

41217**Carry out sampling, testing, and reporting of non-potable water**

Kaupae Level	3
Whiwhinga Credit	5
Whāinga Purpose	This skill standard is for people working in an environment that requires the sampling and testing of non-potable water. People with this skill standard can apply regulatory and compliance requirements to non-potable water, and carry out sampling and testing, result interpretation, and reporting to inform operational decision-making. This skill standard aligns with the New Zealand Certificate in Wastewater Treatment Operations (Level 4) with optional strands in Activated Sludge, Effluent Disinfection, Fixed Growth Reactor, Separation, Sludge, and Ponds [Ref: 5673] and may also contribute to other water services industry credentials.

Hua o te ako me Paearu aromatawai | Learning outcomes and assessment criteria

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
1. Apply regulatory and compliance requirements to non-potable water sampling and testing.	a. Identify legislative, regulatory and consent-related requirements applicable to non-potable water sampling and testing.
	b. Explain how sampling and testing support environmental protection, discharge compliance, and process control in non-potable water systems.
	c. Apply workplace sampling programmes, consent conditions, and standard operating procedures when planning sampling activities.
	d. Apply escalation, reporting, and notification requirements to the results that are outside specified limits.

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
2. Perform non-potable water sampling and testing to inform operational decision-making.	a. Select sampling locations, time, and methods appropriate to sampling purpose, process monitoring needs, and consent requirements.
	b. Collect non-potable water samples using specified methods while maintaining sample integrity, health and safety, and contamination-prevention controls.
	c. Test non-potable water samples using appropriate field or laboratory techniques in accordance with operational requirements.
	d. Record and report results in accordance with operational, environmental, and requirements.

Pārongo aromatawai me te taumata paearu | Assessment information and grade criteria

Assessment specifications:

Ākonga must demonstrate that they can carry out compliant sampling, testing, and reporting of non-potable water in a manner that meets operational and applicable legislative and regulatory requirements.

Definitions

Non-potable water refers to water that is not suitable for drinking and includes wastewater, trade waste, and source waters.

Operational requirements refer to the documented and embedded ways of working that govern how activities are planned, performed, monitored, and controlled in the workplace to ensure safe, consistent, and compliant operations.

Water services refer to industries responsible for working on or around water supplies, networks, plants, and systems.

Ngā momo whiwhinga | Grades available

Achieved.

Ihirangi waitohu | Indicative content**Sampling purpose and controls**

- Why sample e.g. bacteria, compliance, and process sampling.
- What to look for.
- Chain of custody.
- Implications and consequences – community safety, protecting natural ecosystems.
- Compliance frameworks.
- Escalation e.g. process for samples that are out of range.
- Verification.
- Standard operating procedures.

Health and safety

- Hygiene.
- Personal Protective Equipment.
- Sterilisation.

Equipment

- Equipment such as microscopes, spectrophotometers, dissolved oxygen probes.
- Verification and calibration.

Sampling and testing

- Representative sample.
- Sampling for what e.g. pH, suspended solids, hydrocarbons, and bacteria.
- Compliance sampling.
- Bacteria sampling e.g. sludge production analysis, microbial counting, settling tests.
- Methodology.
- Taking a sample (e.g. online, grab, composite), what to put your sample in, and avoiding contamination.
- Storing and transporting samples.
- Records and reporting.

Rauemi | Resources

Legislation, regulations and/or industry standards relevant to this skill standard include, but are not limited to:

- Hazardous Substances and New Organisms Act 1996 - [Hazardous Substances and New Organisms Act 1996 No 30 \(as at 05 April 2025\), Public Act Contents – New Zealand Legislation](#).
- Health and Safety at Work Act 2015 - [Health and Safety at Work Act 2015 | WorkSafe](#).
- National Wastewater Environmental Performance Standards - [Discussion-document-National-wastewater-environmental-performance-standards-FINAL.pdf](#).
- Resource Management Act 1991 - [Resource Management Act 1991 | New Zealand Legislation](#).
- Water Services Act 2021 - [Water Services Act 2021, Public Act Contents – New Zealand Legislation](#).
- Wastewater Standards - [Wastewater standards | The Water Services Authority - Taumata Arowai](#).

Pārongo Whakaū Kounga | Quality assurance information

Ngā rōpū whakatau-paerewa Standard Setting Body	Energy and Infrastructure Industry Skills Board
Whakaritenga Rārangi Paetae Aromatawai DASS classification	Engineering and Technology > Water Industry > Wastewater Treatment
Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga CMR	0120

Hātepe Process	Putanga Version	Rā whakaputa Review Date	Rā whakamutunga mō te aromatawai Last date for assessment
Rēhitatanga Registration	1	28 May 2026	N/A
Kōrero whakakapinga Replacement information	This skill standard replaced unit standard 24927.		
Rā arotake Planned review date	31 December 2032		

Please contact Energy and Infrastructure Industry Skills Board at qualifications@energyinfra-skills.nz if you wish to suggest changes to the content of this skill standard.