

**PURPOSE**

The purpose of the policy is to protect the quality of Coonamble Shire Council's water supply by reducing the risk of backflow contamination from connections to the water supply system.

**BACKGROUND AND RELATED LEGISLATION**

*Local Government Act, 1993*

*Best-Practice Management of Water Supply and Sewerage Guidelines August 2007*

*NSW Plumbing Code*

*Environment Planning and Assessment Act 1997*

**SCOPE**

This Policy applies to all of Council's water supply customers.

**POLICY**

In water supply systems, water is normally maintained at a significant pressure to enable water to flow one way from the customer's tap. When pressure fails or is reduced (as may happen if a water main bursts, pipes freeze or there is unexpectedly high demand on the water system) then such reduced pressure in the pipe may allow contaminated water (from the ground, from storage or from other sources) to be drawn up into the system.

Backflow means the undesirable reversal of flow of a liquid, gas or solid into the potable water supply. A backflow prevention device prevents this occurrence from happening.

Council is committed to providing safe and high-quality drinking water which consistently meets the Australian Drinking Water Guidelines and other regulatory requirements. A key component of providing this service is the implementation and delivery of a backflow prevention policy.

**GENERAL**

**Conditions of Installation**

The customer is responsible for the full cost of complying with this policy.

All backflow prevention containment devices installed to comply with this policy are the responsibility of the customer. This may include but is not limited to installation, maintenance and annual testing.

Council will maintain a register of testable device installations, annual maintenance records and will conduct sample audits of installations to ensure ongoing compliance with AS/NZS 3500:1.

If Council's authorised Officer determines that a backflow prevention device is unsatisfactory and issues a notice requiring the customer to repair, maintain, test, replace or install a backflow prevention device, the customer shall comply with the notice within the time specified in the notice.

If a customer 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 water supply system until such time as the customer has complied with the notice so to prevent contamination of the water supply. Council may also impose a re-inspection fee or charge for administering non-compliance with the policy.

All properties connected to Coonamble Shire Council's water supply system are to have appropriate backflow prevention containment devices installed.

### **Type of Device**

The type of device installed shall be in accordance with the hazard rating system outlined in AS/NZS 3500.1.4.

In the approval of an appropriate backflow prevention device, Council will also consider the following:

- The processes conducted, or the water supply installations present on site regardless of whether or not the site is deemed as being commercial, domestic or a mixed development.
- If the process at a property change, resulting in a reduced hazard rating, the property owner must have an accredited backflow prevention plumber certify the change in hazard rating and then inform Council (Council may conduct a site audit to verify the new hazard rating).
- Where the hazard rating varies due to multiple processes, the highest hazard rating shall be applied.
- Properties identified as having high or medium hazards must install a testable backflow prevention device.
- Where hazards are unknown for a commercial, industrial or a mixed development, the hazard rating will default to high, and the installation of a testable device will be required.

### **Minimum requirements**

Minimum devices nominated include:

- High hazards - the installation of a Registered Break Tank, Reduced Pressure Zone Device or Registered Air Gap.
- Medium hazards - the installation of a testable double check valve.
- Low hazards - the installation of a non-testable dual check valve.
- Metered standpipes - A testable double check valve.
- Fire services - the installation of a double check detector assembly.

- Independent fire drencher sprinkler systems - the installation of a dual check valve.

All backflow prevention containment devices shall be installed in accordance with AS/NZS 3500:1.

#### **Compliance with AS/NZS 3500:1**

A backflow prevention containment device must be fitted to all water supplies entering the property regardless of the supply type or metering arrangement. All devices must be installed on the outlet side of the master water meter(s) supplying the property to achieve site containment. In circumstances where there is no master water meter, the containment device shall be installed on the water supply where it enters the property boundary. There must be no connections bypassing the containment device or water meter.

A backflow containment device must be installed so that the underside of the valve is a minimum of 300mm above the surrounding surface unless otherwise specified in the code.

Where a fire booster service is installed, the device must be installed so that the underside of the valve is a minimum of 750mm above the surrounding surface.

On a metered standpipe, the device shall be integrated into the design of the standpipe.

On a separate hydrant and/or sprinkler fire service, the device shall be installed close to where the water service crosses the property boundary, upstream of any booster assembly on, or offtake from the fire service.

#### **Reporting requirements**

All backflow prevention devices must be installed by a licensed plumber. Only a licensed plumber with backflow prevention accreditation may commission and test the device. Registered Break Tanks and Registered Air Gaps must be installed and certified by a licensed plumber.

