

<b>Title</b>	<b>Demonstrate knowledge of treated drinking-water supply processes and describe critical control points</b>		
<b>Level</b>	<b>4</b>	<b>Credits</b>	<b>20</b>

<b>Purpose</b>	People credited with this unit standard are able to: describe processes and their relationships in a drinking-water supply; and identify and describe hazards, critical control points, preventative actions, and corrective actions for drinking-water supply processes.
----------------	---

<b>Classification</b>	Water Industry > Water Treatment
-----------------------	----------------------------------

<b>Available grade</b>	Achieved
------------------------	----------

---

### 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, and subsequent amendments; 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 points* – Specific point, procedure, or step in drinking-water treatment processes at which control can be exercised to reduce, eliminate, or prevent the possibility of a public health hazard.

*Drinking-water supply* – supply catchment, treatment plant, distribution and tankers. The drinking-water supplier has responsibility for managing the public health risks of the drinking-water supply.

*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.
- 4 Range
 

Processes for which evidence is required include but are not limited to – clarification, pH and alkalinity control, coagulation and flocculation, filtration, disinfection, abstraction and pre-treatment, fluoridation, waste management, and organics and inorganics control. Candidates are expected to be assessed against all relevant processes.

- 5 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* <https://environment.govt.nz/>.

---

## Outcomes and performance criteria

### Outcome 1

Describe processes and their relationships in a drinking-water supply.

#### Performance criteria

- 1.1 Drinking-water supply processes are described in terms of purpose and components, and inter-relationships between processes.
- 1.2 Process chains are described in relation to the operation of the drinking-water supply.
- 1.3 Process control is described in terms of inputs and outputs.
- 1.4 Process monitoring equipment is described in terms of purpose and function.
- 1.5 Plans, drawings and specifications used in water supply processes are described in terms of their application.
- 1.6 *Drinking-Water Standards for New Zealand* parameters for each process are described in terms of water quality requirements.

### Outcome 2

Identify and describe hazards, critical control points, preventative actions, and corrective actions for drinking-water supply processes.

#### Performance criteria

- 2.1 Hazards for each process are identified and described in terms of the causes of the events leading to their appearance, and the risk factors.
- 2.2 The critical control points related to drinking-water supply hazards are identified and described in terms of their management.
- 2.3 The preventative and corrective actions for events related to each hazard are described.

---

<b>Planned review date</b>	31 December 2027
----------------------------	------------------

**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

**Consent and Moderation Requirements (CMR) reference**

0101

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

**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.