

Policy No. PP006

Backflow Prevention Policy

1 INFORMATION ABOUT THIS POLICY

POLICY INFORMATION

Date Adopted by Board 31 October 2024	Resolution No. 20/017, 24/093
Policy Responsibility General Manager	
Review Timeframe 4 yearly	
Last Review October 2024	Next Scheduled Review October 2028

DOCUMENT HISTORY

DOCUMENT NO.	DATE AMENDED	SUMMARY OF CHANGES
19/9595	21/02/2020	Changed the backflow prevention device location from the property boundary to the meter
19/9595	October 2024	Added more information, added definitions, provided additional information specific to commercial and industrial customers and rural customers.

FURTHER DOCUMENT INFORMATION AND RELATIONSHIPS

Related Legislation	AS 3500.1:2019 Plumbing and Drainage – Water Services: Part 1.
Related Policies	P007 Water Service Connection Policy
Related Procedures, Protocols, Statements and Documents	Water Directorate Backflow Prevention and Cross Connection Control Guidelines July 2013.

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3 PURPOSE

To protect the quality of Goldenfields Water County Council (GWCC) water supply, by identifying hazards and reducing the risk of contamination from backflow. To provide information to members of the public, plumbers and other stakeholders in regards to Goldenfields Water's management of backflow prevention and to outline their responsibilities in meeting the requirements of both this policy and AS3500.

4 SCOPE

This policy applies to all new and existing customers within the GWCC supply system.

5 DEFINITIONS

Accredited backflow prevention plumber – A licensed plumber who has completed an accredited backflow prevention course

Air gap – An unobstructed vertical distance between the lowest opening of a water service pipe supplying water to a fixture (such as water tank) and the highest possible water level of such a fixture.

Backflow – The unplanned reverse flow of water or mixtures of water and contaminants into the reticulated water supply system.

Backflow Prevention Containment Device – A device fitted at the property boundary to prevent the reverse flow of potentially polluted water into the drinking water system.

Licensed plumber – a plumber with a license issued by the NSW Office of Fair Trading

Reduced Pressure Zone Device (RPZD) – A device to prevent backflow which incorporates two independently operating force loaded non-return valves. These automatically drain to waste whenever the pressure in the system (between upstream and downstream non-return valves) drops to less than 14kPa below the pressure at the inlet to the upstream non-return valve.

Registered air gap – An air gap that meets backflow prevention requirements and is registered by or on behalf of, a regulatory authority for inspection and maintenance.

Registered break tank – A tank system specifically designed for backflow prevention which is registered by or on behalf of, a regulatory authority for inspection and maintenance

6 POLICY

6.1 Property Hazard Ratings

All properties connected to the GWCC water supply network require a backflow prevention device. The specific device required will depend on the hazard rating of the property. Hazard ratings are defined in AS/NZS 3500.1 Plumbing and Drainage as;

- **High Hazard** – Any condition, device or practice that, in connection with the water supply system, has the potential to cause death.

- **Medium Hazard** – Any condition, device or practice that, in connection with the Water supply system, has the potential to endanger health
- **Low Hazard** – Any condition, device or practice that, in connection with the water supply systems, constitutes a nuisance but does not endanger health or cause injury.

Each property is required to have a hazard rating assigned to it based on activities to be conducted. Industrial property owners are required to disclose current and/or intended operations to GWCC to assess risk. If the hazard varies due to multiple activities the highest hazard rating will apply.

Compliant backflow prevention shall be achieved with installation of one of the following registered devices;

Registered device	Hazard Rating
Registered break tank	High/Medium/Low
Registered air gap	High/Medium/Low
Reduced pressure zone device	High/Medium/Low
Double detector check valve	Medium/low
Double check valve	Medium/low

Medium or High Hazard Rating

Properties with a medium or high hazard rating must have a testable backflow prevention device installed at the meter. No connections may bypass the containment device. GWCC will maintain a database of devices and test results.

Low Hazard Rating

Properties with a low hazard rating will be fitted with a dual check valve contained within the water meter for 20 and 25mm connections. Properties with a connection greater than 25mm are to have a non-testable double check valve after the meter.

6.2 Commercial and Industrial Properties

Commercial and industrial properties that are determined to have a high or medium hazard rating must install an appropriate, testable backflow prevention device(s) for containment purposes.

- All backflow prevention devices for high and medium rated properties are the responsibility of the property owner
- It is the property owners responsibility to determine the hazard rating and ensure that the type and installation of backflow prevention devices are in accordance with AS3500. Goldenfields Water recommends engaging a licensed plumber with backflow accreditation to assess your property
- The backflow prevention device is to be installed at the location of the meter on the customer side of the meter
- Goldenfields Water must be notified of the intention to install a backflow prevention device. The device must be registered with Goldenfields Water

- The backflow prevention devices are to be installed and certified by an accredited backflow prevention plumber; and
- The property owner is required to certify annually that their backflow prevention device(s) are functioning as designed. This must be undertaken by an accredited backflow prevention plumber and a copy of the certificate of compliance is to be provided to Goldenfields Water.

6.3 Rural properties

For rural properties, Goldenfields Water will seek to install a reduced pressure zone device at the location of the meter to be located on Goldenfields Water's side of the meter. It will be Goldenfields Water's responsibility to inspect and test these devices at an interval as determined by Goldenfields Water. The current adopted interval is 2 yearly.

Where a reduced pressure zone device is unsuitable due to pressure requirements of the of the property owner downstream of the meter, then it will be the responsibility of the property owner to install an appropriate, testable backflow prevention device(s) for containment purposes.

In such circumstances the backflow prevention device:

- Will be the responsibility of the property owner
- The backflow prevention device is to be installed at the location of the meter on the customer side of the meter
- The backflow prevention devices is to be installed and certified by an accredited backflow prevention plumber
- The property owner is required to certify annually that their backflow prevention device(s) are functioning as designed. This must be undertaken by an accredited backflow prevention plumber and a copy of the certificate of compliance is to be provided to Goldenfields Water.

6.4 Properties with potable and non-potable connections

Properties that have both potable and non-potable water supplies are considered high risk and are required to install a backflow prevention device on the potable water supply connection. This includes properties with potable and non-potable water supplied directly by Goldenfields Water as well as properties with alternate private supply arrangements such as rainwater tanks and bore water.

- All backflow prevention devices for high and medium rated properties are the responsibility of the property owner
- The backflow prevention device is to be installed at the location of the meter on the customer side of the meter
- The backflow prevention devices is to be installed and certified by an accredited backflow prevention plumber
- The property owner is required to certify annually that their backflow prevention device(s) are functioning as designed with a copy of the certificate to be forwarded to Goldenfields Water
- The property owner is required to certify annually that their backflow prevention device(s) are functioning as designed. This must be undertaken by an accredited backflow prevention plumber and a copy of the certificate of compliance is to be provided to Goldenfields Water.

6.5 Fire Service Connections

Fire service connections will be fitted with a testable double detector check valve and low flow bypass meter.

6.6 Non-compliance

In a case where GWCC becomes aware of property that does not have a suitable backflow prevention device installed GWCC will advise the property owner to comply with this policy within 90 days. In the event that compliance is not reached within the timeframe GWCC reserve the right to disconnect the property until such time as compliance is achieved, or to undertake the works at the owners expense.