Customers are responsible for the installation, maintenance and annual testing of all backflow prevention devices in accordance with AS/NZS 3500:1 and ensuring that the associated documentation (Backflow Prevention Application, Inspection and Maintenance Report) and any prescribed fee is forwarded to Coonamble Shire Council.

The customer's licensed and backflow accredited plumber is responsible for completing the Backflow Prevention Application (required on installation of the device) and the Backflow Prevention Device Inspection and Maintenance Report (required on commissioning or testing the device).

The device installation and commissioning test must be registered with Coonamble Shire Council within five (5) working days of completion of the work.

Customers are also responsible for the provision of zone and individual backflow protection from hazards within their property as specified in AS/NZS 3500:1.

#### **Performance Monitoring**

Council will establish a record system of all testable backflow prevention devices including the devices details, location, test records and dates for annual testing. Council will carry out audits of backflow prevention device installations with an emphasis on:

- Confirming the hazard rating for particular properties.
- Ensuring devices are accessible and clear of ponding, vegetation or debris.
- Checking for leaks.
- Ensuring that testable devices are maintained in a satisfactory operating condition.
- Ensuring that there have been no alterations to the plumbing at the premises and that the backflow prevention device has not been tampered with.

#### **LEGISLATIVE OBLIGATIONS**

All customers must comply with the requirements of the Plumbing Code of Australia and AS/NZS 3500:1. All customers with a water connection must assess the potential hazard and shall install appropriate backflow prevention at the boundary for containment purposes. The installation of a backflow prevention containment device is necessary to ensure the public water supply system is protected from backflow of contaminants.

#### **Enforcement**

Council may enforce compliance with the Policy by exercising any or all of the following:

- Impose a fee or charge under the *Local Government Act, 1993*.
- Issue an order under the *Local Government Act, 1993*.
- Carry out the work and charge the customer.
- Disconnect the property from Council's potable water supply if the property owner does not comply with the provision of the Policy in respect to backflow prevention.
- Install a water restrictor on the water connection in the case on non-payment of water accounts. The restrictor will be removed upon payment of all accounts.
- Deny supply to a new or existing customer in cases where, in the opinion of the Executive Leader Infrastructure there is a risk of contamination of the water supply, the risk of harming the health of a person or risk of damage to property.

## DEFINITIONS

**Backflow** – Backflow is defined as the flow in the direction contrary to the normal or intended direction of flow or the unintended flow of water from a potentially polluted source into a potable water supply system.

**Backflow Prevention Device** - Backflow Prevention Device is a mechanical device that will prevent the reverse flow of water from a potentially polluted source into the potable water supply system.

**Connection** - Connections are all connections to a Coonamble Shire Council water main, including those from customers' premises or from standpipes.

**Containment Protection** - Containment protection is defined as the installation of a backflow prevention device on the water service at the property boundary, to prevent backflow from within the property entering the potable water supply system.

**Cross Connection** – A cross connection is defined as any connection or arrangement between the potable water supply system connected to the water main or any fixture, which may under certain conditions enable non-drinking water or other substances to enter the potable water supply system.

**Decentralized wastewater treatment system** - Is a privately owned, non-potable water supply system, including treated greywater.

**Fire drencher sprinkler system** – Is a heat activated fire suppression system, which sprays water on the outside surface of a building or structure, to prevent the spread of fire from an adjacent building or structure.

**Fire Service** - A Fire Service is a water service dedicated only to service fire hydrants, fire hose reels, fire service fitting, including water storages, installed, and used solely for firefighting in and around a building or property, and testing. Under certain conditions part of a fire sprinkler system may be included. A fire service that can be used for other purposes is deemed to be a water service.

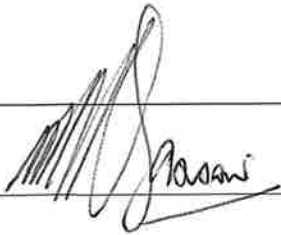
**High Hazard (ASNZS 3500.1.4.3)** - Any condition, device or practice, which in connection with the water supply system has the potential to cause death.

**Low Hazard (ASNZS 3500.1.4.3)** - Any condition, device or practice that, in connection with the drinking water supply system, constitutes a nuisance but does not endanger health or cause injury.

**Medium Hazard (ASNZS 3500.1.4.3)** - Any condition, device or practice, which in connection with the water supply system could endanger health.

**Water Meter** - A water meter is an apparatus, or appliance, for measuring and recording the volume of water passing the meter location. The "dial" on a meter is called a register and so the volume of water recorded through a meter is also called the registration.

**Water Service** - A water service is that part of the cold potable water supply pipeline from the water main to and including the water meter and backflow prevention assembly.

<b>Title: Backflow and Cross Connection Policy</b>		
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