



# **WATER SERVICE CONNECTIONS AND BACKFLOW PREVENTION POLICY**

<b>Version No.</b>	<b>Responsible Department</b>	<b>Prepared By</b>	<b>Date First Created</b>	<b>Review Date</b>	<b>Adopted Date Resolution No.</b>
1	Engineering & Infrastructure Services	Manager Utilities	January 2023	4 Years	10.05.2023 2023/085

## 1. PURPOSE

Narromine Shire Council ("Council") provides, manages and operates water and sewerage services in accordance with, State and Federal legislation.

Detailed requirements for the supply of safe drinking water can be found in NSW Legislation, Australian Standards, Council Policies, Industry Codes and Best Practice Guidelines.

## 2. POLICY AIMS

The Aims of this policy are to give clear guidance in relation to Connections and Backflow Prevention:

### Connections

- Make Council's requirements for water service connections readily accessible to the public.
- Providing an integrated framework for dealing with applications for water service connections.
- Ensuring consistency and fairness in the manner in which the Council deals with its consumers.

### Backflow Prevention

- Make clear to the community Council's legislative obligations in relation to Best Practice Management of Safe Drinking Water by ensuring backflow induced cross contamination of supplies is prevented.
- Informs the Council's consumers of their obligations in preventing dangerous cross connections and contamination of the communities drinking water supplies.
- Deals with the risk of contamination by backflow from customers' connections back into Council's drinking water distribution and reticulation systems.
- Ensures that Council's commitment to supplying safe drinking water to its consumers is documented in its Water and Sewer Policy and its Drinking Water Quality Policy.
- Train relevant employees associated backflow and cross contamination.
- Establish regular monitoring of control measures and establish effective reporting mechanisms to provide relevant and timely information, and promote confidence in the water supply and its management.
- Develop appropriate contingency planning and incident-response capability.
- Continually improve our practices by assessing performance against regulatory requirements, corporate commitments and stakeholder expectations.

### Policy Scope

This policy applies to all new and existing customers and properties connected to, or wishing to connect to Council's water supply systems.

### 3. POLICY STATEMENT

Council is responsible for providing a safe, reliable and cost-effective water supply system, which is customer focused, enhances the environment and caters for the sustainable growth of the Shire. As such this policy addresses issues and requirements, for the provision of water service connections and backflow prevention. This policy should be read in conjunction with the Narromine Shire Council Water and Sewer Policy. <https://www.narromine.nsw.gov.au/council/policies>

### 4. LEGISLATIVE OBLIGATIONS AND/OR RELEVANT STANDARDS

This policy has been developed to be consistent with the following legislative requirements:

- National Water Quality Management Strategy  
<https://www.waterquality.gov.au/>
- Water Management Act, 2000  
<https://legislation.nsw.gov.au/view/html/inforce/current/act-2000-092>
- Local Government Act, 1993  
<https://legislation.nsw.gov.au/view/html/inforce/current/act-1993-030>
- Australian Drinking Water Guidelines  
<https://www.nhmrc.gov.au/about-us/publications/australian-drinking-water-guidelines>
- NSW Public Health Act 2010 No 127  
<https://legislation.nsw.gov.au/view/html/inforce/current/act-2010-127>
- NSW Public Health Regulation 2012  
<https://legislation.nsw.gov.au/view/html/inforce/current/sl-2012-0311>
- NSW Water Management (General) Regulation 2018  
<https://legislation.nsw.gov.au/view/whole/html/inforce/current/sl-2018-0480>
- NSW Protection of Environment Operations Act 1997  
<https://legislation.nsw.gov.au/view/html/inforce/current/act-1997-156>
- NSW Essential Services Act 1988  
<https://legislation.nsw.gov.au/view/html/inforce/current/act-1988-041>
- Best Practice Management of Water Supply and Sewage Management  
<https://www.industry.nsw.gov.au/water/water-utilities/best-practice-mgmt>
- Plumbing Code of Australia  
<https://ablis.business.gov.au/service/ag/the-plumbing-code-of-australia-pca-/31066>
- Plumbing and Drainage Act 2011  
<https://legislation.nsw.gov.au/view/html/inforce/current/act-2011-059>
- Australian and New Zealand Standards AS/NZS 3500.1:

