

<b>Title</b>	<b>Install, commission, and maintain on-site wastewater treatment 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 work in the drainlaying industry.</p> <p>People credited with this unit standard are able to:</p> <ul style="list-style-type: none"> <li>- install and commission a septic tank;</li> <li>- install pumps, filters, and controls for a non-potable water supply and disposal system;</li> <li>- install an effluent disposal field;</li> <li>- maintain pumps, filters, and controls for a non-potable water supply and disposal system; and</li> <li>- maintain a septic tank and effluent disposal field.</li> </ul>
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<b>Classification</b>	Plumbing, Gasfitting and Drainlaying > Drainlaying
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<b>Available grade</b>	Achieved
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## Guidance Information

- 1 References  
 Building Act 2004;  
 Health Act 1956;  
 Health and Safety at Work Act 2015;  
 Plumbers, Gasfitters, and Drainlayers Act 2006;  
 Plumbers, Gasfitters, and Drainlayers Regulations 2010;  
 Resource Management Act 1991;

The following standards are available at <http://www.standards.govt.nz>:  
 AS/NZS 1546.1:2008 *On-site domestic wastewater treatment units – Septic tanks*;  
 AS/NZS 1547:2012 *On-site domestic wastewater management*; and  
 AS/NZS 3500.2:2003 *Plumbing and drainage – Sanitary plumbing and drainage*;  
 The following guides, which are available at <http://www.worksafe.govt.nz/worksafe>:  
*Good practice guidelines – Excavation safety*, Wellington: WorkSafe New Zealand, 2016;  
*Guide for Safety with Underground Services*, Wellington: Department of Labour, 2002.

The following clauses, and any related compliance documents are available at <https://www.building.govt.nz/>:  
 New Zealand Building Code Clause E1 Surface Water C;  
 New Zealand Building Code Clause G12 Water Supplies;  
 New Zealand Building Code Clause G13 Foul Water;

and all subsequent amendments and replacements.

- 2 This unit standard requires the application of theory as included in the Plumbers, Gasfitters, and Drainlayers Regulations 2010.
- 3 **Definitions**  
*Job specifications* – instructions (oral, written, graphic) and may include any of the following: manufacturers' instructions; design drawing detail specifications; specifications from a specialist source such as an architect, designer, engineer, or a supervisor; and site or work specific requirements. Where job specifications are in conflict with applicable legislation, standards, and/or codes, such legislation, standards, and/or codes shall take precedence for the purpose of assessment.  
*On-site wastewater treatment system* – single stage or proprietary, multi stage, septic tank; any associated pumps, filters, and controls; and evapotranspiration beds, soakage trenches, or soakage pits.
- 4 All practical activities are to be carried out in a way that avoids harm to people and damage to property, environment, existing installed services, materials, tools, and equipment.
- 5 Candidates must hold a current limited certificate or exemption under supervision as issued under the Plumbers, Gasfitters, and Drainlayers Act 2006.

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## Outcomes and performance criteria

### Outcome 1

Install and commission a septic tank.

Range a single stage or a proprietary, multi stage, septic tank.

### Performance criteria

- 1.1 Ensure base is able to accept installation of the septic tank securely.
- 1.2 Install the tank and associated components in accordance with job specifications and manufacturer instructions.  

Range	access point, invert levels, benching, risers, cascades, lid and adjustment ring, filters, fresh air inlet.
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- 1.3 Carry out commissioning in accordance with job specifications and manufacturer instructions.

### Outcome 2

Install pumps, filters, and controls for a non-potable water supply and disposal system.

**Performance criteria**

- 2.1 Install pumps, filters, and controls for supply and disposal system in accordance with job specifications.
- 2.2 Carry out installation and commission tests in accordance with job specifications.

**Outcome 3**

Install an effluent disposal field.

Range may include but is not limited to, drip lines, evapotranspiration bed, soakage trench;  
evidence of one required.

**Performance criteria**

- 3.1 Determine the position of the proposed effluent disposal field in accordance with job specifications.
- 3.2 Confirm that the disposal field proposed in job specifications is appropriate for the intended use.
- 3.3 Install disposal field in accordance with job specifications.
- 3.4 Install appropriate control methods for protection of disposal field.

Range surface water run-off, stock control, vehicle access.

**Outcome 4**

Maintain pumps, filters, and controls for a non-potable water supply and disposal system.

**Performance criteria**

- 4.1 Assess installed pumps, filters, and controls for supply and disposal system to identify regular and preventative maintenance requirements.
- 4.2 Identify faults in terms of causes and means of rectification.
- 4.3 Rectify faults in accordance with maintenance requirements and job specifications.

**Outcome 5**

Maintain a septic tank and effluent disposal field.

**Performance criteria**

- 5.1 Maintain a septic tank in accordance with maintenance requirements.

5.2 Identify an effluent disposal field fault in terms of cause/s and means of rectification.

Range one fault from one of the following, which may include but are not limited to – a distribution chamber, a dripper line, a flush valve, an air release valve, a filter.

5.3 Rectify an effluent disposal field fault in accordance with maintenance requirements and job specifications.

Range one fault from one of the following, which may include but are not limited to – a distribution chamber, a dripper line, a flush valve, an air release valve, a filter.

<b>Replacement information</b>	<p>This unit standard was replaced by unit standard 33357 and unit standard 33358.</p> <p>This unit standard and unit standard 30538 replaced unit standard 1112, unit standard 21904, unit standard 21946, unit standard 23846, and unit standard 27335.</p>
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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	28 September 2017	31 December 2028
Review	2	30 May 2024	31 December 2028

<b>Consent and Moderation Requirements (CMR) reference</b>	0003
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.