

Backflow Prevention Policy			
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RESPONSIBLE OFFICER		Director of Engineering	

PART 1: INTRODUCTION

1.1 Policy Purpose

This policy has been developed to protect the quality of Riverina Water County Council water supply and deals with the risk of contamination by backflow from customers' connections back into Riverina Water's potable water distribution and reticulation systems.

1.2 Policy Objective

The objective of this Policy is to:

- Provide clear guidelines to assist Council staff in making determinations relating to protecting the potable water supply via backflow prevention.
- Provide information to members of the public, plumbers and other stakeholders about the selection and installation of backflow prevention devices and the Council's role in backflow prevention.
- Ensure that non-complying properties are brought into line with the requirements of this Council Policy, Plumbing Code of Australia and the Australian Standard AS 3500.1.
- Ensure that a backflow register and records are maintained.
- Ensure containment devices are provided and that these devices are equal to or greater than the downstream hazard.
- Ensure annual testing is carried out by a qualified person and is added to the Council backflow register.
- Investigate non-compliance and ensure enforcement of this policy.

1.3 Policy Scope

This policy applies to all new and existing customers and properties connected to, or wishing to connect to, the Riverina Water County Council water supply systems.

1.4 Reference Documents

- Plumbing Code of Australia
- Australian and New Zealand Standards AS/NZS 3500.1:
- Plumbing and Drainage Act 2011

PART 2: POLICY CONTENT

2.1 Backflow Prevention Installation and Compliance

Riverina Water requires the installation of backflow prevention devices at all property connections, including but not limited to, residential, rural, commercial and industrial properties. This is done to prevent contamination and backflow of contaminants into the water supply distribution and reticulation systems.

Below outlines the types of registered backflow devices, identification of hazard rating, Riverina Water County Council's responsibilities, the customers' responsibilities as well as the management of non-compliance.

2.2 Registered Backflow Devices

Compliant backflow prevention shall be achieved with the following registered devices:

Registered Device	Definition
Registered Break tanks	A tank system specifically designed for backflow prevention registered by, or on behalf of a regulatory authority, for inspection and maintenance
Registered Air Gaps	<p>A device or system installed for backflow prevention registered by, or on behalf of, a regulatory authority for inspection and maintenance.</p> <p>Air gap for a 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</p>
Testable Reduced Pressure Zone Device	A device to prevent backflow caused by back siphonage or backpressure in a water reticulation system that incorporates two independently operating force loaded non-return valves. These automatically drain to waste whenever the pressure in the system (between the upstream and downstream non-return valves) drops to less than 14 kPa below the pressure at the inlet to the upstream non-return valve
Double check valve assembly	A device to prevent backflow caused by backpressure, which has two independently operating force loaded non-return valves and incorporates specific test points for in-service testing

2.3 Identification of Hazard Ratings:

The three degrees of cross-connection hazards are as follows:

Hazard Rating	Definition
High Hazard Rating	Any condition, device, or practice, which in connection with the water supply system, has the potential to cause death
Medium Hazard Rating	Any condition, device, or practice, which in connection with the water supply system, could endanger health
Low Hazard Rating	Any condition, device, or practice, which in connection with the water supply system, is a nuisance but does not endanger health or cause injury

2.4 Roles and Responsibilities for Backflow Prevention

Riverina Water's Responsibilities:

- Riverina Water shall install non-testable backflow prevention devices on new residential water services up to and including 40mm services only. If determined so, the property owner may be responsible to provide a higher level of backflow protection under the Plumbing Code of Australia (PCA), and AS/NZS 3500:
- Riverina Water shall endeavour, when replacing or undertaking maintenance work, to install non-testable backflow prevention device on existing water services where one is not already fitted. This is up to and including 40mm services only. If determined so, the property owner may be responsible to provide a higher level of backflow protection under the Plumbing Code of Australia (PCA), and AS/NZS 3500:
- Riverina Water shall inform and educate consumers of the risks and hazards associated with backflow contamination, particularly consumers that require a higher degree of backflow prevention (i.e. other than a non-testable backflow prevention device).
- Riverina Water shall provide relevant training to staff to:
 - Identify potential hazards regarding backflow contamination;
 - Installation, commission and maintenance of backflow prevention devices; and,
 - Advise and educate consumers of the risks and hazards associated with backflow contamination.
- Council will advise customers of the date when the device must be tested by with test results forwarded to Council within 10 working days of testing the backflow prevention device.
- Riverina Water reserves the right to refuse water supply (under the Local Government Act 1993) to new and existing water services that do not comply with Council's Backflow Prevention Policy.

Customers Responsibilities:

- The customer is responsible for installation of the appropriate backflow prevention devices including containment protection, on their property that has a high or medium hazard rating.
- Ensuring the type and installation of backflow prevention devices that are to be installed on properties are in accordance the Plumbing Code of Australia and AS/NZS 3500:.
- Ensuring satisfactory operation of all registered backflow device(s)
- The property owner is responsible for ensuring annual testing of all registered backflow device(s) by a licensed plumber with appropriate backflow accreditation in accordance with the National Code of Australia, AS/NZS 3500: and Plumbing and Drainage Act 2011.
- Ensuring testable backflow prevention devices that are to be commissioned and tested are done so by a licensed plumber with appropriate backflow prevention accreditation. A Notice of Work (NoW) must be issued by Riverina Water prior installation of any backflow prevention device. The testable device must be registered with Riverina Water.
- Backflow prevention devices for irrigation and watering systems shall comply with the Plumbing Code of Australia and AS3500:

Terms referenced in the above document are defined below:

Referenced Terms	Definition
Accredited Backflow Prevention Plumber	A licensed plumber who has completed a TAFE NSW backflow prevention course
Backflow Prevention Containment Device	A device to prevent the reverse flow of water from a potentially polluted source, into the drinking water supply system
Individual Protection	Installing a backflow prevention device at the point where the water pipes connect to a fixture or appliance
Licensed Plumber	A plumber with a license issued by the NSW Office of Fair Trading