

Title	Maintain hot and cold water supply systems		
Level	4	Credits	5

Purpose	<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"> – maintain water supply systems; – maintain water heating systems; and – maintain water main systems.
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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.

The following standards, which are available at <https://www.standards.govt.nz>:
 AS/NZS 3500.1:2021 *Plumbing and drainage, Part 1: Water services*,
 AS/NZS 3500.4:2021 *Plumbing and drainage, Part 4: Heated water services*,
 NZS 3604:2011 *Timber-framed buildings*;
 NZS 4305:1996 *Energy efficiency – Domestic type hot water systems*.

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 B1 Structure,
 New Zealand Building Code Clause B2 Durability,
 New Zealand Building Code Clause G10 Piped Services,
 New Zealand Building Code Clause G12 Water Supplies,
 New Zealand Building Code Clause H1 Energy Efficiency.

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 Definitions

Job specifications refer to 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.

Maintain may refer to all or any of – repair, upgrade, alter, remove.

Water heating systems refer to low pressure systems, which include open vented, valve vented, controlled and uncontrolled heat sources, and push through systems; and mains pressure systems.

Water main systems refers to onsite water mains downstream of the point of supply and associated fittings, metering equipment and pipework to buildings and other connection and termination points.

Water supply systems refers to water collection, storage, and distribution pipework within buildings, and to metering equipment. This includes hot and cold water supply pipework.

3 Candidates must hold a current limited certificate trainee authorisation or exemption under supervision as issued under the Plumbers, Gasfitters, and Drainlayers Act 2006.

4 Level of performance

To achieve this standard the candidate must be capable of consistently performing the requirements:

- to current and relevant legislation, standards and codes (including safety);
- in an environmentally sustainable manner;
- within an acceptable timeframe;
- in the workplace;
- in different and unfamiliar contexts.

Outcomes and performance criteria

Outcome 1

Maintain water supply systems.

Performance criteria

1.1 Identify faults in terms of causes and means of rectification.

1.2 Rectify faults in accordance with maintenance requirements, job specifications, and relevant standards and codes.

Outcome 2

Maintain water heating systems.

Range evidence is required for two water heating systems, and must include one storage water heating system.

Performance criteria

- 2.1 Identify faults in terms of causes and means of rectification.
- 2.2 Rectify faults in accordance with maintenance requirements, job specifications, and relevant standards and codes.

Outcome 3

Maintain water main systems.

- 3.1 Identify faults in terms of causes and means of rectification.
- 3.2 Rectify faults in accordance with maintenance requirements, job specifications, and relevant standards and codes.

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	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 Waihangara Ara Rau Construction and Infrastructure Workforce Development Council qualifications@waihangaraarau.nz if you wish to suggest changes to the content of this unit standard.