

<b>Title</b>	<b>Describe sludge and biosolids management processes in wastewater treatment</b>		
<b>Level</b>	<b>4</b>	<b>Credits</b>	<b>6</b>

<b>Purpose</b>	People credited with this unit standard are able to describe sludge and biosolids management processes in wastewater treatment.
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<b>Classification</b>	Water Industry > Wastewater Treatment
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<b>Available grade</b>	Achieved
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### Guidance Information

Legislation and references relevant to this unit standard include: Health and Safety at Work Act 2015, Resource Management Act 1991, Hazardous Substances and New Organisms (HSNO) Act 1996, and any subsequent amendments; *Guidelines for the Safe Application of Biosolids to Land in New Zealand*, Ministry for the Environment (2003), Wellington, available from <https://www.waternz.org.nz>.

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### Outcomes and performance criteria

#### Outcome 1

Describe sludge and biosolids management processes in wastewater treatment.

#### Performance criteria

- 1.1 Legislation and regulations relevant to sludge and biosolids management are described in terms of their purpose, effect on the process, and consequences of non-compliance.
- 1.2 The purpose and principles of biosolids management are described in terms of the reduction of pathogens, volatile solids, chemicals, and moisture content.
- 1.3 Process options for sludge and biosolids management are described in terms of their methods, process inputs, advantages, and disadvantages.  
  
Range land and forest application, composting, landfills, incineration.
- 1.4 Process tests are described for biosolids management.  
  
Range moisture, organics, inorganics, toxicity, leachate testing, pH, plume constituents.

- 1.5 Sludge and biosolids management is described in terms of the process outputs, and environmental impact.

Range soil limits, biosolids contaminant limits, air emissions.

- 1.6 The performance measures for sludge and biosolids quality are described in terms of disposal options.

<b>Planned review date</b>	31 December 2024
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#### Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	24 October 2019	N/A

<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>.

#### Comments on this unit standard

Please contact Connexis - Infrastructure Industry Training Organisation [qualifications@connexis.org.nz](mailto:qualifications@connexis.org.nz) if you wish to suggest changes to the content of this unit standard.