



# Backflow Prevention Containment **Policy**

June 2020

Policy No: CCC098

Policy owner:	Headworks and Treatment Unit, Water and Sewer
Approved by:	Chief Executive Officer
Date of approval:	26 June 2020
Policy category:	Operational
Content Manager No:	D14046656
Review by:	March 2022

# Contents

Contents.....	2
Purpose .....	3
Scope.....	3
Background.....	3
General .....	3
Conditions of Installation.....	4
Compliance, monitoring and review .....	5
Definitions .....	6
Related resources .....	8
History of revisions .....	9

## Purpose

1. The purpose of the Backflow Prevention Containment Policy is to:
  - a. Protect the quality of Central Coast Council's (**Council**) drinking and non-drinking water supply by minimising the risk of backflow containment from connections to the supply.
  - b. Specify Council's requirements for the installation and maintenance of containment backflow prevention devices on high-medium and low hazard properties.
  - c. Identify when testable backflow prevention devices are required to protect the water supply from contamination from a customer's water service.
  - d. Identify backflow prevention containment requirements for customers with multiple water supplies that include drinking and non-drinking water supplies.

## Scope

2. The Policy applies to all customer connections to Council's water supply.
3. The Policy applies to all water connections, other than 20mm and 25mm connections providing drinking water to a single, low hazard residential dwelling.

## Background

4. This Policy replaces the former Gosford City Council's Backflow Prevention Containment Policy adopted in 2013.

## General

5. All customers connected to Council's water supply must comply with the requirements of the Plumbing Code of Australia and the Australian Standard/New Zealand Standard 3500:1 Plumbing and Drainage Part 1: Water Services (**AS/NAS 3500:1**).
6. A property with a water connection must be assessed for potential backflow hazard and shall install appropriate backflow prevention at the boundary for containment purposes, in accordance with Australian Standard/New Zealand Standard 2845.1 - Water Supply Backflow Prevention Devices (**AS/NZS 2845.1**). The installation of a backflow prevention containment device is necessary to ensure the public water supply system is protected from backflow of contaminants.
7. The customer is responsible for the full cost of complying with the Policy.

## Conditions of Installation

8. 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.
9. 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 and AS/NZS 2845.1.
10. Existing customers connected to the water supply must install a backflow prevention containment device within three (3) months of a notice to install issued by Central Coast Council.
11. If Council determines that the 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 must comply with the notice within the time specified in the notice.
12. If the customer fails to install, repair, maintain, replace or test a backflow prevention device as required by a notice issued by Council, then 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. Central Coast Council may also impose a fee or charge for administering non-compliance with the Policy.
13. If the process or activity at a property changes, 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, who may conduct a site audit to verify the new hazard rating.
14. The type of device installed shall be in accordance with the hazard rating of the processes conducted, or the water supply installations present on site.
15. If the hazard rating varies due to multiple processes, the highest hazard rating shall be applied.
16. Properties identified as having high or medium hazards must install a testable backflow prevention device.
17. 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.
18. High hazards require the installation of a Registered Break Tank, Reduced Pressure Zone Device or Registered Air Gap.
19. Medium hazards require the installation of a testable double check valve as a minimum.
20. Low hazards require the installation of a non-testable dual check valve as a minimum.

21. Fire services require the installation of a double check detector assembly as a minimum.
22. Independent fire drencher sprinkler systems require the installation of a dual check valve.
23. Properties that have both drinking and non-drinking water supplies are required to install an appropriate level of backflow prevention containment on both supply systems. The installed device shall be the same on both the drinking and non-drinking services. These properties include mixed developments and areas serviced by a decentralised wastewater treatment system.
24. 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.
25. 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 Plumbing Code of Australia.
26. 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.
27. On a metered standpipe, the device shall be integrated into the design of the standpipe. Metered standpipes require a testable double check valve.
28. 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.

## Compliance, monitoring and review

29. 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.
30. Central Coast Council, the plumbing regulator for the Central Coast Council local government area reserves the right to take appropriate regulatory action against the licensed plumber for any incorrect installation that does not meet the requirements of the Plumbing Code of Australia, AS/NZS 3500:1 or AS/NZS 2845.1.

31. Registered Break Tanks and Registered Air Gaps must be installed and certified by a licensed plumber.
32. Customers are responsible for the installation, maintenance and annual testing of all backflow prevention devices in accordance with the AS/NZS 3500:1 and AS/NZS 2845.1 and must ensure that the associated documentation (Backflow Prevention Application, Inspection and Maintenance Report) and any prescribed fee is forwarded to the Council.
33. The customers 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.
34. For low hazard connections, Council requires the registration of the backflow device. Completion of the Inspection and Maintenance Report is not mandatory for low hazard connections.
35. The device installation and commissioning test must be registered with Council within two (2) days of completion of work.
36. Customers are responsible for the provision of zone and individual backflow protection from hazards within their property, as specified in AS/NZS 3500:1.
37. Suspected breaches or misuse of this policy are to be reported to the Chief Executive Officer. Alleged breaches of this policy shall be dealt with by the processes outlined for breaches of the Code of Conduct, as detailed in the Code of Conduct and the Procedures for the Administration of the Code of Conduct.
38. Staff must maintain all records relevant to administering this policy in a recognised Council record-keeping system.