### 5. FINANCIAL PROVISIONS FOR WATER SERVICE CONNECTIONS

#### Special Rates and Charges

Council will apply the provisions of Section 552 of the *Local Government Act* whereby any land situated within 225 metres of a Council Water Main and/or 75 metres from any sewer of Council, may be liable for water and/or sewerage rates as set unless:

- a) Specific exemptions are granted by Council
- b) The land is non-rateable
- c) The land lies in the R5 (Large Lot Residential) zone or the RU1 (Primary Production) and the ratepayers have requested, by majority, not to be connected to the water supply or sewerage service.

Except where the land is actually connected to the water or sewerage system. Any connections made outside the R1 (Residential), R5 (Large Lot Residential), RU5 (Village), IN1 (General Industrial), B2 (Local Centre) which have been exempted as in (a) (b) and (c) above, will be charged as follows:

- Developer contributions will be charged in accordance with Council's Development Servicing Plan for Water Supply and Sewerage and the relevant fees and charges;
- Full cost of extending the Council main to the point of supply; and
- Cost of normal connection from Council main to property.

For further Information on Council's Water and Sewer financial management systems please refer to the following Integrated Planning and Reporting Documents:

- Council's Long-Term Financial Plan;
- Council's Statement of Revenue Policy;
- Council's Fees and Charges;
- Council's Water and Sewer Asset Management Plans

For full details on Council's Plans, Fees and Charges in relation to Water services including connection fees can be found on Council's Website by following the links below.

<https://www.narromine.nsw.gov.au/council/integrated-planning-and-reporting>  
<https://www.narromine.nsw.gov.au/council/fees-and-charges>

## **General**

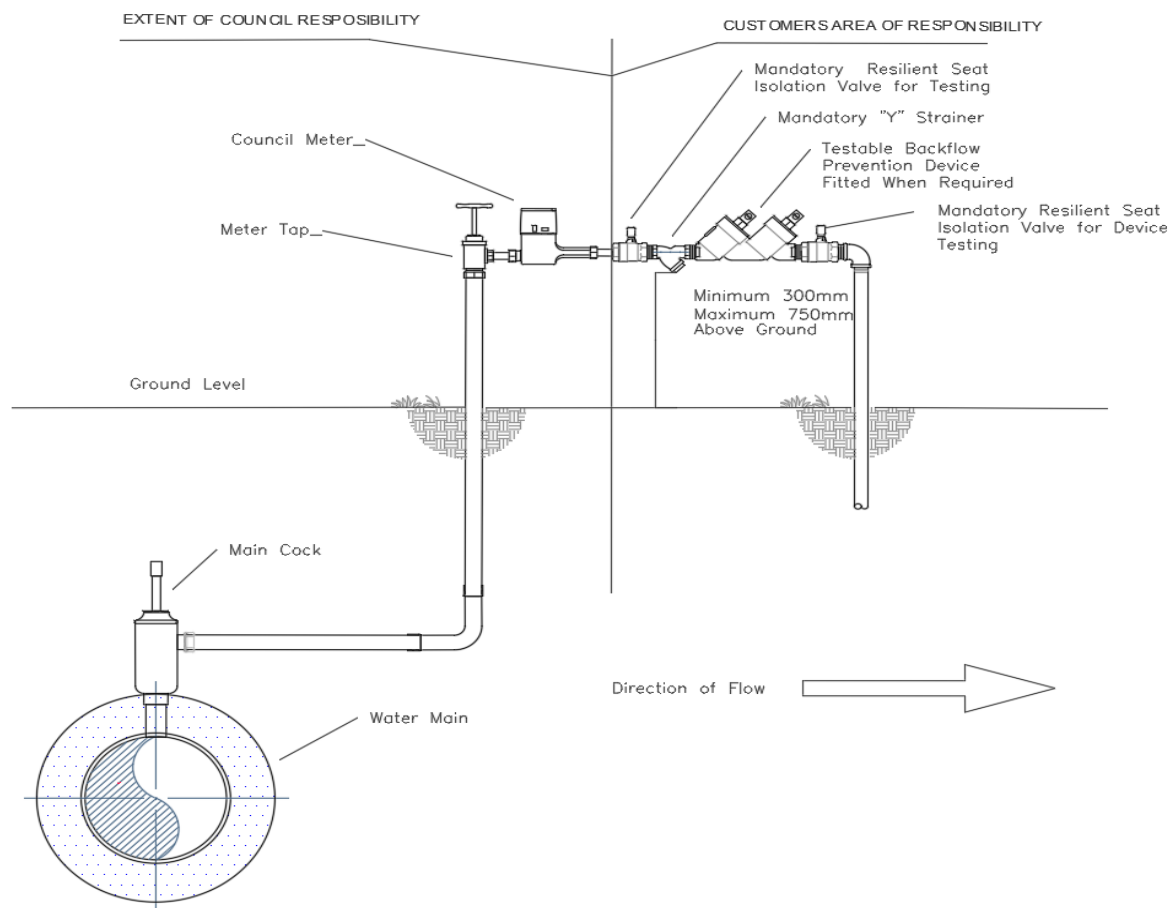
The following will apply in relation to all Water Connections and Consumers:

