

Title	Maintain water quality in water supply reticulation systems		
Level	4	Credits	5

Purpose	People credited with this unit standard are able to: identify and isolate water quality problems, implement responses, and report findings; and implement hygienic measures to prevent contamination during maintenance and construction, identify further action required, and carry out water supply sampling.
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Classification	Water Industry > Water Reticulation
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Available grade	Achieved
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Guidance Information

- Legislation and references relevant to this unit standard include:
 - Health Act 1956,
 - Health and Safety at Work Act 2015,
 - Public Works Act 1981, and subsequent amendments;
 - NZS 9201.7:2007 *Model general bylaws - Water supply* and AS/NZS 4020:2005 *Testing of products for use in contact with drinking water*, available from <http://www.standards.govt.nz>;
 - Guidelines for Drinking-water Quality Management for New Zealand 2015* (2nd edn);
 - Drinking Water Standards for New Zealand 2005 (Revised 2008)*, Ministry of Health, Wellington.
- Definitions
 - Organisational procedures* – instructions to staff, and procedures which are documented in memo or manual format and are available in the workplace. These requirements include but are not limited to – site specific requirements, manufacturers' specifications, product quality specifications, and legislative or regulatory requirements.
 - Sampling* includes microbiological sampling
 - Water reticulation* – in this context refers to all pipe systems, pumping systems, and components that contribute to the distribution of water.
 - Contamination* – contamination affecting workers and/or the water supply when people transfer from working on wastewater systems to water systems.

Outcomes and performance criteria

Outcome 1

Identify and isolate water quality problems, implement responses and report findings.

Performance criteria

- 1.1 The nature of the water quality problem is determined by observation or customer reporting.

Range taste, colour, turbidity, odour, cloudiness (air), pressure variation, presence of chlorine.
- 1.2 The cause of the problem is identified, isolated, and followed up in accordance with organisational procedures.
- 1.3 The need for water sampling is determined, and further action required is identified, in accordance with the nature and cause of the problem.
- 1.4 Findings are reported in accordance with organisational and water supplier's requirements.

Outcome 2

Implement hygienic measures to prevent contamination during maintenance and construction, identify further action required, and carry out water supply sampling.

Performance criteria

- 2.1 Hygienic procedures while carrying out maintenance and construction work are implemented to prevent contamination in accordance with organisational procedures, and water supplier's requirements.
- 2.2 Duty of care is implemented to maintain pipe system integrity in accordance with organisational procedures.
- 2.3 Disinfection practices during maintenance and construction works are implemented in accordance with organisational procedures, contract requirements, and current legislation.
- 2.4 The need for further maintenance and monitoring, and additional action, is identified in accordance with organisational procedures, and contract requirements.
- 2.5 Water supply is sampled, and sample is tested, during maintenance and construction work in accordance with organisational procedures, and contract requirements.
- 2.6 Water supply is tested for free chlorine on-site in accordance with organisational procedures.

Replacement information	This unit standard and unit standard 22106 were replaced by unit standard 31521.
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This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	26 October 2005	31 December 2016
Rollover and Revision	2	20 February 2009	31 December 2016
Rollover	3	21 July 2011	31 December 2018
Review	4	16 March 2017	31 December 2021
Review	5	29 November 2018	31 December 2021

Consent and Moderation Requirements (CMR) reference

0101

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.