

<b>Title</b>	<b>Determine the position of water supply backflow prevention devices, and install, test, and maintain devices</b>		
<b>Level</b>	<b>4</b>	<b>Credits</b>	<b>3</b>

<b>Purpose</b>	<p>This unit standard is for people who work in the plumbing industry.</p> <p>People credited with this unit standard are able to:</p> <ul style="list-style-type: none"> <li>– determine the position of water supply backflow prevention devices;</li> <li>– install and test testable water supply backflow prevention devices in accordance with job specifications and relevant codes and standards; and</li> <li>– repair and maintain water supply backflow prevention devices.</li> </ul>
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<b>Classification</b>	Plumbing, Gasfitting and Drainlaying > Plumbing
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<b>Available grade</b>	Achieved
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## Guidance Information

### 1 References

Building Act 2004;

Health and Safety at Work Act 2015;

Local Government Act 2002;

Plumbers, Gasfitters, and Drainlayers Act 2006;

Plumbers, Gasfitters, and Drainlayers Regulations 2010;

The following standards, which are available at <http://www.standards.govt.nz>:

AS/NZS 2845.1:1998 *Water Supply – Backflow prevention devices – Materials, design and performance requirements*,

AS/NZS 3500.1:2003, *Plumbing and Drainage – Water services*, Section 5.2,

NZS 3604:1999 *Timber Framed Buildings*,

NZS 5807:1980 *Code of practice for industrial identification by colour, wording or other coding*;

New Zealand Water and Wastes Association, *Boundary Backflow Prevention for Drinking Water Suppliers Code of Practice*, 2013, available at

<https://www.waternz.org.nz>;

The following clauses, and any related compliance documents, which are available at

<https://www.building.govt.nz>:

New Zealand Building Code Clause G10 Piped Services,

New Zealand Building Code Clause G12 Water Supplies;

The following reference, which is available at <https://nepis.epa.gov>:

United States Environmental Protection Agency (EPA), *Cross-Connection Control Manual*, February 2003, Chapter 5. Ref 816R03002;

and their subsequent amendments and replacements.

- 2 **Range**  
backflow prevention devices for – atmospheric vacuum break (AVB), pressure vacuum breaker (PVB), spill proof vacuum breaker (SPVB), registered air gap, double detector check, double check valve (Dual check), hose connection vacuum breaker, reduced pressure zone device, vacuum break, vented dual check.  
For performance criterion 2.4 only the following from the range above are able to be tested – pressure vacuum breaker (PVB), spill proof vacuum breaker (SPVB), testable double check valve, reduced pressure zone device.
- 3 Credit for this unit standard does not entitle the candidate to legally perform the testing of backflow prevention devices in the capacity of an Independent Qualified Person (IQP), or Accredited Backflow Prevention Tester (ABT).
- 4 This unit standard requires the application of theory as included in the Plumbers, Gasfitters, and Drainlayers Regulations 2010.
- 5 Candidates must hold a current plumbing certificate or licence as issued under the Plumbers, Gasfitters, and Drainlayers Act 2006.
- 6 **Definitions**  
*Job specifications* – instructions (oral, written, graphic) and may include any of the following: manufacturer instructions; design drawing detail specifications; specifications from a specialist source such as an architect, designer, engineer, or a supervisor; and site or work specific requirements. Where job specifications are in conflict with applicable legislation, standards, and/or codes, such legislation, standards, and/or codes shall take precedence for the purpose of assessment.  
*Maintain* may refer to all or any of – repair, upgrade, alter, remove.  
*Other services* – any existing installed services.
- 7 All practical activities must be carried out in a way that avoids harm to people and damage to property, environment, other services, materials, tools, and equipment.

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## Outcomes and performance criteria

### Outcome 1

Determine the position of water supply backflow prevention devices.

### Performance criteria

- 1.1 Position water supply backflow prevention devices and associated drains, if required, in accordance with job specifications.

### Outcome 2

Install and test testable water supply backflow prevention devices in accordance with job specifications and relevant codes and standards.

**Performance criteria**

- 2.1 Install water supply backflow prevention devices.
- 2.2 Protect water supply backflow prevention devices.
- 2.3 Identify water supply pipework by label and colour.
- 2.4 Commission and test water supply backflow prevention devices in accordance with manufacturer instructions, EPA 816R03002, and relevant standards and codes.
- 2.5 Complete documentation to record test results in the required format.

**Outcome 3**

Repair and maintain water supply backflow prevention devices.

**Performance criteria**

- 3.1 Assess installed water supply backflow prevention devices in accordance with maintenance requirements and relevant standards and codes.
- 3.2 Identify the cause of faults and the means of rectification.
- 3.3 Rectify faults in accordance with maintenance requirements and job specifications.
- 3.4 Perform appropriate post maintenance commissioning processes.

<b>Replacement information</b>	This unit standard and unit standard 30598 replaced unit standard 2117.
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<b>Planned review date</b>	31 December 2022
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**Status information and last date for assessment for superseded versions**

Process	Version	Date	Last Date for Assessment
Registration	1	26 October 2017	N/A

<b>Consent and Moderation Requirements (CMR) reference</b>	0003
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

**Comments on this unit standard**

Please contact The Skills Organisation [reviewcomments@skills.org.nz](mailto:reviewcomments@skills.org.nz) if you wish to suggest changes to the content of this unit standard.