## Definitions

39. In this policy:
  - a. **Council:** means Central Coast Council, being the organisation responsible for the administration of Council affairs and operations and the implementation of Council policy and strategies
  - b. **Property:** includes all properties other than domestic single dwelling low hazard residential properties serviced by a 20mm or 25mm water connection.
  - c. **Customer:** means the owner of the property.

- d. **Plumbing Code of Australia:** means the technical provisions for the design, construction, installation, replacement, repair, alteration and maintenance of water services, sanitary, plumbing and drainage systems.
- e. **AS/NZS 3500:1:** means the current version of the Australian Standard/New Zealand Standard for Plumbing and Drainage. AS/NZS 3500:1 refers to Part 1 (Water Services) of this standard.
- f. **AS/NZS 2845:1:** means the current version of the Australian Standard/New Zealand Standard for Water Supply. AS/NZS 2845:1 refers to Part 1 (Backflow Prevention Devices) of this standard.
- g. **Backflow:** means
  - i. Flow in the direction contrary to the normal or intended direction of flow
  - ii. The unintended flow of water from a potentially polluted source into a potable water supply system
- h. **Backflow Prevention Device:** means a mechanical device that will prevent the reverse flow of water from a potentially polluted source into the potable water supply system.
- i. **Connections:** means all service connections to a Council water main, including those from customers' premises or from standpipes.
- j. **Containment Protection:** means 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.
- k. **Cross Connection:** means any connection or arrangement between the potable water supply system connected to the water main or any fixture, which may under certain conditions enable water unsuitable for drinking or other substances to enter the potable water supply system.
- l. **Decentralised Wastewater Treatment System:** means a privately-owned system for treatment and reuse or disposal of wastewater, including treated greywater.
- m. **Fire Drencher Sprinkler Systems:** means heat-activated fire suppression systems, which spray water on the outside surface of a building or structure, to prevent the spread of fire from an adjacent building or structure.
- n. **Fire Services:** means services comprising water pipes, fire hydrants, fire hose reels, fittings and including water storage or pumping facilities, which are installed in and around a building or property solely for the purpose of fighting and extinguishing fires. Under certain conditions part of a fire sprinkler system may be included.
- o. **Hazard Ratings** (as defined in AS/NZS 3500:1) means:

- i. High Hazard – any condition, device or practice which in connection with the water supply system has the potential to cause death.
  - ii. Medium Hazard – any condition, device or practice which in connection with the water supply system could endanger death.
  - iii. Low Hazard – 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.
- p. **Individual Protection:** means installation of a backflow prevention device at the water connection point of piping to a fixture or appliance.
- q. **Mixed Development:** means a property with both commercial and residential practices on site.
- r. **Zone Protection:** means installation of a backflow prevention device at the connection point of specified sections of a plumbing system within a building or facility.

## Related resources

### 40. Legislation:

- a. [Local Government Act 1993](#) (NSW)
- b. [Public Health Act 2010](#) (NSW)
- c. [Public Health Regulation 2012](#) (NSW)
- d. [Water Management Act 2000](#) (NSW)
- e. [Water Management \(General\) Regulation 2018](#) (NSW)
- f. [Plumbing and Drainage Act 2011](#) (NSW)
- g. [Plumbing and Drainage Regulation 2017](#) (NSW)

### 41. Associated/Internal documents:

- a. Central Coast Council Code of Conduct
- b. Central Coast Council Drinking Water Policy
- c. Central Coast Council Recycled Water Policy
- d. Plumbing Code of Australia (Volume 3 of the National Construction Code)
- e. AS/NZS 3500:1 Plumbing and Drainage Part 1: Water Services
- f. AS/NZS 2845:1 Water Supply – Backflow Prevention Devices.



## History of revisions

Amendment history	Details
<b>Original approval authority details</b>	<p>Chief Executive Officer</p> <hr/> <p>26/06/2020</p> <hr/> <p>To protect the quality of Central Coast Council's drinking and non-drinking water supply by minimising the risk of backflow containment from connections to the supply (and related requirements). This policy replaces the Backflow Prevention Containment Policy (2013) of the former Gosford City Council.</p> <hr/> <p>CM document no. D14046656</p> <hr/>