

41026**Gather, interpret and report on irrigation system performance**

| | |
|---------------------------|--|
| Kaupae Level | 4 |
| Whiwhinga Credit | 15 |
| Whāinga Purpose | <p>This skill standard is for people working in the irrigation industry.</p> <p>People credited with this skill standard will be able to gather and collate irrigation system specifications and key performance indicators (KPIs), interpret the performance results of irrigation systems, and report their findings.</p> <p>This skill standard has been developed to align with the New Zealand Certificate in Irrigation System Performance Assessment (Level 4) [Ref: 2555].</p> |

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

| Hua o te ako Learning outcomes | Paearu aromatawai Assessment criteria |
|---|---|
| 1. Gather and collate irrigation system specifications and KPIs. | a. Gather system specifications and KPIs as per system design documentation. |
| | b. Collate gathered system specifications and KPIs in preparation for the report. |
| 2. Interpret results of irrigation system performance. | a. Review system performance assessment results and compare with specifications and KPIs. |
| | b. Interpret results and determine potential variations in expected performance. |
| 3. Report findings from irrigation system performance assessment. | a. Provide calculations and compare against design KPIs. |
| | b. Describe the implications of measured KPIs against design KPIs. |
| | c. Provide observations that support data interpretation. |
| | d. Provide conclusions and recommendations based on the assessment results. |
| | e. Produce a report detailing data collected, the methodology used and recommendations. |

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

Assessment specifications:

Akōnga/learners must be assessed using naturally occurring evidence.

Activities can be assessed against existing, new or modified irrigation systems.

The irrigation system is for an agricultural or horticultural property, sports turf surface, landscape, golf course, or public grounds.

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

Providers must give due consideration to embedding ngā kaupapa (principles) o Te Tiriti o Waitangi when designing delivery activities relevant to this standard. These principles are outlined in [Guidelines for Providers: Embedding Tirohanga Māori](#).

Providers must give due consideration to the needs and values of Pacific peoples and other cultural groups when designing delivery activities relevant to this standard, ensuring practices are inclusive and equitable.

Range

Evidence for practical components must be collected from two separate commercial irrigation systems.

Evidence for all outcomes must be presented in accordance with the relevant New Zealand codes of practice and any subsequent amendments; available from the Irrigation New Zealand website; <https://www.irrigationnz.co.nz/>

Definitions

Accepted industry practice refers to codes of practice and standardised procedures adopted by the irrigation industries as standards for best practice.

Key Performance Indicators (KPIs) are the measurable outputs and outcomes used to evaluate an irrigation system's performance against its design, operation objectives, regulatory requirements, or environmental benchmarks.

Ngā momo whiwhinga | Grades available

Achieved

Ihirangi waitohu | Indicative content

Data collection and collation of irrigation system specifications and KPIs

- Components and configuration
- Impact of design parameters on irrigation system performance
- Key Performance Indicators for Irrigation systems
- Relationship between system specification and performance indicators
- Source of irrigation system specification data.

Irrigation system performance result interpretation

- Methods of irrigation system performance assessment
- Comparison of measured data against system specifications and industry KPIs
- Common irrigation system performance issues
- Interpretation of performance deviations and system faults.

Irrigation system performance assessment report

- Report structure and components
- Data presentation techniques for irrigation performance reports
- Written and photographic evidence
- Evidence based conclusions and recommendations
- Industry standards and stakeholder requirement for reporting
- Cultural and regulatory considerations in irrigation reporting.

Rauemi | Resources

Codes of practice relevant to this skill standard include but are not limited to:

- The New Zealand Piped Irrigation System Performance Assessment Code of Practice
- Irrigation New Zealand Technical Glossary

available from the Irrigation New Zealand website, <http://irrigationnz.co.nz/>.

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

- Site specific water resource consent or water supply agreement, weather data (e.g. Earth Sciences New Zealand), crop descriptions and soil profile data sheets (e.g. SMap);
- Health and Safety at Work Act 2015;
- Resource Management Act 1991;
- National Policy Statement for Freshwater Management 2020;
- Various Regional Council Land and Water Regulations;
- Resource Management (Freshwater Farm Plans) Regulations 2023;

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 | Engineering and Technology > Water Industry > Irrigation |
| Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga CMR | 0052 |

| Hātepe Process | Putanga Version | Rā whakaputa Review Date | Rā whakamutunga mō te aromatawai Last date for assessment |
|--|---|-----------------------------------|--|
| Rēhitatanga Registration | 1 | 18 December 2025 | N/A |
| Kōrero whakakapinga Replacement information | This skill standard replaced unit standard 28926. | | |
| 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.