

41230**Operate and control waste stabilisation pond systems**

Kaupae Level	4
Whiwhinga Credit	10
Whāinga Purpose	This skill standard is for people who work as operators in wastewater treatment environments. People with this skill standard have the skills to operate and control waste stabilisation pond systems to meet treated wastewater standards and compliance requirements. 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 Treatment, and Ponds [Ref: 5673] and may also contribute to other credentials for the water services industry.

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

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
1. Operate waste stabilisation pond systems to meet wastewater treatment requirements.	a. Outline waste stabilisation pond systems, in terms of purpose, operating principles, limitations, and relevant regulations.
	b. Describe operational components and processes in waste stabilisation pond systems.
	c. Operate waste stabilisation pond systems to meet operational and compliance requirements.
2. Control waste stabilisation pond system processes.	a. Perform process tests and measures, and undertake operational observations to optimise treatment processes to meet operational and compliance requirements.
	b. Interpret monitoring results to identify trends, variations, and emerging process issues.
	c. Record monitoring results and operational adjustments in accordance with operational requirements.

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
3. Maintain waste stabilisation pond system plant and equipment.	a. Maintain plant and equipment to ensure optimal stabilisation pond system functionality.
	b. Identify and respond to faults or failures in accordance with operational requirements.
	c. Record maintenance in accordance with operational requirements.

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

Assessment specifications:

Ākonga must demonstrate that they can safely, consistently, and competently operate and control stabilisation pond system processes in accordance with operational requirements and applicable legislative and regulatory requirements.

Assessment for this skill standard must be based on practical performance and supported by evidence that must take place in an operational wastewater treatment environment where a stabilisation pond system for treatment is in use.

Assessment must cover the full range of processes for stabilisation of pond systems relevant to this skill standard that are in use at the candidate's workplace.

Evidence must demonstrate consistent performance over time, not one-off tasks.

Definitions

Candidate's workplace (for assessment purposes) means the operational treatment site(s) nominated by the employer as the workplace for assessment, that includes the full range of processes relevant to this assessment standard and to the candidate's expected duties. Where the employer operates multiple treatment sites, the nominated workplace must not be limited to a site with minimal relevant processes where this would prevent evidence being gathered for the full range of processes relevant to this assessment standard.

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**Operate and control pond system treatment processes**

- Purpose of wastewater treatment using waste stabilisation ponds.
- Biological activity and oxidation processes.
- Seasonal influences on pond performance and treatment efficiency.
- Pond loading and seasonal influences.
- Algae and indicator organisms.
- Reduction of pathogens.
- Regulatory and consent requirements relevant to pond systems.

Monitoring and process control

- Process tests including Biochemical Oxygen Demand (BOD), Total Suspended Solids (TSS), Dissolved Oxygen (DO).
- Sensory observation (visual, odour, surface conditions).
- Inflow and outflow characteristics.
- Monitoring results and performance trends.

Maintenance and supporting activities

- Adjustment and verification of plant, instruments, and equipment.
- Routine and corrective maintenance of stabilisation pond system treatment assets.
- Process failure and incident response procedures.
- Completion of process records and reports to meet operational and compliance requirements.

Rauemi | Resources

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

- Biosolids Reuse Guidelines - [Guidelines for Beneficial Use of Organic Materials on Productive Land](#) and [Beneficial reuse of biosolids standard | The Water Services Authority - Taumata Arowai](#).
- Wastewater Standards - [Wastewater standards | The Water Services Authority - Taumata Arowai](#).
- Resource Management Act 1991 - [Acts and Bills | Ministry for the Environment](#).
- 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](#).

Pārongo Whakaū Kouna | 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	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.