Backflow Prevention Containment Policy

Operational Policy
CTD/000437

LOWER MURRAY WATER

Policy Statement

This Backflow Prevention Containment Policy applies to all property owners connected to a Water Corporation's water supply system located in the jurisdiction of the referenced Water Corporation. It identifies the type of backflow prevention required for property connections with low, medium or high hazards as defined in AS/NZS 3500.1 Plumbing and drainage Part 1 Water Services, the Plumbing Code of Australia and the conditions that property owners must comply with to remain connected to the reticulated water supply system.

Purpose

The purpose of this policy is to ensure the protection and integrity of the Water Corporation's reticulated water supply system by establishing clear guidelines to minimise the risk of backflow contamination.

It outlines the circumstances under which testable backflow prevention devices are to be installed at properties, and the requirements for their installation and testing.

Scope

This policy applies to the below stakeholders, and they must be notified of any changes to this policy by the Custodian:

- Managing Director
- Customer Experience
- Land Development
- Manager Water Quality
- Senior Manger Operations
- Team Leader Civil Maintenance

References

- Building and Plumbing Commission
- Changes to Standard - AS/NZS 3500.1 Plumbing and Drainage Part 1: Water Services
- NCC 2022 (Plumbing Code of Australia) | Victorian Building Authority

Definitions

Term/Abbreviation	Description
LMW	Lower Murray Water
AS/NZS 3500.1	Australian/New Zealand Standard for Plumbing and Drainage Part 1: Water Services
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 to prevent the reverse flow of water from a potentially contaminated source, into the Water Corporation's reticulated water supply system
Cross connection	Any connection or arrangements between the system, connected to the water main or any fixture that may enable non-drinking water or other contamination to enter the system.
Double check valve AS/NZS 3500.1	A medium hazard testable device in accordance with AS 2845 Part 1.

Dual check valve	Low hazard non-testable device in accordance with AS 2845 Part 1.
High Hazard Rating AS/NZS 3500.1	Any condition, device, or practice, which in connection with the system, has the potential to cause death.
Low Hazard Rating AS/NZS 3500.1	Any condition, device, or practice, which in connection with the system, is a nuisance but does not endanger health or cause injury.
Medium Hazard Rating AS/NZS 3500.1	Any condition, device, or practice, which in connection with the system, could endanger health.
Reduced Pressure Zone Device AS/NZS 3500.1	A high hazard testable device in accordance with AS 2845 Part 1.
Registered Air Gap	A device or system installed for backflow prevention registered by, or on behalf of, a Water Corporation Air gap for 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. Installation of a Registered Air Gap will be applied to sites rated as a high hazard backflow risk.
Registered break tank	A tank system specifically designed for backflow prevention registered by, or on behalf of a Water Corporation. Installation of a registered break tank will be applied to sites rated as a high hazard backflow risk and be inspected and maintain in accordance with this policy.
Single check valve testable	Low hazard testable device in accordance with AS 2845 Part 1. Suitable for Fire Service installations

Policy/Guidelines

All property owners connected to the Water Corporation's water supply system must adhere to the specified backflow prevention requirements based on the hazard classification of their property. Proper installation, maintenance, and testing of backflow prevention devices are essential to safeguard the integrity of the water supply. Compliance with these guidelines ensures ongoing connection to the water system and helps prevent contamination, supporting the Water Corporation's commitment to water safety and quality.

Operating and Administrative Requirements

1. Testable backflow prevention containment device must be installed on all properties with a medium or high hazard risk in accordance with AS/NZS 3500.1 and the Plumbing Code of Australia at or near the property boundary. No connections are to bypass the backflow prevention containment device.
2. The type of backflow prevention containment device installed is based on the risk assessment of the existing or proposed on-site water processes and or the type of reticulated water supply system present.
3. In the absence of a known hazard or business activity for any new Non-Residential development the Water Corporation will automatically specify a high hazard device be installed.
   Note: Consent to connect will only be granted once relevant backflow documentation is completed and received by the Water Corporation.

4. Where multiple processes occur on a site, the hazard rating of the backflow prevention containment device will be equal to or greater than that of the highest hazard required to protect the zone and or individual hazard.
5. The property owner or agent must complete a registration form or acceptance form agreeing to maintain and test the backflow prevention containment device(s) at intervals of no more than 12 months from the date of the initial commissioning or as otherwise determined by the Water Corporations.
6. Class A Recycled Water Supply Properties\
    - Residential properties provided with reticulated Class A recycled water supply shall require a dual check valve/dual check meter on the Class A recycled water supply and drinking water supply, which provides a minimum low hazard control against cross connection.
    - Non-residential properties provided with reticulated Class A recycled water supply shall install an appropriate backflow prevention device in accordance with the hazard rating of the property. Where a testable device is required a registration form must be completed.
7. The testable backflow prevention containment device(s) manufactured to AS/NZS 2845, shall be installed, commissioned and tested annually by a suitably qualified person.
8. Results of annual testing of the device must be forwarded to the relevant Water Corporation within 20 days of the test for recording. Test reports must clearly show:
    - The property address
    - Location of device
    - Test date
    - Device test results
    - Device type, make, serial number and size
    - Water meter number
    - Tester's name, licence/registration number, contact phone number and address
    - Test kit calibration date and serial number.

