Connections

All properties with a Category 2 or 3 liquid trade waste agreement will require smart metering (if not already installed) as a condition of their trade waste approval.

Property owners may request a smart metering device on any other existing water meter using the *Smart Metering Application* Form on Council's website.

All smart metering devices will be installed by Council following approval of an application and payment of the fee per Council's fees and charges.

Council may also install smart metering devices on any existing water meters for operational reasons at Council's expense.

2.5.3 Location of Meters with Smart Metering Devices

Smart metering devices shall not be installed in locations that adversely impact on the ability of the device to transmit adequate signal strength back to Council's receivers.

2.5.4 Leak Detection by Smart Metering Devices

Smart metering devices will be analysed by Council's Rapid Customer Leak Detection algorithms. This algorithm will run on a routine schedule and generate a list of connections with suspected leaks. Council will endeavour to notify customers of suspected leaks in their property once the leaks are detected. Council accepts no liability for being able to detect leaks or for informing customers of leaks once detected.

2.5.5 Smart Metering Data

Customers may also elect to receive detailed smart metering consumption data through an annual subscription. The timing and details of information provided is subject to improvement and change without notice.

Ad-hoc data requests will not be serviced unless the property owner has undertaken works to fix leaks and would like a more timely provision of confirmation that the leak is fixed (where the customer cannot easily inspect the water meter).

2.6 Ownership and Maintenance Responsibilities - Water

2.6.1 Council's Responsibilities

Council is responsible for the water service from the water main up to and including the water meter and any smart metering devices. Council is also responsible for maintenance and renewal of subtract meters and smart metering devices (see section 2.8.2).

All water meters and associated smart metering devices used by Council for billing purposes are the property of Council.

Only Council staff may work on Council infrastructure. Misuse or tampering of Council infrastructure, including meters and valves, may result in fines.

Council will manage its meter fleet through an ongoing meter replacement process to replace old and faulty meters. For meters 32mm and greater, Council will provide property owners the opportunity to assess their required meter size prior to replacement. See section 2.4.9 for details.

2.6.2 Property Owner's Responsibilities

Property owners are responsible for all internal pipes and fittings from the outlet (property side) of the water meter.

Council has the legal right to enter property without notice for the purposes of accessing the water meter (e.g. for meter reading, testing and inspection).

Property owners have a responsibility to ensure our meter readers have reasonable access to the water meter on their property. Property owners should consider this when determining the position of plants, fences, gates and other barriers to ensure the meter can still be accessed by Council. In some cases property owners may be permitted to install a smart metering device where the meter is inaccessible for routine reading. Note that this doesn't reduce the property owner's requirement to provide reasonable access, however it reduces the expected frequency of access (Refer to section 2.4.6).

Property owners are responsible for maintenance and testing of any Backflow containment or prevention device in accordance with Council's *Containment Backflow Prevention* policy.

Any suspected meter inaccuracies must be reported to Council by the property owner as soon as practicable. Council will investigate and if the meter is proven to be inaccurate the meter will be replaced. Any water billing anomalies will be considered by Councils' Rates section.

Council shall not be responsible for water leaks in private pipework, fittings or fixtures. Any resulting costs as a result of excess water use or from the water leak in private property pipework, fittings, or fixtures are the property owner's responsibility, and shall be paid for by the property owner.

2.6.3 Water Pressure

Council's water supply system has not been designed for a specific level of fire-fighting capability. Council endeavours to maintain a minimum pressure of 20 m head during

peak instantaneous demand however Council cannot guarantee residual water pressure greater than 12m head in Council's water supply main at the hydrant under fire fighting flow conditions.

It is the responsibility of the property owner to ensure that their systems continue to meet the required codes and operate effectively at all times.

Water supply pressures vary all the time from changes in system demand, main breaks, operational changes and water usage within the property. Council also undertakes pressure and leakage management programs that may result in a reduction in water supply flow and pressure.

2.6.4 Inaccessible Water Meters

Where a water meter is inaccessible for reading, Council will send a warning letter to the property owner stating that the meter is inaccessible and was unable to be read.

If the meter is unable to be read the subsequent billing quarter, additional charges will apply as per Council's fees and charges.

2.6.5 Damaged Water Meters

Where meters or smart metering devices are damaged, these will be repaired by Council and an invoice for the costs incurred will be issued to the property owner.

Council will not install a smart metering device during building works on a property unless Council determines the device has appropriate protection.

If Council is repeatedly called out to a property to repair a damaged meter the property owner will be invoiced the cost for Council's meter protection cage to be installed over the meter in addition to meter repair costs.

2.7 Ownership and Maintenance Responsibilities – Wastewater

2.7.1 Council's Responsibilities

Generally Council accepts the responsibility, upon notification of a fault, for maintenance, repair or renewal from the sewer main to the connection point within the property.