- All applications for connections larger than 25mm in diameter must be reviewed by the Utilities Manager prior to approval.
- All applications for Multi Dwelling Tenements and or Strata Developments must be reviewed by the Utilities Manager prior to approval.
- On the payment of a water connection fee for access to Council's water supply and approval for the connection. Council shall provide and install a water service from the Council main for a distance of up to 20 metres, this will generally have the water meter assembly immediately adjacent to the water main and up to 1 metre within the property boundary;
- If the water service requires an extension beyond 20 metres to ensure the water meter assembly can be located in a safe location within the property, Council shall carry out the work and charge it to property owner. Payment for such work must be made at the price quoted by Council prior to works commencing.
- Water meter access charges are based on the size of the water meter which is in accordance with Best Practice Management.
- Sale of new or used Council water meters to the public is prohibited.
- Water meters are read manually or electronically every quarter or, on a monthly basis when requested and approved. Water usage accounts should be paid within 1 month from the date the account was issued.
- Council reserves the right to average a customer's water billing account from previous consumption figures or to estimate an account based on relevant available information, where a water meter malfunctions.
- Pensioner or concession rebates are not granted on water usage.
- Water usage and access charges are determined on an annual basis with the adoption of Council's Operational Plan.
- Debt recovery will be carried out in accordance with Council's Debt Recovery Policy.

## 6. CONNECTIONS TO THE DRINKING WATER SYSTEM

All connections to Council Drinking Water Systems are subject to the owner(s) of the property agreeing to the following:

- Safeguarding the water service connection and meter from damage;
- Not to tamper or remove Council's water meter;
- Providing, installing and maintaining compliant and approved backflow devices where required;
- That no unauthorised covering that will interfere with the operation of Council's electronic meter information system is placed over, on or around the meter;
- Ensuring that no obstruction that will prevent reading of the meter is placed around it;
- Providing safe access to Council's water meter at all times
- Making full payment for repair costs associated with any damage to the water meter assembly (accidental or as a consequence of vandalism and intentional tampering);
- Making full payment of access and consumption charges determined in accordance with Council's Fees and Charges;
- Council can provide and install lockable meter taps if requested by a customer provided consumers are prepared to pay for the installation of lockable meter taps.
- Council's maintenance responsibility for a water service ceases at the outlet of the water meter (last union downstream of the water meter body), for details please refer to **Diagram 1**.



**Diagram 1**

## 7. WATER METERS

### A. General

Council in 2021 adopted a plan for the transition and renewal over a five-year period of its water meter fleet, of Mechanical Meters to Smart Meters and associated technology. The following will apply: Mechanical and Smart Meters:

- All serviced properties must be fitted with a Water Meter;
- A water meter through which water services are provided to premises from a Council main must be accessible to the Council at any time. Water meters should not be located in garden beds, under shrubs or low hanging trees. Council staff, will, if necessary trim shrubs/trees to allow safe access to the water meter.
- It is an offence under section 636 of the NSW Local Government Act 1993 to tamper, remove or interfere a Water Meter of any type. Any person found to have done so may be prosecuted to the full extent of the law;
- All meters remain the property of Narromine Shire Council.

