1XXXXX Plan and coordinate hydrometric station installations

Kaupae | Level	5
Whiwhinga | Credit	25
Whāinga | Purpose	People with this skill standard will be able to coordinate installation of a hydrometric station from stakeholder consultation, site evaluation, design, planning, and management of installation. Learners who are awarded this standard will apply hydrological, engineering, and project management principles to ensure the station is designed and constructed according to technical, regulatory, and worksite procedures. This skill standard has been developed to align with the New Zealand Diploma in Field Hydrology (Level 5) [Ref: 2344].

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

Hua o te ako | Learning outcomes	**Paearu aromatawai |** Assessment criteria
1. Scope and design a hydrometric station	a. Define the purpose of the station and carry out stakeholder consultation to inform design requirements.
	b. Evaluate site options and select the most suitable location.
	c. Investigate selected site conditions, including access, hazards, communications, and power supply.
	d. Evaluate structural and instrumentation options for the selected site, considering functional requirements and budget.
	e. Consult on the draft design and develop cost estimates for the construction phase.
	f. Gain final approval for the hydrometric station design and site location.
2. Develop a construction plan for a hydrometric station	a. Develop a construction plan for a hydrometric station.
	b. Demonstrate the use of project-specific health and safety plan in accordance with worksite procedures and accepted industry practice.

Hua o te ako | Learning outcomes	**Paearu aromatawai |** Assessment criteria
	c. Present and consult on finalised plans with relevant stakeholders.
3. Coordinate the construction of a hydrometric station	a. Confirm the final station design and construction plan before commencing works.
	b. Source materials, test instrumentation, and allocate construction resources.
	c. Supervise construction to ensure compliance with the approved design and plan.
	d. Commission the station and verify operational functionality.
	e. Compile and store comprehensive station metadata, could include legal documentation, site references, and as-built plans, photographic evidence.

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

Assessment specifications:

Learners/ākonga' evidence must be collected using naturally occurring evidence.

All activities and evidence must meet the requirements of worksite procedures, accepted industry practice, legislation and any subsequent amendments.

All activities relevant to this standard should reflect ngā kaupapa (the principles) o te Tiriti o Waitangi.

All activities should, as relevant to candidates and/or this standard, reflect the peoples of other cultures, and their world views.

Range

Hydrometric data includes water level and rainfall time series data.

Learners must design and oversee the construction of a hydrometric station with either water level or rainfall monitoring capability.

The scale of the project must require formal planning and involve stakeholder engagement.

Definitions

Construction this could include a new construction or a site upgrade.

Metadata describes data in detail. It has information about how, when, and by whom certain data was collected and the data format.

Worksite procedures refer to the policies and procedures set out in a verbal or written form by the employer or organisation. *Accepted industry practice* refers to approved codes of practice and standardised procedures accepted by the wider industries as examples of best practice.

Ngā momo whiwhinga* | *Grades available

Achieved.

Ihirangi waitohu | Indicative content

Design Station Site

- Consult iwi, landowners, councils and engineers to confirm scope.
- Evaluate sites by topography, access, flow, and telemetry viability.
- Assess catchment hydrology, river morphology and sediment transport.
- Select sites for representative flow and safe, consistent measurement.
- Confirm land access, legal compliance and health and safety factors.

Plan Station Construction

- Decide station types of rainfall, water level, groundwater, water quality, and climate.
- Design platforms, shelters, fencing and mounting systems.
- Specify instruments: loggers, gauges, telemetry units.
- Prepare budget and schedule construction steps.
- Complete consents, permits and H&S documentation.
- Align plans with NEMS and worksite procedures.

Manage Station Build

- Procure equipment and materials.
- Supervise build for safety, installation and quality.
- Conduct initial testing and data checks.
- Record metadata: site ID, install notes, consents.
- Finalise records and hand over for operation.

Rauemi | Resources

Legislation relevant to this skill standard includes but is not limited to:

- NZHS NZHS | The New Zealand Hydrological Society
- Health and Safety at Work Act 2015 Health and Safety at Work Act 2015 No 70 (as at 05 April 2025), Public Act Contents – New Zealand Legislation
- National Policy Statement for Freshwater Management 2014 National Policy Statement for Freshwater Management | Ministry for the Environment
- Resource Management Act 1991 Resource Management Act 1991 No 69 (as at 05 April 2025), Public Act Contents – New Zealand Legislation
- Public Works Act 1981 Public Works Act 1981 No 35 (as at 05 April 2025), Public Act Contents – New Zealand Legislation
- Resource Management (National Environmental Standards for Freshwater) Regulations 2020 Resource Management (National Environmental Standards for Freshwater) Regulations 2020 (LI 2020/174) (as at 01 January 2025) Contents – New Zealand Legislation
- Freshwater Farm Plans Freshwater farm plans | Ministry for the Environment
- National Environmental Monitoring Standards (NEMS) National Environmental Monitoring Standards » National Environmental Monitoring Standards (NEMS)

and any subsequent amendments or replacements.

Pārongo Whakaū Kounga | Quality assurance information

Ngā rōpū whakatau-paerewa | Standard Setting Body	Muka Tangata – People Food and Fibre Workforce Development Council
Whakaritenga Rārangi Paetae Aromatawai | DASS classification	Water Industry > Field Hydrology
Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga | CMR	0232

Hātepe | Process	**Putanga |** Version	**Rā whakaputa |** Review Date	**Rā whakamutunga mō te aromatawai |** Last date for assessment
Rēhitatanga | Registration	<type here>	[dd mm yyyy]	[dd mm yyyy]
Arotakenga | Review	<type here>	[dd mm yyyy]	[dd mm yyyy]
Kōrero whakakapinga | Replacement information	This skill standard will replace Unit standard 28801 Design, plan and manage the construction of a hydrometric station		
Rā arotake | Planned review date	31 December 2030		

Please contact Muka Tangata – People Food and Fibre Workforce Development Council at qualifications@mukatangata.nz to suggest changes to the content of this skill standard.