Where there is doubt as to the location of a fault, Council will investigate the issue and determine the responsible party.

2.7.2 Property Owner's Responsibilities

Property owners are responsible for repair and maintenance of internal house sanitary drains from the sewer connection point, including the inspection shaft. Property owners are responsible for maintaining the inspection shaft in a visible and working condition.

Council will not reimburse property owners for costs relating to plumbers except where Council has been notified first in good faith and has incorrectly attributed the problem to the property owner's responsibility.

Where there is doubt as to the location of the issue, it is recommended the property owner contact Council in the first instance to investigate.

Appendix A contains a diagram detailing standard house connections and responsible parties.

2.8 Requirements for Specific Connection/Development Types

2.8.1 Fire Services

Where a fire service is required, information on expected maximum and minimum pressures under fire flow conditions for the site must be obtained from Council by submitting a *Fire Pressures Certificate Application* and paying the relevant fee. Details on pressure are in section 2.6.3.

The following conditions apply to fire services:

- Fire hose reels shall be connected to a metered service which may be inline metered. The minimum size service for a single hose reel is 25mm however a 32mm service is normally recommended to allow for pressure and flow fluctuations. Where fire hose reels are connected there shall be no line strainer provided prior to the water meter (AS 3500 cl 4.6.1).
- Where practical it is preferred that all fire hose reels come off the domestic service to reduce the number of tappings to the main and standardise installations.
- For all metered fire services other than fire hose reels, in-line meters are not permitted. Installations shall be a metered bypass across a double check detector assembly. This includes fire hydrants installed in accordance with AS 2419.1, Booster pumps (AS 2419.1) sprinkler services (AS 2118.1) and window or wall drencher systems.
- Window or wall drencher systems must be separate and distinct from all other services (AS 2118.1 cl 4.4.1). Large/complex installations will require metering across a double check detector assembly.
- The direct connection of water booster pumps to Council's water main is not permitted. Where pumps are required (as nominated by the hydraulic engineer), the applicant must provide storage/break tank(s) for fire-fighting supply in accordance with AS2419 and AS3500.
- Above ground isolation valves shall be a full flow outside screw and yoke wheel, resilient seated gate valve or approved butterfly valve closed by rotating the handle clockwise;
- Below ground isolating valves shall be resilient seated key operated sluice valves.

Fire services must be designed by a suitably qualified hydraulic consultant and certified that the design and installation complies with the relevant Australian Standards. The plumber is responsible for labelling and securing all fire services as per the relevant Australian Standards.

The property owner is responsible for maintaining private fire services up to the meter at the water main.

Where the fire service lines to serve the development are greater in diameter than the water main diameter that the fire service line is connected to, then the water main shall be augmented to the same size or larger (as approved by us) at the developer's full cost. The extent of the augmentation shall be determined by Council.

2.8.2 Master / Subtract Metering Arrangements

Where a property has three or more tenancies / services within the boundary of the property then each tenancy / service may be individually metered off the one service (called a Subtract Meter).

In this case there will also be a single, metered, connection between the internal water supply and Council's water distribution infrastructure (called the Master Meter).

Pipes and fittings between the master meter and the sub-meters shall remain the property of the building owner. The master meter, subtract meters and smart meter reading devices shall remain the property of Council for maintenance and replacement.

By design all normal flow through a Master Meter must also be metered through a Subtract Meter, such that the total flow through the master meter equals the sum of flow through the subtract meters.

Access charges are levied on all subtract meters. The master meter will have no access charge levied but will be used to capture leakage or inappropriate fire hose usage.

Council will install the master meter with the subtract meters to be installed by a licenced Plumbing Contractor. The subtract meters must:

- Have an individual serial number unique to that meter;
- Conform to the NMI R 49-1 and Australian Standard AS/NZS 3565 including the "Standards Mark";
- Have the appropriate level of backflow prevention; and
- Be of a type compatible with Council's smart metering system (see section 2.5.1).

Plumbers are required to label the lot numbers as depicted on the council approved hydraulic plan on each sub meter. The label or tag shall be fixed to the pipework adjacent to the meter or attached to the meter and have the unit number and meter number displayed in permanent ink.

To apply to install subtract meters to a property that is already metered, the property owner shall submit:

- A *Water Service Application*
- A Hydraulic plan prepared by a suitably competent and qualified hydraulic engineer or plumber. The hydraulic plan shall clearly confirm that there are no connections between the master meter and the subtract meters. The plan shall also show the current configuration and any proposed alterations on the privately owned component of the properties' water service to demonstrate that these alterations are able to be carried out.
- A signed letter from the Owners Corporation shall accompany the water service application that all owners approve of installation of subtract meters.

It should be noted that due to existing plumbing, the retro-fitting of subtract meters may require significant internal works and/or costs and it is recommended that the owner consider this prior to the installation of the additional meter(s). Changes to internal plumbing are the responsibility of the property owner and will require appropriate Plumbing and Drainage section 68 approvals.