### B. Upsizing, Downsizing, Relocating and Disconnection of Services

Council will consider Upsizing a Water Service only when:

- The appropriate application form has been received, assessed and approved by the Council's Utilities Manager.
- The appropriate fee has been paid.

Downsizing, Relocating and Disconnecting a water meter can only occur when:

- The appropriate application form has been received, assessed and approved by Council's Utilities Manager
- The relevant flow requirements have been supplied and assessed.
- Water meters will be relocated after the appropriate relocation form is completed, approved and the fee to relocate the meter the required distance is paid (refer to water meter relocation form)

Application forms to apply for Upsizing, Down Sizing and Disconnection are available from Council's Customer Service and Payments Centre or can be downloaded from Council's website at

<https://www.narromine.nsw.gov.au/council/forms>

Water access charges will be adjusted from the date of the water meter has been down sized or upsized. No adjustment is required where a disconnection has occurred unless the property is connected by an alternate water meter. These services will be carried out when time permits.

### C. Water Meter Accuracy Testing and Replacement

Meters are only to be tested for accuracy by an independent NATA Accredited Laboratory. Testing will take place under the following circumstances and conditions:

- Testing can be instigated by Council at the request of the Engineering or Finance Departments.
- If requested by the Consumer and upon payment of the Laboratory fee (to be advised at the time) of request.
- Payment will be reimbursed if the meter is proven faulty or inaccurate (i.e. reads outside plus or minus 5 %).

Council reserves the right to average a customer's water billing account from previous consumption figures where a water meter malfunctions or to estimate an account based on related available information.

## 8. BACKFLOW DEVICES

### Terms Referenced in the following sections

Referenced Terms	Definition
<b>Accredited Backflow Prevention Plumber</b>	A licensed plumber who has a current licence issued by the NSW Department of Fair Trading and has completed an accredited NSW backflow prevention course
<b>Backflow Prevention Boundary Containment Device</b>	A device fitted directly after the Meter at the property boundary to prevent the reverse flow of water from a potentially polluted source, into the drinking water supply system. <b>Refer to Diagram 1 for details of a typical installation.</b>
<b>Zone Protection Device</b>	A device used internally within a consumer's property to provide isolation from any potential hazards from multiple fixtures to the drinking water system safety within the property
<b>Individual Protection Device</b>	A device fitted to an individual fixture i.e. <b>Toilet Seat Douche Outlets</b> , within a consumer's property. To isolate the hazard that the connection of that fixture will present to the drinking water system within the property

**Table 1**

### 8.1. Installation and Compliance

Council requires the installation of backflow prevention devices at all property connections, including but not limited to, residential, rural, commercial and industrial properties. This is done to prevent contamination and backflow of contaminants into the water supply distribution and reticulation systems. The sections and tables below outline the types of registered backflow devices, identification of hazard rating, Council's responsibilities, the Consumer's responsibilities as well as the consequences of non-compliance.

Consumers are required to conduct their own risk assessment by appointing a qualified/licensed person to determine backflow potential inside their property (post water meter) in accordance with ASNZ/3500.

### Types of Backflow Devices

The types of devices used and their protection levels are shown in Table 2 below:

Registered Device	Definition
<b>Registered Break Tanks (RBT)</b>	A tank system specifically designed for backflow prevention registered by, or on behalf of a regulatory authority, for inspection and maintenance. Generally used in High Hazard environments.
<b>Registered Air Gaps (RAG)</b>	A device or system installed for backflow prevention registered by, or on behalf of, a regulatory authority for inspection and maintenance. Air gap for a water supply system is specifically defined as the unobstructed vertical distance through the free atmosphere between the lowest opening of a water service pipe (or fixed outlet) supplying water to a fixture or receptacle and the highest possible water level of that fixture or receptacle. Generally used in High Hazard environments.

