

Title	Undertake sampling and site testing procedures for drinking-water treatment		
Level	4	Credits	6

Purpose	People credited with this unit standard are able to: collect and handle water samples for drinking-water treatment, and carry out site testing of water and any required adjustments in a drinking-water treatment plant.
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Classification	Water Industry > Water Treatment
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Available grade	Achieved
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Guidance Information

- 1 Evidence presented for assessment against this unit standard must be consistent with safe working practices and be in accordance with applicable legislative and industry requirements.
- 2 Legislation and references relevant to this unit standard include: Health and Safety at Work Act 2015, Water Services Act 2021, Hazardous Substances and New Organisms (HSNO) Act 1996, and subsequent amendments; Ministry of Health, *Drinking-water Standards for New Zealand*, Ministry of Health, Wellington, 2005 (Revised 2018) and subsequent amendments available at www.taumataarowai.govt.nz/.
- 3 Definition
Industry requirements include manufacturers' specifications; and enterprise requirements which may include documented workplace policies, procedures, specifications, business, and quality management requirements relevant to the workplace in which assessment is carried out.
- 4 Learning and assessment activities for this unit standard must be informed by Te Mana o te Wai (refer to [Taumata Arowai](http://www.taumataarowai.govt.nz/)) and the *National Policy Statement for Freshwater Management 2020* available from <https://environment.govt.nz/>.

Outcomes and performance criteria

Outcome 1

Collect and handle water samples for drinking-water treatment.

Performance criteria

- 1.1 Sampling sites and times are selected.
- Range sampling frequency, grab samples, containers, multiple sites.
- 1.2 Sample collection procedures are carried out.
- Range includes but is not limited to – collection methods, correct containers, sterility, flush volumes, representative samples, sample contamination, preservation of sample integrity.
- 1.3 Samples are labelled.
- Range includes but is not limited to – date, time, location, source, purpose, sampler.
- 1.4 Samples are handled and transported.
- Range may include but is not limited to – sample packing, temperature control, sunlight effects, timeliness, chain of custody.

Outcome 2

Carry out site testing of water and any required adjustments in a drinking-water treatment plant.

Performance criteria

- 2.1 Testing equipment is verified and calibrated in accordance with the *Drinking-water Standards of New Zealand*.
- 2.2 Site tests are carried out.
- Range must include – chlorine residual;
may include but is not limited to – jar test, ultraviolet transmissivity (UVT), turbidity, conductivity, pH, alkalinity, hardness, aluminium, iron, manganese, temperature.
- 2.3 Results of site testing are recorded.
- 2.4 Plant adjustments to maintain required operating parameters in the event of sample results outside operating guidelines are made.

Planned review date	31 December 2027
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	16 March 2017	31 December 2024
Review	2	26 May 2022	N/A

Consent and Moderation Requirements (CMR) reference

0101

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

Comments on this unit standard

Please contact Waihanga Ara Rau Construction and Infrastructure Workforce Development Council at qualifications@WaihangaAraRau.nz if you wish to suggest changes to the content of this unit standard.