

Title	Operate and monitor a wastewater treatment plant		
Level	4	Credits	10

Purpose	People credited with this unit standard are able to: operate and monitor a wastewater treatment plant; and collect, record, and complete reports on wastewater treatment plant process data.
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Classification	Water Industry > Wastewater Treatment
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Available grade	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.
- 2 Legislation relevant to this unit standard includes: Health and Safety at Work Act 2015, Water Services Act 2021, Resource Management Act 1991, Hazardous Substances and New Organisms 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/>.

Outcomes and performance criteria

Outcome 1

Operate a wastewater treatment plant.

Performance criteria

1.1 Process system adjustments are made to enhance system performance.

Range discharge consent conditions plus any two of – scraper and skimmer speeds, sludge wasting frequency, recycling ratios, aeration operation frequency, digester temperature, pond condition, flow rate.

1.2 Process operating faults and operational conditions of plant are identified, rectified and reported.

Range mechanical breakdowns and blockages, process failures, breaches of discharge consent conditions.

Outcome 2

Monitor a wastewater treatment plant.

Performance criteria

2.1 Routine plant inspections are carried out.

Range routine plant inspections may include but are not limited to – visual observations, monitoring Supervisory Control and Data Acquisition (SCADA), checking mechanical equipment, completing record sheets.

2.2 Process samples are collected.

Range evidence of three different types of samples is required.

2.3 Processes are monitored and recorded to maintain parameters of operation within expected limits.

Range flow constraints, discharge consent conditions, expected unit treatment process effectiveness, sample taking.

Outcome 3

Collect, record, and complete reports on wastewater treatment plant process data.

Performance criteria

3.1 Process data is collected and recorded.

Range evidence of three different types of process data is required.

3.2 Reports are compiled from plant and system data, and actions taken.

Range evidence of three different types of reports is required.

Planned review date	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	1 February 2001	31 December 2018
Review	2	19 September 2008	31 December 2018
Review	3	16 March 2017	31 December 2023
Review	4	28 April 2022	N/A

Consent and Moderation Requirements (CMR) reference	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 if you wish to suggest changes to the content of this unit standard.