Schematic of an RPZ boundary backflow device installation

- Check valves (easily accessible)
- Test cocks (easily accessible)
- Y strainer (opening down)
- Upstream shut off
- Downstream shut off (No 2 Shut Off)
- Relief valve
- Finished clearance (allow for any landscaping)

Requirements for installing

- Downstream shut off
- Upstream shut off
- Check valves (easily accessible)
- Test cocks (easily accessible)
- Y strainer (opening down)
- Water meter in manifold/meter box

Schematic of a double check valve boundary backflow device installation:

Note: May be installed above or below ground level

- Check Valves (easily accessible)
- Downstream Shut Off
- Y Strainer (opening down)
- Upstream Shut Off
- Direction of Flow
Protection of the public water supply

To provide a safe supply of drinking water, the DCC manages the risk of backflow into the public water supply network through the installation of testable backflow prevention devices on properties that present a backflow risk.

As boundary backflow devices are customer-owned they are subject to the Building Act. Before installing a new device you will need either:
- a building consent – if the installation is part of a development and additional building work is proposed, or
- an exemption from the Building Act – where installing a backflow device is the only building work being undertaken.

The requirements of Clause G12 of the NZ Building Code must be met. G12 is focused on avoiding backflow within a property. To ensure the public water supply is protected, the device must be located at the boundary. The DCC will determine the potential hazard and therefore the type of device required.

Further information

Further information and application/approval forms can be found at www.dunedin.govt.nz/backflow.

Enquiries should be directed to the Water Bylaw Compliance Officer by emailing backflow@dcc.govt.nz, or calling 03 477 4000.

BEFORE the device is installed

- Make sure you have been granted a building consent or an exemption from the Building Act.
- If this is a new connection, make sure your ‘Application for Water Supply’ has been approved.

A backflow device can cause around 5–10% loss of pressure, so consider the flow rates you need. A city-wide water pressure map is available at www.dunedin.govt.nz/council-online/webmaps/water-pressure-map.

AFTER the device is installed

- Advise The DCC by submitting a ‘Notification of New Boundary Backflow Prevention Device’ form which can be found at www.dunedin.govt.nz/backflow.
- The DCC will inspect and test the device.
- Any issues will need to be resolved before final approval is given.

Technical specifications

Device type

The DCC will decide which device is required based on the potential hazard from a property. An RPZ provides the highest level of protection.

Device location

- All devices must be located immediately downstream of the water meter, just inside the customer’s property boundary. If this location is not possible, the written approval of The DCC is required.
- They must be sited for safe and easy testing and maintenance access (including easy access to the test cocks and shut off valves) and away from other hazards, e.g. heavy traffic.
- They must be serviceable “in-line”, i.e. without removal from its position in the pipe.
- Plantings must not interfere with the device access and operation.

RPZ

An RPZ installation must provide for the discharge of water. The relief valve discharge port must be at least 300mm above ground level. Any cover must provide a gap at the bottom to allow for any relief valve discharge to be visible. Drainage must be provided.

Double check valve

A double check valve may be installed below ground or in a pit, with DCC written approval.

Installation Details

Both RPZ and double check valve installations must meet the following requirements.

1. Valves and strainers: There must be an isolating valve and strainer upstream and an isolating valve downstream of the device.

2. Relevant standards: It must comply with AS/NZS 2845.1 and clause G12 of the NZ Building Code (with the exception of location and device type as noted above), and be installed to the manufacturer’s instructions.

3. Bypass: There shall be no unprotected bypass installed around the device. If there is a need for continuous water supply to the premises, parallel backflow installations are required so testing and maintenance is possible.

4. Protection: The device shall be protected from physical damage and freezing, and be secured from vandalism. Any protection must not interfere with the device’s operation, testing or servicing. Any cover must be able to be removed to allow access for testing and servicing. A screwed down cover is preferable to a locked device.

5. Access: The DCC must have safe and efficient access. If the device or cover requires locking, the keys must be provided to Water and Waste Services.

IF ANY OF THE ABOVE REQUIREMENTS CANNOT BE MET, THE PROPOSAL MUST BE APPROVED BY THE DCC IN WRITING, BEFORE THE DEVICE IS INSTALLED.