

<b>Title</b>	<b>Demonstrate knowledge of leak detection and leak detection programmes</b>		
<b>Level</b>	<b>3</b>	<b>Credits</b>	<b>4</b>

<b>Purpose</b>	People credited with this unit standard are able to demonstrate knowledge of: methods of leak detection, and implementation of leak detection methods; and typical leakage rates and causes of leaks.
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<b>Classification</b>	Water Industry > Water Reticulation
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<b>Available grade</b>	Achieved
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### Guidance Information

- 1 Legislation and references relevant to this unit standard include: Health Act 1956, Health and Safety at Work Act 2015, Local Government Act 2002, and subsequent amendments;  
 NZS 9201.7:2007 *Model general bylaws - Water supply*;  
 NZS 4404:2010 *Land Development and Subdivision Infrastructure*;  
 SNZ HB 2002:2003 *Code of Practice for Working in the Road*, available from <http://www.standards.govt.nz>;  
*Drinking Water Standards for New Zealand 2005 (Revised 2008)*, Ministry of Health, Wellington.
- 2 Definition  
*Water reticulation* – in this context refers to all pipe systems, pumping systems, and components that contribute to the distribution of water.
- 3 Evidence is required for local examples where applicable. The candidate will identify which local area they are providing evidence for.

### Outcomes and performance criteria

#### Outcome 1

Demonstrate knowledge of methods of leak detection, and implementation of leak detection methods.

Range evidence is required for three planned methods and three reactive methods.

#### Performance criteria

- 1.1 Methods of leak detection are described in terms of the procedures for their use or application.

- 1.2 Methods of leak detection are described in terms of their suitability for different situations.
- 1.3 Methods of leak detection are described in terms of their limitations.
- 1.4 The implementation of leak detection methods is described in terms of local water supply authority requirements.
- 1.5 Acceptable industry thresholds for leak detection are described in accordance with local water supply authority standards.

**Outcome 2**

Demonstrate knowledge of typical leakage rates and causes of leaks.

**Performance criteria**

- 2.1 Typical leakage rates are described in relation to service connections, pipe material, and pressures.
- 2.2 Water supply leaks are described in terms of their possible causes.  
Range pipes, fittings, third party, workmanship, material selection.

<b>Replacement information</b>	This unit standard, unit standard 19209, unit standard 19211, unit standard 22097, unit standard 24922, and unit standard 27330 were replaced by unit standard 31449.
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**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	26 October 2005	31 December 2016
Rollover and Revision	2	20 February 2009	31 December 2016
Rollover	3	21 July 2011	31 December 2018
Review	4	16 March 2017	31 December 2021
Review	5	27 September 2018	31 December 2021

<b>Consent and Moderation Requirements (CMR) reference</b>	0101
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.