2.8.3 Private Water Meters

Application can be made for private meters to be handed over to Council to be read and maintained as part of Council's meter fleet. Assessment is made on a case-by-case basis taking into account the following conditions:

- All master/subtract meters must comply with this policy;
- Meters must be in good condition, of suitable quality and compatible with Council's Smart Metering Devices;
- All meters have the appropriate level of backflow prevention.
- Meters have Smart Metering Devices installed.

To apply, the Owner must submit a *Water Service Application* together with a hydraulic plan that is prepared by a suitably qualified plumber or hydraulic engineer. The hydraulic plan shall clearly confirm that there are no connections between the master meter and the private subtract meters (for example an unmetered connection to an external hose tap). A signed letter from Owners Corporation shall accompany the water service application that all owners approve of Council taking ownership of the subtract meters.

Council will contact the plumber nominated on the *Water Service Application* form to inspect the existing meters. If the existing meters are not to Council's standard there may be additional costs to replace the existing meters. Smart metering shall be fitted to master and all subtract meters at the applicants cost.

2.8.4 Rural Connections

The following standard conditions will apply to any rural connections approved under section 2.2.2:

- The supply point shall be at the meter which will be located no more than one (1) metre from the property boundary;
- The construction of pipework, meters and valves from the water main to the supply point will be done by Council at the applicant's cost;
- All rural connections must have backflow protection to Council's satisfaction. In addition, any property with its own Onsite Sewage Management System (OSSMS); Greywater Treatment System (GTS); or a Grey Water Diversion Device (GDD) must comply with Council's *Containment Backflow Prevention* policy and have as a minimum a testable backflow prevention device installed at the water meter assembly;
- Water supply is for domestic purposes only and as such only 20mm connections are permitted;
- Meters shall be fitted with Council's smart metering system.
- For any rural extension to potentially serve more than one consumer a minimum main size of 50 mm shall be adopted;
- Council makes no guarantee as to the quantity and pressure of supply. It is the property owner's responsibility to determine if a storage tank and pressure pump system to distribute the water supply to the dwelling is required.

Council may require individual consumers to enter into special agreements for supply when standard conditions of water supply are not appropriate.

2.8.5 Recycled Water Connections

Special conditions apply to recycled water connections which are specified in Council's *Dual Water Supply Plumbing* policy. In addition to the requirements of the *Dual Water Supply Plumbing* policy:

- Where an application for a 20mm drinking and 20mm recycled water connection is received together, Council will install both meters for the same fee as a single potable connection.
- Only a 20mm recycled water service will be provided for domestic purposes.
- Commercial/industrial requirements must be sized to suit demand upon application and the associated hydraulic designs. All costs of the installation will be provided as an estimate for the commercial/industrial property owner.

2.8.6 Rainwater Tanks

Rainwater tanks incorporating a drinking water top-up (where permitted) shall have backflow containment prevention in accordance with Council's *Containment Backflow Prevention* policy.

Any top up mechanism shall incorporate a device to limit the flow rate to 4.0 litres per minute to minimise the impact on neighbouring customers.
Manual change-over devices are strictly not permitted due to the potential for inefficient use of top ups and damage

3 BACKGROUND

Ballina Shire Council exercises its water supply functions under Division 2 Part 3 Chapter 6 of the *Local Government Act 1993*:

This 2021 version is a review and update of Councils previously adopted Water Meter Policy 2017, Resolution No. 240817/22.

4 DEFINITIONS

Plumber	Individual with a Plumbing Contractor Licence issued by NSW Fair Trading
Pressurised Mains	Water mains which have been handed over to Council and/or are pressurised or under Council control.
Rapid Customer Leak Detection	The periodic review of detailed customer consumption patterns for signs of leakage in the customer service
Reticulation mains	A grid of small-diameter water mains used to carry water to individual properties from reservoirs and trunk mains.
Sewage Discharge Factor	The ratio of all wastewater discharged to the sewerage system to the total water consumption, expressed as a percentage.

Smart Meter Reading ('Smart Metering')	The automated, remote collection of meter reads and the provision of detailed water consumption information to the Property owner
Trunk mains	A water main used for bulk transfer to reservoirs or reticulation networks.
Water Meter	A device connected inline to a premises water supply usually at the front of the property to measure the amount of water used for billing purposes.
Unpressurised Mains	Water mains that are being newly constructed and installed by developers/contractors and which have not been pressurised and/or handed over to Council.

5 SCOPE OF POLICY

This policy applies to:

- Property owners
- Water customers
- Sewer customers
- Council employees
- Community members
- Committees of Council
- Consultants/Contractors
- NSW Licensed Plumbers
- Commercial enterprises/businesses, and residential premises in the Ballina Shire that require fire, drinking water, and/or recycled water services.

