

<b>Title</b>	<b>Describe and operate preliminary processes in wastewater treatment</b>		
<b>Level</b>	<b>4</b>	<b>Credits</b>	<b>7</b>

<b>Purpose</b>	People credited with this unit standard are able to: describe preliminary processes; monitor and adjust preliminary processes; and carry out maintenance procedures on preliminary processing equipment 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

- 1 Evidence presented for assessment against this unit standard must be consistent with safe working practices and be in accordance with applicable legislative and industry requirements. Evidence for assessment of the practical aspects of this unit standard must be gathered using the preliminary processes in the candidate's own workplace.
- 2 Legislation relevant to this unit standard includes the Health and Safety at Work Act 2015, Water Services Act 2021, Hazardous Substances and New Organisms (HSNO) Act 1996, and subsequent amendments.
- 3 Definitions  
*Industry requirements* include manufacturers' specifications; and enterprise requirements which may include documented workplace policies, procedures, specifications, business, and quality management requirements relevant to the workplace in which assessment is carried out.  
*Wastewater* may include stormwater and sewage systems.
- 4 Learning and assessment activities for this unit standard must be informed by Te Mana o te Wai (refer to [Taumata Arowai](#)) and the *National Policy Statement for Freshwater Management 2020* available from <https://environment.govt.nz/>.

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### Outcomes and performance criteria

#### Outcome 1

Describe preliminary processes in wastewater treatment.

Range screening, grit removal, grease removal.

**Performance criteria**

- 1.1 The purpose and principles of preliminary processes are described in terms of removal or reduction of contaminants, and preparation of wastewater for treatment.
- 1.2 Plant configuration options for preliminary processing are described in terms of their hydraulic layout options, solids removal methods, type of solid to be removed, advantages, and disadvantages.
- Range evidence of two plant configuration options is required.
- 1.3 Preliminary processing is described in terms of the function of its component parts and identification of process failure.
- 1.4 Preliminary processing is described in terms of the process outputs and legislative requirements for their disposal.

**Outcome 2**

Monitor and adjust preliminary processes in wastewater treatment.

**Performance criteria**

- 2.1 Process tests are described for preliminary processing
- Range may include – removal rates of solids, FOG (Fat, Oil, Grease), grit volume, visual checks.
- 2.2 The performance measures for preliminary processes are described in terms of efficiency and downstream effects.
- 2.3 Testing equipment is calibrated, tests or measurements for monitoring process inputs are carried out, and results are recorded.
- 2.4 Process inputs are adjusted.
- 2.5 Any required consumables are checked and ordered.

**Outcome 3**

Carry out maintenance procedures on preliminary processing equipment in wastewater treatment.

**Performance criteria**

- 3.1 Preventative maintenance procedures are carried out and recorded.
- 3.2 Any required repairs are carried out according to process and/or equipment failure.
- 3.3 Actions for maintaining process continuity are carried out.

<b>Planned review date</b>	31 December 2026
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#### Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	16 March 2017	31 December 2023
Review	2	28 April 2022	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 Waihangā Ara Rau Construction and Infrastructure Workforce Development Council at [qualifications@waihanga.nz](mailto:qualifications@waihanga.nz) if you wish to suggest changes to the content of this unit standard.