

<b>Title</b>	<b>Describe water metering and soil moisture devices and their selection, for measuring performance of irrigation systems</b>		
<b>Level</b>	<b>4</b>	<b>Credits</b>	<b>8</b>

<b>Purpose</b>	<p>This unit standard is for people who design irrigation systems.</p> <p>People credited with this unit standard are able to describe water metering and soil moisture devices for irrigation systems and their installation, and selection and critical point locations of devices to assess performance of an irrigation system.</p>
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<b>Classification</b>	Water Industry > Irrigation
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<b>Available grade</b>	Achieved
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### Guidance Information

- 1 Legislation, regulations, and guidelines relevant to this unit standard include but are not limited to the Health Act 1956, Health and Safety at Work Act 2015, Building Act 2004, Resource Management Act 1991, national policy statements, regional resource management plans, and local bylaws.
- 2 Reference  
*The INZ Irrigation Design Code of Practice and Irrigation Design Standards*, referred to as the Irrigation Design Code of Practice is available from Irrigation New Zealand, <https://www.irrigationnz.co.nz/>.
- 3 Credit for this unit standard does not qualify the candidate to work in a drainlaying situation that comes under the drainlayers licence requirements issued under the Plumber, Gasfitters, and Drainlayers Act 2006 and any subsequent amendments.

### Outcomes and performance criteria

#### Outcome 1

Describe water metering devices for irrigation systems and their installation.

Range includes but is not limited to – flowrate, volumetric.

**Performance criteria**

1.1 The use of water metering devices is described in accordance with regulatory compliance requirements, and their suitability for water quality and irrigation system design.

Range water level, water flow, quality.

1.2 Installation of water metering devices is described in accordance with manufacturer's instructions and regulatory requirements.

**Outcome 2**

Describe soil moisture devices for irrigation systems and their installation.

Range fixed, movable, micro-irrigation.

**Performance criteria**

2.1 Soil moisture devices are described in terms of their operation, strengths and weaknesses, suitability for different soil types, and applications in irrigation systems.

2.2 Soil moisture devices are described in terms of the manufacturer's recommended placement in irrigation systems.

**Outcome 3**

Describe the selection and critical point locations for devices to assess performance of an irrigation system.

**Performance criteria**

3.1 The selection criteria for pressure test points for an irrigation system are described, and critical point locations are identified, in accordance with manufacturer's instructions.

3.2 Flow measurement test points for an irrigation system are described, and critical point locations are identified in accordance with manufacturer's instructions.

3.3 Energy measurement test points for an irrigation system are described, and critical point locations are identified in accordance with manufacturer's instructions.

3.4 Running time measurement devices for an irrigation system are described, and critical point locations are identified in accordance with manufacturer's instructions.

Range includes but is not limited to – hour clock.

**This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.**

**Status information and last date for assessment for superseded versions**

Process	Version	Date	Last Date for Assessment
Registration	1	17 October 2008	31 December 2022
Review	2	27 February 2020	31 December 2022

**Consent and Moderation Requirements (CMR) reference**

0179

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

This unit standard is expiring