

Backflow Prevention Policy

PLACES

WE HAVE SAFE, MAINTAINED AND EFFECTIVE ASSETS AND INFRASTRUCTURE

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| Adoption Date: | 23 May 2018 |
| Council Reference: | MN197/18 |
| Policy Owner: | Manager of Water & Sewer |
| Next review date: | 2020 |
| File Reference: | 7790/17 |
| Related Policies/Legislation: | <i>Local Government Act 1993</i> <i>Public Health Act 2010</i> National Construction Code Series – Volume 3 The Plumbing Code of Australia Australian /New Zealand Standard AS/NZS AS3500.1 Australian Standard AS2845.(1,2&3) <i>Plumbing & Drainage Act 2011</i> <i>Plumbing & Drainage Regulation 2012</i> <i>Australian Drinking Water Guidelines 2011</i> |
| Related Documents: | |
| Superseded Policy/GM Practice Note: | Nil |

OBJECTIVES

The objectives of this policy are:

- To minimise public health risk
- To protect the drinking water quality within Council's water reticulation system
- To ensure compliance with relevant legislation

POLICY STATEMENT

To reduce the risk of contamination of the Shire's drinking water supply by ensuring backflow prevention is implemented and maintained.



Backflow Prevention Policy

POLICY IN DETAIL

- All customers with a connection to Councils drinking water supply must have a boundary containment backflow prevention device installed appropriate to the property hazard rating.
- Property hazard ratings are determined based on the level of hazard of activities or processes carried out within a property. Where more than one activity or process occurs on the site, the property hazard rating will be equal to, or greater than, the highest identified hazard. The three degrees of hazard and their definitions are detailed in Section 4 of AS/NZS AS3500.1.
- Where the hazards are unknown for commercial, industrial or mixed development, the hazard rating will default to high, requiring the installation of backflow prevention devices appropriate for that hazard rating.
- The installation and maintenance of all required backflow prevention devices are the responsibility of the property owner.
- Council will maintain a register of all testable backflow prevention device installations and the related annual testing/maintenance reports.
- If a property owner fails to install, repair, maintain, replace or test a backflow prevention device as required by a notice issued by Council, Council may disconnect (in the case of a non-residential property) or restrict (in the case of a residential property or mixed development) the customer from the drinking water supply system until such time as the customer has complied with the notice. Disconnection and reconnection fees will apply.

PROPERTIES WITH BOTH DRINKING WATER AND NON-DRINKING WATER SERVICES ONSITE (NOT INCLUDING RAINWATER)

Non-drinking water services mean all water that is not intended, or not likely to be used for human consumption, or for purposes connected with human consumption. Non-drinking services may include, but are not limited to:

- a) Bore water
- b) Grey water storage and reuse
- c) Dam water
- d) Bio-cycle, reclaimed effluent

The risks to health from non-drinking water supplies will depend on the type and concentration of contaminants present. Some non-drinking water supplies such as dam water or groundwater may look and smell perfectly fine however many activities in urban areas may contaminate non-drinking water sources making it unsafe and its use may lead to adverse health effects.



Backflow Prevention Policy

- Non-drinking water installations must comply with all requirements of Section 9 of AS/NZS AS3500.1.
- The minimum containment protection required for a single residential dwelling with a non-drinking water service that complies with the requirements of Section 9 of AS/NZS AS3500.1 is a non-testable dual check valve with atmospheric port.
- The minimum containment protection required for a single residential dwelling with a non-drinking water service that does not comply with the requirements of Section 9 of AS/NZS AS3500.1 and or compliance with Section 9 of AS/NZS3500.1 cannot be verified is a Reduced Pressure Zone Device.
- The minimum containment protection required for properties other than a single residential dwelling with a non-drinking water service that complies with the requirements of Section 9 of AS/NZS AS3500.1 is a Reduced Pressure Zone Device.

BACKFLOW PREVENTION REQUIREMENTS FOR PROPERTIES WITH RAINWATER TANKS

Where provision is made for augmentation of the rainwater supply by either top-up of the rainwater tank with water from Councils drinking water supply or by connection of Councils drinking water supply to any point downstream of the rainwater tank outlet, the installation shall comply with all requirements of Section 16 of AS/NZS AS3500.1.

- The minimum containment protection required for a single residential dwelling with an above ground rainwater tank installation is a non-testable dual check valve.
- The minimum containment protection required for a single residential dwelling with a buried or partially buried rainwater tank installation is a non-testable dual check valve with atmospheric port.
- The minimum containment protection required for properties other than single residential dwellings with above ground rainwater tank installations is a non-testable dual check valve.
- The minimum containment protection required for properties other than single residential dwellings with buried or partially buried rainwater tank installations with a top up provision is an Reduce Pressure Zone (RPZ) device.

EXEMPTIONS

Exemptions for existing premises in the Shires town centres with restricted drainage access

It is recognised that it may be impractical to install testable devices for boundary containment in some existing properties in the town centres due to the water meter being located in the footpath or inside in cupboards etc. with restricted access to drainage. In these instances Council will assess the backflow hazards on the property and will consider the installation of a non-testable device as boundary containment subject to the following:



Backflow Prevention Policy

- The water meter must be located in a position which prevents the installation of a testable device without major structural modification to the property.
- The only high backflow hazard on the property is a hose connection used for cleaning of a grease arrestor and or oil separator.
- The hose connection used for cleaning the grease arrestor or oil separator must be provided with individual or zone protection by an RPZ.
- The exemption from the requirement to install an RPZ as boundary containment will apply to the existing property owner only.
- If the property is to be sold and or renovated in any way modifications to the meter location will be required and the non-testable device being used for boundary containment must be removed and replaced with a testable device appropriate for the hazard rating of the property.

