

Title	Describe alternative water supply, water storage, and on-site drinking water treatment systems for sanitary plumbing		
Level	4	Credits	3

Purpose	<p>This unit standard is for people who work, or intend to work, in the plumbing industry.</p> <p>People credited with this unit standard are able to describe:</p> <ul style="list-style-type: none"> – alternative water supplies for sanitary plumbing; – water storage systems for sanitary plumbing; – on-site drinking water treatment systems for sanitary plumbing; and – regulatory requirements as applied to alternative water supplies, and water storage systems for sanitary plumbing.
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Classification	Plumbing, Gasfitting and Drainlaying > Plumbing
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Available grade	Achieved
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Guidance Information

- 1 Legislation, regulations and/or industry standards relevant to this unit standard include but are not limited to the:
- Building Act 2004;
 - Health and Safety at Work Act 2015;
 - Plumbers, Gasfitters, and Drainlayers Act 2006;
 - Plumbers, Gasfitters, and Drainlayers Regulations 2010;
 - Water Services Act 2021;
 - Water Services (Drinking Water Standards for New Zealand) Regulations 2022;
 - Drinking Water Acceptable Solutions, available at [Acceptable Solutions | Taumata Arowai](#).

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

- AS/NZS 3500.1:2021 *Plumbing and drainage, Part 1: Water services*,
- NZS 3604:2011 *Timber-framed buildings*.

The following Building Code clauses, and any related Acceptable Solution and Verification Method 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.

Any new, amended or replacement referenced standards, codes of practice, guidelines, Building Code Acceptable Solutions and Verification Methods, or authority requirements affecting this unit standard will take precedence for assessment purposes, pending review of this unit standard.

- 2 Candidates must hold a current limited certificate trainee authorisation or exemption under supervision as issued under the Plumbers, Gasfitters, and Drainlayers Act 2006.
- 3 This unit standard relates to the storage of water sourced from both reticulated network authority and self-contained water supply systems. Self-contained water supply systems may refer to private water collection or bore and distribution systems.

Outcomes and performance criteria

Outcome 1

Describe alternative water supplies for sanitary plumbing.

Range rainwater, bore water, non-potable water.

Performance criteria

- 1.1 Describe methods to access alternative sources of water to supply sanitary plumbing needs.
- 1.2 Describe requirements to manage water quality of alternative supply sources.
- 1.3 Describe limitations on the use of water from alternative sources.

Outcome 2

Describe water storage systems for sanitary plumbing.

Performance criteria

- 2.1 Describe the operation of gravity feed water storage systems.

Range includes but is not limited to – external elevated reservoir, internal header tank, break tanks in multi-story buildings.
- 2.2 Describe requirements for water storage systems.

Range includes but is not limited to – potable water, non-potable water, grey water, emergency water supply, storage for fire protection.
- 2.3 Describe the requirements to provide overflow protection for water storage systems.

Outcome 3

Describe on-site drinking water treatment systems for sanitary plumbing.

Performance criteria

3.1 Describe water treatment system processes.

Range includes but is not limited to - settlement process, filtration, U.V treatment, chlorination, P.H control.

3.2 Describe the selection and installation of on-site drinking water treatment systems and components.

Range includes but is not limited to – end point treatment systems in accordance with The Drinking Water Acceptable Solutions (Taumata Arowai).

3.3 Describe the monitoring, testing and maintenance processes for on-site drinking water treatment systems.

Range includes but is not limited to – monitoring, testing and maintenance in accordance with Drinking Water Acceptable Solutions (Taumata Arowai).

Outcome 4

Describe regulatory requirements as applied to alternative water supplies, and water storage systems for sanitary plumbing.

Performance criteria

4.1 Describe the application of relevant sections of legislation, standards, and codes to the use of alternative water supplies.

4.2 Describe the application of relevant sections of legislation, standards, and codes to the installation, securing, and maintenance of water storage systems.

Planned review date	31 December 2029
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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	31 December 2028
Review	2	30 May 2024	N/A

Consent and Moderation Requirements (CMR) reference	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 Waihangā Ara Rau Construction and Infrastructure Workforce Development Council qualifications@waihangaararau.nz if you wish to suggest changes to the content of this unit standard.