

Title	Carry out a full pipe water measurement device verification		
Level	5	Credits	5

Purpose	<p>This unit standard is for people who are responsible for the verification of full pipe water measurement devices required for water permit holders to meet their obligations.</p> <p>People credited with this unit standard are able to: select an appropriate full pipe water measurement device verification methodology; prepare for and carry out a full pipe water measurement device verification; and complete full pipe measurement device verification reporting</p>
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Classification	Water Industry > Irrigation
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Available grade	Achieved
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Guidance Information

- 1 Legislation, regulations, and the policy statement relevant to this unit standard include but are not limited to:

- Building Act 2004;
- Health and Safety at Work Act 2015;
- Resource Management Act 1991;
- Natural and Built Environment Act 2023 section 37 Relationship with RMA national direction (2)(c);
- Electricity (Safety) Regulations 2010;
- Resource Management (Measurement and Reporting of Water Takes) Regulations 2010;
- Resource Management (Measurement and Reporting of Water Takes) Amendment Regulations 2020;
- National Policy Statement for Freshwater Management 2020;
- Radiocommunications Regulations 2001;
- Local bylaws;
- and any subsequent amendments.

- 2 Definitions

Consenting authority refers to the regional council or unitary authority that granted the water permit.

Full pipe water measurement refers to all components, excluding telemetry components, of the measurement configuration which include:

- Service Water meter – instrument that continuously measures and records the volume of water that passes through it.
- Headworks – the structure at the head of the water delivery system that contains the service water meter.

- 3 Assessment:
Evidence for all outcomes must be presented in accordance with the New Zealand Water Measurement Code of Practice; available from the Irrigation New Zealand website, <http://irrigationnz.co.nz/>.

Outcomes and performance criteria

Outcome 1

Select an appropriate full pipe water measurement device verification methodology.

Performance criteria

- 1.1 Select verification methodology in accordance with specifications.
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| Range | includes but is not limited to – legislation, regulations, relevant consenting authority requirements, code of practice, specific permit conditions. |
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- 1.2 Select verification methodology suitable for the full pipe water measurement device installation.

Outcome 2

Prepare for and carry out a full pipe water measurement device verification.

Performance criteria

- 2.1 Carry out a general inspection of the full pipe water measurement device installation.
- 2.2 Carry out a verification in accordance with the full pipe water measurement device requirements.
- 2.3 Explain sources of error and uncertainty of full pipe water measurement verification.
- 2.4 Calculate the percentage error of the verification tests.
- 2.5 Determine the test results and describe them in relation to the test methodology.

Outcome 3

Complete full pipe measurement device verification reporting.

Performance criteria

3.1 Write and submit a verification report to the relevant organisations.

Range may include but is not limited to – consent holder, consenting authority, data hosts, data managers.

Planned review date	31 December 2028
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	20 October 2011	31 December 2022
Review	2	27 February 2020	31 December 2024
Review	3	25 January 2024	N/A

Consent and Moderation Requirements (CMR) reference	0179
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Muka Tangata - People, Food and Fibre Workforce Development Council qualifications@mukatangata.nz if you wish to suggest changes to the content of this unit standard.