INSTALLATION AND MAINTENANCE REQUIREMENTS FOR BACKFLOW PREVENTION DEVICES

- A list of device types and their suitability for different hazard ratings can be found in AS 3500.1.
- The site containment hazard rating of all properties connected to the Shires reticulated drinking water supply must be determined by a approved Council Officer or backflow prevention accredited plumber.
- The boundary containment device must be installed immediately downstream of the properties water meter.
- The boundary containment device for a fire service must be installed as close as possible to where the water service crosses property boundary and upstream of any fire hydrant take off points or booster sets.

INSTALLATION OF A NEW BACKFLOW DEVICE

- Prior to the installation of any backflow prevention device, Council must be provided with a NSW Department of Fair Trading *Notice of Work* for each device to be installed.
- Within 5 working days of the installation of any backflow prevention device, Council must be provided with a NSW Department of Fair Trading *Certificate of Compliance*, together with the initial maintenance and test report for each device installed and pay the appropriated registration fees.



Backflow Prevention Policy

ANNUAL TESTING

- A backflow prevention device must be maintained and tested annually by an accredited backflow prevention plumber. The plumber will complete and submit the maintenance and test reports for each device installed and pay the appropriated registration fees.
- A late registration will apply to customers if the annual maintenance/test report is not received by Council 30 days after the due date.

THE PROPERTIES INTERNAL WATER SUPPLY SYSTEM

- To fulfil the property owner(s) Work, Health and Safety requirements regarding backflow prevention protection on their internal water supply system (downstream of the water meter), Council recommends that the property owner consult with a backflow prevention accredited plumber.

SCOPE

- This policy applies to all new and existing customers connected to Wingecarribee Shires Council's reticulated drinking water supply.

DEFINITIONS

| Term | Definition |
|----------------------------|---|
| Accredited Plumber | A licensed plumber who holds accreditation from a Registered Training Organisation for backflow prevention device commissioning, testing and certification. |
| AS/NZ 3500.1 | Australian/New Zealand Standard 3500.1 Water Services |
| Backflow | Backflow is the unintended reverse flow of water from any domestic, commercial or industrial premises back into a drinking water supply system. |
| Backflow Prevention Device | A device to prevent the reverse flow of water from a potential contaminated source back into the drinking water supply. |
| Cross Connection | It is any connection between the water supply and a source of potential contamination, such as a fixture, storage tank or equipment, through which used, unclean, polluted or contaminated water or any other substance that might enter the drinking water supply. |
| Customer | The property owner within the Wingecarribee Shire Council area of operations that is connected to a water main. |
| Drinking Water Supply | The supply system into which Wingecarribee Shire Council delivers drinking water (reticulated drinking water supply system) |



Backflow Prevention Policy

| Term | Definition |
|--------------------------|--|
| Site Containment | The installation of a backflow prevention device on the drinking water supply system at the property boundary to prevent backflow from the property entering the Shires drinking water supply system. |
| High Hazard | Any condition, device or practice, which in connection with the water supply system has the potential to cause death. |
| Medium Hazard | Any condition, device or practice, which in connection with the water supply system could endanger health. |
| Low Hazard | Any condition, device or practice, which in connection with the water supply system would constitute a nuisance but not endanger health. |
| Initial Test | When the backflow device has been installed an initial test is performed to check the device is performing correctly. |
| Annual Test | A test that is performed every year to confirm the device is in working order. |
| Initial registration fee | A fee paid to council when a backflow prevention device is initially installed and registered with Council. |
| Annual registration fee | The annual fee paid to Council for the registration of a backflow device that is must be accompanied by the annual maintenance and test report. |
| Late registration fee | Will be applied when the annual registration fee and backflow device annual test results are not received by Council within a month of the due date. |
| RPZ | (Reduced Pressure Zone) Is a device that protects against backflow by either back-pressure or back-siphonage from a cross-connection between drinking water systems and substances in 'high hazard' conditions |

RESPONSIBILITIES

| Position | Responsibility |
|---|---|
| Mayor | To lead Councillors in their understanding of, and compliance with, this Policy. |
| General Manager | To lead staff (either directly or through delegated authority) in their understanding of, and compliance with, this Policy. To approve resources to develop, implement and review this Policy. |
| Deputy General Manager Operations, Finance and Risk | To lead staff in their understanding of, and compliance with, this Policy. To ensure (directly or through delegation) the approved Policy are available in hard copy and electronically on Council's website. |
| Manager Water & Sewer | To implement this Policy. To lead staff in their understanding of, and compliance with, this Policy |



Backflow Prevention Policy

PERFORMANCE MEASURES

- The Shires drinking water supply has not been compromised
- Customer Satisfaction
- Complies with AS/NZS Standard 3500.1 Water Services and the Plumbing Code of Australia
- Complies with Australian Drinking Water Guidelines
- Complies with Council's Drinking Water Management Plan

BREACHES OF THE POLICY

Breaches of this policy may result in disconnection and reconnection fees and charges and/or late registration fees. Compromise of the Shire's drinking water supply may result in prosecution.

APPROVED BY:

WINGECARRIBEE SHIRE COUNCIL

23 May 2018