    Note: The test report must be in accordance with the provisions of AS/NZS 2845 Water Supply – Backflow prevention devices; Part 3 Field testing and maintenance.
9. Owners of properties with high hazard ratings must install a reduced pressure zone device, or where approved by the Water Corporation a registered break tank or registered air gap.
10. Owners of properties with a medium hazard rating must as a minimum install a double check valve.
11. Standpipes (portable and fixed for tankering / water carrying / temporary supply purposes) connected to the Water Corporation reticulated water supply system shall be rated as a high hazard.
12. Fire Service Containment Backflow Prevention
    - All Fire services require a low hazard containment device as a minimum. Fire hydrant & sprinkler type systems 80mm + greater size require a single check valve testable as a minimum hazard device.
    - If a fire services is designed to use an alternative water source /chemical additive or have a boost connection point within 180m of an open water source (river or dam), a higher hazard level would apply in this instance.
    - Where fire appliances are provided in a high hazard area, backflow prevention commensurate with the hazard level shall be provided.

13. Drinking and non-drinking water services must not be cross connected without the installation of an appropriate backflow prevention containment device. The device installed must be the same on both the drinking and non-drinking water services. These properties include mixed developments and areas serviced by grey and black water treatment systems.
14. Retrofitting Backflow Prevention Devices – where an existing water service is being renewed from 'main to meter', altered or relocated a backflow prevention containment device shall be installed appropriate to the property's hazard rating. The existing non- return valve (where installed) is deemed not adequate backflow protection. If the residential property has a domestic 20-25mm water meter incorporating a dual check valve an additional backflow prevention device is not required.

Compliance

1. The property owner is responsible for arranging the installation, maintenance and annual testing (where applicable) by a suitably qualified person of the backflow prevention containment device(s) within their property in accordance with AS/NZS 3500.1 and the Plumbing Code of Australia .
2. A plumber licensed by the BPC in water supply may install the backflow prevention containment devices. Only a suitably qualified person may commission and test these devices.
3. A plumber licensed by the BPC in water supply may install registered break tanks and registered air gaps. Only a suitably qualified person may commission and test these devices.
4. The property owner is responsible for ensuring that the backflow test report is submitted to the relevant Water Corporation within 20 days of the test being conducted.
   NOTE: The property owner has a legal obligation to maintain the reticulated water supply system inside their property and depending upon the plumbing system and hazard ratings of the internal processes, to install additional individual/zone protection backflow prevention devices.

Supporting Documentation

Doc ID	Title
CTD/003289	Backflow Prevention Device (BPD) Registration Annual Testing Procedure
CTD/003257	Registration Form & Agreement for Backflow Prevention Containment Device (BPD)
CTD/002367	Backflow Prevention Reminder Letter (2nd) - Template
CTD/002366	Backflow Prevention Reminder Letter (1st) - Template
2011/005636	Authorisation of agreement - backflow prevention containment policy - 01/02/2011

Roles and Responsibilities

Position	Responsibility
Administration Officer – Land Development	Ensure references are current and implement policy to customers and plumbers.

Document History and Review

Version	Date Approved	Review Due Date	Review Notes
A	Feb 2001	NA	
B	Jan 2004	July 2008	
C	Jul 2008	Jul 2010	Slight amendment to Item 5.2. Plus format & name changes (eg. Authority changed to Corporation)
D	Sep 2010	Jul 2012	
E	Oct 2012	Jul 2014	No changes
F	May 2017	May 2019	Document reformatted, minor corrections and titles changed to reflect 2017 Org Chart
G	Nov 2017	Nov 2019	Replaced by the combined water authorities agreement LMW signed off on in 2011. Refer 2011/005636.
H	Mar 2026	Mar 2028	Updated position to current titles, changes letter to current template, updated VBA to BPC

Policy users are requested to notify the Custodian if amendments are required prior to the scheduled review date. Please note that only Custodians or their delegates are authorised to make changes, and all amendments must be approved by the designated Approver before being distributed to LMW.

Refer to the 'Notes' section of the controlled document in the EDRMS to view amendments made during reviews, and if applicable, to access earlier versions.

Custodian	Approver
Administration Officer – Land Development	Manager Growth and Development
Subject Matter Experts	**Endorsed By (if applicable)**
Technical Officer Development and Property	N/A

Location of Document

- Electronic Documents and Records Management System
- Intranet
- Internet