

<b>Title</b>	<b>Manage, monitor and optimise clarification processes for drinking-water treatment</b>		
<b>Level</b>	<b>5</b>	<b>Credits</b>	<b>10</b>

<b>Purpose</b>	People credited with this unit standard are able to: manage, monitor and optimise clarification processes for drinking-water treatment.
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<b>Classification</b>	Water Industry > Water 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.
- 2 Legislation and references relevant to this unit standard include:  
Health and Safety at Work Act 2015, Water Services Act 2021, Hazardous Substances and New Organisms (HSNO) Act 1996;  
Ministry of Health, *Drinking-water Standards for New Zealand*, Ministry of Health, Wellington, 2005 (Revised 2018), and subsequent replacements, available at [www.taumataarowai.govt.nz](http://www.taumataarowai.govt.nz).
- 3 Definitions  
*Critical control point* – specific point, procedure, or step in water treatment processes at which control can be exercised to reduce, eliminate, or prevent the possibility of a public health hazard.  
*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.  
*Optimise* – adjusting plant input variables to make the process as effective as possible in order to achieve the desired output, taking into account the constraints of cost, human input, water quality, and water demand.
- 4 For the purpose of this unit standard, *clarification* applies to settlement or flotation of floc particles.
- 5 Learning and assessment activities for this unit standard must be informed by Te Mana o te Wai (refer to [Taumata Arowai](http://www.taumataarowai.govt.nz)) and the *National Policy Statement for Freshwater Management 2020* available from <https://environment.govt.nz/>.

## Outcomes and performance criteria

### Outcome 1

Manage clarification processes for drinking-water treatment.

#### Performance criteria

- 1.1 Process variables and critical control points are managed to achieve the required parameters, and maintain process performance.
- 1.2 Clarification equipment is managed.

### Outcome 2

Monitor clarification processes for drinking-water treatment.

#### Performance criteria

- 2.1 Monitoring is managed.
- 2.2 Monitoring data is collected, interpreted and reported.

### Outcome 3

Optimise clarification processes for drinking-water treatment.

#### Performance criteria

- 3.1 The clarification process variables and operating factors are adjusted to achieve optimal performance in accordance with the results of monitoring.

<b>Replacement information</b>	This unit standard replaced unit standards 18449 and 19348.
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<b>Planned review date</b>	31 December 2027
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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 2024
Review	2	26 May 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>.

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**Comments on this unit standard**

Please contact Waihanga Ara Rau Construction and Infrastructure Workforce Development Council at [qualifications@WaihangaAraRau.nz](mailto:qualifications@WaihangaAraRau.nz) if you wish to suggest changes to the content of this unit standard.