

Backflow prevention and cross connection control

Policy, procedure, protocol	Policy
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Section / Department	Water Cycle
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Objective	2.1 We will have communities that are well serviced with appropriate infrastructure
Strategy	2.1.1 Maintain and renew water and sewer networks

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1. Purpose

This Policy aims to protect the quality of Clarence Valley Council's drinking water supplies by managing the contamination and pollution risk from backflow, back siphonage and cross connections. Such contamination can affect not only the water distribution system; but also impact on individual property owners. Clarence Valley Council, as the supplier of drinking water to the public, must ensure that it meets its obligations under the Australia Drinking Water Guidelines and its Drinking Water Management System to provide safe drinking water to customers.

2. Definitions

Backflow is the unintended reversal of flow in a water pipeline whereby water that has already passed beyond the meter assembly into the customer's pipeline system returns to the Council's water supply.

Cross-Connection is a direct or indirect physical connection of a drinking water supply to a line that is non-drinking e.g., town water supply to a non-drinking bore.

Hazard Ratings

High Hazard

Any condition, device or practice within the water supply system and its operation, which has the potential to cause death. For examples refer to AS 3500.1:2015.

Medium Hazard

Any condition, device or practice within the water supply system and its operation, which could endanger health. For examples refer to AS 3500.1:2015.

Low Hazard

Any condition, device or practice within the water supply system and its operation, which would constitute a nuisance but not endanger health. For examples refer to AS 3500.1:2015.

Testable Device - Any backflow prevention device that is provided with test taps for the purpose of testing its operation, and a registered break tank; or a registered air gap.

Qualified Person - A licensed plumber who has undertaken accredited backflow training from a registered training organisation.

3. Background/legislative requirements

The following Acts, Standards and Codes are relevant to backflow prevention requirements:

- [Local Government Act 1993 \(NSW\)](#)
- [Plumbing and Drainage Act 2011 \(NSW\)](#)
- [Public Health Act 2010 \(NSW\)](#)
- [Australian Standard AS 2845.1: Water Supply Backflow Prevention Devices; Part 1: Materials, Design & Performance](#)
- [Australian Drinking Water Guidelines 2011](#)
- [National Construction Code Series, 2019: Volume Three, Plumbing Code of Australia](#)
- [Australian Standard AS3500.1: 2015 Plumbing and Drainage Part 1: Water Services](#)

4. Policy statement

All new and existing water connections must be compliant with the requirements of the *Local Government Act 1993*, Plumbing Code of Australia and relevant Australian Standards. All “low hazard” water services are required to have non-testable rated backflow prevention devices. All “medium hazard” and “high hazard” water services are required to have an appropriate testable containment backflow device, which must be annually certified. Maintenance and annual certification of testable containment devices must only be undertaken by a Qualified Person.

5. Procedures

Procedures are outlined in the attachment “Backflow Prevention and Cross Connection Measures”.

6. Appeal/objections process

N/A

7. Attachments

Backflow Prevention and Cross Connection Measures

Attachment: Backflow Prevention and Cross Control Measures Procedures

Introduction

These procedures outline how Clarence Valley Council prevents backflow of water from customer's properties into the drinking water distribution and reticulation systems. The Backflow Prevention and Cross Control Policy objectives are achieved by:

- a) Providing clear guidance to assist Council staff in making determinations relating to protecting the drinking water supply via backflow prevention.
- b) Providing information to members of the public, plumbers and other stakeholders about the selection and installation of backflow prevention devices and Council's role in backflow prevention.
- c) Ensuring that non-complying properties are brought into line with the requirements of this Policy, the Plumbing Code of Australia and the Australian Standard AS 3500 Part 1.
- d) Maintaining backflow records/register for containment devices.
- e) Ensuring boundary containment devices are provided and that these devices are appropriate for the hazard rating for the property.
- f) Ensuring annual certification testing is carried out by a qualified person.
- g) Investigating non-compliance and ensure enforcement of this policy.

Council Responsibilities

Council will operate a system of compliance to ensure that customers comply with this Policy. Council will maintain records of each property's backflow hazard rating. In the absence of any site specific information, Council will assign a hazard rating to a property based on Council's assessment of the primary activities being undertaken on site with reference to AS3500 and hazard allocations of leading Australian water authorities. Council may update the rating from time to time. If the customer has more site specific information and requests a review of the property hazard rating then Council will review the hazard and may determine that a different hazard rating is more appropriate, and amend its records accordingly. Council may ask customers to certify their hazard rating periodically. Council may require that this certification be carried out from time to time by Qualified Personnel.

Council will provide non-testable devices for "low hazard" properties.

Council will keep records and ensure that minimum requirements for Testable Devices are carried out. These are:

- a) All containment testable backflow devices must be registered with Council and certified on installation by a Qualified Person.
- b) All testable containment backflow devices must be certified on an annual basis by a Qualified Person.
- c) Council will advise customers 30 days prior to the date by which the containment device is required to be annually certified.

Customer Responsibilities

On properties that are assessed as a “high hazard” or “medium hazard”, the customer is responsible for the installation, on-going maintenance and annual certification of appropriate backflow prevention devices including containment protection. The customer must engage a Qualified Person to install the backflow device. In the case of existing water services the customer must provide certification of the containment backflow device by a Qualified Person to Council in a timeframe agreed by Council. In the case of a new water service the customer must provide certification of the backflow device by a Qualified Person prior to Council making water available at the service.

Maintenance and annual certification must only be undertaken by a Qualified Person. Certification for the containment backflow prevention device shall be forwarded to Council within 10 working days of the certification testing being undertaken.

Procedures

Testable backflow devices require annual certification and registration. Council will charge each property per containment backflow device a “Backflow Fee – Registration per Annum” payable by owners of testable containment devices annually to cover Council’s costs of administering this backflow testing program.

Council will notify customers with testable containment devices 30 days prior to the annual certification testing being due. The customer must submit certification of the satisfactory operation of the containment backflow device to Council by the due date as nominated in the notification. Council has backflow test and maintenance report books for sale at both the Maclean and Grafton offices for recording the test results. Plumbers can choose to use either the NSW Government Test & Maintenance Reports or reports from Council’s test books.

Where the customer fails to provide the certification by the due date, Council may do one or more of the following:

- a) Issue a reminder notice(s) to the customer,
- b) If the hazard presented by the activities on the property are considered to present sufficient contamination risk to the water supply, or the customer has failed to respond to a reminder notice, Council may use the provisions of the Local Government Act 1993 and the Plumbing and Drainage Act 2011 to enforce compliance with this policy,
- c) If Council believes that the hazard presented by the activities on the property present an unacceptable contamination risk to the water supply and the containment backflow device fails its certification testing, disconnect the water service and charge the appropriate fee specified in the fees and charges for disconnection/reconnection.