<b>Testable Reduced Pressure Zone Device (RPZD)</b>  <b>NB* These devices may not function correctly in Narromine Shire due to lack of available head. Plumbers are advised to check with Council prior to installation.</b>	A device to prevent backflow caused by back siphonage or backpressure in a water reticulation system that incorporates two independently operating force loaded non-return valves. These automatically drain to waste whenever the pressure in the system (between the upstream and downstream non-return valves) drops to less than 14 kPa below the pressure at the inlet to the upstream non-return valve. Generally used in High Hazard environments.
<b>Testable Double Check Valve Assembly (DCVA)</b> <b>NB*This is the preferred device in Narromine Shire Systems due to lack available head.</b>	A device to prevent backflow caused by backpressure, which has two independently operating force loaded non-return valves and incorporates specific test points for in-service testing. Can be used in High to Medium Hazard environments where lack of static head prevents the use of a RPZD device
<b>Non-Testable Devices i.e. Double check valves are present in domestic sized water meters up to 25mm Vacuum breakers</b>	These devices are generally used internally where the pollutant or contaminant is non-toxic but is objectionable and should not be present in drinking water.

**Table 2**

### 8.2. Identification of Hazard Ratings

The three degrees of cross-connection hazards are as follows in Table 3:

Hazard Rating	Definition
<b>High Hazard Rating</b>	Any condition, device, or practice, which in connection with the water supply system, has the potential to cause death
<b>Medium Hazard Rating</b>	Any condition, device, or practice, which in connection with the water supply system, could endanger health
<b>Low Hazard Rating</b>	Any condition, device, or practice, which in connection with the water supply system, is a nuisance but does not endanger health or cause injury

**Table 3**

### 8.3. Roles and Responsibilities for Backflow Prevention

Council Responsibilities are:

- Council shall inform and educate consumers of the risks and hazards associated with backflow contamination, particularly consumers that require a higher degree of backflow prevention (i.e. other than a non-testable backflow prevention device). This will generally occur when Liquid Trade Waste inspections are carried out or when applications for water service installation larger than 20mm are evaluated by the Utilities Manager.
- Council will advise customers of the date when the device must be tested by an accredited person trained in backflow with test results forwarded to Council within 10 working days of testing the backflow prevention device. Council reserves the right to refuse water supply (under the Local Government Act 1993) to new and existing water services that do not comply with Council's Backflow Prevention Policy.
- Council will provide relevant training to its Plumbing Staff to enable them to identify potential hazards regarding backflow contamination and to carry out



installation, commissioning and maintenance of Council owned backflow prevention devices.

Consumer Responsibilities are to:

- Seek advice regarding backflow prevention from qualified plumbers or Council;
- To be responsible for installation of the appropriate backflow prevention devices including containment protection, on their property that has a high or medium hazard rating.
- To ensure the type and installation of backflow prevention devices that are to be installed on properties are in accordance the Plumbing Code of Australia and AS/NZS 3500
- To ensure that only Licensed Plumbers with appropriate backflow accreditation are employed for the installation and commissioning of Backflow Prevention when they are installed and that the device is registered with Council.
- To be responsible for ensuring annual testing of all registered backflow device(s) by a licensed plumber with appropriate backflow accreditation in accordance with the National Code of Australia, AS/NZS 3500: and Plumbing and Drainage Act 2011
- To ensure that the annual testing certificate is lodged with Council by the due date (required annually from the date of initial commissioning) and that the annual registration fee is paid.

## **9. OFFENCES**

**It is an offence to do any of the following:**

- a. Tamper or Interfere with a Council Water Metering Device
- b. To Remove a Council Water Meter
- c. For a person other than a Licensed Plumber with Backflow accreditation to tamper with, test or adjust a registered backflow prevention device

## **10. REVIEW**

This Policy will be reviewed every 3 years, unless substantial changes to legislation, regulations or standards occur.

### **Performance Indicator Measures**

Council will meet its obligations under this Policy that are consistent with the National Water Quality Management Strategy, Australian Standards and Australian Drinking Water Guidelines. This is to effectively manage risks to public and environmental health.