

41241 Control source water abstraction for drinking water

Kaupae Level	4
Whiwhinga Credit	12
Whāinga Purpose	This skill standard is for people who are working as drinking water treatment operators. People with this skill standard can control source water abstraction for drinking water supply including controlling abstraction methods, monitoring supply sufficiency, and adjusting abstraction in response to operational and compliance limits. This skill standard applies to the control of source water abstraction for municipal drinking water systems, where abstraction decisions can have significant public health, regulatory compliance, and continuity of supply effect. This skill standard aligns with the New Zealand Certificate in Drinking Water Treatment Operations (Level 4) with optional strands in Pre-Treatment, Clarification, Coagulation and Flocculation, Non-Chlorine Disinfection, Fluoridation, and Filtration [Ref: 5672] 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. Assess the suitability of source water for drinking water supply.	a. Assess suitability of available raw water sources against drinking water supply requirements.
	b. Interpret groundwater flow principles to determine underground movement of water.
	c. Apply compliance requirements to assess abstraction feasibility and constraints.
	d. Evaluate sustainable abstraction levels and determine consequences for breaching extraction limits.
2. Control source water abstraction.	a. Control abstraction methods and equipment for source water supply abstraction.
	b. Analyse monitoring data and record water levels to confirm sufficiency of supply.
	c. Adjust abstraction strategies in response to sufficiency of supply and compliance limits.

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

Ākonga must demonstrate the ability to assess source water suitability and abstraction constraints, supply sufficiency, and make abstraction control decisions within defined operational requirements, and environmental and compliance limits.

Definitions

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.

Raw water refers to water that has not undergone purification or treatment and comes from natural water sources for example rivers, lakes, rainwater, groundwater, and impoundments.

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**Source water assessment**

- Raw water quality, contaminants, and public health risk.
- Aesthetics and treatment implications.
- Source reliability, yield, and supply sufficiency.

Hydrogeology and flow

- Aquifers and aquicludes characteristics.
- Drawdown impacts and recharge.
- Implications for abstraction sustainability and risk.

Abstraction management

- Abstraction processes, hydraulics, and infrastructure.
- Monitoring regimes and data interpretation.
- Regulatory limits, breach consequences, and response actions.
- Operational responses to water quality and quantity variation.

Rauemi | Resources

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

- Health and Safety at Work Act 2015 - [Health and Safety at Work Act 2015 | WorkSafe](#).
- Water Services Act 2021 - [Water Services Act 2021, Public Act Contents – New Zealand Legislation](#).
- Hazardous Substances and New Organisms Act 1996 - [Health and Safety at Work \(Hazardous Substances\) Regulations 2017 \(LI 2017/131\) \(as at 20 October 2025\) Contents – New Zealand Legislation](#).
- Resource Management Act 1991 - [Acts and Bills | Ministry for the Environment](#).

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 > Water 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	N/A		
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.