6 RELATED DOCUMENTATION

Related documents, policies and legislation:

- Local Government Act 1993 (NSW)
- Local Government (General) Regulation 2005
- Environment Planning and Assessment Act 1979 (NSW)
- Public Health Act 2010 (NSW)
- Public Health Regulation 2012
- Water Management Act 2000
- Water Management (General) Regulation 2011
- Best-Practice Management of Water Supply and Sewerage Guidelines 2007 – NSW Government Department of Water and Energy

- Plumbing Code of Australia (PCA) Australian & New Zealand Standards AS/NZS 3500
- Liquid Trade Waste Regulation Guidelines 2021 - NSW Department of Planning, Industry and Environment

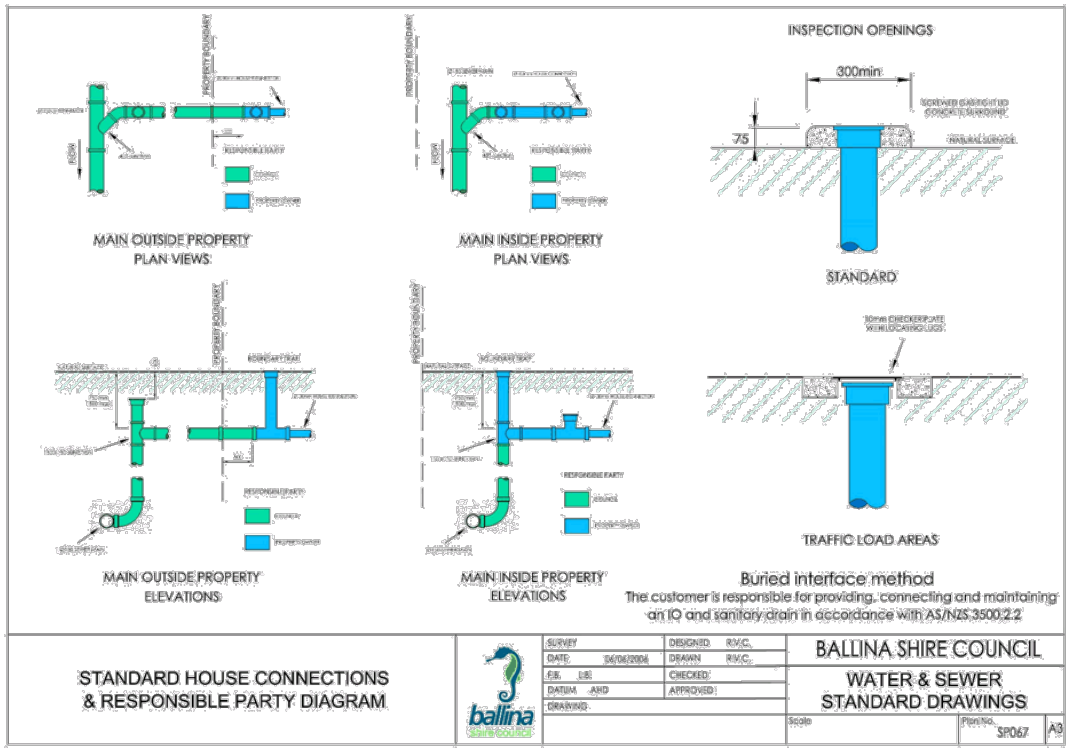
Ballina Shire Council documents:

- Ballina Shire Urban Water Management Strategy
- Community Strategic Plan 2010-2025
- Urban Water Quality Policy
- Containment Backflow Prevention Policy
- Drinking Water Management System
- Recycled Water Management System
- Dual Water Supply Plumbing Policy
- Enforcement Policy
- Pressure sewer policy

7 REVIEW

The Water and Wastewater Connections Policy is to be reviewed every four years.

8 APPENDIX A


INSPECTION OPENINGS
300min
75
MAIN OUTSIDE PROPERTY PLAN VIEWS
MAIN INSIDE PROPERTY PLAN VIEWS
STANDARD
MAIN OUTSIDE PROPERTY ELEVATIONS
MAIN INSIDE PROPERTY ELEVATIONS
TRAFFIC LOAD AREAS
Buried interface method
The customer is responsible for providing, connecting and maintaining an IO and sanitary drain in accordance with AS/NZS 3500.2.2
STANDARD HOUSE CONNECTIONS & RESPONSIBLE PARTY DIAGRAM
ballina
SURVEY
DESIGNED R.V.C.
DATE 04/04/2004
DRAWN R.V.C.
F.B. L.S.
CHECKED
DATUM AHD
APPROVED
DRAWING
BALLINA SHIRE COUNCIL
WATER & SEWER STANDARD DRAWINGS
Scale
Plan No. SP067
A3